

MS ACCESS

Regional Training Institute 20, Sarojini Naidu Marg, Allahabad, UP

Table of Contents

	About the Tutoriali									
	Audiencei									
	Prerequisitesi									
	Copyright and Disclaimeri									
	Table of Contents ii									
1.	MS ACCESS – OVERVIEW 1									
2.	MS ACCESS – RDBMS									
	Data Definition									
	Data Manipulation4									
	Data Control4									
3.	MS ACCESS — OBJECTS 									
	Table5									
	Query5									
	Form									

	Report 6
	Other MS Access Objects6
4.	MS ACCESS — CREATE DATABASE
	Create Blank Database
5.	MS ACCESS — DATA TYPES 14
6.	MS ACCESS — CREATE TABLES 16
	Table Design View 21
7.	MS ACCESS – ADDING DATA
8.	QUERY DATA
	Create Select Query
9.	MS ACCESS — QUERY CRITERIA
10.	MS ACCESS — ACTION QUERIES
	Create an Append Query 41
11.	MS ACCESS — CREATE QUERIES
	Create an Update Query 48
	Create a Delete Query

	Create a Make T	able Query 53
12.		MS ACCESS — PARAMETER QUERIES
13.		MS ACCESS — ALTERNATE CRITERIA
14.		MS ACCESS — RELATING DATA
	Normalization 66	
	Defining Relation 67	nships
15.		MS ACCESS — CREATE RELATIONSHIPS
	Why Create Tab	le Relationships? 69
16.		MS ACCESS — ONE-TO-ONE RELATIONSHIP
17.		MS ACCESS — ONE-TO-MANY RELATIONSHIP
18.		MS ACCESS — MANY-TO-MANY RELATIONSHIP
WIL	DCARDS	
	ANSI-89 wildcard 89	d characters
	ANSI-92 wildcard 90	d characters
19.		MS ACCESS — CALCULATED EXPRESSION

20.		MS ACCESS — INDEXING	
21.		MS ACCESS — GROUPING DATA 	
	Aggregate Query		
	Concatenation in	Access 112	
22.		MS ACCESS — SUMMARIZING DATA 	
23.		MS ACCESS — JOINS	
	What is Join 122		
	Left Outer Join &	Right Outer Join 123	
	Self-Joins)
24.		MS ACCESS — DUPLICATES QUERY WIZARD)
24. 25.		MS ACCESS — DUPLICATES QUERY WIZARD)
		MS ACCESS — DUPLICATES QUERY WIZARD 	•
25.		MS ACCESS — DUPLICATES QUERY WIZARD 	
25.	Types of Bound F	MS ACCESS — DUPLICATES QUERY WIZARD)
25.	Types of Bound F Creating Forms	MS ACCESS — DUPLICATES QUERY WIZARD)

27.		MODIFY A FORM 164
	Controls 164	
	Themes 168	
28.		MS ACCESS — NAVIGATION FORM
29.		MS ACCESS — COMBO BOX
	Combo Box 181	
30.		MS ACCESS — SQL VIEW
31.		MS ACCESS — FORMATTING
32.		MS ACCESS — CONTROLS AND PROPERTIES
	Bound Controls 206	
	Unbound Contro	ols 206
	Control Types	
33.		MS ACCESS — REPORTS BASICS
		Using Report Design
		225
34.		MS ACCESS — FORMATTING REPORTS

35.	MS ACCESS — BUILT-IN-FUNCTIONS
	Functions 250
	Date & Time Functions
	DateDiff() Function
	Format() Function 258
	llf() Function 262
36.	MACROS
	Creating a Macro 266
37.	MS ACCESS — DATA IMPORT
	of Data Access Can Import
	275
38.	MS ACCESS — DATA EXPORT

Microsoft Access is a Database Management System (DBMS) from Microsoft that combines the relational Microsoft Jet Database Engine with a graphical user interface and software development tools. It is a member of the Microsoft Office suite of applications, included in the professional and higher editions.

- Microsoft Access is just one part of Microsoft's overall data management product strategy.
- It stores data in its own format based on the Access Jet Database Engine.

- Like relational databases, Microsoft Access also allows you to link related information easily. For example, customer and order data. However, Access 2013 also complements other database products because it has several powerful connectivity features.
- It can also import or link directly to data stored in other applications and databases.
- As its name implies, Access can work directly with data from other sources, including many popular PC database programs, with many SQL (Structured Query Language) databases on the desktop, on servers, on minicomputers, or on mainframes, and with data stored on Internet or intranet web servers.
- Access can also understand and use a wide variety of other data formats, including many other database file structures.
- You can export data to and import data from word processing files, spreadsheets, or database files directly.
- Access can work with most popular databases that support the Open Database Connectivity (ODBC) standard, including SQL Server, Oracle, and DB2.
- Software developers can use Microsoft Access to develop application software.

Microsoft Access stores information which is called a database. To use MS Access, you will need to follow these four steps:

- **Database Creation** Create your Microsoft Access database and specify what kind of data you will be storing.
- **Data Input** After your database is created, the data of every business day can be entered into the Access database.
- **Query** This is a fancy term to basically describe the process of retrieving information from the database.
- **Report** (optional) Information from the database is organized in a nice presentation that can be printed in an Access Report.

Architecture

- Access calls anything that can have a name an object. Within an Access desktop database, the main objects are tables, queries, forms, reports, macros, data macros, and modules.
- If you have worked with other database systems on desktop computers, you might have seen the term database used to refer to only those files in which you store data.
- But, in Access, a desktop database (.accdb) also includes all the major objects related to the stored data, including objects you define to automate the use of your data.

MS Access

Microsoft Access has the look and feel of other Microsoft Office products as far as its layout and navigational aspects are concerned, but MS Access is a database and, more specifically, a relational database.

- Before MS Access 2007, the file extension was ***.mdb**, but in MS Access 2007 the extension has been changed to ***.accdb** extension.
- Early versions of Access cannot read accdb extensions but MS Access 2007 and later versions can read and change earlier versions of Access.
- An Access desktop database (.accdb or .mdb) is a fully functional RDBMS.
- It provides all the data definition, data manipulation, and data control features that you need to manage large volumes of data.
- You can use an Access desktop database (.accdb or .mdb) either as a standalone RDBMS on a single workstation or in a shared client/server mode across a network.
- A desktop database can also act as the data source for data displayed on webpages on your company intranet.
- When you build an application with an Access desktop database, Access is the RDBMS.

Data Definition

Let us now understand what Data Definition is:

- In document or a spreadsheet, you generally have complete freedom to define the contents of the document or each cell in the spreadsheet.
- In a document, you can include paragraphs of text, a table, a chart, or multiple columns of data displayed with multiple fonts.
- In spreadsheet, you can have text data at the top to define a column header for printing or display, and you might have various numeric formats within the same column, depending on the function of the row.
- An RDBMS allows you to define the kind of data you have and how the data should be stored.

- You can also usually define rules that the RDBMS can use to ensure the integrity of your data.
- For example, a validation rule might ensure that the user can't accidentally store alphabetic characters in a field that should contain a number.

Data Manipulation

Working with data in RDBMS is very different from working with data in a word processing or spreadsheet program.

- In a word processing document, you can include tabular data and perform a limited set of functions on the data in the document.
- You can also search for text strings in the original document and, with ActiveX controls, include tables, charts, or pictures from other applications.
- In a spreadsheet, some cells contain functions that determine the result you want, and in other cells, you enter the data that provides the source information for the functions.

An RDBMS provides you many ways to work with your data. For example,

- You can search a single table for information or request a complex search across several related tables.
- You can update a single field or many records with a single command.
- You can write programs that use RDBMS commands to fetch data that you want to display and allow the user to update the data.

Access uses the powerful SQL database language to process data in your tables. Using SQL, you can define the set of information that you need to solve a particular problem, including data from perhaps many tables.

Data Control

Spreadsheets and word processing documents are great for solving single-user problems, but they are difficult to use when more than one person needs to share the data.

- When you need to share your information with others, RDBMS gives you the flexibility to allow multiple users to read or update your data.
- An RDBMS that is designed to allow data sharing also provides features to ensure that no two people can change the same data at the same time.

- The best systems also allow you to group changes (which is also known as transaction) so that either all the changes or none of the changes appear in your data.
- You might also want to be sure that no one else can view any part of the order until you have entered all of it.
- Because you can share your Access data with other users, you might need to set some restrictions on what various users are allowed to see or update.

MS Access uses "objects" to help the user list and organize information, as well as prepare specially designed reports. When you create a database, Access offers you Tables, Queries, Forms, Reports, Macros, and Modules. Databases in Access are composed of many objects but the following are the major objects:

- Tables
- Queries
- Forms
- Reports

Together, these objects allow you to enter, store, analyze, and compile your data. Here is a summary of the major objects in an Access database;

Table

Table is an object that is used to define and store data. When you create a new table, Access asks you to define fields which is also known as column headings

- Each field must have a unique name, and data type.
- Tables contain fields or columns that store different kinds of data, such as a name or an address, and records or rows that collect all the information about a particular instance of the subject, such as all the information about a customer or employee etc.
- You can define a primary key, one or more fields that have a unique value for each record, and one or more indexes on each table to help retrieve your data more quickly.

Query

An object that provides a custom view of data from one or more tables. Queries are a way of searching for and compiling data from one or more tables.

- Running a query is like asking a detailed question of your database.
- When you build a query in Access, you are defining specific search conditions to find exactly the data you want.
- In Access, you can use the graphical query by example facility or you can write Structured Query Language (SQL) statements to create your queries.
- You can define queries to Select, Update, Insert, or Delete data.
- You can also define queries that create new tables from data in one or more existing tables.

Form

Form is an object in a desktop database designed primarily for data input or display or for control of application execution. You use forms to customize the presentation of data that your application extracts from queries or tables.

- Forms are used for entering, modifying, and viewing records.
- The reason forms are used so often is that they are an easy way to guide people toward entering data correctly.
- When you enter information into a form in Access, the data goes exactly where the database designer wants it to go in one or more related tables.

Report

Report is an object in desktop databases designed for formatting, calculating, printing, and summarizing selected data.

- You can view a report on your screen before you print it.
- If forms are for input purposes, then reports are for output.
- Anything you plan to print deserves a report, whether it is a list of names and addresses, a financial summary for a period, or a set of mailing labels.
- Reports are useful because they allow you to present components of your database in an easy-to-read format.
- You can even customize a report's appearance to make it visually appealing.

• Access offers you the ability to create a report from any table or query.

Other MS Access Objects

Let us now take a look at other MS Access objects.

Macro

This object is a structured definition of one or more actions that you want Access to perform in response to a defined event. An Access Macro is a script for doing some job. For example, to create a button which opens a report, you could use a macro which will fire Open Report action.

- You can include simple conditions in macros to specify when one or more actions in the macro should be performed or skipped.
- You can use macros to open and execute queries, to open tables, or to print or view reports.
- You can also run other macros or Visual Basic procedures from within a macro.
- Data macros can be attached directly to table events such as inserting new records, editing existing records, or deleting records.
- Data macros in web apps can also be stand-alone objects that can be called from other data macros or macro objects.

Module

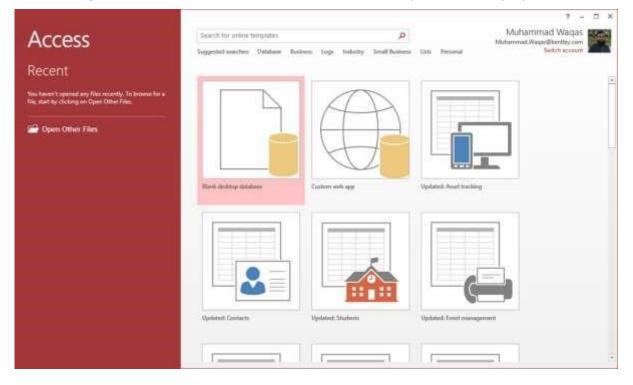
Module is an object in desktop databases containing custom procedures that you code using Visual Basic. Modules provide a more discrete flow of actions and allow you to trap errors.

- Everything that can be done in a macro can also be done in a module, but you don't get the macro interface that prompts you what is needed for each action.
- Modules are far more powerful, and are essential if you plan to write code for a multi-user environment, because macros cannot include error handling.
- Modules can be standalone objects containing functions that can be called from anywhere in your application, or they can be directly associated with a form or a report to respond to events on the associated form or report.

4. MS Access— Create Database

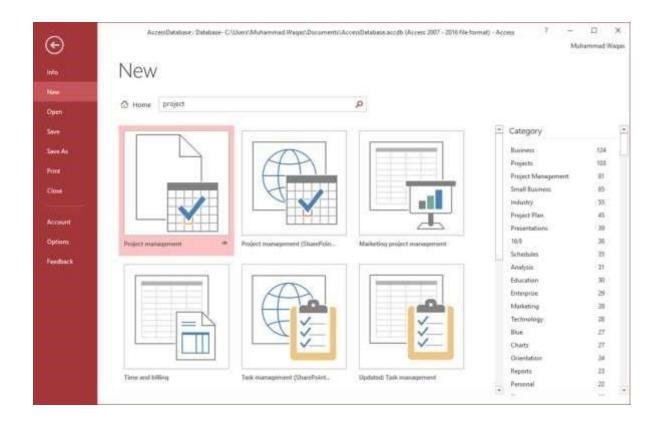
In this chapter, we will be covering the basic process of starting Access and creating a database. This chapter will also explain how to create a desktop database by using a template and how to build a database from scratch.

To create a database from a template, we first need to open MS Access and you will see the following screen in which different Access database templates are displayed.



To view the all the possible databases, you can scroll down or you can also use the search box.

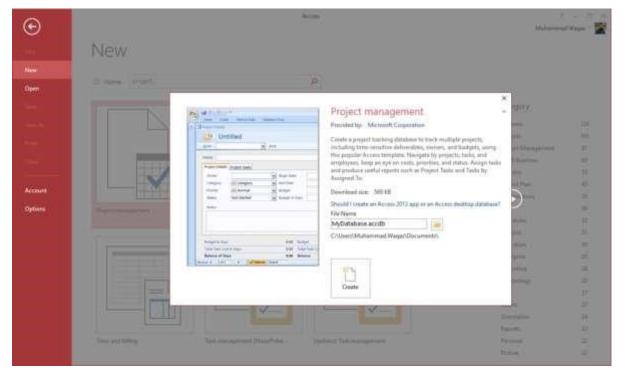
Let us enter project in the search box and press Enter. You will see the database templates related to project management.



Select the first template. You will see more information related to this template.

G	AccessDatabases Database: Colored-Malacronial Waget Discover/WAccessDatabastaccitly (Access 2007 - 2018 Historica) - Access	7 — G 3c Mahammad Wagan
Pinto :	New	
D _{ere} Open	C men prove A	
Save A _{Save} As P _{Print} C _{Chase}	Project management Project management Provided by: Microsoft Corporation Provided by: Microsoft Corprovided by: Micros	
R _{Account} T _{Options} K _{inediack}	Prese of memory and a second an	$\overline{\mathbf{O}}$
	These and fullying Task reasongneeses (Share Fairs), Applied Sub-reasongneeses Provide Sub-reasongneeses	

After selecting a template related to your requirements, enter a name in the **File name** field and you can also specify another location for your file if you want.



Now, press the Create option. Access will download that database template and open a new blank database as shown in the following screenshot.

©	AccaseDatatage / Datatase / D/Went/Mallammed/Wegat/Decoments/A	econd balances and a factore 2007 - 2016 No Society - Access III - Cl Cl K Microsoft Wester
// MB ())	New	
1		
Open		×
Silve	North States	Project management -
SHIA)	Ustriled	Provided by: Microsoft Corporation 120 Create a project tracking database to track multiple projects.
Frint	20- <u>2</u> +=	including time-annublee deliverables, univers, wild budgets, unavg this popular Access terreplate. Navigade by projects,
Close	Field State (Selection)	Usits, and employees, keep an eye in builts, priorities, and the status, Araign tasks and produce useful repertures useful an datus, Araign tasks and produce useful repertures to a Propert Tasks and Tarks by Aragneet To.
Account	and a second sec	Developed size 509.03
Options		Should London an Access app or an Access disktop database?
Fristlask		MyDatabase accdb
	Angenetier 10 beer ter ter ter ter 10 beer Angenetie	ChDuert/Muhammad/Waqal/Documento, 20
		Conte 2
		Unit Distance II
	: Hour and Littles Last commercent (Discretebra).	Technick faid reconstructed Party Processed Street

Now, click the Navigation pane on the left side and you will see all the other objects that come with this database.

I R X Co	DATABASE TOOLS up Tr Selection - up Tr Advancest - Sont Tr Tooppis Time	Refrection 20 Second	∑ linati ⊅ tooling • ⊡ tilore +	All School and States	N.X.M. A.		10、40.40)+* 11、40.40)+* 11、10~1日	
	G Filler	Reco	101 V	Find		Tell Fernalting		a) y
Projects Navigation 🛛 🕮 🖷	Toper Line							
ρ. p	Pro	ject List				Film fi	Queites	4
Projects A	and the second sec		Constant in the	dimployee List Bay	iner.	Tel antini	e Kentuck	Section
Competed and Defended Property Propert Datam Propert Unit		ect Name -	Owner	Gallegory (1) Category		100		End - Budget \$0.0
Completed and Datened Pegents Jacobie Pegents Jacobie Pegents Jacobie Pegents Pegent Table Pegent Table Pegent Table Supporting Objects	Total	0						

Click the Projects Navigation and select the Object Type in the menu.

·*	The Xor	7	NALOATA El Anord El Contro	OATHORS OATHORS Ing Tris Neg Tris	E TOOLS election * directed *		tee	Decidence and the second secon		in accelt (Accel II), freptore III Ge Ta * III Select +	а 2007 - 2013 He fo		注(ef.et) (明明)[]-	Mihann 17 -	Y — 🗆 ad Weger - 📲
Ver	e Optivant	67	50	CR. FIRM			face	oft.		Find		Yest Formatting		- 5	
	pjects Navigation	-	e • 2			ject List						Finit	eyorbst	-	Lave Filter 2
R	Projects Navigation Object Type Tables and Related Views	em		10 .	Pro	Codect Dat	a (Dwiver		Category	+ Preority +	Status +		End	+ dudget
	Created Data Modified Data	esta		* [New Tota			0			(1) Category	(2) Normal	Not Started	6/57/201		\$0.0
	Fitter By Genup Propertis Taolis Employees Supporting Objects Show <u>5</u> 8														
Frend	Vine			Recard. #	- 7 19 1		(842	Search	153	ii			NUMILOEK		

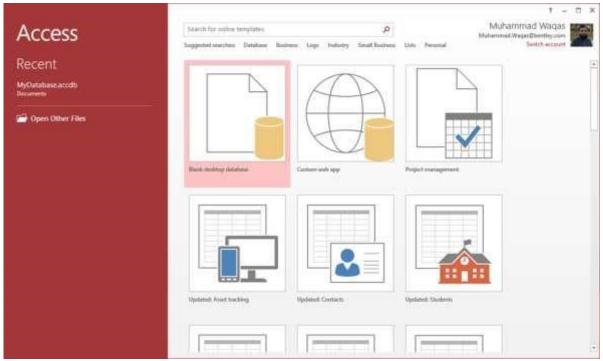
You will now see all the objects types - tables, queries, etc.

These Capital Sciences	L) Descen	dag ¶iSelection+ bdag ⊡Advancet+ e-box ♥ loggie/lite t-b/liter		∑ fanah ⊙ Spethag te - ⊡ Mace -	for the factors of the form	1. 2. 9 . A	+) → E ≪ · (b) = Test functions	(E) (e (e (e e (e		
		The second		900	1714		Her / Hermiting		3	
All Access Objects		And the second s					Filter Fr	uportes 1		
earch. Tables	R		ject List						SavaT	1112
Control Taxia			Collect Data	diff-mailing	distance in	triats	P Prive	Feedback	1200/	1111100
Engingen:		ID + Pro	ett Name -		Category	+ Priority	- Statut +	intert et	End +	Budget
Filler:		• (New)			(1) Catego	ry (2) Normal	Not Started	6/17/2016		50.0
Projecto		Total	0							
Tasks										
Jumpes.										
Common Taxic Apprents										
Completed and Defend Projects										
Timployee: Extended										
Dynin Prigetta										
Open Tallis										
Project Totan	1									
Common Perez Upstate Appl Freid										
Fairms										
Common Taxto										
Common Table Subform										
Condition and Deferred Projetts										
Employee Details										
Employee List										
The Details										
The second Data Part Landers				Search						

Create Blank Database

Sometimes database requirements can be so specific that using and modifying the existing templates requires more work than just creating a database from scratch. In such case, we make use of blank database.

Step 1: Let us now start by opening MS Access.



Step 2: Select Blank desktop database. Enter the name and click the Create button.



Step 3: Access will create a new blank database and will open up the table which is also completely blank.

		Table Texts 1	AccessDatabase : Databa	me- CAUsers/Muhamm		
File Hume Create Esternal Data	Database Tools	Fields Table	Tel	ort to do		Mahammad Wagas
Ma Discov J. In	economy To Sale	anced -	liet time ΣTotals ⊯Save ⇒Spetting	P Selector		E 2010
Vieta Parte	eneve lot. ¥≥q	Refrech	> Debete - More*	Find & Select-	■ 7 目 ▲・空・益・ 三日	(二) ()()()()()()()()()()()()()()()()()()
View Obboerd G	Lot A Ster		Recently	Finit	Test Fermitting	. P. M
All Access Objects	and the second se	· Chill to Add				×
Search. D Tables &	• (Ne					
Taber 1						
	Recting # - To	rt	Chullthey Search			
Datasheet View	22				1	humilant 🔟 🖄

5. MS Access— Data Types

Every field in a table has properties and these properties define the field's characteristics and behavior. The most important property for a field is its data type. A field's data type determines what kind of data it can store. MS Access supports different types of data, each with a specific purpose.

- The data type determines the kind of the values that users can store in any given field.
- Each field can store data consisting of only a single data type.

Here are some of the most common data types you will find used in a typical Microsoft Access database.

Type of Data	Description	Size
Short Text	Text or combinations of text and numbers, including numbers that do not require calculating (e.g. phone numbers).	Up to 255 characters.
Long Text	Lengthy text or combinations of text and numbers.	Up to 63, 999 characters.
Number	Numeric data used in mathematical calculations.	1, 2, 4, or 8 bytes (16 bytes if set to Replication ID).
Date/Time	Date and time values for the years 100 through 9999.	8 bytes.
Currency	Currency values and numeric data used in mathematical calculations involving data with one to four decimal places.	8 bytes.
AutoNumber	A unique sequential (incremented by 1) number or random number assigned by Microsoft Access whenever a new record is added to a table.	4 bytes (16 bytes if set to Replication ID).
Yes/No	Yes and No values and fields that contain only one of two values (Yes/No, True/False, or On/Off).	1 bit.

- If you use previous versions of Access, you will notice a difference for two of those data types.
- In Access 2013, we now have two data types short text and long text. In previous versions of Access these data types were called text and memo.

• The text field is referred to as short text and your memo field is now called long text.

Here are some of the other more specialized	data types, you can choose from in Access.
---	--

Data Types	Description	Size
Attachment	Files, such as digital photos. Multiple files can be attached per record. This data type is not available in earlier versions of Access.	Up to about 2 GB.
OLE objects	OLE objects can store pictures, audio, video, or other BLOBs (Binary Large Objects)	Up to about 2 GB.
Hyperlink	Text or combinations of text and numbers stored as text and used as a hyperlink address.	Up to 8,192 (each part of a Hyperlink data type can contain up to 2048 characters).
Lookup Wizard	The Lookup Wizard entry in the Data Type column in the Design view is not actually a data type. When you choose this entry, a wizard starts to help you define either a simple or complex lookup field. A simple lookup field uses the contents of another table or a value list to validate the contents of a single value per row. A complex lookup field allows you to store multiple values of the same data type in each row.	Dependent on the data type of the lookup field.
Calculated	You can create an expression that uses data from one or more fields. You can designate different result data types from the expression.	You can create an expression that uses data from one or more fields. You can designate different result data types from the expression.

These are all the different data types that you can choose from when creating fields in a Microsoft Access table.

When you create a database, you store your data in tables. Because other database objects depend so heavily on tables, you should always start your design of a database by creating all of its tables and then creating any other object. Before you create tables, carefully consider your requirements and determine all the tables that you need.

6. MSAccess— Create Tables

Let us try and create the first table that will store the basic contact information concerning the employees as shown in the following table:

Field Name	Data Type				
EmployeelD	AutoNumber Short Text Short Text				
FirstName	Short Text				
LastName	Short Text				
Address1	Short Text Short Text Short Text Short Text Short Text Short Text Short Text				
Address2	Short Text				
City	AutoNumberShort TextShort Text				
State	Short Text				
Zip	LastNameShort TextAddress1Short TextAddress2Short TextCityShort TextStateShort TextZipShort TextPhoneShort Text				
Phone					
PhoneType	Short Text				

Let us now have short text as the data type for all these fields and open a blank database in Access.

file Home Create Ettern	el Data Database	Toole Fields		Tell root school group oor		Netti (Multanini			Mahammed	
M m. Xca	21 Accending	T Selection *	Referation	∑ Totals	P		Califori (Detail)	-[11 -]	112 (新報) #1	
View Partie Francisco Fran		Tanga titar	Referit X Date	i Spelling mr + 🛄 More +	Finit	→ Go Tù- È: Select-	в г у 🛓	· 2 - 2 - 5	== (d+ 10)	
Ann Clabiant G	Sort & Fi		Ja	cords		Field		Test Furnating		6 1
All Access Objects	S a III tat									
eorch.		ID - Clck (New)	to Add +							
Tabel										
	Terret	a. cluft	# - 17 No 21	Teach						

This is where we left things off. We created the database and then Access automatically opened up this table-one-datasheet view for a table.

Harris C.	Tothe Teach AccessBatabase - Database - D10/sent/Mutammed Wagen/Documents/AccessD	7 - 恒 🛪
File Horse Create Talassid Data	Database Tools Fields Table 🖓 Tell no offet yes want to do.	Mahammad Weges
View AB 12 Short Number Cummity Division View Add do Centre	Environe its Caption Capton Capton	
All Access Objects 🛛 🗑 •	Tainet \	
Jesen. D Tables #	ID - Click to Add. + (New)	
Tables: #		
	Record # - T of 1 - + # - T to line Search	
Datasted View	Martines and Martines (1997) and Martines (1997)	Numberk III 16

Let us now go to the Field tab and you will see that it is also automatically created. The ID which is an AutoNumber field acts as our unique identifier and is the primary key for this table.

The ID field has already been created and we now want to rename it to suit our conditions. This is an Employee table and this will be the unique identifier for our employees.

H (2015) •	Table Train AccessOutatione : Database : ChUsen/Muhammed Wagat/Documents/AccessOu	- 🗆 🗙
File Home Create External Outs	Database Tools Fields Table Q Tail me what you cont to do	Muhammad Wagar
Verver Short Number Camercy ≦ North Fields Teat Add & Deleter	Delate III: Default Value JA Main Family Family Family Signature Woldstein Delate III: Fold Star Lookup Family Main 5 % - 1 % 21 Main Main Main Properties Formating Formating Provided for Signature Signature Main	
All Access Objects	Market)
Seeck. P Tables & Table1		
	Record, H (Lof T	-
tatauheet View	(Nom Lo	a 🔠 🗠

Click on the **Name & Caption** option in the Ribbon and you will see the following dialog box.

Name	EmployeeID
Caption	Employee ID
Description	Number created automaticaly

Change the name of this field to **EmployeeID** to make it more specific to this table. Enter the other optional information if you want and click Ok.

	bith Tunh ArrenDatabase: Database: Citibert/Mutammad Wagat/Decoment/ArcenD .	t - 🖷 🕺
Tile Home Conte Ditentit Data AB 12 State State Time Vew Start Number Common Week Time Start Number Common Week Time Test And & Dente	Database lock Feen Table V Tell on which you contribute With the S Caption Image: Source S Caption <td< th=""><th>Muhammad Weg</th></td<>	Muhammad Weg
All Access Objects © • • • • • • • • • • • • • • • • • •	Employme ID Cick to Add - (New)	
Number spatied automaticaly	Record: H = 1 of 1 + (H + 1 To In Frider (Search	Num Lock III 12

We now have our employee ID field with the caption Employee ID. This is automatically set to auto number so we don't really need to change the data type.

Let us now add some more fields by clicking on **click to add**.

H Confere	Table Tools	AccessDatabase : Database: C/Usen/Muhammad Wagar/Documents/AccessD. 7	= 9 X
File Home Create: External Data	Database Tools Fields Table	🖓 Tell min what your want to do	Muhammad Weges
View AB 12 View Date & Time Shoet Number Currency View Not View Add & Detet	Dolana III Indust Volue Dolana III Indust Volue Dolana Press	Image: System Data System Research	•
All Access Objects 🛛 🕫 🖷	Employee ID + Cick to Ad		×.
Serri. 2 Tables R Table R	(New) 28 Soot 17 Howk 学 Currer 高 Date 8 ジ Yer74 特徴、 Looku An Rich T An Ligng T 音 Attach 高 比如町 Calculat	Teet into trip	
Dafatheet Vinu	Record # 1/1 of 1		umlad 🔠 😥

Choose **Short Text** as the field. When you choose short text, Access will then highlight that field name automatically and all you have to do is type the field name.

E Store i	Total Technology Contraction (Children) Database - Children (Modawymad Wagan) Database hi Accessib	– ¤ ×
File Home Create External Data	Database Tools Funder Table Q Tell we about you want to do.	Muhammed Weiger
AB 12 State & Tress State Number Currency Test Virey Add & Centre	Normatic Termine Termine Termine Termine Termine Termine	
All Access Objects	1 Tablet	
keron. p	Employee ID + FirstName Click to Aint -	
Tables a	(New)	
Table1		
	Report A A A A A A Robert Search	
Jatashest View	Flue.	LACK THE MG

Type **FirstName** as the field name. Similarly, add all the required fields as shown in the following screenshot.

8 5 · C +		Table Inc	Aire	nDetabase : Det	abase- C/Users//	Auhammad Warp	s)Document	AccessData	base.accdb (Ac	resi 2007 - 2.2		- 0
File Home Create External Data	Database Tools	Fields	Table: 👔 1									Muhammad We
AB 12 Boot Time Boot Number Currency El More Fields- Text Aste & Dieter.	X De	me & Caption fault Value Id Size 255	Modify Coskap Properties	1.	Farmat:	e Dot Tet Formating * 12 2 Formating			1131 136 			
All Access Objects 🛛 🔒 *	Tables)											
ers. P	Employee		Name • 1	astName +	Address1 +	Address2 +	City	+ 50	abe i ce i i i	Zip -	Phone	 Phone Type
lables t		(New)										
TableT												
	Record: H	the second se	a. T. Do fit.	Canada.	1							

Once all the fields are added, click the Save icon.

You will now see the **Save As** dialog box, where you can enter a table name for the table.

Save As	?	×
Table Name:		
tblEmployee		

Enter the name of your table in the Table Name field. Here the **tbl** prefix stands for table. Let us click Ok and you will see your table in the navigation pane.

		Tuble Tooli	AccessDatabase : Database - C/\Users\Muhammad Waqe\	7 - 0 ×
File Home Create External Data	Database Tools	Fields Table	C Tell me what you want to do	Muhammad Waga
View AB 12 I View AB Number Currency View Add & Delete	Delate Detai	Sec. 1	fix labi Data Type AutoNamber Sodify Modify Memory Samuel Famulting Tomatting Sites Site Site Site Site Site Site First Famulting Site Site Site Site Site	Fietprinel Unique Indexed Field Validation
All Access Objects	et ItiEmployee			
THIS RECEIPT ON DEPEND		and a second	LastName + Address1 + Address2 +	City • State •
Tables	P. +	New		
10 thilimptoyee				
	-			
	-			
	_			
	Record: H	- N.F. 2	the Filter Search (+)	
Jumber sreated automaticaly	and the second sec		na and an	Numlinek 🔟 🗹

Table Design View

As we have already created one table using **Datasheet View**. We will now create another table using the **Table Design View**. We will be creating the following fields in this table. These tables will store some of the information for various book projects.

Field Name	Data Type
Project ID	AutoNumber
ProjectName	Short Text
ManagingEditor	Short Text
Author	Short Text
PStatus	Short Text
Contracts	Attachment
ProjectStart	Date/Time
ProjectEnd	Date/Time
Budget	Currency

ProjectNotes	Long Text
--------------	-----------

Let us now go to the Create tab.

File Home Create External Dat		abase Tools	tab Tields	ile Tooli Table			tabase - CAUser u want to do	oMuh		- 🗆		×
Application Parts + Templates Tables CharePoint Templates Cables Q	y Query d Design	Furm Form Design	Bian Forr	Form W	izant ion *	Report Rep		Report Weard Labels	Macro	1×		
All Access Objects	1 41 -	Employee ID	-	FirstName	- 10	etName +	Address1	 Address2 	10211	City	-	8
Seprch.	۰ م	a state of the sta	ew)	. Harrison			HUGHER					
Tables	*											
						1.200.00						
	He	cond: H + 1 of 1	L.A	MI 53	d-Filler	Search	(K)	1.1				

In the tables group, click on Table and you can see this looks completely different from the Datasheet View. In this view, you can see the **field name** and **data type** side by side.

B 5. Car		Tahle Tourin AccessDatabase : Datab	use- C-\Users\Muhammad.Wa	qashDocum. 🧃	- 0	×
File Home Create Extern	al Oxta Database Tools	Ortige Q Tell me what you w			Muhammad	Wagas
View Primary Builder Text Valuation	rr Inset Rows ➤ Delete Rows ☐ Modify Lookups Sheet Showit	Macros + Delete Macro	Relationships Relationships			
All Access Objects 🐵 *	thilmpioyee III Tablet					×
Search	Field Name	Data Type	De	scription (Optional)		٠
Tables #	ProjectID	AutoNumber				
1 tottriplayer	ProjectName	Short Text				
The state of the s	ManagingEditor	Short Text				
	Author	Short Text				
	PStatus	Short Text				
	Contracts	Attachment				
	ProjectStart	Date/Time				
	ProjectEnd	Date/Time				
	Budget	Currency				
	ProjectNotes	Long Text				
	General Lookup	6	ne/ Relationships Object Aacro Dependencies			
	Field Size Long	a Integer				
		ement				
	Format					
	Caption Indexed Test	Duplicates OK)				
	Text Align Gen			A field name can be up	to 64 characters I	ong.
						eid
Design view. F6 = Switch panes. F1 = Help.				104	ntick III.	K

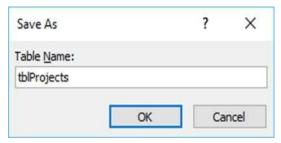
We now need to make **ProjectID** a primary key for this table, so let us select **ProjectID** and click on **Primary Key** option in the ribbon.

8,510		Total AccessDatabase : Datab	asa- C:\Users\Muhammad.Wa	qashDocum. 7 - 🗆 🛪
File Horne Create Ex	ternal Data Database Tools	Orelign 🛛 🖓 Tell ine what you w	writ tu do	Muhammad Waqa
View View Later Text Volutions View Later Text Volutions Views Scott	ma Modify Lookups Sheet	Vindexes Vindexes Whide Vindexes Vindex	Relationships Relationships Relationships	
All Access Objects	Field Name	Data Type	Dat	scription (Optional)
Sporth_	ProjectiD	AutoNumber		empriori (optional)
Tables 2		Short Text		
to:Eriployee	ManagingEditor	Short Text		
	Author	Short Text		
	PStatus	Short Text		
	Contracts	Attachment		
	ProjectStart	Date/Time		
	ProjectEnd	Date/Time		
	Budget	Currency		
	ProjectNotes	Long Text		
		0		
		F	ield Properties	
	General Lookup			
		ng Integer		
	New Values Inc. Format	crement.		
	Caption			
		s (No Duplicates)		
	Text Align Ge	netal		A field name can be up to 64 characters long,
				including igazes: Press Pr for help on field names:
Design view. F6 = Switch panes. F1 = H	help.			Nomitek 🗇 😢

B States					Terbite The	III Acces0	atabuse : Oatab	nase- C:\Users\M	luhammad.W	/aqas\.Docu			٥	
File Horne Greate	Daten	nal Da	rta Databa	ne Tools	Design	i Q'Telli	ne whiet you w	want to do-				Muh	emmad V	Vaqas
View Say Rolder Text Val	dation	×De	sert Rovis elete Rovis lodify Lookups	Property Sheet Show/			Rename/ Delete Macro & Table Events		Object Object	k				
All Access Objects	Э «		thifmpioyee	III Table1			-		122		10.0210			×
Sedrich.	م		Fler	id Name		Data	Туре		De	escription (Opt	ional)			-
Tables	#													
		6	metal Lookup					ield Properties						
										à field name a including spi	an be op i Ices, Press nam	F1 for be	acters lor 10 on fiel	iù, d
Design view. Ph = Switch manes. P	1 - 14-10	1-									Anton	tinek:	122 10	No.

You can now see a little key icon that will show up next to that field. This shows that the field is part of the table's primary key.

Let us save this table and give this table a name.



Click Ok and you can now see what this table looks like in the Datasheet View.

B Sectors		Talina Talina AccessDetabolier Datab	aan-G\Usert\Muhammad.Wa	ayasyoncum. 7	- 0	×
File Home Create Exter	mal Data 🛛 Database Tools	Design 🛛 🖓 Tell me what you w	arti tui do		Muhammad W	n que
View Republic Test Validations Reput to the Section States	mill Modify Lookups Sheet	y indexes Greate Data Rename/ Macros* Defait Macro whilder	Relationships Relationships			
	1 thitmpioyee 1 thiP					
Access Objects	Field Name	Data Type	De	scription (Optional)		-
Tables #	ProjectName	AutoNumber Short Text				i
Tafrajeth	ManagingEditor Author	Short Text Short Text				
	PStatus Contracts	Short Text Attachment				
	ProjectStart ProjectEnd	Date/Time Date/Time				
	Budget ProjectNotes	Currency Long Text				
	General Louisup		ald Properties			
	Field Size Li New Values in	ing integer iccement				
	Format Caption Indexed W	n (No Duplicates)				
	Test Align G	General A held name can including space				f.
Design view. Fil + Switch panes. F1 + Het	p.			Nat	ntack 🔟 🕅	4

Let us click the datasheet view button on the top left corner of the ribbon.

 Hereiter 		Table Tools	AccessDatabase: Data	bere-C\Ubert\Muhamma	d-Waqui\Docum 🥂		
File Horse Create Educe	ul Dala Delabase Toola	Fields Table	V Tell me which your			Mubammed W	Vaquo
Of Fermat Painter Viewet Obploand %	Ti Ascending Ti Sele Li Descending Ti Sele Li Descending Ti Sele Sort & Filter	anced * Refresh perfilter All*	i Tiew ∑ Totals Bave ⊃ Spetting Octors + III More+ Records		Calibri (Detail) + 11 B Z U 包括 in A · · · · · · · · · · · · · · · · · · ·	- 80 - 	x >:
All Access Objects @ "	Projectiti - Project	Nami - Managing	d - Author -	PStatus -	9 ProjectStart •	ProjectEnd +	Budg
Tables 1	• New			.8	(0)		
initerproyee							
Tred	Record # 5 of 3	s - To the folm	earch [_	um Lock 1	

If you ever want to make changes to this table or any specific field, you don't always have to go back to the Design View to change it. You can also change it from the Datasheet View. Let us update the PStatus field as shown in the following screenshot.

nter Field Pro	pentes	. ^
Name	PStatus	
Caption	Project Status	
Description	Overall project status	
	OK	Cancel

Click Ok and you will see the changes.

B he dealer		Talije Tooli	AccessDatabase: 0	Vatachane- C/Uwers/Mu	hammad.Waga	NDocume 7	- 0	×
File Home Create Estar	nal Data Database Tools	Fields Table	Tall me what y	ou want to de			Muhamma	d Waqan
View Short Number Comency	es/No X Delete Delete	d Size 255	Modily Modily Indiana Expension S erter		forwarting	Bequired December 2015 December 201	Validation *	
All Access Objects 💌	III Itilaufiger III IbiPt	and the second se						*
SearchP	ProjectiD + Projec	Diami - Managing	Ed - Author	· Project Stati-	- U	ProjectStart -	ProjectEnd +	Budj
Tables a	+ (Ninv)				(a)			
tothnykoyee								
	Record H 1 of 1	n - E no fitter .	Search +					
Ready						i.	lum Lock:	医

7. MS Access-Adding Data

An Access database is not a file in the same sense as a Microsoft Office Word document or a Microsoft Office PowerPoint are. Instead, an Access database is a collection of objects like tables, forms, reports, queries etc. that must work together for a database to function properly. We have now created two tables with all of the fields and field properties necessary in our database. To view, change, insert, or delete data in a table within Access, you can use the table's Datasheet View.

- A datasheet is a simple way to look at your data in rows and columns without any special formatting.
- Whenever you create a new web table, Access automatically creates two views that you can start using immediately for data entry.
- A table open in Datasheet View resembles an Excel worksheet, and you can type or paste data into one or more fields.
- You do not need to explicitly save your data. Access commits your changes to the table when you move the cursor to a new field in the same row, or when you move the cursor to another row.
- By default, the fields in an Access database are set to accept a specific type of data, such as text or numbers. You must enter the type of data that the field is set to accept. If you don't, Access displays an error message:

Let us add some data into your tables by opening the Access database we have created.

B Shore		e 1500 AbrentDatabase : Database : CAlbert/Maham	mad Wagar).Documents:Acces(7)
The Home Casts Educ	nal Outa - Database Tools - Fields	Table V Tall me what you want to do	Multarroad Wages
Ver Databert Vers	11 Ascending T: Selection - 12 Descending D: Advanced - 12 Remove Soft T: rought riter Soft A Fater Soft A Fater	■ fairedt ∑ totals ∅ 5 totals All- ∑ Spelling ∑ Spelling 5 totals Aut- ∑ Meres+ ∑ Spelling 5 totals Aut- ∑ Meres+ ∑ Spelling 5 totals	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Cersign View A	(New)	 LastName - /Address1 - Address2 - 	City State - Zip - Phone -
Datastiet Vee	Recent A . Tel T	No Tales (Search (4)	Nuestado 10

Select the **Views > Datasheet** View option in the ribbon and add some data as shown in the following screenshot.

# 1 1 +		1006	Anel	Ostabase: Database: Cillion	Mahammad Waged Do	currents/Acce	nDatabase accels (A	uess 2007 - 2016 Ta	e format) - Arcies	1 B =	a x
File Hurse Course Take	mai Data 🛛 Databa	ne Toniki Fields	Table Q'TH	I me what you and to do						140	ammad Waga
N A KG	1 Ascenting		a New Blan		Replace Calibri (Deta	4	ii + 日日 -	10110			
View Pade S Sumat Partie	Filter	g TAdvanced *	Refeat X finite	O Contract First	Gella* Select* B I II	4.7.	<u>∆</u> . = = =	g			
limis Dipbeant %	Sattà		Reco	ndi Fe	4	Test	Furnating	161			28
All Access Objects 🐵 🔹	Ditestoyer										63
ierch. p		Q • FirstName			+ Addressil +		and the second		20p		
Tables #		2 Res	Clay	Accounting Assistant	2556 Mohave 5		Schaumburg		60194	(847) 555-6492 H	
T mitmplayer		3.Janell	Frank	Accounting Manager	6433 Morgan Lr		Schaumburg		60193	(224) 555-6631 ++	
3 1971 KG	1	4 Claudine	Goff	Administrative Assistan			Schaumburg		60195	(312) 555-3795 H	
		5 Annemarie 6 Cecil	Marks	Accounting Assistant	BE Forest Ln		Schaumburg		60193	(224) 555-1111 C	
			Snyder	Accounting Assistant		Optional	Schaumburg		60194	(224) 555-2123 C	
		7 Elvis 8 Delores	Marsning	Office Coordinator Administrative Assistan	4753 Green Riv		Schaumburg		60193	(224) 555-6255 C	
		s Derbres 9 Ruthie	Townsend Higgins	Marketing Coordinator	t 1215 Clovental 9876 Kingsley I		Schaumburg		60194 60193	(224) 555-3386 C	
		10 Mark	Pollard	Marketing Coordinator	4885 Stanley Cl		Schaumburg Schaumburg		60194	(224) 355-9876 H	
		11 Todd	Watson	Marketing Coordinator	846 Bode Rd		Schaumburg		60194	(224) 555-3333 H	
		Newj	104030-0	www.vesting.co.org/nation	940 500e %a	-HELLET	Screenword	16.	20134	(22%) 235-3555 M	unie
		aeal									
	Becard: Multi A	10 1 A M AC T. 0	- Filmi - Search	hallet							
atathet line	Therease (a) (c) and	and the second second second	ALC: NOT THE REAL PROPERTY OF	THE ST.						Nun Lock	M IN

Similarly, add some data in the second table as well as shown in the following screenshot.

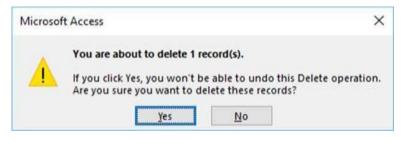
8	9 • 🖓 🕞				iable Tooli	Acc	essDatabase : Databar	e- C:\Users\N	Nahammad Waqasi,D	ocuments\Access[latabase accels.	? – 0. X
File	Home Create	External Data	Databas	se Tools Fiel	🕾 🛛 Tak	se Q	Tel me what you was	tto do				Muhammad Waqa
View	AB 12 Short Number Currency Test	Date & Time	X	Default Val	č	Hard Costs	$\int_X ab $	Fornati	Attachment Formatting	C Required	Asidation -	
inews.	Ad5.5	Delete				Properties			Formatting	Field Valid	ation	
•	toEmployee 🔳 toPr	ojects										2
H.	ProjectiD + Pr	ojectName	9 M	anagingEditor	- A1	ther •	Project State -	9	ProjectStart •	ProjectEnd +	Budget •	ProjectNotes
	2 Project	Quarterly 1.1	12				Completed	8(0)	11/1/2006	2/15/2007	\$5,000.00	A quarterly literary journal d
	11 Project	Quarterly 1.2	12				Completed	8(0)	2/1/2007	5/15/2007	\$5,000.00	A quarterly literary journal d
	12 Project	Quarterly 1.3	12				Completed	8(0)	5/1/2007	8/15/2007	\$5,000.00	A quarterly literary journal d
	13 Project	Quarterly 1.4	12				Completed	8(0)	8/1/2007	11/15/2007	\$5,000.00	A quarterly literary journal d
	34 Project	Quarterly 2.1	12				Completed	8(0)	11/1/2007	2/15/2008	\$6,000.00	A quarterly literary journal d
	15 Project	Quarterly 2.2	12				Completed	Ê(0)	2/1/2008	5/15/2008	\$6,000.00	A quarterly literary journal d
	16 Project	Quarterly 2.3	12				Completed	8(0)	5/1/2008	8/15/2008	\$6,000.00	A quarterly literary journal d
10	17 Project	Quarterly 2.4	12				Completed	8(0)	8/1/2008	11/15/2008	\$6,000.00	A quarterly literary journal d
	(New)							8(0)			\$0.00	
Navigation Pane												
R	econd: 14 . 4 . 9 of 9 . 4	DE TANG	Search	h ()					1			
ataone	et View											Num Lock 🔟 🔛

You can now see that inserting a new data and updating the existing data is very simple in Datasheet View as working in spreadsheet. But if you want to delete any data you need to select the entire row first as shown in the following screenshot.

MS	Access
----	--------

E	1 3	.		Same Instan	Acr	nDatabase : Database	Cluserth	futurement Wage(\De	cumentalAccould	winteren accella	MS Access
-		Home Creste Enternal Data	Database Tonis	Fields Tab			to the				Maturmaid Wegas
X 2 . 1		AB 12 Solution Common Solution Fields - And to Desite			The second second	fx [ab] Mathy Merry Openant Settings	Strenat.	Autobardan Frankting - SE-21 Fronkting	Required Set Unique Field Value Field Value	Welden -	
•	1	Projectio - ProjectNome	 Manaphate 	-	thor +	Project State +		ProjectStart +	Manager and Party	Budgett +	
			the second se	0/00C • AVE		The second s		and the second se	and the second se	and the second se	Projectivotes
		2 Project Quarterly 1.1 11 Project Quarterly 1.2	12			Completed Completed	810) 810)	11/1/2008	2/15/2007 5/15/2007	\$5,000.00 \$5,000.00	A quarterly literary journal d A quarterly literary journal d
		12 Project Quarterly 1.3	12			Completed	3(0)	5/1/2007	1/15/2007	\$5,000.00	A quarterly literary journal of A quarterly literary journal of
		13 Project Quarterly 1.4	11			Completed	- Si0)	8/1/2007	11/15/2007	\$5,000.00	A quarterly literary journal d
		14 Project Quarterly 2.1	12			Completed	8(0)	11/1/2007	2/15/2008	\$6,000.00	A quarterly literary journal of
		15 Project Quarterly 2.2	11			Completed	0(0)	2/1/2008	5/15/2008		the second second as the second se
		16 Project Quarterly 2.3	12			Completed	0(0)	5/1/2008	8/15/2008		A quarterly literary journal of
	15	17 Project Quarterly 2.4	10			Completed	-8101	8/3/2008	11/11/2008		A quarterly literary journal d
		(Netw)	100		-0	and the second s	하이	0.00.000	and the second second	\$0.00	
Navigation Pane											
		ing # 4 Bath + H + T no Time	Search	(1)	_						il and its and
ata	shire	View									marking III 16

Now press the delete button. This will display the confirmation message.



Click **Yes** and you will see that the selected record is deleted now.

	Aida & Delieta			Finganti	Lope Deportune Settings - el	5.00	n Si 25 Panating	Presid Mahatan	1000	1.4
	test reprise a la financia	2					ALCON NO.		1	
	Projectity - ProjectName		anagongCillion	Author-	+ Project Statu -		ProjectStart -		Budget +	ProjectNotes
	2 Project Quarterly 1.1	11			Completed	(900)	11/1/2008	2/15/2007		A quarterly literary journal of
	11 Project Quarterly 1.2	-12			Completed	9(4)	1/1/2007	5/15/2007		A quarterly literary journal of
	12 Project Quarterly 1-3	12			Completed	8(0)	\$/1/2007	8/15/2007		A quarterly literary journal of
	13 Project Quarterly 1.4	12			Completed	8(4)	1/1/2007	11/15/2007		A quarterly literary journal of
	14 Project Quarterly 2.1	12			Completed	(8(0)	11/1/2007	2/15/2008		A quarterly literary journal of
	15 Project Quarterly 2.2	12			Completed	(8(0)	2/1/2008	5/15/2008		A quarterly literary journal of
100	16 Project Quarterly 2.3	- 12			Completed	800	3/3/2008	8/15/2008		A quarterly literary pournal of
	Menter a la state de la seconda de la second					8000			90.00	- 110
and the second										

8. MS Access— Query Data

A query is a request for data results, and for action on data. You can use a query to answer a simple question, to perform calculations, to combine data from different tables, or even to add, change, or delete table data.

- As tables grow in size they can have hundreds of thousands of records, which makes it impossible for the user to pick out specific records from that table.
- With a query you can apply a filter to the table's data, so that you only get the information that you want.
- Queries that you use to retrieve data from a table or to make calculations are called select queries.
- Queries that add, change, or delete data are called action queries.
- You can also use a query to supply data for a form or report.
- In a well-designed database, the data that you want to present by using a form or report is often located in several different tables.
- The tricky part of queries is that you must understand how to construct one before you can actually use them.

Create Select Query

If you want to review data from only certain fields in a table, or review data from multiple tables simultaneously or maybe just see the databased on certain criteria, you can use the **Select** query. Let us now look into a simple example in which we will create a simple query which will retrieve information from **tblEmployees** table. Open the database and click on

the		Create				tab
a the Hume Carole Idea	nal Data - Database Tanh - Fields	Table Q: Tell See which your series	Chillien Watanmad Wagai De	cumento AccessDetabase accela	N S	- D ×
Application Parts - Inseption Table Table Table Sharefurt Design (table) Add Access Objects @ #	Comy Going Term Form Blant Woard Obligh Design Form Claims Form 10 IntEmpinyee (1) IntEmpiny	Tom Wead Nergetion Mex Form United State Nerget Report E Design R	eport	W Modula Dum Module (Vanit Back acces & Cody Address) - City	 State 	24
Rects. β Tables 6 □ totrophyse □ tothysets	2 Res 2 Janell 4 Cloudine 3 Annemarie 6 Caoli 7 Elvis 6 Delores 9 Ruthie 20 Mark 11 Todd * (New)	Clay Accounting Ass Frank Accounting Ma Goff Administrative Marks Accounting Ass Snyder Accounting Ass Marning Office Coordius Townsend Administrative Higgins Marketing Coor Vietson Marketing Coor	nager 6433 Morgan Li Assistant 23 Berkley (n Ustern 93 Fored Lis strant 64 Osage Lin etcr 4753 Green Riv Actistant 1235 Coverdal dinator 8878 Kingsley 1 dinator 4865 Stranley C	Optional Schaumburg Optional Schaumburg Optional Schaumburg Optional Schaumburg Optional Schaumburg Optional Schaumburg Optional Schaumburg	11. 11. 11. 11. 11. 11. 11. 11. 11. 11.	60134 60135 60135 60233 60234 60234 60234 60234 60234 60234
Tajabin mana Junimutany	Record: M (1 of 10 - + - M M) - To 1	urner Seent 1. (*)			Man Los	a 151 142

Click Query Design.

how Ta	ble				?		×
Tables	Queries	Both					
tblEmp	loyee						
tblProj	ects						
			1	Add		Close	

In the **Tables** tab, on the **Show Table** dialog, double-click the **tblEmployees** table and then **Close** the dialog box.

CARGE FREE CONTRACTOR	nel Data Da	falsee Tools De	ALC: NO. OF	or what you which his da	an Maria and An		il Dataliane accolii (Acco	Notes and the	C D
Ten Tun Tenuts	Update Creata		rough finition Table	Di Delan Rese, 3	* Hart Column) / Deists Columns R Return: All	Totals Parameters	Property Sheet		
II Access Objects ® × ent. P ables f introducer introducer	V	ter til hefmants til Exployee a Employee Lattiume Address Ad	S Guerri						
	-	De .							
	Field Table Sort Drew Cotoria art	₽₽ _= 		0		o	D		

In the tblEmployees table, double-click all those fields which you want to see as result of the query. Add these fields to the query design grid as shown in the following screenshot.

H 5-1		COMPANY OF A	States and States			(Wegen)Oocuments\AccessD	Mattane accorts (Ac		
Veix flan Select Table	VI II		Contraction of the second second	State	T [*] Insert Columns Deste Column Pit Return: [All	Tutals Palameters) Property Sheet (Tytele Feature		Multanetsad Weise
All Access Objects @ *	Chiery Tel		Trees to a	وسيرا	Perith	Stawitt	da		
Sect. P Tables 8 Ill technicitien Ill technicitien		tilEmployee address1 Address2 City State Stat Phone Phone Phone Phone Phone Email JobTitle	•						1
	Freiz	EmployeetD	FirstRame	Lattitiane	lobTitle	beat 🔤		1	
	Table: Soft: Show Critesia are	mitaployee 2	IbiEnglure 2	the product of the second s	ttillenployee [2]	thitmplayer	۵	a	.0
		(41)							1
Ready								Num Lack	10 × 10

Now click **Run** on the **Design** tab, then click **Run**.

E Contraction		e Detetair CAllery			ciriDenament scotti (Ac	ioni 2017 - 2016	Ricformat) - Acces			
M DAG	1 Accordin 11 Octoordin	entimis Q faile T Selection * g ∏Advanced * =t T Segme failur	Referent Al- > Denne	∑ Totals ⇒ Spelling + ■More+	Find Find	(calder (Setal) B. J. U	*[11 & • 2 - <u>A</u> - bet format			arrimad Waga
All Access Objects		Infrance (5		anga.	- Field		the runner	and	0.04	1
Renth. P Tablet * Interprojet		0 - Trostlame Stee 3 Janell 4 Claudine 5 Annoemaria 6 Ceci 7 Eluis 8 Delores 9 Ruthie 10 Mark 11 Tool (Yeav)	Clay Prank Golf Marks Snyder Manning Townsend Higgins Potland Watson	Accounting A Accounting N Administratio Accounting A Accounting A Control of Account Administratio Marketing Co Marketing Co	 Brail - Brail - Intak genycon Intak genycon cpołłgowycam canydergenyco canydergenyco canydergenyco chogonadimyco canydergenyco chogonadimyco chogonadimyco chogonadimyco chogonadimyco chogonadimyco chogonadimyco chogonadimyco bootangenedigin chogonadimyco 					
aafy	Retard 4 - 14	r 10) + +(+1) T, 1	a the Search	-				Numino	1001	= 12

The query runs, and displays only data in those field which is specified in the query

9. MS Access- Query Criteria

Query criteria helps you to retrieve specific items from an Access database. If an item matches with all the criteria you enter, it appears in the query results. When you want to limit the results of a query based on the values in a field, you use query criteria.

- A query criterion is an expression that Access compares to query field values to determine whether to include the record that contains each value.
- Some criteria are simple, and use basic operators and constants. Others are complex, and use functions, special operators, and include field references.
- To add some criteria to a query, you must open the query in the Design View.
- You then identify the fields for which you want to specify criteria.

Example

Let's look at a simple example in which we will use criteria in a query. First open your Access database and then go to the Create tab and click on Query Design.

Show Ta	ble			?	2	×
Tables	Queries	Both				
tblEmp tblProj	lovee ects					
			Add		Clos	e

In the Tables tab on Show Table dialog, double-click on the **tblEmployees** table and then close the dialog box.

ree Home Cleate Dita	mal Data Dat	Barry N abase Task Desig		ibere : Detabare - CNU: r e-hat proceed by de-		un/Documents/VAccel	nDatabarn ac rufa (Acc		O X Albertrad Wegen
View Run Select Make Append	Update Countait	Delete		S.A. Tanina Press. 😿	(nort Columns Delete Columns Return: All =	Totals Parameters	Property Sheet		
All Access Objects 🔘	TH same	e S Guerys		Canal Second		1.00			
Resen. P. Tables s Distinguises Intifugen	1	Millimplayee • • • • • • • • • • • • • • • • • •							
	41-1								
	Petit Table Sett Sett Setters an			D I	D.	0		D	-
	Pajdi Table Selt Show Offenia 91		-		10/		-		

Let us now add some field to the query grid such as EmployeeID, FirstName, LastName, JobTitle and Email as shown in the following screenshot.

File Home Create Exten	mai Data 👘 🛙	Database Tools	Design Q Te	il me unat you ward t	o do.			14	Unamitted Waqa
New Run Select Make Append	Update Cross	tab Delete 🔣 Da	ion ss-Through ta Definition Tabl	B Delete Roves	The Insert Columns		Property Sheet		
All Access Objects 🐵 «	II	ioyee 🗐 Queryt	1						
an Access Objects a	1.		1						
ables \$	-	tblEmployee State Dp	-						
		JobTitle							
	+	JobTitle	Festiliane	LaitName	Jostitle	1			
	Field	EmployeelD		LastName 10 Employee	JobTitle tb/Employee	th/Employee			•
	Field. Table:	EmployeelD	Festilane				0		0
	Field: Table Sort: Show: Criteria	EmployeeID tbiEmployee	Firstitiame tb/Employee	tbEmployee	tbiEmployee	tblEmployee			

•	AccessDatamana Data	date Cristenik	Automotatt Warper)	Documanta/Access	Outstans active)	Access 2007 - 2016 File In	mut) Accus		- 0	
Tate Horne Create Estern	nal Data - Database Too	els ⊉ Tetl+s	e whet you want to	and a					Milliamma	el Waqa
Verse Captored S		Selection * Advanced * * Toggin Tolus	fature All - X fature All - X fature	∑ Totals ⇒ Spelling - □ More -	P Sk Repta Find & Go To Ik Select Find	Canada Canada	 (1) ・日 データ・コート Set Functions 	(a) (a) - 0 (a) (a) (a) (a)	u -	
All Access Objects 🗧 🖷	III mitmanner (P	Query1					CONCEPTION .			
Fables a Tables	1	FirstName - Max Janell	ClastName - Clay Frank	Accounting Acc Accounting Ma	estant	Email relay@mycompany.co /frank@mycompany.c				
Internation		I Claudine 5 Annemarte 5 Annemarte 6 Cecil 7 Elois 8 Deliores 8 Ruthie 9 Mark 1	Goff Marks Snyder Manning Townsend Higgins Pollard	Administrative Accounting Ass Office Coordin Administrative Marketing Coordin Marketing Coordin	istant Istant Assistant dinator	cgoff@mycompary.o amarka@mycompan amanning@mycompan dtournsend@mycomp ihiggins@mycompan ihiggins@mycompan impollard@mycompan	.com y com eny com pany.com y.com			
Ready	Retood H 1079	5 8 85 T. 10	Title Search					Munitari	121 14	145

Let us now run your query and you will see only these fields as query result.

If you want to see only those whose JobTitle are Marketing Coordinator then you will need to add the criteria for that. Let's go to the Query Design again and in Criteria row of JobTitle enter Marketing Coordinator.

■ 5+01+1		CONTRACTOR OF STREET, S	A CONTRACTOR OF		Chlian/Mahammad Wege/d				
And a second sec		Intellane Trink	ATT CARL AND A	d me what proposed b				Maham	vneit Wege
New Run Sefect Table	Update Cross Garry No	tab Delete	ter Through te Definition Tabl	For Inset Rouse Delete Rouse Bolder Classy	Billinetures All	State Parameters	operty Sheet dde Narmer		
All Access Objects 📧 🖷		oyee 🗊 Query	1						
rach. P Tables #		th Employee							
Billinghyse Billinghyse		State	-						
		Jobhitle							
	Table	Employee Withologe	Featbane toEngloyee	Laritiane ThiEngloyte	Jab Title Balfungslogen	İnai münyiqre			(*)
	Pield: Table	EmployeeD	FeetBlane				D	. C	
	Pield Table Solt Show Offene	Employee Withologe	Featbane toEngloyee	WEnployee	mitwpinger	The maintain and the second	D	D	

Let us now run your query again and you will see that only Job title of Marketing Coordinators are retrieved.

8		Access	ACTORNE: LANK	case couses	Munammacwarge	obocamentstacc	environmentord	b (Access 2007 - 2016 file for	ming sectors		D X
File Home Cms	ite Extern	ul Deta	Database Too	as Q Teli	me what you want t	o de L				Maha	mmad Waqa
Vev Paste Sorrant	Fainter	i ilo	cending 🐧 scending 🚡 move Sort 🍸	Advanced -	Refresh All-X Delete	∑ Totab [™] Spelling t • ■ More •	P the Rep → Go ⁺ Find R Sele	To-	•[n]]•]⊟ ⊟ ダ・ <u>ム</u> ・ = = 3	10日 m - 11日 - 田・	
Views Clipboard	5		Sort & Filter		lietz		Find		Text Formatting	5	
All Access Objec	ts 🛛 «	11 - thEr	splayer (F)	Query1							
hii Access Objec		Emp	layee ID +	FirstName	+ LastName	• Job	Title	- Email	21		
Tables	р *			Ruthie	Higgins	Marketing Co	ordinator	rhiggins@mycompany	.com		
1 tolEmployee	×.		10	Mark	Pollard	Marketing Co	ordinator	mpollard@mycompan	iy.com		
tbiompioyee		٠	(New)	6							
lady		Record: P	t of 2	н н н: Т <u>.</u>	No Filter Search	1				Num Laok	∝ ⊻

If you want to add criteria for multiple fields, just add the criteria in multiple fields. Let us say we want to retrieve data only for "Marketing Coordinator" and "Accounting Assistant"; we can specify the OR row operator as shown in the following screenshot:

∃ 5 • € =		a the second second second	A COLUMN TO A COLUMN		Chillern Mithemmed Wegen (Documents/AccessData	lass accilt (Acce		9 ×
🗂 l 🛅 🖬 +l	And Data U Update Conv Garry W		and the second second second	E innert Rouse N Datate Rouse N Balder Darre	Thimeet Calumna Note Columna Stitutum All	tah Paranetan	roperty Sheet delle Warnet	blatar	anad Waqa
All Access Objects 🐵 *		are D Guery	1	- carrie					
Seen. (2) Tables & Informityse Informityse		tbillingloyee State 2p Phone							
		PhoneType Email IsoTitle							
		Email							
	Public Table	Email	• Finitiane tailinginger	Latitians Billapioyee	/sofitie fatfrepingee	Enge Indiana			.(*
	het	Email IsoTifie	Fectilizers						.(*
	Pate Table Soft Show College	Email IsoTrie EnglayeeD thEmplayee	Ficility ficility tol Engloyee	thit.mployee	talEngloyee	Its Employee			.(*

The Hung Case Later	AccestDatabase Database Children M of Data Database Tools O Toll or		AccessiDatablese accells ((Access 2007 - 2016 file for	mat) - Ausona		
N PAGE 1	L December To Selection -	int New Σ Total Meteority ≥ Series → ∰ Mereor All → Series → ∰ Mereor Seconds	ng Find - Galla	Canal of Canal	* 1 + 1 + 1 = 1 $\forall \cdot \Delta \cdot = = = 2 $	Caracterit	
All Access Objects 🛞 4 Senta D Tables 4 Intrustore Intrustore Intrustore	Interployee ID	Clay Accounts Marks Accounts Snyder Accounts Higgms Marketin	ng Assistant ng Assistant g Coordinator	Email rutay@mycompany.co runyder@mycompany rhigg/sis@mycompany mpollard@mycompan	2009 2009 2009		
landy .	Record in - 1 or 5 . + + + Th	Film Seath			- Them	44 1988 V	o. 16

Let us now run your query again and you will see the following results.

If you need to use the functionality of the **AND** operator, then you have to specify the other condition in the Criteria row. Let us say we want to retrieve all Accounting Assistants but only those Marketing Coordinator titles with "Pollard" as last name.

ui Data - 1	Dutabase Tools			Chillion Mathemateria Wegari D	оситити/Асски/Диц	hain acoth (Acen		⊐ × mailwage
Update Cross		ion to		Delete Columns To	L 10 100	operty Shaet able Namer		-
🗇 mitigi	loyee 🗊 üsery	1			er trainin (f)			
	tistingkoyea Tate Do Press Press Press Press Desi adabtie							
(4TC)								•
Field Table		Firstfügene Holčinglayee	LastMare taiLaployee	iut/Mie theEnsplayee	Ernal WiErnaloyee			-
Distan Coloria on	12	8	Teller	Wellating Coordinator' 'Accounting Acculant'	2		0	
	Curry Yi	Updare Countals Definit (Countals Definit (Count	Updare Coontals Deline Quinty Tope Quinty Tope Quinty Tope Quinty Tope Quinty Tope Tabl	Image State Image State Image State Image State Image State Image State Image Imag	Index Countail Deline Par: Through See See		Updete Countel Deter Trough Over Producte Ress Deter Countel Totals Falle Totals Falle Updete Countel Dess Defension Table Deter Countel Deter Countel Totals Falle Steammates Etable News Updete Countel Dess Defension Table Deter Countel Deter Countel Steammates Etable News Updete Countel Dess Defension Table Dess Defension Steammates Steammates Interplayse Interplayse Totals Totals Steammates Steammates Interplayse Interplayse Totals Steammates Steammates Steammates Interplayse Totals Totals Totals Totals Totals Interplayse Totals Totals Tota	Contrait Deine Pres-Trough Ster Product Ress State Courses Contrait Deine Pres-Trough Ster State Contrait Deine Pres-Trough Ster Sterenters Contrait Pres-Trough Sterenters Contrent Pres-Trough Sterenters Contrait Pres-Trough Sterenters

	AccessDatalians : Database: CAUserstMAInarrenal Wagat/Documental AccessDatations acceds (Access 2007	
M ANN	Al Data - Orienteire Tools - Orienteire - Orie	$\begin{array}{c c} & \text{Multi-interval We} \\ \hline \text{Detail} & + \begin{bmatrix} 11 & -1 \end{bmatrix} & \begin{bmatrix} 12 & 12 & 22 & 24 \\ 2 & 2 & 2 & 24 \\ \hline & \textbf{u} & \textbf{a} + \frac{22}{3} + \frac{22}{3} + \frac{22}{3} & \textbf{a} & \textbf{a} \end{bmatrix} & \begin{bmatrix} 12 & 22 & 24 \\ 2 & 24 & 24 \\ \hline & \text{ter Forwards} \end{bmatrix} & \textbf{b} \end{array}$
ren Classed N JI Access Objects ® « ant. p ables s Intervent Intervent	Ittitrapper Carert Employee ID FirstName LastName Iob7tife - Max Clay Accounting Assistant rclayBings 5 Annemarie Marka Accounting Assistant amarks@m 6 Cecil Singler Accounting Assistant cmydergin	Email - company.com rycompany.com mycompany.com imycompany.com
	* (New)	
Ready	Record # (Ture + # #) Total Seam	Muniph 🖽 🕫 😢

Let us now run your query again and you will see the following results.

10. MS Access— Action Queries

In MS Access and other DBMS systems, queries can do a lot more than just displaying data, but they can actually perform various actions on the data in your database.

- Action queries are queries that can add, change, or delete multiple records at one time.
- The added benefit is that you can preview the query results in Access before you run it.
- Microsoft Access provides 4 different types of Action Queries:
 - o Append
 - Update
 - o Delete
 - Make-table
- An action query cannot be undone. You should consider making a backup of any tables that you will update by using an update query.

Create an Append Query

You can use an Append Query to retrieve data from one or more tables and add that data to another table. Let us create a new table in which we will add data from the **tblEmployees** table. This will be temporary table for demo purpose.

Let us call it **TempEmployees** and this contains the fields as shown in the following screenshot.

Barriste a	Tease Tease	AccessDatabase: Database: C/Users/Muhammad/Wagat/Docoments/AccessD	– 🗆 🗙
File Home Create Educ	nat Data Database Tools Finite Table	Q Tellime what you want to do.	Muhammad Weges
Mar Ab IZ - EV	e Prog	Modify Mater Data Type Autoblamber Required Modify Modify Moreau Some and som	*
All Access Objects 🐵 🖷	mitmpinges (II thiProjects (II Guery))		×
Search. D	EmployeeID + FirstName + LastNam + LastNam	ne + Adress + JobTitle + Click to Add +	
Tables 8	Access of the second se		
🛄 tuPojetk			
Temptrainger	Record N K M Tabular		
Outaihert View	Terrare March 1 - 1 - 2 - 4 - 1 - 2 - 4 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1		untee 🔟 🔟
Southern and a state of the sta			and the state of the state

how Ta	able			?	×
Tables	Queries	Both			
tblEmp tblProj	ects		 		
TempE	mployee				
			Add	Clo	ose

In the **Tables** tab, on the Show Table dialog box, double-click on the **tblEmployees** table and then close the dialog box. Double-click on the field you want to be displayed.

E 5	al Deta	Detainme Spole	and the second	SDWatheon : Database If me what you want t		Waqas\Documents\AccessD	itabije	- D	*
View Run Besults	Cladele Cross	nab Delete Mon	ion s-Through Is Definition	En boart Bous Pr Torrer Roses N Builder Ouery	11 Inuert Columns ※ Delete Columns 권위 Return All		Property Sheet Table Names dr		
All Access Objects 👒 🖷	in the second	layee 1 million	ects i 🛄 Tempfing/	oliss (🗟 (media)					- 26
Tables A		thEmploy							
Tables n		72-00053	1						
taihquata	1	Firstflame							
	41	Address1 Addres2 City State Day Phone PhoneType	- Percent						
	Field		Finitiane	Lastifiame	Addren1	RINUE (U)			
	Table Sort	thitrapioyee	toEmployee	tatinglayee	talEmployee	thiEmployee			
	Those Critena St		.0	2	R	2	0	0	

Let us run your query to display the data first.

File Home Conste Erte	mal D	Database : Database : CVDsetSMultar Ma Database Tools : Q Tell n Q Accending : To Searchon -	ne what you word to		O Stateplace	Calibri (Det		112.12	Muhammart	Warpe
B Carry	T Film	11 Descending To Advanced -	Reference Alt - X Datator	Spelling	Find D Select-	8 <i>I</i> 9	<u> 프린</u> H ·			
Views Clabourt 4		Sort & Fitter	Hein	()	rind	-	Test Formatting			- 0
All Access Objects 🔎 🖷		Billimulajee (📶 ttilimjests 🗐	TempEmployee	Duent)						
keck.			+ LastName -	Address1 +	JobTitle					
Yables A		Max	Clay		Accounting Assist					
Tables (3 Janell	Frank	Crystal and a state of the second second	Accounting Mana					
		-4 Claudine	Gott	A A CONTRACT ON AND A SHORE AND AND A SHORE AND AND A SHORE AND AND A SHORE AND A SHORE AN	Administrative A					
		5 Annemarie	Marks		Accounting Assist					
Templopilyee		6 Cecil	Snyder		Accounting Assist					
		7 Elvis	Manning	- AND AN AD A AN A	Office Coordinate					
		8 Delores	Townsend		Administrative A					
		9 fluthie	Higgins		Marketing Coord					
		10 Mark	Poilland	4685 Stanley Cl	Marketing Coord	nator				
	•	(Nervy)								
	1 Sector	tord H . Toff A MA TI	in Filler Search							

Now let us go back to Query design and select the **Append** button.

			Jury Totale Access				substature_	
File Home Creste Ede	rrual Dama	Database Tools	Design 🛛 🖗 Te	Firm which you wont t	1.4K-			Muhammad W
View Run Seitert Make Appens Results	Update Cro	otab Deleta MC Dat.	en Through Shev L Definition Table	Context Rows Context Rows Context Rows Context Rows Context C	Theoret Columns Collecte Columns 200 Return (All Setup	Totals Parameter	Table Furses	
All Access Objects 🖷 🖷	10000		1					
en, p obles s 1 totropoyor 2 totropoyor 3 totropoyor service s p 'Gilery'		Tailmployer FamilyeetD FamilyeetD FamilyeetD Address2 Cite State 2ap Phone Phone Phone Phone						
	117	Band .	1.1					
	4	EmployenD	Festivane	LactName ItsEnulove	Address1 talEmployee	lobTitle thEmployee		
	field	Employee® toExployee		LastName IttiExiployee	Addresst ttalEngloyfe	iobTele thEmployee		0

In the Query Type, select the Append option button. This will display the following dialog box.

ppend	? ×
Append To	ОК
<u>Current Da</u> <u>Current Da</u> <u>Another D</u>	Cancel
Ele Name:	
	Browse

Select the table name from the drop-down list and click Ok.

File Home Create Ex	ternal Data	Database Tools	Query Took Design	AccessDatabase : Database Q Tell me what you want b		Waqasi,Documentsi,AccessDatabase	h _m 2 − □ X Muhammad Waqas
View Run Select Make Appe - Table	Query Ty	pr	ion ss-Through ta Definition	Show Table & Rows Div Delete Rows A Builder Query	바바 insert Columns Delete Columns 환화 Return All Setup	Totals Parameters	Narres
All Access Objects Search. Tables totEmployee totProjects TempEmployee Querries Querries Querries Querries		tbiEmploy FirstName LastName Address1 Address2 City State Zip Phone Phone Specess	6¢				×
	4						Đ
	Sort	Engloyee Employee EmployeeD	FirstName tblEmploy FirstName	ee tblEmployee	Address1 tbiEmployee	JobTitle tblEmployee JobTitle	•
Form View							Numiack 🗐 🕫 🕍

In the Query grid, you can see that in the **Append To** row all the field are selected by default except **Address1**. This because that Address1 field is not available in the **TempEmployee** table. So, we need to select the field from the drop-down list.

業主任で			And the second se	1000			agas/Documents/AccessData	bale 7	5, 9, 2	
Vew Run Select Male Fraults	Append.	Update Cros	Delete Delete	neody 2	Tell and addid a second at the	Trinset Columns	Totals Promotion Show Hills	raperty Sheet able Names	Muhammad Wa	
All Access Objects	5 🖲 a	3 Query!	<u></u>	141						
Search.	9		TEEmployee	-						
Tables	18	3	· Inpiger0	4						
thiProjects			FirstNazye							
Tempthologee			Lastifiame Address1							
Queries	(A)		Address2							
D Guerri			City							
			State DD							
			Phone	-						
			PhoneType							
		मा							(6
		Field		firstName	Ladillame	Address1	jokīdie			
		Tatsie Sort:	tblEmployee 1	bitapioyee	ttillimployee	thtesplayee	tbiEmployee			
		Append Te: Criteria	EmployeeID	FirstName	LaitNate	TendEmployee."	Jobilitie			
		=				EmployeeID				
						FirstName				
						Adress JobTitle				
						11/2/07/07/201				
			1404							
			4.0							1
tote Vatar								NumLock	11 × 12	ŝ

Let us look into the Address field.

E St s	mai Data	Detabase Tools	and a second rough	sOvtabase i Database ell me shat you ward i		agat/Documents/AccessPalai	Note- 7 - D X
View Run Feasts	Curry 1)	tab Delete MDa	100 million 100	Fri Insert Room	11 Insert Columns. ※ Detete Columns 권리 Return (All		reportly Sharet Idde Names
All Access Objects (*) • Seen. (*) Tables a in untruporte in turbujents Tongtingenere Dueries a in Court		ttaEmploys * Fintfilame Lattfame Lattfame Address1 Address2 City State Top Phone Phone Phone Phone Phone					
	Table Soft	Exployee® ItalEngloyee Employee®	FirstName thiEngloyee FirstName	Lactifianse tolEmployee Lactifianse	Address1 th/Employee	lobžile thTrephyse c lobžile	
Faces Mana		я <u>.</u>					nuwton 💷 🕬 🕊

Let us now run your query and you will see the following confirmation message.

Microsof	ft Access	×
	You are about to append 9 row(s). Once you click Yes, you can't use the Undo command to reverse	the changes.
	Are you sure you want to append the selected rows?	

Click **Yes** to confirm your action.

Rie Hame Greate	Ethno	d Data - Database Tools	Table Toole Fields Table	AccessDatabase - Database-		seshMuhammad Waqad Do	coments UkccessD.		- 🛛 Muhammad Wa
View Fatter Schere	Ta	 ■ II Aurenteg Title ■ Decembra 10 Adv ■ Decembra 10 Title 	nced-	let New ∑ Totals ∰Sove ⇒ Spelling ≫ Debter + HittMare+	P int	Signation ⇒ Golfar = B I Q Di Selectr = ▲ - 21		·=====================================	
	(b) 19	Sort & Fitter		Reisest		field	Test formatting	- (Q.)	
All Access Objects	9 4 8 8	EmployeeID - FirstNa 2 Max 3 Janell 4 Claudin	me - LastNam Clay Frank	ne - Adress 2556 Mohave St 6433 Morgan Ln 21 Beckley Ln		JobTitle Accounting Assistant Accounting Manager Administrative Assistant		Click to Add	-
THProjects		5 Annam		91 Forest Lm		Accounting Assistant	e.		
Tempfauligen		6 Cecil	Snyder	64 Osage Ln		Accounting Assistant			
Querries &	100	7 Ebis 8 Delores 9 Huthle 10 Mark • (New)	Manning Townsen Higgins Pollard			Office Coordinator Administrative Assistant Marketing Coordinator Marketing Coordinator	t/.		
		Recota H (1015 + K	K The liter	Seanth					
atesinent view	112							Number	a III 10

When you open the **TempEmployee** table, you will see all the data is added from the tblEmployees to the TempEmployee table.

11. MS Access— Create Queries

Let us understand how to create queries in this chapter.

Create an Update Query

You can use an Update Query to change the data in your tables, and you can use an update query to enter criteria to specify which rows should be updated. An update query provides you an opportunity to review the updated data before you perform the update. Let us go to the Create tab again and click Query Design.

now Ta	able			?	>
ables	Queries	Both			
the	lovee ects		 	 	
blProj	ects				

In the Tables tab, on the Show Table dialog box, double-click on the **tblEmployees** table and then close the dialog box.

Ta Home Create Entern	el Nata - Natabase Too	Contraction of the	resiDatations : Datations Tail me what you court t	Cruters(Muhammad Way	ach Doctument (*). Accord (*)	tatanisaec		- 🖬 :	×:
□ ! mīī+!		30 Union 1 B Pase-Through 5	teres delle Antonio di const delle Antonio di const delle Antonio di const di constitucio di	12 Insurt Columns 25 Defeite Columns 26 Betues		Property S Table Nam	heat		
All Access Objects (* * bech. p) Tables a intimenyee intimenyee	tufinginger (1) i tufingin " ¹ ² ² ² ² ² ² ² ² ² ²	yee 				×	Property Sheet Islandsatape: Curry Press General Unitor Records Source Colorbate Source Colorbate Source Colorbate Source Colorbate Fail Che Front Color Theoread Orientatione Subdataneet Flama Link Chell Frieds Link Anater Frieds Link Anater Frieds		×
	(III)					11	Subdatasheet Expanded	Ne	
	Trais: Table: Trifinglage Cristin See	, W							
Rody							Netiza	11 ··· 14	

On the **Design** tab, in the Query Type group, click Update and double-click on the field in which you want to update the value. Let us say we want to update the FirstName of "Rex" to "Max".

	Starry Tea Net Database Tauls Design	Q Tel min which you won't be down
View Rian Select Make Append - Results	Update Crestalli Delete Monto Defeit	
All Access Objects ® * tern. P Tables # Introducer Tables	Intifusioner (III Hofmann) UtEngingen * EngingenD Forthans Address Address *	Convert 3 General Accounts Account Acc
	41.3	
	Field Fectuare Table Dataptoyne Update To: Max Cristine are Res'	
Form View		nortesi 🖽 🍽 🔟
		HART TAKE IN THE CASE OF CASE

In the **Update** row of the **Design** grid, enter the updated value and in Criteria row add the original value which you want to be updated and run the query. This will display the confirmation message.

Microso	ft Access	×
	You are about to update 1 row(s). Once you click Yes, you can't use the Undo command to reverse the cha Are you sure you want to update these records?	nges.
	<u>Y</u> es <u>N</u> o	

Click **Yes** and go to Datasheet View and you will see the first record — FirstName is updated to "Max" now.

 Promatinisme 	1	a planned plot. A public tural	Refrech All + × Dolma		u <i>t</i> u <u>Δ</u> + 2 · <u>Δ</u> + = = =	- <u>m</u> +	
News: Disbuard 15.		Sott in Filter	Recon		Test Palautting	G	
All Access Objects ® « Fables # Tables # Ta		Employee ID + FirstName 2 Max 3 Janeil 4 Claudine 5 Annemarie 8 Ceol 7 Hort 8 Detores 9 Ruthie 30 Mark 11 Todd (New)	 LantNomé - Clay Frank Goff Marins Snyder Marins Snyder Maring Townsend Higgins Poftard Watson 	IDDTIDE - Email - Accounting Asy relay@imycom Accounting Ma (frank@imycom Accounting Asy amarks@imyco Accounting Asy amarks@imyco Office Coordin emaining@imyc Office Coordin emaining@imyc Administrative downseed.dim Marketing Coo incollard@imyc Marketing Coo boatson@imyc			

Create a Delete Query

You can use a delete query to delete data from your tables, and you can use a delete query to enter criteria to specify which rows should be deleted. A Delete Query provides you an opportunity to review the rows that will be deleted before you perform the deletion. Let us go to the **Create** tab again and click **Query Design**.

how Ta	ble			?	×
Tables	Queries	Both			
tblEmp tblProj	loyee ects				
			Add	Ċ	ose

In the Tables tab on the Show Table dialog box, double-click the **tblEmployees** table and then close the dialog box.

m ! # m +!	Ad Data Didetare 1	CD Union d	Tell mendial protocol (10 pp.) Tell mendial protocol (10 pp.) Protocol (10 pp.) Protoc	fongaarty Tytola Tilaa		Multanenad Wee
All Access Objects ® " Been. P Tables 8 Ill technologie	tution .	iplayee	(\$ Corns) (\$ Correy)	* •	Property Sheet	
and textport	Teminy Festilar Addmin Addmin	ne de la companya de La companya de la comp			Description Unique Retordin Sourie Debitaise Sourie Debitaise Sourie Connect Str Use Transaction Precord Locks Fail On-Ensu ODBC Transist Onertidation	No Durrenty Edited Record No Lath-to-Popht
				101		
	Field I Table Delete Criteria an	Q.		0		

On the **Design** tab, in the **Query Type** group, click **Delete** and double-click on the **EmployeeID**.

8.51	County Texts	AccessDatabase: Database: Chibard Michanniad Wagat/Document/chronsDatabase accets (Access
Tile Home Cruste Literne	Data Detabase Tools Design	🖓 Tell me what you with to do. Muhammad Wager
* Table Vienulta	Curro Type	Show & Balder 20 Tatan Parameters
All Access Objects (* *) levek / // Tables / tables / tables	Bitmatoyer (Bitmatoyer) Bitmatoyer Feithan Latthan Addresiz	Sent 1 @ Gent2 @ Gent3
	1	
	Field EmployeeD Table SElingstope Deter. Whene Sel	
Reads	124 and	Namion El M M

In the Criteria row of the Design Grid, type 11. Here we want to delete an employee whose EmployeeID is 11.

8 5-11-1		1611 - AccessDatabase : Database: O'Warn/Mahammat/Wage/Document/AccessDatabase accels (Access
Får Hume Enate Eden	rul Data Database Tools Des	🚓 🛛 🖓 Tall me what you word to inc
View Ruin Select. Maie Append Table	Update Creation Deter	
All Access Objects @ « next. P Tables # introduce introduce introduce	Inditutiver	Count C C Count C
	(4) Fisic EngloyeeD Taske TalEspCoyee Deske Whene Orisria 11	
Reads		matter 🖽 🗮 🛍

Microsoft Access X
You are about to delete 1 row(s) from the specified table.
Once you click Yes, you can't use the Undo command to reverse the changes.
Are you sure you want to delete the selected records?
Show Help >>
Yes No

Let us now run the query. This query will display the confirmation message.

Click **Yes** and go to your Datasheet View and you will see that the specified employee record is deleted now.

Ta Hone Create Later		comDitation: Ostalias		unarrentad WarpeyU untari yesi siaret 100		oDetabase accito (Ac	xeni 2007 - 20	li file format) -	Acces	1 - 2	CI >
View Captored A	T	11 According Tri Sel 11 Descending Tri Ad 14 Sector Soft Tri Sec 16 A Filler	ection * franced = ggls Filter	diana diana AL+ ∑ Center Ristory	∑ Tutuk ⊐ Speling - ⊡ Mae -	Print Schepters	Calibe (Deta B I B	4.99		20 a. 2. 8.	
All Access Objects 👻 # Seet. A Tables = Interpreter Interpreter Interpreter		Employee (D) - Fi 2 Mi 8 Mi 6 Cu 5 Ar 6 Cc 7 Eh 8 De 9 Tu 10 Mi 10 Mi (New)	unstName - ex ex nell soemarke ccl soemarke ccl soemarke ark soemarke soema	Clay Frank Goff Marka Sinder Maning Townserfil Higgins Pollard #Deletod	JobTible + Accounting Ass Accounting Ma Administrative Accounting Ass Accounting Ass Office Coordin Administrative Marketing Coo Marketing Coo	rclay@mycom frank@mycom cgoff@mycom amarks@myco conyder@myco emanning@my					
Zalaciteral View	1.648	ed. (4. 4. 7 of 10. 14.)	Nation Page	CONTRACT.						Merclank III	10.12

Create a Make Table Query

You can use a make-table query to create a new table from data that is stored in other tables. Let us go to the **Create tab** again and click **Query Design**.

how Ta	able			?	×
Tables	Queries	Both			
tblEmp tblProj	lovee ects				
			Add	Clo	ose

In the Tables tab, on the Show Table dialog box, double-click the **tblEmployees** table and then close the dialog box.

E	l brit	e e			1	Query Tools	AccessDatabase	: Database- C:\Users\M	uthamm	1 =	0	×
Ť	ie Har	me Create	Extern	al Data	Database Tools	Design	V Tell me what	Lyou want to do		Mul	iammad V	/aqas
Vie		Select Make	Append	✓! Update El Crosstab ↓ Delete kery Type	 O Union ⊕ Pass-Through M Data Definition 	Show Table	En Insert Rows	약한 Insert Columns 꽃 Delete Columns 진영 Return: All Setup	• Totals	Property She	et	
39.;	10iting	ployee 🗐 Q			D Query2							×
Navigation Pane	•	sblEmploy EmployeelD FirstName LastName Address1 Address2	(RE									*
Navigat	Field Table Sort	s	lw.									•
	Show Criteria or				0							
		4									1	•
Read	fy								N	um Lock 🔛	sq.	2

Select all those fields which you want to copy to another table.

E	1 5-0	10 E		Query	Riols AccessDate	base i Detablase- C/\Vs	ers\Muhammad.Waqas	Documents	- 0	×
÷Ĥ	e Ho	me Create I	Enternal Outa Da	tabele Tools Des	ign 🛛 🖓 Tell me	what you want to do			Muhammad	Wages
Vies *	v Run	Table	erd Update Crissite	dr Delete MC Data Def	ough Throw	N Dyleie flavo 🕺	Invert Columns Defete Columns Return: All *	Cotals Parameters	roperty Sheet	
-	enter	-	Query Type			Query Setup		Show/Hide	(10
•	D. Query	a\								
		tblEmployee								1
Navigation Pane		EmployeetD Firsthlame LastHame Address1 Address2 CRy State Zip Phone Phone Phone Phone Imail JohTitte								
Anvie 1										
	Field Table Sort	taiEmployee	FirstName IbiEmployee	LastNeme fbiEmployee	JobTitle tblEmployee	Address1 IbiEmployne	Address1 IbEmployee	Email tbiEmployee		
	Show Criteria O		Ø	Ø	Ø	12	2	2		
		HD.								(*
lead	7		0.	0				Num Lock	11 P	

In the Query Type, select the **Make Table** option button.

E	3 5- 0	8 m		Guinty Too	n AccemDa	tabete : Databate - C/\	Users\Multammad.Waqay\I	locuments	- 0	*
÷Ħ	ie Hor	e Create 3	internal Data De	tabase Tools Design	V Teller	ie what yoo want to d	-		Mahamm	ed Wargers
Vie Vie		Table	end Update Crussla Quary Type	M. Data Definitio		(H Delete Room	K Delete Columns		Property Sheet Table Names	× ×
		tb≋mployee								1
Mavigation Pane		V Enployee(D) Firstflame Lasttlame Address1 Address2 City State Zip Phone PhoneType Email JobTitle								
Mavig	4	1						11 12 10 10 10 10 10 10 10 10 10 10 10 10 10		(b)
2	Field Table Sort	Employee® tbiEmployee	FirstName tbiEmployee		kobiTitle tblEmployee	Address1 Ib/Employee	Address1 5	Email thiEmployee	Sec.	
	Show Cotoria OC	Ø	Ø	2	Ø	2	Ø	8		
		+1	- CA				0		10	
Real	ty.							Num Se	d: 111 10	25

You will see the following dialog box. Enter the name of the new table you want to create and click OK.

Make Table		?	×
Make New Tab		OK	_
Table Name:	Temp2	 ✓ Cancel 	
<u>Current Da</u> <u>Another Da</u>		Cart	
Ele Name:			
		Browse	

Now run your query.

ER H				To AccessOataba	e: Database- Ci\Users\	Muhammad Waqas\D	ocuments.	- 0	
1000	ome Cruite	External Oxfa De	tabane Tools Des	an V Tell me wi	ut you want to do			Muhammad W	laqes
View Run - Results	Table	Pend Update Crossity Query Type	Cr. Data Def	ough 📖 📯	Datata Rowy 🕱 Dat		tala Parametans	ioperty Sheet Inte Names	< ×
a Pane	tblimployee Address1 Address2 Oly State Zap Phone Phone Email JobTitie								1
igatio									ភា
Navigation Pane	ie: tbiEmployee	FirstName tblEmployee	LastRame tblEmployee	JubTitle TbIEmployee	2				ബ്
Fiel Tab Sto Sho Crites	att: att: wer 🖸			Jobříše tblExployee					<u>ต</u> า
Fiel Tab Sho Crites	He: tbiEmployee	thiEmployee	thiEmployee	tbiEmployee	245.512				

You will now see the following message.

Microso	ft Access X
	You are about to paste 9 row(s) into a new table.
<u> </u>	Once you click Yes, you can't use the Undo command to reverse the changes. Are you sure you want to create a new table with the selected records?
	Yes No

Click **Yes** and you will see a new table created in the navigation pane.

🗄 🔊 - 🗇			1	bietoolo 🔥	ccessDatabase : Database	- C\Users\Muhammad Waqa	n\Do 7	– 🗆 🗙
File Home Create	. Enter	mai Deta Detab	ose Toola Field	Table	7 Tell me what you want	tir da		Muhammad Wagas
AB 12		Ves/No Delet	C. Details Make	e Mo	() fx ability Sty Modify Merris	Data Type AutoNumber Formati \$ % * 20 21	Departed Departed Departed Departed Departed	Widelien
Views Ad	tid III Dellet	17 - C		Propertie		Formatting	Field Wills	lation A
All Access Objects		D Quiry2	Temp2					,
		Employeet0	- FirstName -	LastName	- JobTitle -			
Search.	P		2 Max	Clay	Accounting Ass			
Tables	8		3 Jameil	Frank	Accounting Ma			
10 thEmpinyee			4 Claudine	Goff	Administrative			
III therajects			5 Annemarie	Marks	Accounting Ass			
III Tempt			6 Cecil	Snyder	Accounting Ass			
Queries	*		7 Elvis	Manning	Office Coordin			
of Gumit			8 Delores	Townsend	Administrative			
			9 Ruthie	Higgins	Marketing Coo			
			10 Mark	Pollard	Marketing Coo			
		* (Ne	wy)					
		Record H - To	(2 + H + 3	Am Filter Sea				
Datasheet View		1		3690			Num L	ock TI 12

12. MS Access— Parameter Queries

The best part about queries is that you can save and run the same query again and again, but when you run the same query again and again by only changing the criteria then you might consider the query to accept parameters.

- If you frequently want to run variations of a particular query, consider using a parameter query
- Parameter query retrieves information in an interactive manner prompting the end user to supply criteria before the query is run.
- You can also specify what type of data a parameter should accept.
- You can set the data type for any parameter, but it is especially important to set the data type for numeric, currency, or date/time data.
- When you specify the data type that a parameter should accept, users see a more helpful error message if they enter the wrong type of data, such as entering text when currency is expected.
- If a parameter is set to accept text data, any input is interpreted as text, and no error message is displayed.

Example

Let us now take a look at a simple example by creating a parameter query. Let us open your database and select Query Design in the Create table tab.

Show Table			?	х
Tables Queries Bot	h.			
tblEnployee				
tblEnployee tbProjects				17
Temp2				
	Г	Add	Çlo	ce ·
		1000		

Double-click on the **tblProjects** and close the **Show** dialog box.

Harris and the second			Gimty Tools	AccessOut	abose : Database-	C/Upers\Muhammad.Wr	iges\/Documents	7 - 1	3 X
File Home Create	External Data	Ostabase Toola	Design	V Tetter	e which you want t	io do		Maham	med Wages
View Ran Select Make A	+ ! ∠ ! opend Update C		ion ss-Through ta Definition	Show Table	💱 Insert Rows Di Deleta Rows 🔆 Builder	T ¹ Insert Columns	Tutals Parameter	Property Short	
Results		y lype			Query	Setup	She	w/Hale	
All Access Objects	(C) 44 11 11 11 11	rojects 🗐 Query2							х
Storch.	A 1	Constant of the	1						1
Tables		tbiProjects							
diviProjects		ProjectilD ProjectName							
III Temp2		ManagingEditor	1						
Queries		Author PStatus							
	(+)								1.
	-	na t	23						(*)
	Fie Tab Sto Criter	int	w.	0	0	0			(*)
	Fie Tab Sto Criter			0	0				
Γεαθγ	Fie Tab Sto Criter	ete		0	0				

Select the field you want to see as a query result as shown in the following screenshot.

8 5 de s				Database : Database-						
File Home Create Exte	rnal Data	Database Tools	Design 🛛 🖓 Tel	ll me what you want t	o do				Muh	ammad Waqa
View Partie & Copy Views Chipboord (C All Access Objects @ «	Filter Žø Rem	ending Tr Sele cending Tr Sele cending Tr Advi teve Sort Tr Togs Sort & Filter etts T Query2	anced • Refresh de gle Filter All • >	New ∑ Totals Save ♡ Spelli Delete - III More Records	ng → Go To -	8 <i>I</i> <u>U</u> A		на (3 · Ш · на (3 · Ш ·		
Rearch.			ojects							
tblEmployee tblProjects temp2 Queries \$	8	PStatus Contracts ProjectStart ProjectEnd Budget								
Queries ≗ ₽¶ Query1		ProjectNotes								
	Field	Projectilo	ProjectName	ProjectStart tbiProjects	ProjectEnd					
	Field	ProjectNotes		ProjectStart tbiProjects	ProjectEnd tbiProjects	-	0			
	Field: Table: Sort: Show: Criteria:	ProjectNotes ProjectID tbiProjects	ProjectName tbiProjects	tblProjects	tbiProjects			-		

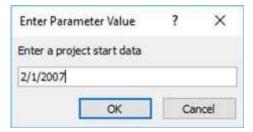
In the query design grid, in the Criteria row of the ProjectStart column, type **[Enter a project start data]**. The string **[Enter a project start data]** is your parameter prompt. The square brackets indicate that you want the query to ask for input, and the text is **Enter a project start data** is the parameter prompt displays.

B 5****			Quinting Acand	Database (Database ; Children)	Autommed Wieger/Doc	umintel Accessibilities	ana accello (Accens 200	reaminister. 1		
Rie Hann Onter Die	ternal Data 1	Defutione Treefs	Design Q Tel	I me shat you want to its					Noturina	et Warger
and a second	T lines) Channe		11212-00	B11911		
Party Party	Table Salling	mains The	States and the second	Cane Streng Fo	the fact in the	DHC (A S TO)	Q: 0.000	100100		
the Dataset in		Set & Filer		Records	THAT		Farmatting			
ul Access Objects 🖷 -	a III taPhor	ins' 🗐 Querri /		inter det						- 2
net. A	9	10.Pr	ujecti							ł
Lables A		PStones	(3)							
Distanti		Contracts Projectitari								
III Yenal		Propertilind								
Duerran A		Buildet								
		Popertiales								
		Propertifiales								
		Propertifiales								
of Gamy1		PoperNales								
		Projectivales								
				1	10.00					
	a Table	Propertification	Propertitioner	fruedStart tuProject)	Projection		1			
	n Table Sam Store	Projecti©	Projectilations	tbilhojecti [2]		ö				
	Traite Same	ProjectsD toProjects	Projectioner SSPEcietto	tb/Projects	th/Projects	D				
	1 Table Sent Scitting Cetting	ProjectsD toProjects	Projectioner SSPEcietto	tbilhojecti [2]	th/Projects	D				
	1 Table Sent Scitting Cetting	ProjectsD toProjects	Projectioner SSPEcietto	tbilhojecti [2]	th/Projects	D				
	Field Safe Safe Ethios ar	Propertitio theProperty	Projectioner SSPEcietto	tbilhojecti [2]	th/Projects	D			-	
	Field Safe Safe Ethios ar	ProjectsD toProjects	Projectioner SSPEcietto	tbilhojecti [2]	th/Projects	D			0	

Let us now run your query and you will see the following prompt.

Enter Parameter Value	?	×
Enter a project start data		

Let us now enter the following date.



Click OK to confirm.

13. MS Access— Alternate Criteria

H	i triis	Access/Database : Ontakano - Critisen/Mathemanad Wagari Desconnertri Access/Disakaan ascelle (Access 2007 - 2019 Herhemal) - Access nat Des - Desilane Tachi - © Tat one-stat you want to due.		- D :	×
Vers State	2	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			
All Access Object	20 20 10 10 10 10 10 10 10 10 10 10 10 10 10	tufferent 3 Guns2 ProjectStart - ProjectStart			
afailed Yes		farmen m - fratt - + + +17 % modelen (Beards -)	wing	111 ··· 14	

As a result, you will see the details of the project which started on 2/1/2007. Let us go to the Design View and run the query again.

Enter Parameter Value	?	×
Enter a project start data		
5/1/2008		
ОК	Ca	ncel

Enter the date as in the above screenshot and click Ok. You will now see the details of the project which started on 5/1/2008

Queries come in with many advantages. You can save and run the same query again and again, and a lot of times you want to add alternate criteria.

You can add alternate criteria in the following two ways:

- You can use the OR operator to combine two sets of criteria.
- You can also use the query design grid, but instead of specifying criteria on the same line, you will need to separate it in multiple row.

Example

Let us look at a simple example of alternate criteria. Open database and in the Create tab select **Query Design**.

how Ta	able			?	×
lables	Queries	Both			
tblEmp tblProj Temp2	ects				

 $\label{eq:constraint} \text{Double-click on } \textbf{tblEmployee} \text{ and close the Show Table dialog box.}$

8 5 Core			Query Tools Acces	aDatabase Database	C:\\Sers\Muhamma	a magas pocuments access	the state of the second second second	terres and the second		• ×
File Home Create Ente	ernel Deta 🛛 🛙	Natabase Tools	Design 🛛 🖓 Ti	el rie what you want	to da				Ma	barn med Wagas
Vew Run Select Node Appen Table	d Update Cross	tab Delete KD		A Delete Rows	Trinsert Columns Delete Column Bill Return: All Setup		Property Sheat			
All Access Objects 🖲 «	C 🗐 Queryi									
Sect. JP Tables A III tothophyse III tothopen III Templ		tbEmployee State Zip Phone PhoneType Enail Job/Title								Ē
		1920102								
									11	
	Field: Table	EmployeeO	FirstName tb@mployee	Latificane to Employee	JobTitle TalEngloyee	Tall W				
	Field	Employee0				interployee Distriployee		D		
	Field Zable Sort Show Critena de	Englige#D tbEnploy##	tblEmployee	to Employee	tblEmployee	to Employee		•	a	

Double-click on all the field you want to see as query result.

The Horse Course Line	materia e	National Trade		et mainstation and t	Crishin/Mahamma Is itu	and a set of the second				× D Aurithur Wage
 A Fornat Forms 	Y	tites		e tea Σtale Blan Diget Cools Ellow		fa ((二)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)		
All Access Objects @ «	12			Processor .	i and		and reconstoring			
Inerte de la Constantia		Hilmployee Nate De Pours Novelype Insel solffee								
										.0
	Field	Englagree D Talinginges	Feetbase	Lacificanse talimpinger	author militaraper	final tadaptorr				
	Piele	ingluerD	Feetbase				D	D	o	1
	Piete Table Sole Stans Cotinia at	EmployeeD Tellingioyee	Feetbane	ThEmployee	milmanare	the service and the second	D	D	a	

You can now see that alternate criterion is specified in different rows of the **LastName** field. When you run this query, you will see the employees whose last name is either **Pollard** or **Manning**. Let us now run this query.

MS Access

		MS Acces
El	Arand Database - Collision/Mahammad Biogari Deconvertiti Acana Database accells (Acana 2007 - 2018 Me Fernalt - Acona mel Data	/ - D > Matannial Way
X mar	$\begin{array}{ c c c c c c } \hline & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 &$	
en Dateni S	Jart Miller Pecards Find Set Permitting Set	
II Access Objects 🛎 🔹	1 Deept	
en. p	Elvis Manning Office Coordinator enantring@mycompany.com	
1 Hotimartoper	10 Mark Pollard Marketing Coordinator mpollard@mycompany.com	
I mercenti	Leave Lawyer	
atv /	Record H. (Tarl) A. H. P. T. Letter Seath	near Intel reasons

As you can see that only two employees have been retrieved, because of the alternate criteria.

If you want to add alternate criteria in multiple fields then you will have to use different rows for all the fields. Let us now add another alternate criterion where we can retrieve information for employees whose last name is either **Pollard** or **Manning** or the job title is **Accounting Assistant**.

Let us now run this query.

8 5· d· .		AccessDatabase : Database-	C\Users\Muhammad.Waqa	s\Documents\Access	Database.accdb (Acc	ess 2007 - 2016 file f	? - 0	o x
File Home Create External Data Database Tools	Design						Muham	mad Waqas
View Run Results Query type	Ounion Pass-Through Data Definition	time insert Rows Show Table № Builder Query	vt® Insert Columns ★ Delete Columns MR Return: All • Setup		Property Sheet Table Names Hide			^
All Access Objects 💿 « 🗐 Query1								×
Seorch	•							
Field EmployeelD Table: tblEmployee Sort: Show: ☑ Criteria: or	FirstName taiEmploy		JobTitle tblEmployee	Email tbiEmployee				
4								Þ
Form View						N	um Lock 🛗 🕷	AK MA

You will now see the following result.

The Huma Course Line	naidela De	atane faces 🛛 🖓 Tollo	na la hat pais la art b	The second s		rease to	Alternational West
K B Kow Providence	Title Li Descen	ding TAdvancad+	Refeati Alt - X later	∑Totals ⇒Spalling → Mose-	start (Detail) (Detail)	1917 - 19	
en Options is		LA Filler	- And	rei Pesi	Test Parenting		
Il Access Objects 8 +	Times 1			110-002-01M			
Hels. P	Emplaye				- Email -		
ables 8		E Max	Clay Morks	Accounting Assistant	rclay@myrcmpany.com		
Totratopri		5 Annemarie 6 Cotil	Snyder	Accounting Assistant	amarkc@mycompany.com		
1 million		7 Ehm	Manning	Accounting Assistant Office Coordinator	sanyder@mycompany.com		
D TempI		LD Mark	Pollarit	Marketing Coordinator	emanning@roycompany.com mosiliard@mycompany.com		
ap tropps		(New)	POILETU	wantening coordinator	ingronarogenycompany.com		
	100	forest.					
	Barante M 1	MILL PRACE.	A Film Seanth				

14. MS Access— Relating Data

In this chapter, we will understand the basics of relating data. Before talking about and creating relationships between different data, let us review why we need it. It all goes back to normalization.

Normalization

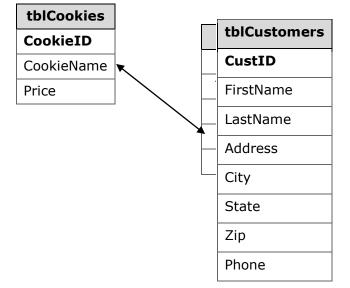
Database normalization, or simply normalization, is the process of organizing columns (attributes) and tables (relations) of a relational database to minimize data redundancy. It is the process of splitting data across multiple tables to improve overall performance, integrity and longevity.

- Normalization is the process of organizing data in a database.
- This includes creating tables and establishing relationships between those tables according to rules designed both to protect the data and to make the database more flexible by eliminating redundancy and inconsistent dependency.

Let us now look into the following table which contains data, but the problem is that this data is quite redundant which increases the chances of typo and inconsistent phrasing during data entry.

CustID	Name	Address	Cookie	Quantity	Price	Total
1	Ethel Smith	12 Main St, Arlington, VA 22201 <i>S</i>	Chocolate Chip	5	\$2.00	\$10.00
2	Tom Wilber	1234 Oak Dr., Pekin, IL 61555	Choc Chip	3	\$2.00	\$6.00
3	Ethil Smithy	12 Main St., Arlington, VA 22201	Chocolate Chip	5	\$2.00	\$10.00

To solve this problem, we need to restructure our data and break it down into multiple tables to eliminate some of those redundancy as shown in the following three tables.



Here, we have one table for Customers, the 2^{nd} one is for Orders and the 3^{rd} one is for Cookies.

The problem here is that just by splitting the data in multiple tables will not help to tell how data from one table relates to data in another table. To connect data in multiple tables, we have to add foreign keys to the **Orders** table.

Defining Relationships

A relationship works by matching data in key columns usually columns with the same name in both the tables. In most cases, the relationship matches the primary key from one table, which provides a unique identifier for each row, with an entry in the foreign key in the other table. There are three types of relationships between tables. The type of relationship that is created depends on how the related columns are defined.

Let us now look into the three types of relationships:

One-to-Many Relationships

A one-to-many relationship is the most common type of relationship. In this type of relationship, a row in table A can have many matching rows in table B, but a row in table B can have only one matching row in table A.

For example, the Customers and Orders tables have a one-to-many relationship: each customer can place many orders, but each order comes from only one customer.

Many-to-Many Relationships

In a many-to-many relationship, a row in table A can have many matching rows in table B, and vice versa.

You create such a relationship by defining a third table, called a **junction table**, whose primary key consists of the foreign keys from both table A and table B.

For example, the Customers table and the Cookies table have a many-to-many relationship that is defined by a one-to-many relationship from each of these tables to the Orders table.

One-to-One Relationships

In a one-to-one relationship, a row in table A can have no more than one matching row in table B, and vice versa. A one-to-one relationship is created if both the related columns are primary keys or have unique constraints.

This type of relationship is not common because most information related in this way would be all in one table. You might use a one-to-one relationship to:

- Divide a table into many columns.
- Isolate part of a table for security reasons.
- Store data that is short-lived and could be easily deleted by simply deleting the table.
- Store information that applies only to a subset of the main table.

15. MS Access— Create Relationships

In this chapter, we will understand the need to create relationships between related tables. One of the goals of good database design is to remove data redundancy.

- To achieve that goal, you divide your data into many subject-based tables so that each fact is represented only once.
- To do this, all the common fields which are related to each other are placed in one table.
- To do this step correctly, you must first understand the relationship between your tables, and then specify these relationships in your Access database.

Why Create Table Relationships?

MS Access uses table relationships to join tables when you need to use them in a database object. There are several reasons why you should create table relationships before you create other database objects, such as forms, queries, macros, and reports.

- To work with records from more than one table, you often must create a query that joins the tables.
- The query works by matching the values in the primary key field of the first table with a foreign key field in the second table.
- When you design a form or report, MS Access uses the information it gathers from the table relationships you have already defined to present you with informed choices and to prepopulate property settings with appropriate default values.
- When you design a database, you divide your information into tables, each of which has a primary key and then add foreign keys to related tables that reference those primary keys.
- These foreign **key-primary key pairings** form the basis for table relationships and multi-table queries.

Let us now add another table into your database and name it **tblHRData** using Table Design as shown in the following screenshot.

MS Access

MS Access

				HJ ALLE
🗄 🕤 + 👌 🔹 AccessDataba	ise : Database- C:\Users\Mu Table To	olt.	Muhammad Wagas 5	- 0
File Home Create Exter	mal Data Database Tools Design	😨 Tell me what you wa	nt to do	
Aew Key Rolder Test Validation Key Roles Roles Roles	F Insert Roves ≫ Delete Roves ∞ Modify Lookups Modify Lookups Sheet Show/Hide	Create Data Renorme/ Macros + Delete Macro Field, Record & Table Events	Relationships Object Dependencies Relationships	
All Access Objects 🗟 «	Tablet			
erchp	Field Name	Data Type	Description {	Optional)
lables a	EmployeeID StartSalary	Number Currency		
D thiEmployee	Hours	Number		
th/Projects	HireDate	Date/Time		
Temp2	BenefitElections	Short Text		
Dueries s		0		
	General Lookup	Field Proper	ties	
			that users can stor	ermines the kind of values re in the field. Press F1 for on data types.
ign view. F6 = Switch panes, F1 = Hel				Num Lock

Click on the **Save** icon as in the above screenshot.

Save As		?	×
Table Name:			
tblHRData			
	OK	Ca	incel

Enter **tblHRData** as table name and click **Ok**.

16. MS Access— One-to-One Relationship

🖶 brich	+ Access	Databa	se : Databa	se- Ci\Users'	Mu	Table				Vuhammad Waga		- 0	×
File Home	: Create	Eder	nal Data	Database	Tools	Fields	Table	Ŷ	Tell me what you	want to do			
	Vicual Run Basic Macro Macro		onships De Relations	Object ependencies	SA/	itabase Do nalyze Perfo nalyze Tabl Analyze	otmance e	Data	ess SharePoint	Add- ins * Add-ins			
All Access	Objects	• «	III thill					_					2
Search_	- ajean	Q	Empl	oyeelD -	StartSi	A CONTRACT OF	Hours	- 14	HireDate +	BenefitElect -	Click to Add	/#*	
Tables		×	*	3		\$0.00		0					
torradata			-										
thiProjects													
Temp2			-										
Queries													
Duery1													
			-										
			_										
			-										
			Recotat	4. 1 of 1	THE H	0.1.7.0	io Pitter 1	Search	_				
leady					in sector	and the state of	0.1 910 - 11				Num Los	* 100	K

tblHRData is now created with data in it.

Let us now understand One-to-One Relationship in MS Access. This relationship is used to relate one record from one table to one and only one record in another table.

Let us now go to the **Database Tools** tab.

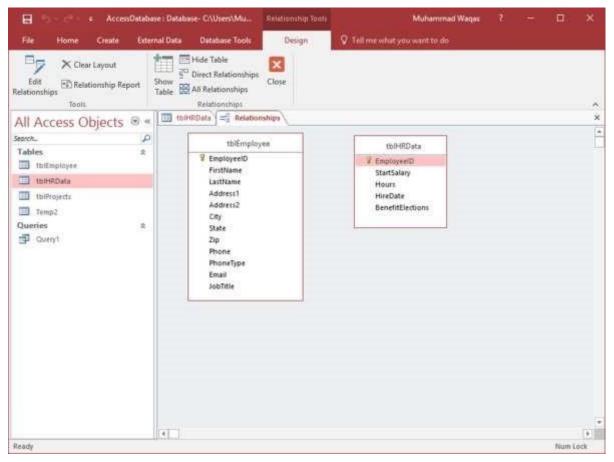
MS Access

		No. of Concession, Name										57.0	2000
🔚 Son of a 🔹 Access	Databa	se: Databa	ise- C:\Users\	Mu	Table	Taoli			Muhammad Waqa	1 7			×
File Home Creste	Exter	rual Data	Database	Tools	Fields	Table	0	Tell me what you	rwant tardo				
Compact and Repair Database Tools	1000	Relation	and the second se	EAn	tabase Do alyze Perf alyze Tabl Analyz:	e .	Datal	ess SharePoint	Add- ins - Add-ins				
All Access Objects	• «	100 the	RData loyee10 •			Hours			BenefitElect -				ж
Search. Tables tolEmployee tolProjects Temp2 Queries CueryT	*		1		\$0.00		0						
Ready		Record	14. + 1 of 1) H		94) Fatter	Search			Num 1	Lock	103	24

Click on the **Relationships** option.

Show Table		?	X
Tables Queries Both			
tblEmployee tblFRData tblProjects			1
tbHRData			
tbiProjects Temp2			
	Add	d	ose

Select **tblEmployees** and **tblHRData** and then click on the Add button to add them to our view and then close the **Show Table** dialog box.



To create a relationship between these two tables, use the mouse, and click and hold the **EmployeeID** field from **tblEmployees** and drag and drop that field on the field we want to relate by hovering the mouse right over **EmployeeID** from **tblHRData**. When you release your mouse button, Access will then open the following window:

Edit Relationship	\$? ×
[able/Query:		Related Table/Quer	y:	Create
tblEmployee		tblHRData		
EmployeeID	~	EmployeeID	^	Cancel
				Join Type
			~	
Cascade Upd	ate R			Create New
Relationship Type		One-To-One		

The above window relates EmployeeID of tblEmployees to EmployeeID of tblHRData. Let us now click on the **Create** button and now these two tables are related.

B			Relationship Tools	AccessDatabase : Database - CAUvers/Muna	Muhammad Wages	T.	-		×
File Home Cr	eate External Data	Database Tools	Design	Q. Tali me what you want to do					
Edit Relationships All Access Obje	hip Report Show Table	E Hide Table ¹⁷ Direct Relationships All Relationships Relationships Heldforts) = Relation	Close						< × •
Seprot.	P	tbEmpley		tbiHRData					ľ
Tables toEmployee	*	¥ EmployeelD		2 EmployeerD					
TUHIIData		FirstName		StartSalary Hours					
tedhoyrds Temp2 Queries	A	Address1 Address2 City State 240 Phone PhoneType Email JobTitle		HerDote BenefitElection	¥:-				
Tendy		41						Numi I	* *

The relationship is now saved automatically and there's no real need to click on the Save button. Now that we have the most basic of relationships created, let us now go to the table side to see what has happened with this relationship.

B			Table Tot	AccessOut	abase: Database- C/Wsen/Muh	. Muhammad Wages T	- Ŭ	
File Home Cre	ele Esterr	nal Data Database Too	est Fields : :	Table 🖓 Tall ==	e what you want to do			
View Pate Bacogy	Faither R		Advancest *	fresh All + X Delete + Eccenti	∑ Totals ⇒ Spelling ■ More - Find ↓ Select Find	o- B J <u>U</u> + - + + -		
All Access Object		100+Httata 🚝 Ret	ationships 🛄 🛙		1.04		1981	3
ent.	P	Employne ID		- LastName +	JobTitle	Address1 - Address2	- City	
Tubles		3	Max	Clay	Accounting Assistant	2556 Mohave S Optional	Schaumburg	E 1
1 thiEmployee			3 Janell	Frank	Accounting Manager	6433 Morgan & Optional	Schaumburg	L 18
		3	4 Claudine	Goff	Administrative Assistant	21 Berkley In Optional	Schaumburg	£.0
TUPHRData			5 Annemarie	Marks	Accounting Assistant	91 Povest Ln Optional	Schaumburg	1.18
thiProjects			6 Cecil	Snyder	Accounting Assistant	64 Osage Ln Optional	Schaumburg	E. 8
Temp2		3	7 Elvis	Manning	Office Coordinator	4753 Green Riv Optional	Schaumburg	£1.0
Queries			E Delores	Townsend	Administrative Assistant	1215 Cloverdal Optional	Schaumburg	1.18
Diey!			9 Ruthie	Higgins	Marketing Coordinator	9876 Kingsley E Optional	Schaumburg	E 8
			10 Mark	Polfard	Marketing Coordinator	4685 Stanley Ct Optional	Schaumburg	E 1
		* (Ne	w)					
Number created automatically		Record: 4 + 1 of 5	• + • T_ 1=1	iller Search	[4]	Num		K

Let us open the **tblEmployees** table.

Here, on the left-hand side of each and every record, you will see a little plus sign by default. When you create a relationship, Access will automatically add a sub-datasheet to that table.

He Home Cre	bite Effer	val Data Dotabase Tools	Table Tools		tabase : Database- Chiliseis\Muh in what you want to do	Muhammad W	aqes 7 -		×
Vew View View		late & Time	Verne & Caytion Telault Weee	EQ.	∫χ abi Nodiγ Memo restore Settings \$ % •	rency * rency *	Required E Unique Valda Indexed •	5 dion	
All Access Obje	cts 🗟 «		FirstName +	LastName + Clay	JobTitle + Accounting Assistant	Address1 + 2556 Mohave S	Address2 + Optional S	City -	
miEmployee		StartSalary -		HineDate +	BenefitElect - Click to Add				
turrectata turrecoects Temp2		ie i	4 Claudine	Frank Goff Marks	Accounting Manager Administrative Assistant Accounting Assistant	6433 Morgan Lr 21 Berkley Ln 91 Forest Ln	Optional S	ichaumburg ichaumburg ichaumburg	1 1 1
Queries Query 1		*	6 Cecil 7 Elvis	Snyder Manning	Accounting Assistant Office Coordinator	64 Osage Ln 4753 Green Riv	Optional 5 Optional 5	ichaumburg Ichiaumburg	1
			9 Ruthie	Townsend Higgins Pollard	Administrative Assistant Marketing Coordinator Marketing Coordinator	1215 Cloverdal 9876 Kingsley I 4685 Stanley Cl	Optional S	ichaumburg ichaumburg ichaumburg	-
		+ (New	2			na a coto na Bro		print (Arton) Ran	
		Report 14 1 of 1	K = Thata	at Search					
Natesheet View				the state of			Num Lód		6

Let us click on the plus sign and you will see the information that is related to this record is on the **tblHRData** table.

Home Cres	ute Faterr	nal Data Database Tool	Table Tools		abose : Database- C/\\Isen\Muh. e what you want to do	Muhammad W	agas 7	- 🛛	*
		tate & Tene VIII es/No Delete Aore Fields *	Name & Ception Default Value Field Stat	Madity M Lastage Top Properties	fx* ability Data Type: D onlby Memo Formati Formati masses Settinger S % *		of Distance of the	attion •	
All Access Object insets. Tables tottopinyee	ts ® « ⊅ ≭	Employee ID StartSalary	FirstName Max	LastName • Clay	JobTitle Accounting Assistant BenefitElect + Click to Add	Address1 + 2556 Mohave S	Address2 + Optional	City Schaumburg	-
Turring Turring Temp2 Queries	2	and the second s	0 3 Janell 4 Claudine 5 Annemarie 6 Cecit 7 Elvis 5 Delores 5 Ruthie 10 Mark	1.000	Accounting Manager Administrative Assistant Accounting Assistant Accounting Assistant Office Coordinator Administrative Assistant Marketing Coordinator Marketing Coordinator	6433 Morgan Lr 21 Berkley Ln 91 Forest Ln 64 Ossge Ln 4753 Green Riv 1215 Cloverdal 9876 Kingsley D 4685 Stanley C	Optional Optional Optional Optional Optional	Schaumburg Schaumburg Schaumburg Schaumburg Schaumburg Schaumburg Schaumburg	
		* (Nei	*						
atasheet View		Record: H 1 of 1	н н 🐂 🏷 ла гла	s Search			Pitern 3	ork 🔟	N.

Click on the **Save** icon and open **tblHRData** and you will see that the data we have entered is already here.

🖯 🖯 🗧		Table Tarata	AccessBatabase : Database- C\Usen\Muh	Muhammad Wagas 7 - 🗆	
Tile Home Create	External Data Database Tools	Tields Table	🗴 Tell me what you want to do		
the second se	e føler (planovellan 🌱) Is fød 8 føler	dvanceil - regele Filter All -	a New ∑ Totals	■ I U III (*** III.*	
All Access Objects		Concernation of the second sec		ick to Add +	×
Search. Tables		\$10,000.00	40 12/10/2009		
tulimpiogen	* 0	\$0.00	0		
TattiRDeta					
111Pinjecta					
Trep2					
Queries	18				
P Gum1					
	Record: 4 A Tot T 4	H 10 To lin Filter	Search		
Datasheet View				Num Lock	36

17. MS Access— One-to-Many Relationship

The vast majority of your relationships will more than likely be this one to many relationships where one record from a table has the potential to be related to many records in another table.

The process to create one-to-many relationship is exactly the same as for creating a onetoone relationship.

🖶 braches	Relationship Tools	AccessDatabase: Dotabase: CNUsers\Muha Muhammad Waqas 7 - 🗆 -	
Tile Home Create External Data Database Tools Edit Create Layout Fide Table Fide Table Edit External Data Fide Table Show W Edit External Data Show W Table Show Helditornhips Tools Tools Relationship Relationships All Access Objects * • • Tablespress totell	Design Cone	♥ :Tail rear what you's searce be du:	* *
Serotu P Serotu P Tables a in milingloyee tabengia		IbHRDuta EmployeeID StartSalary Hours HmzDate BenefitElections	* * *
Teedy		Num La	(+) (*)

Let us first clear the layout by clicking on the **Clear Layout** option on the **Design tab**.



🖶 herde 🗉				Table Tool	AccestOn	abase: Database- ChUsen\Muh.		Muhammad We	48 7 ¹¹	1977		×
File Home Creste	Entern	wi D	ata Database Tools	Fields T	ible \Q.3clfm	e what you want to de						
Compact and spain Database Tools Matte	Relatio	10	ps Object Dependencies 50 A atiomships	atabase Docume colyce Performa malyce Table Actevite	t 7	ins +						
All Access Objects	(i) (ii)	1		fillata		(sector sector)	-				Carrier Co.	-
earch.	Q			FirstName +			•	Address1 +		1	City	ĉ.,
Tables				Max	Clay Frank	Accounting Assistant		2556 Mohave S 5433 Morgao Lr			aumburg	
Thifmployee		-		Claudine	Goff	Accounting Manager Administrative Assistant		STATUS STATUS	Optional		aumburg	
TELEFITIDATA				Annemarie	Marks	Accounting Assistant		and the second sec	Optional		aumburg	
III thiftenett			E (Cecil	Shyder	Accounting Assistant			Optional		aumburg	
Tamp?				Evis	Manning	Office Coordinator		1753 Green Riv	Contraction and a second second		aumburg	
Queries				Delores	Townsend	Administrative Assistant		1215 Cloverdal			aumburg	
Dum1				Ruthie	Higgins	Marketing Coordinator		876 Kingsley C	2003123 million		aumburg	
The crossing			e 10	Mark	Pollard	Marketing Coordinator		685 Stanley Cl	and the second second		aumburg	
		+	(New)			new exercite The carbon extension		an an an an an Arban			or more care	
		Rev	and H 1 of 9 . H	n an Tuine for	Les Search	(
under created automatically	_	#//22	2011 Anna 201 - Anna	Control I marches of	000000000	TTT BAL		-	fine	milock	122	12

We will first add another table **tblTasks** as shown in the following screenshot.

B 5+ 1 +		Table Tools	AccessOutabase : Dutat	ese- CI\Useri\Muhammad	Muhammad Wagas	7 - 0
Tile Home Create Exter	wal Data Database Tools	Design	👽 Tell me what you w	arn to do		
View Primary Studies Text Valencion + Key Rules these Foot	回 Modify Lookupi Sheel	M white Field	ate Data Rename/ Jacobs - Delete Micco d. Record B. Table Feerts	Relationships Relationships		
All Access Objects 🖲 •	Field Name	KU 83 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Data Type	1	Description (Optional	1
		AutoNumber Number Short Text Short Text Long Text Date/Time Date/Time Attachment				
				Field Properties		
	New Values in Formul Caption Indexed Ye	ong integer icirement is (No Duplicates eneral	9		à field name ra incoding spa	n he up to 64 characters long, let. Press FT for help on field names.
Design wew. TE = Switch panes. T1 = Hel	8					Num Lock 🖽 🔛

Click on the **Save** icon and enter **tblTasks** as the table name and go to the **Relationship** view.



■ 5×d+ +	Relationship Tools	AccessDatabases Database- CI\Users\Muha.	Muhammad Wagas	1 -		*
File Home Create Esternal Data Database	Tools Design	Tall me what you want to do				
Select Schere Layout Select Schere Layout Schere Layout Show Table Al Relation Relationship Relationship	Clope ships sps					~
An Access coujects we	🗴 tolHRData 🛄 tolTaiks	and Relationships \				*
Secch. (A) Tables a Initimployee Initimpl						
Ready					Non	+ Lack

Click on the **Show Table** option.

show Ta	ble				?	×
Tables	Queries	Both				
tblEmp	loyee					
thillRD	ata					
thProp	ects					
tblTask	\$					
Temp2						
			100		in.	
				Add		glose

Add **tblProjects** and **tblTasks** and close the **Show Table** dialog box.

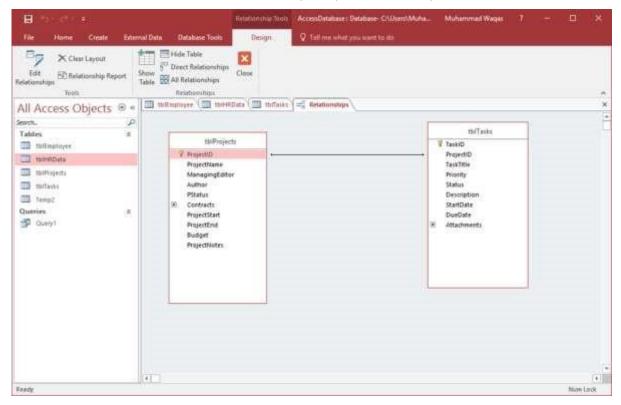


😸 he de e	Belationship Tool	AccessDatabase : Database- Chilsers/Muha Muhammad Waqas 7 -	u ×
File Home Create External Dat	n Database Tools Design	😨 Tell me what you want to do	
Téols	Tide Table	ang Retationships	• *
Search. D	th/Projects	thiTasks	-
Tables 2 Intinuitorer Internoria Internoria Interno In	Project/D Project/Name ManagingEditor Author PSAnus Contracts ProjectStart ProjectNotes	Image: Strength Project/D TaskTitle Provity Statue Description StartDate DueDate Rt	
1 Ready			e Film Lock

We can run through the same process once again to relate these tables. Click and hold ProjectID from tblProjects and drag that all the way over to the ProjectID from tblTasks. Further, a relationships window pops up when you release the mouse.

Table/Query:		Related Table/Que	ry:	Create
tblProjects		tbiTasks		
ProjectID	~	ProjectID	^	Cancel
				Join Type
			~	REAL COMP.
Enforce Ref	erenti	al Integrity		Create New.
Cascade Up	date 8	Related Fields		
Cascade De	lete R	elated Records		
Relationship Typ	a.	One-To-Many		





Click the Create button. We now have a very simple relationship created.



18. MS Access— Many-to-Many Relationship

In this chapter, let us understand Many-to-Many Relationship. To represent a manytomany relationship, you must create a third table, often called a junction table, that breaks down the many-to-many relationship into two one-to-many relationships. To do so, we also need to add a junction table. Let us first add another table **tblAuthers**.

B britters		Table Tools	AccessOutabase : Dut	abese- O'Useri\Muhammad	Muhammad Wagas	1 - 4	1 ×
File Home Create Enter	val Data 👘 Database Tools 🗌	Design	Q Tell me what you	wart tu do			
Verver Verver Viewer Verver	g및 Modify Lookups Sheet Sho	wähde fie	nate Data Aacros - Deleta Maco Id, Record & Jabie Ferr	ts Relationships			2
All Access Objects 3 *	thilinghtopen (= Reis	ionships 🛄	thiProjecti 1 thiA	uthers	Record and a contract of the		×
Search. D	Field Name WE Authento		Data Type mber		Description (Optional)		
Tables 8	FirstName		art Text				
Thiamers	LastName		ort Text				
Internationer	Address		ort Text				
III IIIIIIOala	Phone		ort Text				
	Email	sho	ort Text				
to Projecti	BirthDate	Dat	e/Time				
III miliana III tempi							
Queries 2							
Dump1				Field Properties			
	General Lookup						
		ng integer					
	Formul						
		do .					
	Input Mask Caption						
	Default Value 0					tie up to 64 maraite	
	Validation Rule Validation Test				including space	rs. Press F1 for help o	
	Required Ye	F					
		i No Duphiate	- Pierre				
	Test Align G	ineral					
Design view. FE + Switch panes. F1 + Hel	p.					Num Lock	1 14

Let us now create a **many-to-many relationship**. We have more than one author working on more than one project and vice versa. As you know, we have an Author field in tblProjects so, we have created a table for it. We do not need this field any more.



B the dest		Table Tools	AccessOntabase (Data)	tese O\Uses\Muhammad	Muhammad Wages 7 - D	×
File Home Create Exten	nal Data Database Tools	Design	Tell the what you v	wet ta da		
View Reimann Hulling Test Madations	C Modily Lookups She	etty Indexes Ci et 1	Real Pata Renerre/ Macros - Deleta Macro rid, Record & Deleta Deleta	Relationships Relationships Relationships		
All Access Objects @ *	III Itifingtoyes (25 Re		toiProjects 100Au	fields		×
Sect. () Tables * I tables * I tables tablepioyee I tablepioyee I tablepioy	Field Name ProjectID ProjectName ManagingEditor Author PStatus Contracts ProjectStart ProjectEnd Budget ProjectNotes	Au Shi Shi Shi Shi Dia Dia Cu	Data Type toNumber ort Text ort Text ort Text text text te/Time te/Time rrency ng Text	Overall project status	Description (Optional)	
	Format Ingut Mask Caption Default Value Validation Rule Validation Inst Required Aflow Zero Length Indexed Unicode Compression WME Mode INE Serforms Mode	Ng Yes No Yes No Control None General			A held name can be up to 64 characters long including space. Press P1 for help on held names.	

Select the Author field and press the delete button and you will see the following message.

Microso	ft Access X
1	Do you want to permanently delete the selected field(s) and all the data in the field(s)? To permanently delete the field(s), click Yes.
	<u>Y</u> es <u>N</u> o

Click **Yes**. We will now have to create a junction table. This junction table have two foreign keys in it as shown in the following screenshot.



🗄 🐬 🗇 🖛 AccessDatabas	e : Batabase+ C/Users\Mu	Table Tools	Muhammad Waqas ?	- ¤ ×
File Home Create Extern	nal Data Database Tools	Design 🛛 🖓 Tell me what you w	ant to do	
View Primary Builder Test Valutation	Modify Lookups		Relationships Dependencies Relationships	~
All Access Objects @ «	🛅 thiEmployee 🧠 Relatio	enships 🧰 tbiProjects 🛄 tblAuti	hers Tables	×
	Field Name	Data Type	Description (Option	al) 🔺
Search. P Tables 8 In thiluthers IntEmployee InterfetData	AutheriD ProjectID	Number Number		
DiProjects				
tolitasks				
Тенир2				
🜌 🗎 🤻 🏟 👒	🔤 🛃 🛛	a 🐽 🔕 👧 🗴	I 🔼 😸	

These foreign key fields will be the primary keys from the two tables that were linked together — **tblAuthers** and **tblProjects**.

To create a composite key in Access, select both these fields and from the **table tools design** tab, you can click directly on that primary key and that will mark not one but both of these fields.

🖶 🍤 - 🗇 = AccessDataba	ise : Database- C/\Users\I	Ma., Table To	ate	Mub	ammad Waqas	1 -		×
File Horne Create Exter	mal Data 🛛 Database T	ioals Design	Q Tell me what you w	vent till dio				
View Views Tools	E≃ Insert Rows I≫ Deleter Rows g∰ Modify Lookups	Property Indexes Sheet Show/Hide	Create Data Rename/ Macros - Delete Macro Field, Record & Table Events	Relation				
All Access Objects 🖲 «	tbiEmployee		🛄 thiProjects 🗐 164Aut	theis Table1	Contraction of the local division of the loc			2
Search.	Field N		Data Type		Description	(Optional)		
Tables 8	AutheriD		Number					-
Tolauthers	ProjectID		Number					_
tulEmployee								
toHRDeta								
to:Projects								
To/Taiki								
Temp2								
Queries 2								
Duen1	100		249942	denas.				-1
(3 Quella			Field P	roperties				
	General Lookup							
	Field Size	Long Integer	8					
	Format Decimal Places	Auto						
	Input Mask	wideo						
	Caption							
	Default Value Validation Rule	0			A field name ta	m be up to 64 (ces. Press F1 fo	characters to	ang.
	Validation Text				incoming spin	names.	e new more	0148
	Required	Yes						
	Indexed	Yes (Duplicat	es OK)					
	Text Align	General						
Design view. 76 = Switch panes. F1 = Hel						Num Lock		N

The combination of these two fields is the **tables' unique identifier**. Let us now save this table as **tblAuthorJunction**.



The last step in bringing the many-to-many relationships together is to go back to that **relationships view** and create those relationships by clicking on **Show Table**.

Select the above three highlighted tables and click on the Add button and then close this dialog box.

how Ta	ble			?	×
Tables	Queries	Both			
tblAut	ners				
tblAut tblEmp tblHRD	horJunction loyee	Q			
tblProj					
tblTas	10				

Click and drag the **AuthorID** field from **tblAuthors** and place it on top of the **tblAuthorJunction** table **AuthorID**.



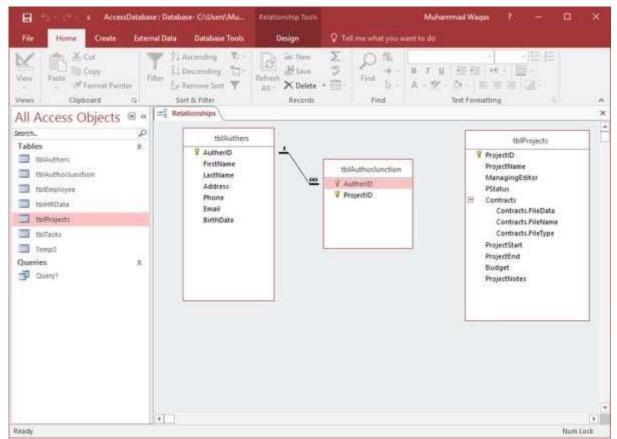
File Home Creat	t a Report Show Table	Hide Table	X Jose	ne what you want in do	netion			~ ×
All Access Object Search. Tables tblauthers tblAuthoriunction tblBData	8 8	tblAuthers AuthertD FirstName Address Phone Email BirthDate	ttilAuthor)u V AuthenD V ProjestiD		Proje Proje Mana Auth Pitat Fi Conti Proje Budg	ctName agingEditor or us racts ctStart ctStart ctEnd		
Ready	[4]						Nom	•

The relationship you're creating is the one that Access will consider as a one-to-many relationship. We will also enforce referential integrity. Let us now turn on **Cascade Update** and click on the **Create** button as in the above screenshot

[able/Query:		Related Table/Query		Create
tblAuthers		tblAuthorJunction	×.	Transmission
AutherID	~	AutherID	^	Cancel
				Join Type
Cascade Up	date P	Related Fields		Create New.
	lete R			



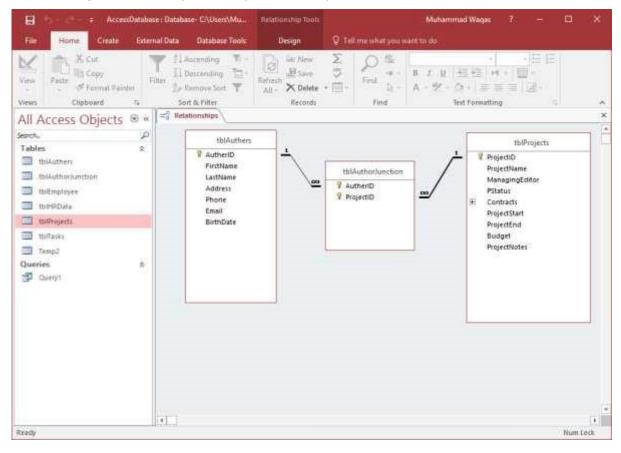
Let us now hold the **ProjectID**, drag and drop it right on top of **ProjectID** from **tblAuthorJunction**.



We will Enforce Referential Integrity and Cascade Update Related Fields.

able/Query:		Related Table/Query		Create
tblProjects		tblAuthorJunction	. v	
ProjectID	~	ProjectID	^	Cancel
				Join Type
			~	Create Man
Enforce Ref				Create New.
Cascade Up	date R	elated Fields		
Cascade De	lete Ra	elated Records		
Relationship Typ	e:	One-To-Many		





The following are the many-to-many relationships.



19. MS Access— Wildcards

Wildcards are special characters that can stand in for unknown characters in a text value and are handy for locating multiple items with similar, but not identical data. Wildcards can also help with getting databased on a specified pattern match.

Access supports two sets of wildcard characters because it supports two standards for Structured Query Language.

- ANSI-89
- ANSI-92

As a rule, you use the ANSI-89 wildcards when you run **queries** and **find-and-replace** operations against Access databases such as ***.mdb** and ***.accdb** files.

You use the ANSI-92 wildcards when you run queries against Access projects — Access files connected to Microsoft SQL Server databases. Access projects use the ANSI-92 standard because SQL Server uses that standard.

ANSI-89 Wildcard Characters

Character	Description	Example
*	Matches any number of characters. You can use the asterisk (*) anywhere in a character string.	wh* finds what, white, and why, but not awhile or watch.
?	Matches any single alphabetic character.	B?ll finds ball, bell, and bill.
[]	Matches any single character within the brackets.	B[ae]II finds ball and bell, but not bill.
ļ	Matches any character not in the brackets.	b[!ae]ll finds bill and bull, but not ball or bell.
-	Matches any one of a range of characters. You must specify the range in ascending order (A to Z, not Z to A).	b[a-c]d finds bad, bbd, and bcd.
#	Matches any single numeric character.	1#3 finds 103, 113, and 123.

The following table lists out characters supported by ANSI-89:



ANSI-92 wildcard characters

Character	Description	Example
%	Matches any number of characters. It can be used as the first or last character in the character string.	wh% finds what, white, and why, but not awhile or watch.
_	Matches any single alphabetic character.	B_II finds ball, bell, and bill.
[]	Matches any single character within the brackets.	B[ae]ll finds ball and bell, but not bill.
^	Matches any character not in the brackets.	b[^ae]ll finds bill and bull, but not ball or bell.
-	Matches any one of a range of characters. You must specify the range in ascending order (A to Z, not Z to A).	b[a-c]d finds bad, bbd, and bcd.

The following table lists out characters supported by ANSI-92:

Example

Let us now look at a simple example of using these wildcard characters by opening the query design.

Add the highlighted tables and close the **Show Table** dialog box.



how Table	?	×
Tables Queries Both		
Paste Errors		
tblAuthers		
tblAuthorJunction		
tblEmployee		
tblHRData		
tblProjects tblTasks		
Temp2		
i culpe		

Add the fields in the query grid which you want to see as a query result.

H \$+<=	Query Teolo	AccessDatabase : Databa	e-O\Users\Muhammi	a Muhammad Wa	en Marca	u ×
File Home Create External Data Database fools	Design	. Q Tell me what you wa				
	ass-Through lata Definition	PRODUCT AND ADDRESS OF A PROPERTY AND INCOME.	n 💥 Delete Colum 2019 Return Al	ns Z 4	Property Sheet 7] III Table Names writes Show/filds	e * 1
		thiAuthorhunction] [rojects		-
Tables & Paritr Errors Paritr Errors Point Errors Phone Errai Buildholdunction Errai Buildholdus UniProjects TuiProjects TuiProjects Traing2 Quarries &	-	¥ Authen0 ¥ ProjectiD	Pojet Budge Projet	e e Inds Start End E		
P Gueryt						
Field: Projectiliame Table: Diffrojects Sort	PettNam tbiauthe		PStatus tbiProjects	ProjectStart IbiProjects	ProjectEnd tb/Projects	Ê
Show 2		8 8	Ø		Ø	
64			1			
4						
Rosty					taus Look 🔠	NR 1162

Run your query.



H	Accessibilities: California: California (California) History (Decorright Access Dystams access (Access 2007 - 2012 No Access) - Access	MaamadWeps 1 - D ×
Market Constant	$\begin{array}{ c c c c c }\hline Y & Ji \mbox{ for biases} \\ \hline I biasessing T for biasessing T	
All Access Objects = serve. Protections Control of the serve serve of the serve se		
line to	Change - Courts - Courter Change	Huntok 100 + 12

Let us again go to the **query design** and add prompt for project name.

			try Taala	AccessOatabase : Databa	se Cillie	s)Muhammu	Muhammaid V	Neger 👔 😑	п ×
File Hunse Create Estar	mai Date I	Database Tools	lesign	🛛 Tell me what you w	int to de				
View Run Select Make Append Results All Access Objects @ #	Quirty Ty	nah Delete 🔛 Data I	Through Vefinition	Show Table Quitters Children (Children) Children (Children) Children (Children)	ws 米D 語用a	sert Columns elete Columns etum: All D Query?	* Totals Para	(2) F: Property Sheet (2) State Table Names (2) Show 90 de	
learch. P		thiAuthers	1	thiAuthoriunction	1 1	thiPro	ects		
Parte Drom tolkuthers tolkuthorkundion thiEnotoyee tolH9Data		FirstHame C LastName Address Phone Email BirthDate +	1	V Autherit) V Projectiti	<u></u>	PStatui E Centracts ProjectSta ProjectEn Budget Projectflo	n d		
🛄 thiProjetta									
Construction of the second sec									
Itemp2									
Temp2									
III Temp2	Field Table	ProjectName	Feithan			latus Projecta	ProjectStart	ProjectEnd (biProject)	
Temp2	Field		toiAuthe						
Temp2	Pield Table Sort Show Criteria	tbiProjects	toiAuthe	n tblåuthen		Projecta	thiProjects	thiProjecta	

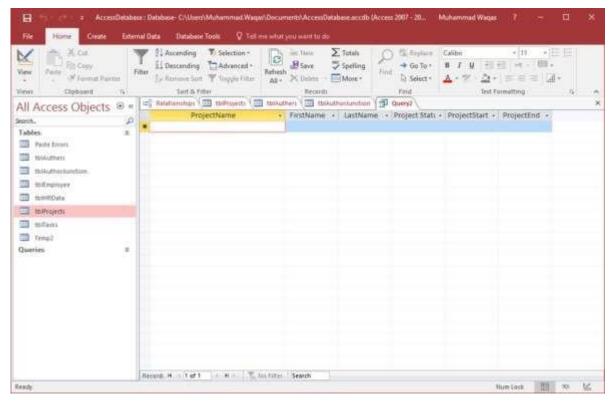
Now run your query and let us assume that you don't know the exact project name, but you know that the project name contains the words "potion". Click **Ok**.



Enter Parameter Value	?	×
Enter a project name		
potion		
ОК	Ca	ncel

The above step does not generate any result. That is because Access is looking for an exact match in the **project name field**. It is looking for that project which has the word **potion** in its name.

If you want it so that the users can enter wildcards to replace unknown characters, then you need to adjust the criteria and include the operator **like**.





			Gurry Ta	nn AccessDatat	sase i Database- Ci\Usa	esiMuhamma	Muhammad Waqas	1 - P	
File Home Create	Entern	al Data 🖂 1	Natabase Tools Design	🗸 🖓 Teltme	what you want to do				
* Table	Append	Update Cross	tab Delete	igh Show tion Table	N Delete Rows 🕺 (N Builder 📳) Query Setup	Insert Columns Delete Columns Return: All •	Det	Property Sheet Table Names Hide	
All Access Objects			maps and me opens (a miesoners 1	- tel-tel-tel-tel-tel-tel-tel-tel-tel-tel-	The streets	-		- 1
ieorot. Tables	9		thiAuthers	thiAuth	orhanction 1	1biPinjects			
Darlis Errors	-8		Puttians -		-	PStatue	1		
tutAumen			LastName	C V Authen V Projecti		Contracts			
IlliAdhoundion			Address Phone	a regen		ProjectStart ProjectEnd			
ttillingioyee			Enal			Budget			
I tutterbau			BirthDate -	- 17		ProjectNotes			
11 tuPojeti									
milasis									
THILESES									
TR. Yamat									
	æ								
	×					11			121
	æ	Field	Projectiliame	FirstName	Lastfilame	PStatus	ProjectStart	Projectind	12
	æ	Field: Table: Sort:	thiProjects	tblAuthers	tblAuthers	tis/Projects	tbiProjects	thiProjects	
III Yangi Queries	æ	Field. Table:	Projectiliame tbiProjects Die jEnter a project namej						
	潇	Field: Table: Sort: Show: Critema	toProjects	tblAuthers	tblAuthers	tis/Projects	tbiProjects	thiProjects	

When you run the query, users can use wildcards to replace any number of characters.

Let us assume that you know that the word **potion** appears somewhere in the title but you are not exactly sure where.

You can add an ***** to replace any number of characters before the word **potion** and then add another ***** after the. Click **Ok**.

Enter Parameter Value	?	×
Enter a project name		
potion		
OK	Ca	ncel



	¢.	ki Descending ∷Advanced - terr Remove Toot → Toggie Fiter Sort & Fitter	Refres Al -	h 🗙 Deleta - 🗐 Recursts	Spelling More *	L) Select + Find	<u>∧</u> • ≈ • <u>∆</u> •	anating Salating	· a	
All Access Objects @ woh. Tables Tables Testaumers) a 0 1	ProjectName ProjectName He Potion and the Scrol		and the second se		Completed	ProjectStart • 12/1/2008	ProjectEnd • 3/1/2009		
thiProjects ThiTaska Taimp3 Dustries	2									

It is always good for the users to know the wildcards they can enter. But there are users who may not know the wildcards they can and cannot enter. In that case, you can enter the wildcards yourself.

In this situation, in-between the **Like** operator and our parameter prompt, we can add those wildcards and now there's a very specific way we have to write this. After the word **like** in quotation marks, enter the wildcard that we are using. In this case, we have used "*" to replace any number of characters. We will now add this to the parameter. To do so, we need ampersand **(&)** symbol and a space. We will now repeat this step and add another ampersand (**&)** because we're joining that wildcard to whatever criteria is entered in for that project name by the user and then "*" in quotes.



B *** *		Query Tools Acc	essDatabase : Datab	ase- CNUsers\Muh	amma., Muhamm	ed Waqas 7	
File Horse Create E	sternel Data	Database Tools Design	Tell me what you w				
View Run Besuelts	end Update Croc	tab. Delete Data Definition Tr		ows 💥 Delete C Zill Return sany Setup	olumns Z All + Totals I	Table	
All Access Objects 🐵	er = Hetatio	nships 🛄 taliprojects 🛄 thillid?	iers 🛄 tolAuthor	dunition 🗗 🗗 Qu	and film		
	0	thiAuthen	thAuthorisection		thiProjects.		
	A	Fastliane -		<u> </u>	Statur +		
Parte Errory		LastName 🛄 🐺	AutheriD	1 F 1	ontracts		
tulAuttiers		technal dist	ProjectiD		vojectStart		
this dharbunchish		Phone Email			rojectEnd iudget		
III faiEmployee		BirthDate -			rojertNotes -		
Ti tsiProjecta							
II mfass							
1 James							
	¥						
	1						
	Contract Contract	Encoment	P. S.		11111-1111	Sector Contract	100010000000000000000000000000000000000
	Field: Table:	Projectilane tbiProjects	FirstName tbiAuthers	tastName tpiAuthers	PStatus tbiProjects	ProjectStart IniProjects	ProjectEnd thiProjects
	Sort	A CONTRACT OF A	R	R	PALITY AND AND A	R	10000000
	Criteria: Of:	Like ** & Enter a project name) & **	1	M	Ø	N	Ø
		4					

Let us now run our query again. Enter the word **potion** in the prompt without any wildcards.

Enter Parameter Value	?	×
Enter a project name		
potion		
OK	Ca	ncel

The query will now track those wildcards on either side of whatever is entered here. We need to simply type potion and press enter.



Hame Create E	Filter 21 Acce Filter 21 Desc 21 Desc 21 Desc 21 Desc 21 Desc 3	nding Tr Selection - anding DAdvanced over Sunt TY Topple Filt and & Filter	Refresi Al -	d∰Save ≻Delate - Recurit	More -	nd Go To *	A-2-2-		a
I Access Objects an. bles. Parts trans	P The Port	ProjectName cm and the Scroll		and the second se	United the strength of the str	Project Stati - Completed	ProjectStart + 12/1/2008	ProjectEnd + 3/1/2009	
10460there 101460therecturchises 1018mpHoyee 1019HIOsta									
3 millions 3 millions 3 Temp3									
arries 1									

We now get the results we were looking for and the results will be the same regardless of what the users enter.

Let us say we want to find every project with the word "the" in the title. Then, you need to just type the word and **Enter** or click **Ok**.

Enter Parameter Value	?	×
Enter a project name		
the		
OK	Ca	ncel



Fetaliandups III friftingets III ProjectName The Potion and the Scroll My Models is Not A Fish Princes Along the Watchtower	tsikumes (🔄 tsikk - FirstName Ofive Shawna Jose	LastName + Obrien Rhoades	Overy2 Project Statu + 1 Completed Completed Completed	ProjectStart - P 12/1/2008 11/25/2007 9/1/2008	ProjectEnd + 1/1/2009 12/1/2009 2/25/2003)
The Potion and the Scroll My Mother Is Not A Fish	Ofive Shawna	Obrien Rhoades	Completed Completed	12/1/2008 11/25/2007	3/1/2009	
My Morener Is Not A Fish	Shawna	Rhoades	Completed	11/25/2007	12/1/2009	
	- Contraction of the	CONTRACTOR OF THE OWNER OWNE				
*	1010	Carre	compress	21212008	11232000	
	Records 4 4 2 of 5 + (+) + T in	Record: 4 4 2 of 5 4 (4) 10 Titles Search	Record: 4. 4 (2 of 3) + (4 +) To find Tablet Search	Record: 4, 5 (2.07.5) + 11 + 11 Tologi Search		Record: 4. 4 2 of 3

With this query, it becomes easier to search for projects with the word "the" in their names. The 2^{nd} level of results may also include the project names with the word "mother" where "the" is part of the word.



20. MS Access— Calculated Expression

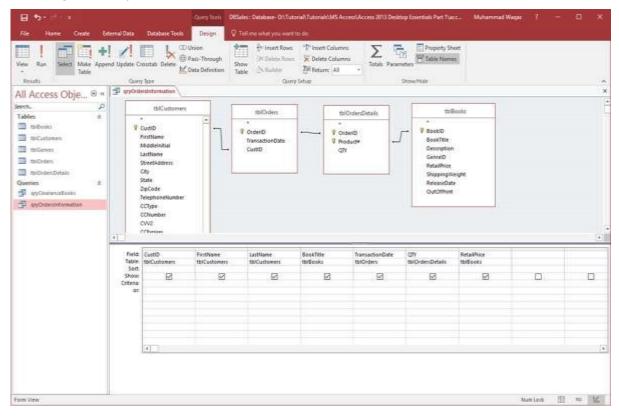
In MS Access, an expression is like a formula in Excel. This consists of a number of elements that can be used alone or in a combination to produce a result. Expressions can include operators', constants, functions and identifiers.

- Expressions can be used to perform a variety of tasks from retrieving the value of a control or supplying criteria to a query to creating calculated controls and fields or defining a group level for report.
- In this chapter, we will be focusing on creating a very specific kind of expression called a calculated expression. We will create several calculated fields that will calculate and display data that is not stored anywhere within the database itself but calculated from separate fields that are stored.

We now have a new Access database that contains more data to calculate.

Example

Let us try an example to understand this. We will be retrieving some information from a variety of tables — **tblCustomers**, **tblOrders**, **tblOrdersDetails** and **tblBooks** and reviewing a variety of fields.



Let us now run the query and you will see the following results.



MS Access

Contraction of the second seco	1	Ja farrows last. T leggis fo	d- Refush	n fans ∑innin Binner ⊅ipefing Nilosine - ∭Manes	Feed De Tare	atter 1 E M	-[n ▲· * · ≙		сі н. Д. Ш.		
Carl Chabeard	- 252	Sad & Film		elecords.	Final		That Find	hellhig.	- 14 C		
Il Access Obje	8 - 3			MI 005534	In the second second		AND STREET				
et.	P	Custo + Finithame -	ListName	 BuokTitle 	· TrensectionDati -		BetarPrice	Subtotal +	Tes	Entél +	
ables		ISCOUR Pedro	Kerr	Picercom Querterly 1	C P C C P C C P C C P C C P C C P C C P C C P C C P C C P C C P C C P C C P C		\$12.00	\$24.00	\$2.16	\$26.16	
milane:		050002 Levetta	Wakefield	Picaroon Quarterly 1			317.00	548.00	\$4.11	\$57,32	
		050000 Sharry	Tourig	Picaroon Quarterly 1			\$12.00	\$80.00	\$5.40	965.40	
B Welchmann		050004 James	Erickson	Plearbon Quarterly 1.	1 2/15/2007		\$42.00	\$34,00	\$2.10	\$26.58	
T mellererer		USCOUS Beliecca	Sertiato	Picaroon Quarterly 1.	1 2/15/2007	- 2	\$12.00	\$34.00	\$2.18	\$25.14	
TRICkelen		050006 Bradley	Zanders.	Picaroon Quarterly 1.	1 2/15/2007		\$12.00	\$84.00	\$7.56	\$95.56	
mathematicani		050007 Edward	Devit	Picarnon Guarterly 1	1 2/15/2007	5	\$17.00	\$60.00	\$5,40	\$65.40	
writes		050008 Christine	Lovett	Picaroon Quarterly L	1 2/15/2007		. \$12.00	\$72.00	56.48	\$78.48	
and an and an		050009 Evelyn	Thompson	Protection Counterly 1	1 2/15/2007		312.00	386.00	\$8.64	5104.64	
		050010 Cheryl	Long	Picarpon Quarterly 1	1 2/15/2007	10	812.00	5120.00	\$10.80	3130.80	
avdianotonation		050011 Annie	Ethwarste	Picarboo Quarterly 1	1 3/15/2007	3	\$12.00	580.00	\$5.40	\$65.40	
		050012 1ynne	Garris	Picarbon Quarterly 1.	1 2/15/2007		\$12.00	\$72.00	58-48	\$78-AE	
		050013 Tad	Halton	Picaroon Quarterly 1.	1 2/15/2007	18	\$13.00	\$34,00	\$3.34	529.24	
		050014 Lifean	Reinke	Picaroon Guarterly 1	1 2/15/2007	1	\$17.00	\$12,05	53.08	\$13.08	
		050015 Ralph	Taylor	Picaroon Quarterly L			\$12.00	\$12.00	\$1.08	523.08	
		05001# Susan	Sanders	Picaroon Quarterly 1			512.00	560.00	\$5,40	\$65.40	
		050017 Kant	Hudson	Picaroon Quarterly 1.			311.00	548.00	54.32	\$52.92	
		05001# Tillia	Rine	Picaroon Quarterly 1			1.0.000	\$120.00	\$10.80	\$150.00	
	100	(100019 mseph	Hall	Proaroon Quarterly 1.	10104.00V001		112.00	\$144.00	\$12.96	\$134.96	
	1000	the payment discount		Annual Street of A	 - 1/10 Particip 		0.000	P 840.041	174.000	P112 0.0	

We want a very simple calculation for a subtotal which will take the quantity of the books ordered and multiply that by the retail price of the book. It is a good idea to begin every expression or any expression with a name to call that field. Let us call this one **subtotal**.

⊟ চ ∙ ়		Query Tools	DBSales : Database- D:\Tuto	orial\Tutorials\MS Access\Access 201	3 Desktop Essentials	Part 1\acc Muha	mmad Waqas 🛛 ?	- 0	×
File Home Create External I Image: Select Make Append U Results Select Make Append U Results Image: Select Image: Select Tables Image: Select Image: Select Itables Image: Select Image: Selec	pdate Crosstab Delete) Union) Pass-Through Data Definition	Call role what you want Table Call insert Rows Show Table Call Call tblOrders V Order/D TransactionDate CuttD	Vita Insert Columns	L(7) Winter Show/Hide	tbiBooks tbiBooks tbiBooks okiDe scription nereiD scription nereiD scription desected tarPrice tarPrice tarPrice tarPrice			-
<u>(()</u>	CVV2 CCEVDITES	RetailPrice	Subtotal: ItbiOrderi	Details[[QTV]*tbiBooks[]RetailPrice]	1 5	2			•
ę	Table: tbiOrdersDetails Sort: Show: 20 Criteria: 07	tbiBooks							
Form View				had			Num Loci	([] 994	K

The full expression (**Subtotal: [tblOrdersDetails]![QTY]*[tblBooks]![RetailPrice])** includes the table name, first tblOrdersDetails inside square brackets because that is where our quantity field lives. Now an exclamation is telling Access to look inside that table for a field QTY and multiply that by the retail price field in tblBooks.

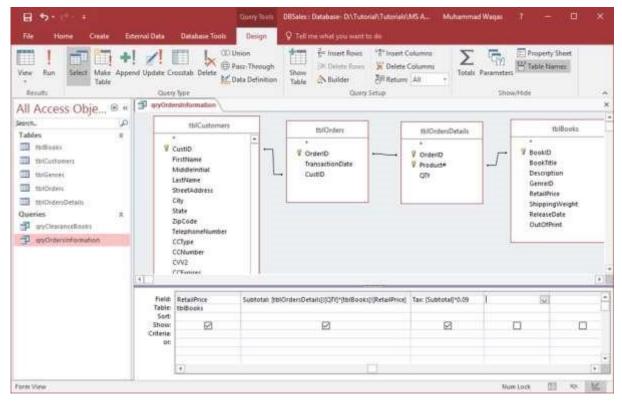
Let us try to run your query and you will see at end the subtotal field.

MS Access



Yew Paste Format Painter ews Clipboard ru	T L PROVINCE AND	ng 🔚 Advances Sort 🝸 Toggle Fi & Filter	i - Refresh	New Date: Totals Save Spelling Delete + More + Records	Pind abc Replace → Go To - Find B Select - Find	Calibri B I U A - *	- 11 += += +1 - <u>∆</u> - = = Text Formatting	a 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
All Access Obje 🖻 «	gryOrdersInform							
arch.		FirstName •	LastName •		TransactionDate		RetailPrice •	Subtotal •
ables		Pedro	Kerr	Picaroon Quarterly 1.				\$24.00
tb/Books	() 333 2637	2 Loretta	Wakefield	Picaroon Quarterly 1.			\$12.00	\$48.00
		3 Sherry	Young	Picaroon Quarterly 1.			1	\$60.00
a state a second se		1 James	Erickson	Picaroon Quarterly 1.			1	\$24.00
tblGenres	050003	5 Rebecca	Serrato	Picaroon Quarterly 1.	1 2/15/200	7 2	\$12.00	\$24.00
tblOrders	050006	5 Bradley	Zanders	Picaroon Quarterly 1.			\$12.00	\$84.00
tblOrdersDetails	050003	7 Edward	Davis	Picaroon Quarterly 1.	1 2/15/200	7 5	\$12.00	\$60.00
ueries 🎄	050008	8 Christina	Lovett	Picaroon Quarterly 1.	1 2/15/200	7 6	\$12.00	\$72.00
gryClearanceBooks	050009	evelyn	Thompson	Picaroon Quarterly 1.	1 2/15/200	7 8	\$12.00	\$96.00
	050010) Cheryl	Long	Picaroon Quarterly 1.	1 2/15/200	7 10	\$12.00	\$120.00
gryOrdersInformation	050013	Annie	Edwards	Picaroon Quarterly 1.	1 2/15/200	7 5	\$12.00	\$60.00
	050013	2 Lynne	Garcia	Picaroon Quarterly 1.	1 2/15/200	7 6	\$12.00	\$72.00
	050013	3 Tad	Halton	Picaroon Quarterly 1.	1 2/15/200	7 3	\$12.00	\$36.00
	050014	Lillian	Reinke	Picaroon Quarterly 1.	1 2/15/200	7 1	\$12.00	\$12.00
	050013	i Ralph	Taylor	Picaroon Quarterly 1.	1 2/15/200	7 1	\$12.00	\$12.00
	050010	5 Susan	Sanders	Picaroon Quarterly 1.	1 2/15/200	7 5	\$12.00	\$60.00
	05001	7 Kent	Hudson	Picaroon Quarterly 1.	1 2/15/200	7 4	\$12.00	\$48.00
	050018	Tillie	Riley	Picaroon Quarterly 1.	1 2/15/200	7 10	\$12.00	\$120.00
	050019	Joseph	Hall	Picaroon Quarterly 1.	1 2/15/200	7 12	\$12.00	\$144.00
	050020) David	Forte	Picaroon Quarterly 1.	1 2/15/200	7 24	\$12.00	\$288.00
	05002	Ina	Nichols	Picaroon Quarterly 1.	1 2/15/200	7 1	\$12.00	\$12.00
	050000	Marman	Mandu	Diastaan Quartarhut	1 1/15/200	7 . 1	C13 00	C13.00

Let us say we want to calculate our sales tax. In the query grid we will do in the exact same way we did before and this time we will call the field simply Tax and Let us multiply Subtotal by nine percent tax rate.



Let us run your query again and you will see the new **Tax field** in the end.



21. MS Access— Indexing

C Core	Y 11 Acce	2 SO 10 PM	10	le New ∑Totals Blane ⊃toeling	Con Ta	Celibri	- 11	(制作品) 出		
ew Parts S Formal Paretter	Filter La Rem		Refresh	X links + EllMore+	Find b Select -	B / U	4-2-2		2. 町.	
ees Optionid G	100.02	art & Filter	- 46 *.	Records	Field		Text For	automa .	6	
	gryDritersh	and the second se		without .				and the second		
Il Access Obje 🖲 🖷	CustiD	+ FirstName +	LastName	- BookTitle	 TransactionDati 	· 1077 ·	RetailPrice -	Subtotal -	Tax	
een. 🔎		and the second second								
ables #		000 Padro	Kerr Wakefield	Picaroon Quarterly 1.1	C11-011-011		\$12.00 \$12.00	524.00 \$48.00	\$2.16	
thibooks	1000	3003 Sherry	COLUMN TO A	Picaroon Quarterly 1.1 Picaroon Quarterly 1.1				560.00	\$4.32 \$5.40	
1 test Curtureses	1924	AND 10 10 10 10 10 10 10 10 10 10 10 10 10	Young	Picaroon Quarterly 1.1				\$34.00		
thickness		004 James 005 Robecca		Picaroon Quarterly 1.1				\$24.00	\$2.16	
	1.1.1	006 Bradley	Serrato Zanders	Picaroon Quarterly L1 Picaroon Quarterly L1	and a set of the set o			\$84.00	\$2.16 \$7.56	
tarciden	-1211	0007 Ectward	Davis	Picaroon Quarterly 1.				566.00	53,40	
(BICulersDetails				Picarbon Quarterly 1.1			\$12.00	\$72.00	56.48	
erries A	and the second s	0008 Christina 0009 Evelyn	LovetT	and the second s	1.000			596.00	58.64	
gryClearancefiams		010 Cheryl	Thompson	Picaroon Quarterly 1.1	a second s			5120.00	\$10.80	
gryO-anninformation	1.0	011 Annie	Edwards	Picaroon Quarterly 1.1			\$12.00	580.00	\$5.40	
	100 C	X012 Lynne	Garcia	Picaroon Quarterly L.	1101100		100000	572.00	\$6.48	
	1000	2013 Tad	Halton	Picaroon Quarterly 1.1			512.00	\$36.00	53.24	
		014 Lillian	Reinke	Picaroon Quarterly 1.1			512.00	\$12.00	\$1.08	
		015 Ralph	Taylor	Picaroon Quarterly 1.1			\$17.00	\$12.00	51.08	
	100 C	016 Susan	Sanders.	Picaroon Quarterly L.			\$12.00	560.00	\$5.40	
	1122	017 Kent	Hudson	Picaroon Quarterly 1.1	12111110.01		\$12.00	\$48.00	\$4.32	
	and the second s	0018 Tillin	Rifey	Picaroon Quarterly 1.1			100 mm	\$120.00	\$10.88	
	1,75	019 Joseph	Hall	Picarbon Quarterly 1.1				5144.00	\$12.96	
	10.0	020 David	Forte	Ficaroon Quarterly 1.1			100000	5288.00	525.92	
			Nichols	Picaroon Quarterly 1.1			\$12.00	\$12.00 \$12.00	\$1.08	
	10	9023 Ina	Nicricity Manual	Pleasa Pl	and a second sec		212.00	212.00	21.00	

An index is a data structure, a special data structure designed to improve the speed of data retrieval. If you often search a table or sort its records by a particular field, you can speed up these operations by creating an index for the field. Microsoft Access uses indexes in a table as you use an index in a book to find data.

- In some instances, such as for a primary key, Access automatically creates an index for you.
- At other times, you might want to create an index yourself.
- An index stores the location of records based on the field or fields that you choose to index.
- After Access obtains the location from the index, it can then retrieve the data by moving directly to the correct location.
- In this way, using an index can be considerably faster than scanning through all of the records to find the data.
- Indexes can speed up searches in queries, but they can also slow down performance when adding or updating records.



Let us now look into what indexes Microsoft Access creates by default and how to create them ourselves and learn how to delete any unnecessary indexes. Open the **tblEmployees** table in Access database which we have created.

- We haven't really played with indexes in this database but that doesn't mean we don't have any.
- In fact, any field that is set as a primary key in Access is automatically indexed.
- Access creates additional secondary indexes depending on the names of your fields.

Let us now go to the File menu and select Options.

©	AccessDonate	er : Detabase- C'illien (Dicharrenal Waqe/Dotterweb) & conflictation act di Gocon	2007 - 2018 Helmmet) - Access	Muhammed Waqar	2	0	×
8	Info						
e deserver and the second seco	AccessDatab receivents	ase					
Enter Coperations Subset Subset Subset Subset	Gerrupact & Beguit Database	Compact & Repair Help present and correct database Tile problems by using Compact and Repair.	Yes and old doldars proprint.				
Colum Parrows	Energy twite.	Encrypt with Password Use a paravent to restrict access to your database. New that use the 2007 Microsoft Access file format or later are encrypted.					
Options							
Sector 1							

You will see the Access Options window.



MS Access

Access Options	2	×
General Current Database	Change the default settings for design of database objects. Most options are ignored in table datasheet and layout view.	1
Datasheet	Table design view	
Object Designers	Default field type: Short Text *	
Proofing	Default text field size: 255 2	
Language	Default number field size: Long Integer 👻	
Client Settings	AutoIndex on Import/Create: ID:key:code:num	
Customize Ribbon	Show Broperty Update Options buttons	
Quick Access Toolbar	Query design	
Add-ins Trust Center	Show table names Cutput all fields Finable AutoJoin Cuery design font Font Segoe UI Size 8 Cutoff Server Compatible Syntax (ANSI 92) Cutoff Server Compatible Syntax (Server Cutoff Server Cutoff Ser	
	Form/Report design view	
	Selection behavior (#) Partially enclosed Fully enclosed	
	Form template: Normal	
	Eeport template: Normal	
	ОК	Cancel



Go to the **Object Designers** and you will see a section labeled AutoIndex on Import/Create and in the textbox you will see ID;key;code;num. By default, access automatically adds a secondary index to fields that start or end with these names and that goes for fields you have imported as well as ones you have manually created.

AB 12 Start Number Common Starts	No X Debut Value	Data Mathi	Gets Type: Short Text -	Designer		
	and the second sec	Properties	S TS + [SE 2] Ferralize	Test Verdetor		
Tables a Posicitores Bickattare Statutharitan Statutharitan Statutharitan Statutharitan	Robinstrings 1 anti-yeers (1) its Employee (0) v FirstPlane v 2 Max 3 Janeil 4 Cloudine 4 Cloudine 5 Antipermarke 6 Cecil 7 Elvit 6 Octores 9 Buthe 10 Max [New]	Latthers 1 Handheimenters 1 Lattheame Address 1 Clay 2556 Mongar 1 Corp 2556 Mongar 1 Corp 21 Benkley in Marks 11 Forest In Marks 12 Forest In Manning 4251 Green RD Trontmond 1215 Cloveda Higgins 1076 Kingsley Polland 4005 Stanley C	Addresic2 + City 5 Optional Schaumburg 1 Optional Schaumburg Optional Schaumburg Optional Schaumburg Optional Schaumburg 0 Optional Schaumburg 1 Optional Schaumburg 1 Optional Schaumburg 1 Optional Schaumburg	5. 60231 6. 60233 6. 60233 6. 60234 6. 60234 6. 60234 6. 60234 6. 60234 6. 60234 6. 60234	Photos Photos Tyj (837) 555-6432 Home (224) 555-6633 Home (122) 355-1233 Celf (244) 555-1233 Celf (244) 555-1233 Celf (244) 555-1233 Celf (244) 555-1233 Celf (244) 555-1235 Celf (244) 555-1235 Celf (244) 555-1235 Celf (244) 555-1245 Celf (244) 555-4255 Celf (244) 555-4255 Celf (244) 555-98756 Home	* r(Tay ()-m (franki)- configure amarka) conyder emarka) conyder conyder conyder conyder conyder conyder conyder conyder conyder conyder conyder conyder conyder conyder conyd
FRANCIA Special	eren a state a contrate Tunco	ner Saardh (+)			They Last	

If you want to make any field indexed you can go to the **Field** tab.

Select any field that you want indexed and check the Indexed checkbox in Field Validation section. You also have alternate options for creating or removing an index. You can go back to the **Design View**.

File Home Citate	Edwinal Data Database Tr	ook Design 🛛 🖓 Telt met what you s	eant turde	
Were the state of the Weider	n and a second s	Poperty Indexes Shear Shear Service Disks Fername Shear Shear State Disks Fername Shear Shear State Disks Freith	The second se	
All Access Objects arrh. Tables Pada brons toslautheri toslauther	Portsonner (generation) FirstName LastName Address1 Address2 City State Zip Phone PhoneType Emual JobTitle		Descript	ion (Optional)
Queries	B General Lookup Format Input Mask Captor Orfacit Value Validation Rule Validation Rule Validation Rule Validation Rule Validation Leaf Required Allow Zero Lingth Indeed Cincode Compression INE Node INE Sectemce Mode Text Align	235 Ro Yes No Ves No Control No Control General	Field Properties	An index speeds up searches and sorting on the field, but may slow updates. Selecting "Yes - No Duplicate' provided to a solution values in the field, then F1 for hetp on indexed fields.



You can adjust indexes by selecting any field. You can also see how they are indexed in the field properties area below. Any field that has **No** selected next to indexed, means there is no index for that given field. You can change that by clicking on the drop-down menu and choosing the other two options — **Yes (Duplicate OK)** and **Yes (No duplicates)**.

B Conclust		Tep = Tao = 11	AccessDatabase : Data	arre- Children Muhammad	Wag., Muhamm	ad Wages 🕴 🏌	
File Home Croote Effer	nat Outa 👘 🛛 Database Tools	Design	🖗 Tell me solut you i	ant to de			
in a set and a set wide of a s	St Medily Lookups She	et M new/filde Folk	ate Data Remaine/ acros + Delete Macro L Accord & Takin Event		994 J.		
All Access Objects 🖻 *	🖃 Relationution (🎹 tt	sProjects 🛄 🎫	Wijmen 🛄 totauto	orbunction 🚰 Querp2	11 thEmployee		
renon. P Tables R Pepte Errors Ethiluthers	Field Name FirstName LastName Address1 Address2 City State Zip Phone Phone Phone Phone Email	Shor Shor Shor Shor Shor Shor Shor Shor	Data Type t Text t Text		Description	(Optional)	
Timp2 Surries W	General Lookup	Shor	t Text	Field Properties			
	Format Imput Marik Caption Default Value Validotion Teut Required Aflow Zero Length Indexid Unicode Congression INE Mude INE Sentenne Mode	No Yes No Yes (No Duplicates Of Yes (No Duplicates General				n index uperats up ion the field, but may you Yes - Na Dupticates' values in the field, P indexed	e updates, Selecting prohibits duplicate ecc F1 for help on fields.

The last option **Yes (No Duplicates)** means that Access will automatically prohibit duplicate values in that field. Let us now create an index for our last name field.



8		Trinin Topin AccessDatabase : Data	tese CNUters/Muhammad/Waq., Muha	mmed Wages 🧵 — 🗈 🗙
File Home Create Estern	al Data 🔹 Database Tools	Design 📿 Tell me what provi	and to dig	
View Promoty Buildee Text Validation	E Mailly Lastain Shee	ow/Mide Field, Record & Table Event	Contraction of the Contraction o	
All Access Objects 🗟 *	🚎 Ariahonships 🖽 tol	Projects 🛄 Iblauthers 🗔 Iblauth	columnitian 🚰 Gorry 🛅 Billingilayee	×
Tables 2 Fable 2 Full Enuit Cloudhars Cloudhar	Field Name FirstName LastName Address1 Address2 City State Zip Phone Phone Phone Phone Email JobTitle	Cata Type Short Text Short Text	Descripti	on (Optional)
Queries ¥	Format Ingut Mask Caption Default Value Valuation Rule Valuation Rule Valuation Tent Required Allow Ziro Length Indeed Unicode Compression Mit Mode Mit Sentence Mode	io io io io io io io control ione ioneni ioneni	Field Properties	An index speed: up searches and sorting on the field, but way slow updates. Seisting "Yes - his Duphates" prohibits duplicate waves in the field. Here 11 for here on indexed fields.

Let us select **LastName** to index and say **Yes (Duplicates OK).** As we save, Access will create that index. Another area where you can view and adjust your indexes for a table is the tables design area in the **Show/Hide** group.

Validation Rule the Field, but may itow updates. Select Validation Test This - The Duplication Select provided digiting Required No. waters in the field. Press P1 for help on	8		Table Tools AccessDatabase : Databas	e- C/Users/Mohammed Wag_ Muha	emmed Wages 🕴 🚽 🔲
New Proof Number Text Validation Rule Property Industry Factor Data Reventy Property Industry Sheet Proof & Tables Reventy Proof Nation Proof & Tables Reventy Proof Nation Proof & Tables	File Home Create Eden	ol Data - Dutabase Tools	Design: 👰 Teltima schatypis war	e tarida	
All ACCESS ODJECTS 00 *** Field Name Data Type Description (Optional) Search ************************************	View Primary Builder Test Validation Key Rules Views Book	R. Collete Rown C. Modify Lenikups Shoel Sho	Macros - Delete Macro multiple Field, Record & Table Events	Relationships Object Dependencies Relationships	
Seenth. FirstName Short Text Tables Tables FirstName Short Text LastName Short Text Address Short Text Address Short Text Address Short Text Address Short Text City Short Text City Short Text City Short Text Difference Short Text Phone Short Text Phone Short Text FirstName					- Addison and a second s
Trime Towners State Short Text	Tables # Paste brans # Instantionummer # Instantionummer # Instantionum #	LastName Address1 Address2 City State Zip Phone Phone PhoneType	Short Text Short Text Short Text Short Text Short Text Short Text Short Text Short Text		
Trenul Field Properties Questies General Solup Field Star 255 Formal 255 Formal Caption Defuilt Value Caption Validation Rule Tel Hold Rule Validation Rule Tel Hold Rule Resured No	🖾 fuffasta	715500			
Queries 5 General Lookup Field Size 255 Format Input Mask Caption Debut Value Validation Rule Validation Rule Validation Test Required No	Troup2	20D1Hte	short lext	Field Protection	
Formal Input Mask Input Mask Caption Debut Value An index speeds up tearmers and softing Valuation Rule Valuation Rule The Frield, but may now updates, Select Valuation Trat Required No	Queries ¥			Title Papelins	
Aflow Zero (angth) Tes Indexed Idea (Graphic All) Unicode Compression Tes MM Mode No Cantral MM Sentence Mode None Test Align General		Format Input Mask Caption Default Value Validation Rule Validation Test Regured Allow Zero Length Indexed Unicode Compension ME Serbence Node	o esteroromenantil es lo Contrast one	143	An index uperds up teaches and softing of the field, but may (now updates. Selecting "Res. Pa Dophates" prohibits digitizate soluces in the field. Prove 11 for help on indexed fields.

If you click on this Indexes button that will bring up a special view displaying all the indexes created for this table.



Inte	4		Indexes: tblEm	ployee	\times
2			Field Name	Sort Order	-
8+			EmployeeID	Ascending	
LastName		LastName	Ascending		
					•
			Index Prop	erties	
Primary Yes					
Unique Yes		The name	e for this index. Each index can use up		
Ig	nore Nulls	No		to 10 fields.	

We now have two indexes for tblEmployees —one that was created automatically based on the primary key field and one that we just created for the LastName field. These are the different ways to deal with indexes in Microsoft Access tables.



22. MS Access— Grouping Data

In this chapter, we will be covering how to calculate on a group of records in Access. We have created a field that calculates row by row or record by record to create a line total or subtotal field, but what if we wanted to calculate down by a group of records rather than by individual ones. We can do this by creating what's known as an **Aggregate Query**.

Aggregate Query

An aggregate query also known as a totals or summary query is a sum, mass or group particulars. It can be a total or gross amount or a group or subset of records. Aggregate queries can perform a number of operations. Here's a simple table listing some of the ways to total on a group of records.

Aggregate Functions	Description
Sum	Adds the field values
Avg	Average of the field values
Min	Lowest (minimum) field value
Max	Highest (maximum) field value
Count	Count of the values (records)
StDev	Standard deviation of the field values including date/time fields
Var	Variance of the field values including date/time



Let us open your database and go to the Query Design and include the following tables:

Show Table	ġ.		?	×
Tables Qu	eries Both			
tbiBooks tbiCustome tbiGenres tbiOrders tbiOrders	Brs			
		Add		lose

Close this dialog box and the following two fields will be displayed as shown in the query grid in the following screenshot.

8 5-0			Query tools DESales	Database- D'\Tutional\	Tutorials/MS Acce	nsiyAccess 2013 Q	esidop Ess., Muhamm	ad Waqas 🛛 ?	- 🗆 🗙
File Home Croste E	xternal Data	Database Tools	Design 🛛 🖓 Tell	ne what you want to d					
View Run Results All Access Obje • «	Query	osstab Delete	Union Pass-Through Show Table	2r Inset Rovs ⇒ Deinte Rovs N Bailder 2 Cuery Set	Columns	· Totals Pi	(7) E Property Sh warneters Table Name Show/Hide		
Tables por portant Access Objection of the portant		tbiBooks * BookID BookInte Decorption GenteID RetaiPrice	· · ·	tblOidentCeta * * * * * * * * * * * * * * * * * * *	<u></u>		TalOrdesi © Onders0 TransactionDate CurtID		
	91								
	Table:	BookTitle tb/Books	tbiOrdersDetails						ŀ
	Sort Show Criteria or:	Ø	Ø	0		0.	D	0	
		•							
		Carlo Consti							

This is a simple query and we are displaying only two fields — **book title** and **quantity** and when we run it we're seeing every single individual order in our database.

	Accending Selection *	a New B Save	∑ Totak ⇒ Speling	P th ₂ Replace → Go To *	Calibri	•[n] •]⊞ ≣	西田(市)	
View Paste of Format Painter	Fiter	Refresh	More *	Find Select -	в I Ц 🛓	$\cdot \mathscr{U} \cdot \underline{\Delta} \cdot \equiv \equiv \exists$	2- ■-	
Views Clipboard 15	Sort & Fitter	Records		Find		Test Formatting	5	13
All Access Obje 🖲 «	D gyündersimformation D Query1							
and receive a spenn	BookTitle		QTV -					
Search. P	My Mother is Not A Fish		-1					
Tables *	My Mother is Not A Fish		1					
	My Mother Is Not A Fish		- 1					
tbiCustomens	My Mother Is Not A Fish		1					
tbiGennes	My Mother Is Not A Fish		1					
tbiOrders	My Mother Is Not A Fish		1					
	My Mother Is Not A Fish		1					
	My Mother is Not A Fish		1					
Queries 2	My Mother Is Not A Fish		1					
pyCestanceBooks	My Mother Is Not A Fish		1					
gyOrdensinformation	My Mother Is Not A Fish		1					
	My Mother Is Not A Fish		1					
	My Mother Is Not A Fish		1					
	My Mother Is Not A Fish		1					
	My Mother Is Not A Fish		- 1					
	Romance Canyon		1					
	Romance Canyon		1					
	Romance Carryon		1					
	Romance Carryon		1					
	Romance Canyon		1					
	Romance Canyon		1					
	Record H 1 of 3025 F H HO T Half		1.0					_

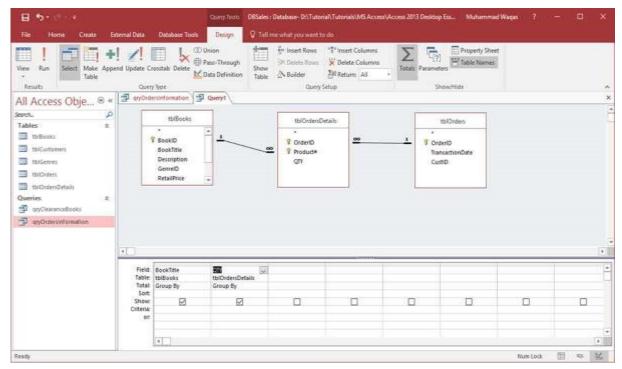
Let us now run this query and you will see the following results.

This is why book titles are repeating. Separate orders have been placed for each of these books here and they were ordered in different quantities. Let us assume we want to see a summary of only that book title that has been listed only once. And then the sum of the quantity listed beside it.

Let us now go to the Design View and in the Design tab, you will see a Sigma symbol. This is your totals button.

File Home Create Ex	ternal Data	Database Tools		Database- D:\Tutori ne what you want to		ss\Access 2013 Des	ktop Ess Muhamm	ad Waqas ?	- ¤ ×
View Run Results	Quer		Union Pass-Through Data Definition Durant	Contraction of the second second	" Insert Columns X Delete Columns 환유eturn: All etup		[?] Property She meters Table Names Show/Hide		
All Access Obje © « Search. 0 Tables & tbiBooks tbiBooks tbiOcders tbiOrders tbiOrders tbiOrders tbiOrders gryClearanceBooks gryCrdersInformation		tbiBooks BookID BookTitle Description GenreID RetailPrice		tbiOrdersDe * * * * * * * * * * * * *	cails		tblOrders * OrderID TransactionDate CustID		
	4.1								Þ
	Field: Table: Sort: Show: Criteria: or:		tbiOrdersDetails						Ê
		(E)							
Ready								Num Lock	11 at 12

Click the sigma symbol which will open another row underneath your field in the table row and from here, you can specify how you are grouping this query.



We will now group by book title and also sum our quantity field.

If we click on **group by area** and further click on the drop-down menu, all the options will be listed down. In this case, we will choose the option **Sum** and then run your query.

III III II +	end Update Ci Citer	Countait Defet	Design Q Tellm Division Pass-Through Date Defection Table	en de transmission de la constant de La constant de la cons	ant Calumn	2011 Disking Fax. Ma English Property English States Track	nty Sheet.	
In all constants of the second	F	tisilioota Baootti Baootti Baoottite Decorption Germeti Refuilimen	•	tsiOrdexDetails	<u>aa</u>	V OrdenD TermantionDate Currt®		1
	Field Table Total Sort Strow Criteria	1010040	CP1 ChiCodersCetails Group Ry Group By Croup By Man Ang			0 0	a	
Teady .	**	•	Rhim Maa Count SEDen Vat First Cest				Weet Look	

You can now see each individual book and also all the individual orders displayed beside the book name.

M m Nor	Thereading	∑ Tatals	D Schephere	Cathri		 ()()() 	
View Fate d' Format Pareter	Filter Ly Remove Last T Topple Filter Mar X Deale	- EMan:*	Final Up Select v	8 7 <u>9</u>	$\underline{\mathbf{A}}\cdot \mathcal{T}\cdot\underline{\mathbf{A}}\cdot \ = = 0$		
forws Cipteand 5	Sot & Falst Record	91	find		Test Forwatting	36	
All Access Obje 🖲 🕷	Description Description						-
ens. a	BOCK TITLE -	1umOlg1y					
Tables 8	everything you bian't know About viwware		15				
III technolog	Evil Loon's Canal		19				
itriCurtament	Financial Planning During Difficult Times	10	12. 25-				
the factories	Flannel For All Seasons	2					
	For Love and Proofreading: A Grammar Primer Heart Hooks: Stories for the New More						
THO-pert	My Wother Is Not A Fish		7				
16/C+beriDidaria	Myles Prower: The World's Fastest Intern		1				
Queries 4	Ocean of Baid Branches		12				
(g)Cestario(dure)	Progroon Quarterly 1.1	11					
P un Constant annualtant	Piceroon Quarterly 1.2	4					
300	Picaroon Quarterly 1.3	15	52				
	Picaroon Quarterly 1.4	10					
	Picarpon Quarterly 2.1		17				
	Picecoon Quarterly 3.2		14				
	Picerbon Quarterly 2.3		4				
	Piceroon Quarterly 2.4		7				
	Princes Along the Watchtower		16				
	Rebuilding Eden		H.				
	Romance Canyon	12	T				
	Snowing in Las Vegas		17				
	Record W - 1 of 29 + N - To the filter Search		6				

Concatenation in Access

We learned the process of normalization, storing information in separate fields. Sometimes you want to see or view data together like combining the first name and last name fields

as a single field. You can display that information together by creating a calculated field that concatenates one or more strings. You can also add other characters like a comma or period that you may want.

- To concatenate in Access, there are two different operators you can use the **ampersand (&)** and the **plus (+)** sign.
- The ampersand will combine two strings into one whereas the plus sign will combine two strings and propagate NULL values, for example, if one value is NULL the entire expression evaluates to null.

Example

Let us take a simple example to understand the process of creating a new query using query design. This is going to be a very simple query that is pulling information from our customers' table.

Let us now add **tblCustomers** table close that show table dialog box. We will try some concatenation with some simple named fields.

how Table		?	×
Tables Queries Both			
tbBooks			
tbiCustomers tbiGenres tbiOrders tbiOrdersDetails			

Let us now add the first name and last name fields and run the query.

As you can see, the first name and the last name are separated into two different fields.

H tone Crete	General Data	Datatione Tools	Contraction of the second	latatase District e setat you want	anuh Tutanula MS Acce	vi Acces 2013 Deskto	p Ess Midsenni	ntWaqas T	- a ×
Hene Bart Hene Bart Heneda All Access Obje ® *	end liptete O Gurr 1 🗗 anOra	r Nor	Union Pass-Through Show Data Definition Teble	🚰 inset Rows 194 Delete Rows 25 Builder	A DESCRIPTION OF THE OWNER OF THE	hitali Pacame	Property Ste Witaste Nome terr		
kern. / / Tables a 10Cartorers 10Cartorers 10Coarto 10Coarto 10Coarto 10Coarto 10Coarto 10Coarto 10Coarto 10Coarto 10C		BiCuttomen Futframe Nadewinitial Latiture StreetAuduels							
	Field Table Sort Show Criteria	FastMame MiCurtomen	theCustomery	D	D				C C
	te.	9							
									11 10 12

We need to display this information together.

X A X Cat	T Anised		a Herr	∑ Totals	20	- Replace	Californ		* 11	5.15.1 63.6 3	12	
Record	Filter	Bog Tanata Advanced -	Retroft Al- X Dalana	Spelleng + Till More +	hnd .	Ep To - Select +	8.1	u <u>4</u> -	2-2-=		⊞.	
evs Claboord N	Sec	di Filler	Parts		10	ut			Text Formatting		1.4	
Il Assess Ohis IF a	D aryOemesiete	mitus (autim	Dimen C									
II Access Obje 🖻 *	FirstName	· LastName ·	1.1									
win. P	2/5/70	Karr										
ables 8	Lorvitta	Wakefield										
TheBooks	Sherry	Young										
to:Customers	James	Enickson										
turGances.	Rebecca	Serrato										
miCubers	Bradley	Zanders										
terOnienDetain	Edward	Davis										
	Christina	Lovett										
hielies I	Evelyn	Thompson										
p qiyClearanizBooki	Cheryl	Long										
🖗 imGriterinternation	Annie	Edevards										
	Lynne	Garcta										
	Tad	Halton										
	Lillian	Retrike										
	natph	Taylor										
	Susan	Sanders										
	Kent	Hudson										
	Tillia	Roley										
	Joseph	Hall										
	David	Forte										
	Ing	Nichols										

Go back to the **Design View** and in the third field create a new field called **full name**. Now, add the full name and type the expression that concatenates those two fields together

B 5-0	Query Tools	DBSales : Database- D1\TutoriaATutoriab\MS Acce	ss\Access 2013 Desktop Ess	Muhammad Weg	as ? —	o x
File Home Create Edemal Data	Database Tools Design	🖗 Tell me what you want to do				
	www.Fact-Through	Table A Builder 😤 Return: All Query Setup		Property Street Table Names		×
Search. /P Tables & I toRouteners I toRouteners	TblCustomers CustID FutSName Middelenitial LastName StreeRAddress +					×
<	FirstName LastName tbiCustomers tbiCustome	Fulliame: (FirstName) & JastName]				
Sor Shoo Critesi O						
	4					•
Ready					Num Lock 🔳	* E

Let us run the query and you will see a new calculated field.

N 🗮 X Cut		ng 🖣 Selection		C the Replace	Celbri • 11 • 🗄	E 檀檀 H+
New Paste Stromat Fainter		feng ⊡Advance Sort: ♥ Toggle F & Filter	Refuech Balance Spelling	Find 🗟 Select *	B I U <u>A</u> ·∞ <u>A</u> · ≡ ≡	. ≥ 2. ⊞.
News Clipboard 14	son	and the second se	11000000	Find	Text Formatting	19 (L)
All Access Obje 🖲 «	FirstName		FulName			
sarch. D	Pedro	Ketr	PedroKerr			
ables x	Loretta	Wakefield	LorettaWakefix			
tb(Books	Sherry	Young	SherryYoung			
1biCuitomers	James	Erickson	JamesErickson			
tbiGenres	Rebecca	Serrato	RebeccaSerrati			
1b/Orden	Bradley	Zanders	BradlevZander			
tbiOrdersOvtails	Edward	Davis	EdwardDavis			
	Christina	Lovett	ChristinaLovet			
aueries x	Evelyn	Thompson	EvelynThomps			
pyGearanceBooks	Chervi	Long	CherviLone			
gryOrdeninformation	Annie	Edwards	AnnieEdwards			
	Lynne	Garcia	LynneGarcia			
	Tad	Halton	TadHalton			
	Lillian	Reinke	LillianReinke			
	Ralph	Taylor	RalphTaylor			
	Susan	Sanders	SusanSanders			
	Kent	Hudson	KentHudson			
	Tillie	Riley	TillieRiley			
	Joseph	Hall	JosephHall			
	David	Forte	DavidForte			
	ina	Nichols	InaNichols			

It can concatenate the information from these two fields together, but it doesn't exactly appear the way we want it to. It runs all of that text together because it's performing the

way we have asked it to. We will now have to ask Access to add space in between the information from these two fields.

Let us now go back to the Design View and add another section to this expression.

Charles and the second s	nd Update Cr		Pass-Through 5	bow able Query	Tu Insert Columns	Totals	Sheet
All Access Obje 🗟 «	🗇 qıyOrde	ersinformation (3	Querys 🗇 Quer	¥5/			3
Renzh. P Tables 2 Im toiSooks ImiCustomers ImiCustomers ImiCusters		tblCustomers CustD FirstName ModdleInitial LastName	*				
Iboners Iboners Iboners Iboners Couries x aryCreatanceBooks uryOrdersleformation		StreetAddress	•				
DittelOrdersDetailt Queries & & DigroyCleananceDooks	•	StreetAddress	-				(*
DittelOrdersDetailt Queries & & DigroyCleananceDooks	Field. Table:	StreetAddress FirstName tbiCustomers	- LautName tbiCustomers	Fulliame: Fristilame	& ` & (Lastificame) 😠	1	
DittelOrdersDetailt Queries & & DigroyCleananceDooks	Field	FirstName	LastPlame	Fulftame: Firstftame	&``& (LastHame)		1 2

Add a Space inside quotes and another ampersand. This makes Access take the information from that first name field; add it with a space and then add the information from the last name field at the very end. Now, run the query again and you will see the following results.

Very Paster Stormat Pareter	Filter Statement	e Sott 🔻 🖓	esh X Delete - III -	$\begin{array}{c} & \\ & \\ & \\ \\ & \\ \\ & \\ \\ \\ & \\ \\ \\ \\ $	Calibri B I U ▲ - 12	+]11 ±≣±≣ 14 ≛≡≡	•1⊞]≡]∰• ≡ 2∎•	
10.45.55	Sort & Fi	and a second of the second sec	Records	Find		Text Formatting	19	
All Access Obje 🖲		emition 🐨 🗇 Que						
Search-	Pinstowarne		Contraction of the local distance of the loc					
Tables 8	Pedro	Kerr	Pedro Kerr					
Thillocks	Loretta	Wakefield	Loretta Wakofi					
10%ustamen	Sherry	Young	Sherry Young					
1biGapters	James	Erickson	James Erickson					
	Rebecca	Serrato	Rebecca Serrat					
thiOrders	Bradley	Zanders Davis	Bradley Zandei Edward Davis					
104OrdersDetails	Edward	S10005	Christina Lovet					
Queries #	Evelyn	Lovett						
gryCleananceBooks	and the second s	and a lot of the period	Evelyn Thomps					
T anyOrdenstedormation	Cheryl	Long Edwards	Cheryl Long Annie Edwards					
	Lynne	Garcia	Lynne Garcia					
	Tad	Halton	Tad Halton					
	Lillian	Reinke	Lillian Beinke					
	Reiph	Taylor	Ralph Taylor					
	Susan	Sanders	Susan Sanders					
	Kent	Hudson	Kent Hudson					
	Tillio	Biley	Tillie Riley					
	Joseph	Hall	Joseph Hall					
	David	Forte	David Forte					
	ina	Nichols	ina Nichols					

23.MS Access— Summarizing Data

Aggregate queries are great if you are looking just for one specific number, but if you want summarizing information like a spreadsheet-like summary you might want to consider trying a crosstab query. When you want to restructure summary data to make it easier to read and understand, consider using a **Crosstab Query**.

- A crosstab query is a type of **Select Query**. When you run a crosstab query, the results get displayed in a datasheet. This datasheet has a different structure from the other types of datasheets.
- The structure of a crosstab query can make it easier to read than a simple select query that displays the same data, as shown in the following screenshot.

By far, the simplest way to create a crosstab query in Access is to simply use the wizard that comes with Access to create your crosstab query. Let us now go to the Create tab, in the queries groups and click on query wizard.

New Query	?	×
This wizard creates a crosstab query that displays data in a compact, spreadsheet-like format.	Simple Query Wizard Crosstab Query Wizard Find Duplicates Query Wizard Find Unmatched Query Wizard	
	OK Cancel	

In the above dialog box, you can see all kinds of special queries. You can create a simple query wizard like how we have been doing so far from the Design View. The second one is the one we want — the crosstab query that displays data in a compact spreadsheet like format. Now, select the crosstab query and click Ok.

Which table or query contains the fields you want for the crosstab query results?	Query	: gryClearanceB A gryOrderSinfo : Query2	looks rmation	
To include fields from more than one table, create a query containing all the fields you need and then use this query to make the crosstab query.	View O Ia	ables 💿 G	Queries 🔿 E	l <u>o</u> th
Sample:		Header1	Header2	Header3
		TOTAL	11111111	,

The first screen in the Wizard is going to prompt what table or query contains the fields that you want for your Crosstab Query results. Click on the **Queries** radio button and select **qryOrdersInformation** — this is the one that we created earlier which contain the subtotal, sales tax etc. Click **Next**.

Crosstab Query Wizard						
Which fields' values do you wan row headings?	it as Av	ailable	e Fields:		Selec	ted Fields:
You can select up to three fields Select fields in the order you wa information sorted. For exampl could sort and group values by and then Region.	s. La St ant Ci le, you St Country Zig Q Re	ty ate code	ne ne ddress tionDate			kTitle
Sample:					17	/////
	BookTit	tle	Header1	Hea	der2	Header3
	BookTitle	1	TOTAL			
	BookTitle	2				
	BookTitle	-				
	BookTitle	4				
	Cano	el	< <u>B</u> ack		<u>N</u> ext >	Enish

We will now look into the available fields from that query. It will prompt you to enter the field values that you want as row headings. Let us say we want a simple list of all of our different book titles. Now select the book title fields and send that over to your selected field area and click **Next**.

Crosstab Query Wizard				
Which field's values do you want as column headings?	CustID FirstNar LastNar StreetA	ne	î	
For example, you would select Employee Name to see each employee's name as a column headir	City State ZipCode	e tionDate	•	
Sample:				
	BookTitle	TransactionD	TransactionD	TransactionD
	BookTitle 1	TOTAL		
	BookTitle2			
	BookTitle3			
	BookTitle4			
	Cancel	< <u>B</u> ack	<u>N</u> ext >	Enish

In the above dialog box, the question is what you want to use as column headings and that really depends on what you want to evaluate. Let us assume that you want to view our **sales by date**, choose **TransactionDate** and click **Next**.

014 2	2015	2016
TAL		
		Enish
		< <u>B</u> ack <u>N</u> ext >

The question in the above dialog box is a specialized one based on the field we previously selected since we chose a date time column. It is asking if we want to group our date time column information by a specific interval. Select the year option and click **Next**.

What number do you want calcula		Fields	s:		Functions:
each column and row intersection? For example, you could calculate t of the field Order Amount for each employee (column) by country and (row). Do you want to summarize each ro <u>Y</u> es, include row sums. Sample:	he sum 1 d region	Last Stre City Stat ZipC QTY Reta	Name Name etAddress code ailPrice total	~	Avg Count First Last Max Min StDev Stor Var
	BookT	ïtle	2014	2015	2016
	BookTit	le1	Sum(QTY)	1	
	BookTit	le2			
	BookTit BookTit	A CONTRACTOR			
				1111	

The next question in the above dialog screen asks what number do you want calculated for each column in the row intersection. In this case, we can go by quantity of the books sold by selecting **quantity (QTY)** and **Sum** from the functions and click **Next**.

Crosstab Query Wizard				
	What do you want to nam qryOrdersInformation_C That's all the information Do you want to view the <u>Wiew the query</u> . <u>Modify the design</u> .	Crosstab the wizard needs query, or modify	the query design?	
	Cancel	< <u>B</u> ack	Mext >	Einish

The very last screen of your wizard is going to ask **what do you want to name your query** and further, click **Finish** to **View that query**.

pplication Parts - Templates	 Waard Design Design Guerres 	n Form C Mora Form	r Rei	port Report Blank Design Repor Repor	f internation	Macros & Code	
All Access Obje 🐵 🖷	gryOrderstitumia6on_Crossla	and the second se		1.000			
ktirch_	BookTitle To	tal of QTY - 200		2008 -	2009 -	2010 -	
Tables a	Everything You Didn't K	35				35	
tbiBooki	Evil Loon's Canal	39			26	13	
	Financial Planning Durit	162				162	
1biCuttomere	Flannel For All Seasons	25				25	
thiGenres	For Love and Proofread	230		17		213	
ThiOrdets	Heart Hooks: Stories for	79			18	61	
miOntersDetails	My Mother Is Not A Fish	29			24	5	
Chieries a	Myles Prower: The Wor	11				11	
gryOrdersInformation_Crossit_	Ocean of Bald Branches	32			15	17	
gryClearAnireBooks	Picaroon Quarterly 1.1	181	181				
	Picaroon Quarterly 1.2	486	486				
T unforderstinfermation	Picaroon Quarterly 1.1	152	152				
D Overy2	Picaroon Quarterly 1.4	326	316	10			
	Picaroon Quarterly 2.1	87		87			
	Picaroon Quarterly 2.2	14		14			
	Picaroon Quarterly 2.3	14		14			
	Picaroon Quarterly 2.4	7		7			
	Princes Along the Watch	66			56	10	
	Rebuilding Eden	-44			38	6	
	Romance Canyon	157			155	2	
	Snowing in Las Vegas	47			22	25	
	The Affice of Textellan Te Record: 14 1 tot 29 4 M				3.0	715	

We now have book by book information and also information on the total sales like when each one of those sales occurred.

24. MS Access— Joins

A database is a collection of tables of data that allow logical relationships to each other. You use relationships to connect tables by fields that they have in common. A table can be part of any number of relationships, but each relationship always has exactly two tables. In a query, a relationship is represented by a **Join**.

What is Join

A join specifies how to combine records from two or more tables in a database. Conceptually, a join is very similar to a table relationship. In fact, joins are to queries what relationships are to tables.

The following are the two basic types of joins that we will be discussing in this chapter:

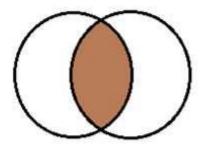
- The inner join
- The outer join

Both of which can easily be created from a **queries design view**.

Inner Join

Let us now understand Inner Join:

- The most common type of join is an inner join which is also the default join type in Microsoft Access.
- Inner Join will display only the rows or records where the joined fields from both tables are equal.
- This join type looks at those common fields and the data contained within. It only displays the matches.

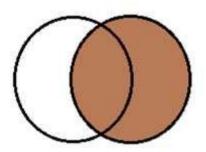


Outer Join

Let us now understand what an **Outer Join** is:

• An outer join displays all rows from one table and only those rows or records from the other table where the joined fields are equal.

• In other words, an outer join shows all rows from one table and only the corresponding rows from the other table.

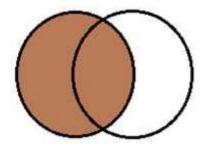


There are other Join types too:

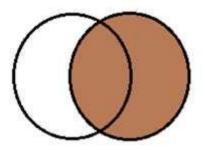
Left Outer Join & Right Outer Join

Let us now understand Left Outer Join and Right Outer Join:

- You can choose the table that will display all rows.
- You can create a Left Outer Join which will include all the rows from the first table.



• You can create a Right Outer Join that will include all the rows from the second table.



Let us now go to the **Create** tab and create a query from the **Design View**. Select **tblProjects** and **tblTasks** and close the Show Table dialog box as in the following screenshot.

show 1a	able			C.	?	×
Tables	Queries	Both				
Paste	Errors					1
tblAuti						
	nor Junctio	n				
tblEmp	loyee					
tblProj						
tblTas	G					
Temp2						
1000 000 K 100						
			Ād		Qose	

Add the **ProjectName** field from **tblProjects**, and **TaskTitle**, **StartDate** and **DueDate** from **tblTasks** table.

He Home Crotte	Diter	al Data 👘 🛛	Outabore Tools	Design 🛛 💡	Tell me what you want to		terto - concentia		- n ×
View Run Steet Male / Results		Update Cross Query Ig DuProje	itali Delete MOR	usi-Through St	ter insert Rows (> Detete Rows dete (> Detete Detete Correct	Trinset Column X State Column 28 Return All • intop	Totals Parameter	Property Sheet	
All Access Objects ® « arcs. Tables s Factor Errors Tables s *	Projectio Projectioner ManagingEditor Postuli Confractia Projectistat Projectistat Projectistat Projectistat Projectiones OutOffrine DateAdded	biProperte		Tastifi Prijediji Tastifike Pointy Satus Desimption Sartuke Desimption Satus Desimption Satus PercentComp	thifashs inte				
						0.00			
		Field Table Sort		Taskfitle th/Tasks	StartDate tb/Tarks	DueDate (M. fbillasks			f
		Show Criteria ec	Ø	Ø	R	Ø		a	
			4						

Let us now run the query.

View Faits Strengt Fac	External Fib	L Ascending Selection -	e what your and to de Reheat All + X Ordez - ■ More -	Prind Sc Replace	n 1 U	•]॥ इ.स. म्र ठू • म्र. = ज	
trenduC zwerk	19	Sort & Filter	Records	Find		Spd Formatting	
All Access Objects	R al	miProjects 5 Guerg?					
and the same of the same	R	Project Name	 Task Title + 	Start Date -	Due Date •		
Tables		Never Too Late: Reconnecting wi	th Yel Edit Chapter 1	2/4/2013	2/8/2013		
		Never Too Late: Reconnecting with	th You Edit Chapter 2	2/4/2013	3/8/2013		
Pade Eran		Never Too Late: Reconnecting wi	th Yot Edit Chapter 3	2/4/2013	2/8/2018		
thiAuthers	18	Never Too Late: Reconnecting wit	th Yoc Revise Chapter 1	7/11/2013	2/15/2013		
taiwithaquardoon		Never Too Late: Reconnecting wr	th Yoc Revise Chapter 2	2/11/2013	2/15/2013		
thifmployee		Never Too Late: Reconnecting wi	th Yol Revise Chapter 3	2/11/2013	2/15/2013		
III IIIHRData		Never Too Late: Reconnecting wi	th Yok fidit Chapter 4	2/25/2013	3/1/2013		
		Never Too Late: Reconnecting wi	nh Yox Edit Chapter 5	2/25/2013	3/1/2013		
a normante		Never Too Late: Reconnecting wi	th You Edit Chapter 6	2/25/2013	3/1/2013		
theffarylag		Never Too Late: Reconnecting wi	th Yor Revise Chapter 4	3/4/2013	3/8/2013		
Squeet E		Never Too Late: Reconnecting wi	th Yo: Revise Chapter 5	3/4/2013	3/8/2013		
Queries	*	Never Too Late: Reconnecting wi	th Yos Revise Chapter 6	3/4/2013	3/8/2013		
		Never Too Late: Reconnecting wi	ith Yoi Edit Chapter 7	3/18/2013	3/22/2013		
		Never Too Late: Reconnecting wi	th Yos Edit Chapter 8	3/18/2013	3/22/2013		
		Never Too Late: Reconnecting wi	Ith You Edit Chapter 9	3/18/2013	3/22/2018		
		Never Too Late: Reconnecting wi	th Yoc Revise Chapter 7	3/25/2013	3/29/2013		
	18	Never Too Late: Reconnecting with	th Yor Revise Chapter 8	3/25/2013	3/29/2013		
		Never Too Late: Beconnecting wi	Ith You Revise Chapter 9	3/25/2013	3/29/2013		
	11	The Potion, the Scroll, and the Ca	auldro Create Plot Overview	1/26/2013	2/4/2013		
	18	The Potion, the Scroll, and the Ca	auldro Create Character Portraits	1/26/2013	2/4/2013		
		The Potion, the Scroll, and the Ca	auldro Write Chapter 1	2/4/2013	2/15/2013		
		The Potion, the Scroll, and the Ca	10.00 CM 00.000 A CM	2/18/2013	2/22/2013		
	10	The Potion, the Scroll, and the Ca	auldro Revise Chapter 1	2/25/2013	3/1/2013		
	10	The Potion, the Scroll, and the Ca		2/18/2013	2/22/2013		
		The Potion, the Scroll, and the Ca	NUMBER AND A REPORT OF A REPORT OF	2/25/2013	3/1/2013		
	18	Record # . T of 77	11 T		a fa bias h		-

We are only displaying records from a few projects. A couple of these projects have a lot of tasks associated with that project and this information is related through **ProjectID** field.

- When we create this query in Microsoft Access, Access is taking this relationship from the relationships we have created.
- By default, it is creating what's known as an **Inner Join between these two fields**, between these two tables, and that is how it is relating this information together from these two tables.
- It is showing us only the matches, so when we run this query, there are a lot of other projects listed in **tblProjects** that do not appear as part of our records set in this query, and that is because of how these two tables are joined together, through that Inner Join, which is again, that default Join for any query.

However, if you want to alter the relationship, Let us say you want to create an outer join, or in other words, show all of the projects from **tblProjects**, every single record that is in that table, along with all of the tasks from **tblTasks** — Open join properties; we can do this simply by double-clicking on the relationship line.

Left Ta	able Name		Right Table Name		
tblPro	jects	\sim	tblTasks		\sim
Left C	olumn Name		Right Column Name		
Projec	ctID	\sim	ProjectID		\sim
01:	Only include rows when	e the jo	pined fields from both	tables ar	e equal
		m 'thiDr	oiacte' and only these	records	from
● 2:	Include ALL records fro 'tblTasks' where the join			records	TOIL
● <u>2</u> : ○ <u>3</u> :		ned fiel m 'tblTa	ds are equal. asks' and only those re		

Access will display the left table name and the right table name in Join Properties dialog.

- The left column name and the right column name and the first radio button is to only include rows where the join fields from both tables are equal and that is the inner join and that is what is selected by default when creating relationships, when creating a join in the query, but, you can change it.
- We have two other options as well; we can include all records from tblProjects, and only those records from tblTasks where the joined fields are equal and this one is Left Outer Join.
- We have a third option, include all records from tblTasks and only those records from tblProjects where the joined fields are equal and this one is Right Outer Join.

Those are the different types of joins you can create easily from the Design View. Let us select the second option, which is Left Outer Join, and click **Ok**.

Let us now look into the other steps:

Border			8	Guery Tests	contDitation	es Ortidaio-	C/Uhen/Muhemmad	Wegen's M	Wages ?	- -	×
File Home Create	External Dat	600 B	Outatione Tools	Design	🖗 Tell itte wi	lat you want t					
View Rum Result: All Access Objects	10 11	Query Ips	tali Delete	m-Through	then in	Insert Rowe Delate Haves Builder Comp	Timen Calumn X Dilate Column Bi Betam All Setup		Broperty She anarotaters Withday Show Hida		- c × 1
Search.	R	F	1	biProjecta		1		1	(b/Tasis		-
Tables Pade Erran Hikathery Hikather	*	×	Projectió Projectione ManagingEditor Pisatus Contractis Projectinat Budget Projectinat Budget DidCHPrint DateAddea					Start Duel F Attac	D dID Itia éy is sigtion Date		
	-1	Ļ			_	ł					
		Field	Projectfilame taiProjects	TaskTitle Itb/Tasks	tbi	etDate Tarks	DueCate tb/Tacks	Sel	1 0	D	
Form View			9.5						Num (ock		•

When you look at the relationship line, you will see a little arrow pointing towards **ProjectID** in **tbITasks**. When you run this query, you will see the following results.

New Parts & Cur. New States & Copy States & States Fairs	s	Sort & Tuggie Filter Ag+	in New ∑ Totals	P Find ↓ Go Ta + Q Select + Find	A - 11 - 1	+ 11 + 1 +: =: ++ - 10 2 + 1= = = = 12 hot formationg	
All Access Objects	0 4 E	1 thRopeds 1 Carry?					 3
ent.	A	Project Name +			Due Date •		
Tables		The Potion, the Scroll, and the Cauldro		9/2/2018	9/6/2013		
Peste Erren	10	The Potion, the Scroll, and the Cauldro		9/2/2013	9/6/2013		
		The Potion, the Scroll, and the Cauldro	Review Galley	9/9/2013	9/14/2013		
thisuthers		The Great American Frontier					
this dheriundian		Great American Beaches					
ithtimplayee		Cash is King: How to Cut Your Spending		6/16/2013	6/14/2013		
totellata	-	Cash Is King: How to Cut Your Speriding		6/30/2013	6/14/2013		
theProjects		Greatest Blunders of the 20th Century					
III millanes		The Snake in the Shores					
CARA CARACTERISTICS		The Light of Heat					
		Hunter of Someone					
Quaries		Growing Up Nobody Willow of Dream					
	-	Visions of Danger					
		The River in the Thoms					
		The Soul in the Crying					
	100	The Memory in the Man					
		The Cold Night					
		10.25209310472 10 10	Create Story Board	6/17/2013	6/28/2013		
			Create Character Portraits	6/17/2013	7/1/2013		
		The School of Lords and Ladies					
		The Unwilling Woman					
		The Hidden Portfolio of Villainous Seo					
		The Hidden Lexicon					
		H					
	100	accords in a 1 of 134 + m + 1 To for Batter	and the second sec				

As you can see that it is showing us every single project name, whether or not it has a related task. You will also see a bunch of null fields. All of this will be blank because there

is no related information in **tblTasks**, where these fields come from. Let us now go to the **Design View** again and double-click on the relationship line.

	ALC MARKS	Dista Ta	Ele Mercer	
-	able Name		ble Name	
tbiPro	ojects	✓ tbiTasks	5	V
Left C	olumn Name	Right Cg	lumn Name	
Proje	ctID	 Projecti 	D	~
01:	Only include rows where	the joined field	is from both tables a	ire equa
02:	Include ALL records from 'tblTasks' where the joint			s from
● 3:	Include ALL records from 'tblProjects' where the jo	'tblTasks' and	only those records f	rom
€¥.	windjeus miere die ju	nines menus si e	a dame.	

In the Join Properties dialog box, select the third option which is for the Right Outer Join and click \mathbf{Ok} .

B 🍕 🖓 🖓 🖓			Guery Trinin Access	Ontobine : Database-	G\Uhen\Mahammad.Wat	an. Mehanma	d Wagan 7	- a y
Tile Home Create	Esternal Oxfa	Database Tools	Design 🛛 🖓 Te	llime of hit you want t	o do			
Results	9	Crossitati Deleta	as-Through As Definition Tabl	P Delate Arries	学 Inset Column 学 Daine Column 語 Return: All ・ Setup	Totali Parameter	Property Sheet	
All Access Objects	3 a 1 a	(Projects) 🚰 Galery2	The second second					
earch.	P	1	biProjects			F	thtTauks	
Tables	P.					1.01	2410.0558	-
Paste Erters		ProjectiD		•		TaskiD		
III thisothers		Projecthlame ManagingEditor				ProjectID		
thiAuthoriumban		PStatus				TaskTitle Priority		
thiEmployee		E Contracts				Status		
to in the state		ProjectShart				Description		
till Projecti		ProjectEnd Sudget				StartOute		
millionits		ProjectNates				DueDate El Attachments		
Temp?		OutOfPrint				PercentComple	ete	
Queries		DateAdded				11.0.44300.0022542		
						-		
	•				contentia.			0
		Field: Project/lama Jable: tbiProjects Soft:	Task1Hle tbiTasks	StartDate ItslTasks	DueDate 😥 ItsiTasks			
	5	Row E tenia or	Ø	Ø	Ø			
		•1.1						1.
un View		(instruction)					hum Lock	10 × 10

Now look at our relationship line. You will see that a little arrow is now pointing towards **ProjectID** in **tblProjects**. When you run this query you will see the following results.

File. Home Create	Diter	naf Data Database Tools 🔍 Tell me what you want to do	
View Parte O' Formal Pa		$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	
nes Options	· 9	Sart & Filter Recents Find Sed Femaliting 16	
All Access Objects	(a) w	III IIIIIIIIII (III IIIIIIIII))
		Project Name Task Tribe Start Date Due Date	
arch	ø	Never Top Lite Reconnecting with Yor Edit Chapter 1 2/4/2013 2/8/2013	
Tables		Never Too Late: Reconnecting with Yos Edit Chapter 2 2/4/2013 2/8/2013	
Pathe Errara		Never Too Late: Reconnecting with Yo: Edit Chapter 3 2/4/2013 2/8/2013	
thiAuthers		Never Too Late: Reconnecting with Yos Revise Chapter 1 2/11/2013 2/15/2013	
thiAdmentanchion		Never Too Late: Reconnecting with Yoi Revise Chapter 2 2/11/2013 2/15/2013	
thifmployee		Never Too Late: Reconnecting with Yos Revise Chapter 3 2/11/2013 2/15/2013	
iniHittata		Never Too Late: Reconnecting with Yos Esit Chapter 4 2/25/2013 3/1/2013	
		Never Tod Late: Reconnecting with Yok Edit Chapter 5 2/25/2013 3/1/2013	
to@vojatti		Never Too Late: Reconnecting with Yos Edit Chapter 6 2/25/2013 3/1/2013	
metases		Never Too Late: Reconnecting with Yos Revise Chapter 4 3/4/2013 3/8/2013	
Temp2		Never Too Late: Reconnecting with Yox Revise Chapter 5 3/4/2013 1/8/2013	
Quarries		Never Too Late: Reconnecting with Yok Revise Chapter 6 3/4/2013 3/8/2013	
		Never Too Late: Reconnecting with Yox Edit Chapter 7 3/18/2013 3/22/2013	
		Never Too Late: Reconnecting with Yos Edit Chapter 8 3/38/2013 3/22/2013	
		Never Too Late: Reconnecting with Yo: Edit Chapter 9 3/18/2013 3/22/2013	
		Never Too Late: Reconnecting with Yos Revise Chapter 7 3/25/2013 3/29/2013	
		Never Too Late: Reconnecting with Yok Revise Chapter 8 3/25/2013 3/29/2013	
		Never Too Late: Reconnecting with Yok Revise Chapter 9 3/25/2013 3/29/2013	
		The Potion, the Scroll, and the Cauldro Create Plot Overview 1/26/2013 2/4/2013	
		The Potion, the Scroll, and the Gauldro Create Character Portraits 1/26/2013 2/4/2013	
		The Potion, the Scroll, and the Cauldro Write Chapter 1 2/4/2011 2/15/2013	
		The Potion, the Scroll, and the Cauldro Edit Chapter 1 2/18/2013 2/22/2013	
		The Potion, the Scroll, and the Cauldro Revise Chapter 1 2/25/2013 3/1/2013	
		The Potion, the Scroll, and the Cauldro Write Chapter 2 2/18/2013 2/22/2013	
		The Potion, the Scroll, and the Cauldro Edit Chapter 2 2/25/2013 3/1/2013	
		Bernett # 1 1 of 27 + # + 1 T, the fitter Search	_

Self-Joins

Self-join is another type of Join. A Self-join relates matching fields from within the same table. For example, look at the employee's table with a supervisor field, which references the same kind of number stored in another field within the same table — the employee ID.

🔒 🗧 🗧 Settom	Database- Dt/Tutonal/Luconals/L., Table Tools Muhammad Wagas. ? — 🖽	
File Home Create	External Data Database Tools Fields Table 🛛 Tell me what you want to do	
View Patter Copy Patter Spanat Painter	$\begin{array}{ c c c c c } \hline \hline & & & & \\ \hline & & & \\ \hline & & & \\ \hline \hline & & \\ \hline \hline \\ \hline & & \\ \hline \hline \hline \\ \hline & & \\ \hline \hline \hline & & \\ \hline \hline \hline \hline \\ \hline	
All Access Obje 🖲	m 🗐 thilmployees	- 3
and the second sec	EnployeeiD · FirstName · Mi · LastName · Supervisor · Click to Add ·	
Tables 2	* 263-509-018 Delores Townsend 123-786-126	
tb6ookProjects	* 265-074-618 Marla Savage 329-976-195	
	267-299-417 Terri L Crawford 267-299-417	
tolAssignedProjects	* 270-760-216 Herman N Murray 339-976-195	
1biOepartments	* 275-099-948 Antonio Silva 196-243-171	
thiEmployeeinfo	# 293-942-076 Christie Gates 343-931-394	
tb/Employees	* 255-947-142 Winfred Hale 267-299-417	
ThiGenres	* 299-847-407 Kaitlin Rasmussen 339-976-195	
	301-522-873 Virgil White 255-547-142	
	* 313-306-070 Andres Ortiz 196-243-171	
grySeitiom	* 320-007-935 Katherine T Emerson 339-976-195	
	325-270-333 Marcle Odom 195-243-171	
	¥ 333-329-264 Todd Watson 301-522-873	
	339-646-593 minie England 343-931-394	
	# 339-976-195 Charity T Hendricks 255-947-142	
	* 343-931-394 Devon H Barton 295-947-142	
	# 350-386-059 Ruthie A Higgins 301-522-873	
	9 354-615-924 Annemarie J Marks 182-015-442	
	* 362-306-589 August Tate 196-243-171	
	i 364-009-521 Verna A Wynn 196-243-171	
	* 368-102-054 Mark D Pollard 301-522-873	
	Record: H = 1 of 32 + H + T. Ho Filter Search	
atasheet View	manilok E	-

If we wanted to know who Kaitlin Rasmussen's supervisor is, we will have to take the number stored in that supervisor field and look it up within the exact same table in that employee ID field in order to know that Charity Hendricks is the supervisor.

This table is not the ideal structure for a relational database because it's not normalized.

If we have a situation where we want to create a query that just lists the employee names alongside the names of their supervisors, there is no easy way we can query that unless we create a Self-join.

To see a Self-join, create a table with the following fields and enter some data.

		le Tools Verlign 🛛 🗘 Tell me whiet yez	Muhammad Waqas	1 - 0 X
Views	te Insert Rows ⇒ Delete Rows m Modify Lookups Sheet	Jeses Create Data Renorme/ Macros * Delete Macro	Relationships Object Dependencies	
All Access Obje 🖲 «	1 tuttmplayees			
Search.) Tables 2 tablookProjects ta	Field Name FirstName MiddleInitial LastName EmployeeInfo_ID OfficeExt Email Supervisor	Data Type Number Short Text Short Text Number Number Hyperlink Number Field Pr	Description (C	optional)
- 103 services	General Lookup Field Size Long Integ Formal Decimal Places Auto Imput Mask 000,-000,- Caption Default Value Validation Rule Validation Text Required Yes Indexed Yes (No Du Text Align General	906 S		in be up to 64 characters long, ces. Press P1 for help on field frames.

Here we want to create a list again with the first name of the employee and then the name of the supervisor. Let us create a query from the **query design view**.

Now, add **tblEmployees** tables.

Show Table	?	X
Tables Queries Both		
tbBookProjects tbIAssignedProjects tbIDepartments tbIEmployeeInfo		
tblEmployeeInfo tblEmployees		
tblGenres		

Close this dialog box.

View Run Results	nd Update Cr Quen	osstab Delete	Inion ass-Through lata Definition Table	se Insert Rows SK Delete Rows M Builder Query	해입 Insert Columns 文 Delete Columns 환 Return: All - Setup	Totals	Property Sheet Property Sheet Table Names Show/Hide	
All Access Obje (*) « Search. (*) Tables (*) Tab	Cueryt	EmployeeID FirstName MiddleInitial LastName	* *					3
🗗 qıySeltJoin.	Field: Table: Sort: Show: Criteria: oc	FirstName tblEmployees	tbiEmployees					1

Now, add the first name and last name for our employees.

We now need a way to create a relationship between this table and itself. To do that, we need to open **the show table dialog box** and add tblEmployees one more time.

and the second s	itabase: D:\Ti temal Data	torial\Tutorials\ Database Tools	Query Tools Design	Tell me what	Muhamma	el Waqas 🥇 🗧	- • ×
View Run Results All Access Obje @ «	202400.00	actab Delete		The second second second	ert Rows Trinsert Colum ete Rows X Delete Colum ider Zeitzern All Query Setup		×
Serron. P Tables & a I toBookProjects & I t		tbiEmy EmployeeID PirstName MiddleInitial LastName EmployeeInfo_ID OfficeEst Email Supervisor	płóyees		tbiEn * © EmployeetD FiritTiame Middleinitial LastDiame Employeeinfe OfficeExt Email Supervisor		
	Field: Table: Sort: Show Criteria: or:	FuntName tbiEmployees	LastName tblEmployees				-
Ready		•				Num Lock	

We have created another copy of the same table in this query view. Now, we need to create Self-join. To do that, click on Supervisor in **tblEmployees** table and hold the mouse button and drop it right on top of the **EmployeeID** in that copied table — **tblEmployees**_1. Then, add the first name and last name from that copied table.

🖶 🎭 - 🚽 🔹 Settlain : D	stabure-Di\Tu	donal\Tutonals\	Query Tools		Muhammad Wage				
File Home Create E	ternal Data	Outabase Tools	Design	Q Tell me what you want t	u do				
n Table	Quer	outab Deleta	Union Pass-Through Data Definition	Share Yable Multicer Query	Prinsert Columns Columns Prinketarn All * Setup	Totals	The Paramo Proper HT Table N Show, Hide	ty Sheet	
All Access Obje 🗟 🕷	Guery1								- 1
Jearch. D Tables #		tbillimp	oloyees		tblEmployee	1			E
Tables = ToRockProjects = ToRockProjects = ToRockProjection = TorockProjection = TorockProject = TorockProje		EmployeeID FirstName Middletnitial LastName EmployeeInfo_ID OfficeEst Email Supervisor			 EmployeeID FirstName Middleinittal LaitName EmployeeInfo_ID OfficeExt Email Supervisor 				
ngSaffain					-				-
	Field	FirstName	LastName	FirstName	LastHame			1	1
	Table: Sort:	tbiEmployees	tbiEmployees		tb/Employees_1			-	_
	Shou: Criteria bi:	Ø	8	2	12				1
		1							•
Ready	-					Núm Lock	. (El	301	16

Let us now run your query and you will see the following results.

View Cipboard 7	Filter Filter Sort & Filt	ing Tar Refre	B Save	∑ Find ≥ Find	Calibri B I U ▲ • ৺	-[1] ======== <u> 0</u> - ===================================	
All Access Obje 🖲 «	gueryt						3
Rench. JO Tables a	TOEP THOUGHT	 tblEmployer - Wooten Haney 	tblEmployer + Keith Keith	tblEmployer + Cotton Cotton			
tbBookProjetti tblAssignedProjetti	Elvis Hector	Manning Fulton	Winfred Charity	Hale Hendricks			
to:Separtments	Claudine Javier Janell	Goff Sparks Frank	Elvis Keith Winfred	Manning Cotton Hale			
tbiEmployeer	Cecil Keith	Snyder Cotton	Janell Terri	Frank Crawford			
gnySettioin	Camille Delores María	Roy Townsend Savage	Charity Elvis Charity	Hendricks Manning Hendricks			
	Terri Herman	Crawford Murray	Terri Charity	Crawford Hendricks			
	Antonio Christie Winfred	Silva Gates Hale	Keith Devon Terri	Cotton Barton Crawford			
	Kaitlin Virgil	Rasmussen White	Charity Winfred	Hendricks			
	Andres Katherine	Ortiz Emerson	Keith Charity	Cotton Hendricks			

It displays the names of the employees alongside the names of their supervisors. And, this is how you create a Self-join in Microsoft Access.

25.MS Access— Duplicates Query Wizard

In this tutorial, we have created a variety of select queries, mainly from the Design View. But in Access, we can make use of some special query wizards to create a couple of specific select queries. The first one is Find Duplicates Query wizard. The Find Duplicates Query Wizard will create a query that locates records with duplicate field values in a single table or query.

As we have discussed that relational databases are designed to avoid storing duplicate information. But despite that design, sometimes users accidentally enter duplicate information.

Example

In a customer's table, you can have the same customer accidentally added twice. In such cases, the customer will have the same address, but different customer IDs, which can create problems with reporting. In this situation, you can make use of the **duplicates query wizard to quickly locate possible duplicate entries**.

Let us now open our Access database which contains **tblAuthers** table and go the **Create** tab and, in the queries group, select **query wizard**.

If you see the following screenshot, you have four different wizards to choose from. Select the **find duplicates query wizard** and click **Ok**.

New Query	?	×
This wizard creates a query that finds records with duplicate field values in a single table or query.	Simple Query Wizard Crosstab Query Wizard Find Duplicates Query Wizard Find Unmatched Query Wizard	
	OK Cancel	

The very first screen of the find duplicates query wizard will ask what table or what query you want to search for possible duplicates. Let us say we want to check our author's table to make sure that the same author hasn't accidentally been entered twice. So, select tblAuthors and click **Next**.

Find Duplicates Query Wiz	ard
	Which table or query do you want to search for duplicate field values?
1 2 3	For example, to find cities with more than one customer you would choose a Customer table below.
2	Table: Paste Errors Table: tblAuthorJunction Table: tblAuthors
2	Table: tblEmployee Table: tblHRData Table: tblProjects Table: tblTasks Table: Temp2
	View Iables Queries Both
	Cancel < <u>B</u> ack <u>N</u> ext > Enish
Find Duplicates Query Wiz	ard
- For e	h fields might contain duplicate information? example, if you are looking for cities with more than one customer, you d choose City and Region fields here.
	lable fields: Duplicate-value fields:
Firs Mide Last Stre City	
Stat ZipC	code v
	Cancel < <u>B</u> ack <u>N</u> ext > <u>F</u> inish

• The second screen in the wizard will ask what fields might contain duplicate information.

- Typically, you will not be using your primary key field, because, again, when you designate a field in Access as a primary key, Access will not allow duplicates to be entered.
- We will look at any other field or a combination of fields.

We can search by the last name or the first name and the last name, or you can search by their street address, or to be more specific with their telephone number or birthday.

Let us now search by the first name, the last name, and birthday and click **Next**.

- For examp	ds might contain dup ble, if you are looking	g for cities with m		omer, you
Available 1	ose City and Region fields:		Duplicate-value fiel	ds:
AuthorID MiddleInit StreetAdd City State ZipCode Telephone	tial dress eNumber		FirstName LastName Birthday	
DateCrea	ited			

The following screen in this wizard will ask for the fields we want to be displayed in our query. For this, hit the double arrow, all of the fields will move over to the additional query fields area, and will be added to our query results.

 Do you want the query to show the for example, if you chose to look CustomerName and Address here	for duplicate Cit	
Available fields:	Add	itional query fields:
AuthorID MiddleInitial StreetAddress City State ZipCode TelephoneNumber DateCreated	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	
Cancel	< <u>B</u> ack	Next > Einish

Let us now click **Next**. It will take us to the last screen in this query wizard.

Do you want the query to sh	ow fields in add	lition to those with duplicate values?
For example, if you chose to CustomerName and Address		te City values, you could choose
Available fields:		Additional query fields:
	>	AuthorID MiddleInitial StreetAddress
	<	City State ZipCode
	<<	TelephoneNumber DateCreated
	1	

Find Duplicates Query Wize	What do you want to name your query? Find duplicates for tblAuthors Do you want to view the query results, or modify the query design? • Yiew the results. • Modify the design.
	Cancel < <u>B</u> ack <u>Mext</u> <u>Finish</u>

In the following screen, enter how do you want to name your query.

By default, it's going to name it **find duplicates for** plus **whatever the name of the object that you're querying**. In this case, **tblAuthors**, but you can give it any other name too and click **finish**.

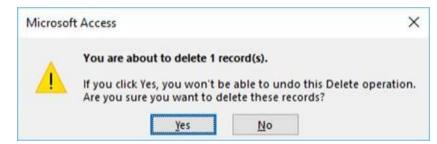
Here, Access has found a possible duplicate, and that's going to be author Jose Caline which has same birthday, same address, same telephone number but different AuthorIDs.

gepication Parts * Design U Temperates Tables	Paint 1	Duery Charry Roard Design Charrie	Farm Form Black Design Form For	More forms *	Report Report Rises		Macros & Color Macros & Color	ait.		
All Access Objects ration Porte Imm Internationationation Internationationationation Internationationation Internationation Internationationation Internationationation Internationatio		Insertan Firsthume Jose	Cathe	and the second second	Author ID - Middlein 999 J 7 J 0	998 Tuna 50	e + City ee Southfield ree Southfield	Ma No	 ZipCode 48075 48075 	Telephoneft 810-363-5604 810-363-5604

This one has definitely been entered twice by accident. We have now added all of the fields to our query, we could just go and delete the record. We also have to make sure that we don't have any related records in another table.

File Home Croste Application Table Table Share Perspirate Tables Tables	87 V	Query Query Nazed Design Queries	Form Form Black Design Form For	n 🖾 More Forms - ms	Proof Proof Sink III.	port Wisand	Macro Macro Macros & Cost	Aodule Basic		
All Access Objects	e i	FirstName		and the second second	Author ID - MiddleInitia -		City ee Southfield	+ State	ZipCode	TelephoneN -
Tables	\$	Jose	Caine	6/23/1968	71		ee Southfield	MI	48075	\$10-963-5604 \$10-963-5604
Paste Errors		t and the second	- serve		0	370 10 10 30	es overing of			0.000 0000
tts:Authatlundion										
tbRuthen										
tb/Employee										
tt/HRCata										
tbiProyects										
tomasks										
Temp2										
Queries	¥.									
	1							-		
	10.4	econs # # 20	12 P. H H T	Alto rollion Search	· · ·					

Select any record and choose Delete as in the following dialog box.



Access gives you a prompt, "You are about to delete one record." Click **Yes** if you want to continue.

If you'd like to see how that wizard has created this query, go into the Design View and see what all has been added to this query.

B Southers			ep fant Acam	Dytoteer (Deteine	Crimer/MAtament	(Mager/Documents)/A	cressiliatabeen accedo)	Acres 3007 - 2010 5	in format() - Access	Mate	- S Here Kleen		
Fie Hone Onley Edge	ne Dete	Delatase Tools	leip § 14	ine whet proceeds									
I have been been been been been been been be	Query (s	mit Deler Mon	Shough Defention 244	(A Samelon A Builder Gam	Billetam 40	· Solah Parana	E Property She British Trainin Ann, Train						1.4.4
Serol. JP Tables a Statustantian Statustantian Statustantian Statustantian Statustanti Statust	1.000	tilludinn 1 adnorð Perðlam Nedhantal Læðlans Sherliddins											
	Field Table Sart Show Citeria at	tpiAuthon Accending	Gistfane(Bokuthon Assending D	jurbaşi biliyabarı Asondra E	jkenurði tsauðieri E	Medenta) Bildhiri	Breskases) Isolution	941 Birdani 2	jintej toli-diteri El	DepCodel Italiadhon 2	Friedtonefkanbej tilikathin ⊡	DateOrated Balachors	
Fact Very		4									Burrderk	5 4 3	•

As you can see in the above screenshot, we have our fields and some specific criteria underneath the first name field.

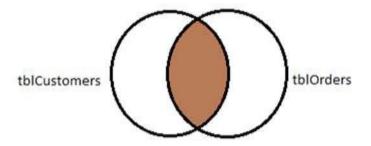
See New Case: Lethon Use: Deskind op unset black Yein See See See See See See See See See See See See See See
Image: Second
Print Attack P Bilden Bilden
Sect. P Tables 1 Reference Sectors B Sectors B Sec
Intel Containing Sprinkag put production put production
at, round in Unitin' Assamle Arrow Eleverand For all nervous Eleverand Francel Assamle France Fortuni (France of Eleverand France) (France Of Eleverand France Of Elev

This is how this wizard is looking for that duplicate information. It is by far the easiest method to find duplicates.

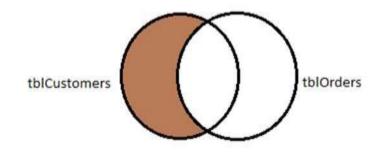
26. MS Access— Unmatched Query Wizard

In Access, there is another very useful wizard and that is **Find Unmatched Query Wizard**. The Find Unmatched Query Wizard creates a query that finds records or rows in one table that have no related records in another table.

As we have already discussed how data joins together in queries, and how most queries are looking for the matches between two or more tables.



- This is the default join in Access, for example, if we design a query with two tables, tblCustomers and tblOrders, and join those two tables by the CustomerIDs, this query will return only the results that match. In other words, the customers who have placed orders.
- There are times when we don't want to see the matches, for instance, we may not want to see any customer in our database — the customers who have not placed orders as yet.

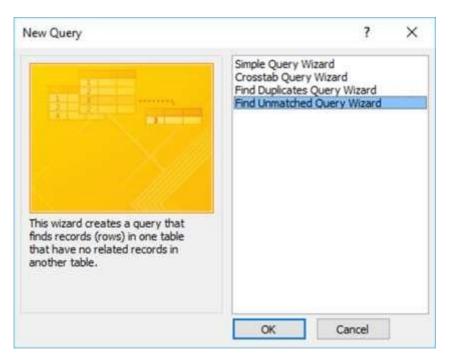


• This is exactly what the find unmatched query does.

There are many other possible uses for this kind of query as well.

In our database, we can use it to see which authors have not yet written a project or you could use it to see which employees have not yet elected any health benefits. Let us now open your database which contains **Customers** and **Orders** table; go to the Create tab and click on the query wizard button.

Select the Find Unmatched Query Wizard and click Ok.



In this scenario, we will look out for those customers who have not placed an order. In the first screen it's asking which table or query contains the records you want in the query results.

We now want a list of customers from **tblCustomers**. Select that option and click **Next**.

	The query you create will list records in the table no related records in the table you select on the you can find customers that have no orders.	
1 2 3 1 4 2 4	Which table or query contains records you want Table: Paste Errors Table: tblAuthorJunction Table: tblAuthors Table: tblAuthors Table: tblCustomers Table: tblEmployee Table: tblEmployee Table: tblOrders Table: tblOrders Table: tblOrdersDetails	in the query results?
	View <u>Iables</u> Queries Both	

In the following screen, you need to specify **which table or query contains the related records**. In other words, what table are you using to compare with the first one. For this,

we need to find the ones that have not placed orders. We need to select the table that contains information on all orders - **tblOrders**. Now, click **Next**.

Find Unmatched Query	Wizard Which table or query contains the related records? For example, if you've already selected customers and customers without orders, you would choose orders h	
1 2 3 4 1 2 4	Table: Paste Errors A Table: tblAuthor Junction Table: tblAuthors Table: tblEmployee Table: tblEmployee Table: tblHRData Table: tblOrders Table: tblOrders Table: tblOrders Table: tblProjects View	
	View ● <u>I</u> ables ○ Queries ○ Both Cancel < <u>B</u> ack <u>N</u> ext >	Enish

In the following screen, you need to specify which piece of information is in both tables.

- This will typically be some kind of primary key, foreign key, field, or relationship.
- If you have an existing relationship in your database, Access will select and match those fields for you.
- But, if you have other fields that you can join together, contain similar information, you can choose that here as well.

Here, we have CustID selected by default in both Fields in 'tblCustomers' and Fields in 'tblOrders'. Now, click **Next**.

1	What piece of information is in both For example, a Customers and an CustomerID field. Matching fields n Select the matching field in each ta	Orders table may both have a
2 3 4 1 2 4	Fields in 'tblCustomers' : CustID FirstName MiddleInitial LastName StreetAddress City State ZipCode V	Fields in 'tblOrders' : OrderID TransactionDate CUSTID
	Matching fields: CustID <=>	CustID

In the following screen, you can pick and choose the fields you want to see displayed in the query results.

	Vhat fields do you want to Available fields: Custio FirstName MiddleInitial LastName StreetAddress City State ZipCode	see in the query	Selected fields:	
3	Cancel	< <u>B</u> ack	Next >	Einish

Let us now select all the available fields and click on the double-headed arrow. This moves all the **available fields** over to the **selected fields** area. Now, click **Next**.

Find Unmatched Qu	What fields do you want to Available fields:	see in the query	results? Selected fields:	
		> >> <	State ZipCode TelephoneNumber CCType CCNumber CVV2 CCExpires FirstOrder	^ ~
3	Cancel	< <u>B</u> ack	<u>N</u> ext >	Einish

The last screen will allow you to choose a name for your query and click **Finish**.

Find Unmatched Query	Wizard
	What would you like to name your query?
	Cancel < <u>B</u> ack <u>Next</u> > <u>Finish</u>

Here we have one customer listed as that customer who has not placed an order with us yet.

Sero.	y fam fam Ball	nd at Report Aspo Doug	the second se	Andree Medicie Antro Proverlitere Macros & Code					
Sero.									
Table		LattName +	StreetAddress	· cay ·	State +	DipCode · Telephonety ·	CCType · CCTw	riber - CVV2	 OCExpire
I histori	US3000 Jessika E	Batiste	105 North Bend River Road	Brooksville	10 ⁴	63004 606-735-0083	MasterCard \$13054	846285170 8	08 8/1;
the second									
Record M	Charles A. H. H. T. Hallow Stee	n III						Netro 181	

You can also see how that query was created. For this, you need to go back to the **Design View**.

The second second		C\Users\Mu Database Tools	Query Tools Design	♥ Tell me what		hemmed Weges o do	1	- 0	
View Run Results	Quety Type	Union Pass-Through Data Definitio	Show Table	F= Insert Rows IX Delete Rows N Builder Query	""" Insert	Columns columns	∑ Totals	Property She	
All Access Objects		tblCustomers	1,	tolOrde OrderID Transaction CustiD					
tolCustomers tolfmployee tolHEData tolOrders tolOrders tolOrdersDetails tolProjects tolTasks		Streetwooless	*	<u>-</u>					
toEmployer toEmployer toErEData toOrders toOrdersDetails toOrdersDetails toOrogerts	Field: Table:	CCNumber tblCustomers	 CVV2 tblCustor 	CCEx mers tblCt	pires	FirstOrder tblCustomer	n	CustiD tbiOrden	
tb@mplayer tblPRData tblOrders tblOrders tblOrdersBetails tblProjects tblProjects tblFasks Temp2	Field	CCNumber tblCustomers	CVV2 tblCustor						

This wizard has created an **Outer Join** between tblCustomer and tblOrders and the **Is Null** criteria is added to the CustID from tblORders. This is to exclude certain records. In this case, it is the customers who have placed orders, or who have related information in tblOrders.

27.MS Access— Create a Form

Forms in Access are like display cases in stores that make it easier to view or get the items that you want. Since forms are objects through which you or other users can add, edit, or display the data stored in your Access desktop database, the design of your form is an important aspect. There's a lot you can do design-wise with forms in Microsoft Access. You can create two basic types of forms:

- Bound forms
- Unbound forms

Bound Forms

Let us now understand what **Bound Forms** are:

- Bound forms are connected to some underlying data source such as a table, query, or SQL statement.
- Bound forms are what people typically think of when they think of the purpose of a form.
- Forms are to be filled out or used to enter or edit data in a database.
- Examples of bound forms will typically be what users use to enter, view or edit data in a database.

Unbound Forms

Let us look into Unbound Forms:

- These forms are not connected to an underlying record or data source.
- Unbound forms could be dialog boxes, switch boards, or navigation forms.
- In other words, unbound forms are typically used to navigate or interact with the database at large, as opposed to the data itself.

Types of Bound Forms

There are many types of bound forms you can create in Access. Let us understand the types:

Single Item Form

This is the most popular one and this is where the records are displayed — one record at a time.

Multiple Item Form

This displays multiple records at a time from that bound data source.

Split Form

The form is divided into halves, either vertically or horizontally. One half displays a single item or record, and the other half displays a list or provides a datasheet view of multiple records from the underlying data source.

Creating Forms

There are a few methods you can use to create forms in Access. For this, open your Database and go to the **Create** tab. In the Forms group, in the upper right-hand corner you will see the Form Wizard button.

⊟ 5+		Access	atabase	: Database- C	\Users\Mu	hammad	i.Waqas∖D	ocuments\Ac	cessDa	Muham	mad Wa	qas ?		0	×
File I	lome	Create	btern	al Data Da	tabase Too	6 9	Tell mea	vitat you wary	t to do						
Application Parts = Templates	Table T	able Share esign List Tables		Query Query Wizard Desig Queries	Form	Form Design	Blank	Form Wizard Navigation More Forms	Report	t Report Design	Blank Report Report	🔀 Report Wizar 🎬 Labels	Mac	7 ** 70 11 01 & C.	~
tbiAuth	nochundsion nocs ordiers loyee ata ers ers Detailts ersDetailts		* * <i>P</i> a												
Ready													1	Num Lock	ć

Click on that button to launch the Form Wizard.

On this first screen in the wizard, you can select fields that you want to display on your form, and you can choose from fields from more than one table or a query.

Let us assume we want to simply have a quick form that we are going to use for data entry for our employee information.

From **Tables/Queries** drop-down list, select **tblEmployees** table. Click on the double arrow to move all the fields at once.

Form Wizard	
	Which fields do you want on your form? You can choose from more than one table or query.
Tables/Queries	
Table: tblEmployee Available Fields: EmployeeID FirstName LastName Address1 Address2 City	Selected Fields:
State Zip	✓
	Cancel <back next=""> Finish</back>

Let us just leave it with that one table, and click **Next**.

		fields do you want an choose from mor		or query.
Tables/Queries				
Table: tblEmployee		\sim		
<u>A</u> vailable Fields:		Selected Fields:		
	A A V	Address2 City State Zip Phone PhoneType	ľ	
	Cancel	Email JobTitle	Next >	Einish

The following screen in the Form Wizard will ask for the layout that we would like for our form. We have **columnar, tabular, datasheet and justified** layouts. We will choose the columnar layout here and then click **Next**.

Form Wizard		
What layout would you like for your form?	 ● <u>Columnar</u> ● <u>I</u>abular ● <u>D</u>atasheet ● <u>J</u>ustified 	
Cancel	Back Nex	t > <u>F</u> inish

In the following screen, we need to give a title for our form. Let us call it **frmEmployees**.

Once you have given your form a title, you can open the form to see what that form looks like, or you can begin entering information into your table. Or you can choose the option

to modify the form's design. Let us choose the first option to **open the form to view or enter information** and click **Finish**.

Form Wizard	
	What title do you want for your form? frmEmployee
	That's all the information the wizard needs to create your form. Do you want to open the form or modify the form's design? Open the form to view or enter information. Modify the form's design.
	Cancel < <u>B</u> ack <u>Next</u> <u>Finish</u>

Now, take a look at the following screenshot. This is what your form looks like. This is a single item form, meaning one record is displayed at a time and further down you can see the navigation buttons, which is telling us that this is displaying the record 1 of 9. If you click on that button then, it will move to the next record.

and the second second				< 1449 (1499) [10]
The Party Party of Formal Pair	ing The	I Accending Tr Selection - I Descending Tr Advanced I Descending Tr Advanced I descending Tr Copple Feb	. Speling → GoTo+ N / U == H	and the second se
levis Clipboard	G.	Sort & Filter	Records Find Set Fornatting	14
All Access Objects	10.0	I BmiEmployee		
web.	Q.	frmEmployee		
l ables	R	00 - 00		
11 Ibiliuthodunction				
torAuthors				
III IniCuitomeri		Employee 10		
II failingicyse		FirstNamn	Max	
turr#Data				
tbittiden		LastName	Clay	
III IBiOrdersDetails				
the Property		Address1	2556 Mohave St	
th/Tasks		La rest and a rest		
Temp]		Address2	Optional	
Queries				
Tonns TimEniploses		City	Schaumburg	
		A-1172-17		
		State	1 .	
		Zip.	60194	
		0.95	00154	
		Phone	(847) 555-6492	
		Phone Type	Home	
		Email	rclwy@miycompany.com	
		lobTitle	Accounting Assistant	

If you want to jump to the very last record in that form or that table, you can use the button right beside that right arrow, the arrow with a line after it, that's the last record button. If you want to add new employee information, go to the end of this records and then after 9 records you will see a blank form where you can begin entering out the new employee's information.

Tate Sca Fate Story Fate Story		S.p. Remove Sert Y Topple Filte	$\begin{array}{c c} \text{Refresh} \\ All^+ > Drive - \blacksquare Move - \blacksquare \\ \hline \\ All^+ > Prod \\ All^+ > A - \mathcal{D} - \mathbb{D} = \blacksquare$	- 14 -	
leves Classand	(6)	Sort & Filter	Records Find Text Formatting		10
VII Access Object set. Tables	5 0 4 1 P	frmEmployee			
tssäuther: tssäuther: tssäuster: tssäusioner:		Employee ID FirstName	3 Janeli		
11 taxOvden 11 taxOvden		LastName	Frank	1	
10 tolWrojecht.		Address1	6433 Morgan Ln		
Temp2 Queries Forms	e a	Address2	Optional		
TrmEmployee		City	Schaumburg		
		State	R	Į.	
		70p Thone	60193		
		Phone Type	(224) 555-6831		
		Empil	1,222	Į.	
			frank@mycompany.com		

iew Paste Scot Paste Format Paint clipboard	16	Ascending Selection Ascending Advances Advances Set & Filter fmtmployee	- Reference Spetting	Find Prind	n J U SEE H A · ★ · ∆ · SE Test Formatting	30 GH -
ables	م م	frmEmployee				
tblAuthors tblEuxtomers tblEuxtomers tblHtQata tblOrders tblOrders tblOrders tblOrders tblEordersDataits tblFrojects torms temp2 Dueries frimEmployee	¥ A	Employee ID FirstName Address1 Address2 City State Zip Phone Phone Type Email JobTitle				

This is one example of how you can create a form using the Form Wizard. Let us now close this form and go to the Create tab. Now we will create a slightly more complicated form using Wizard. Click the Form Wizard and this time, we will choose fields from a couple of different tables.

In this Form Wizard, let us choose **tblProjects** for **Tables/Queries**, and select a few Available Fields such as ProjectID, ProjectName, ProjectStart, and ProjectEnd. These fields will now move to Selected Fields.

orm Wizard				
	Ń		fields do you want on your form? In choose from more than one table o	or query.
Tables/Queries				
Table: tblProjects			~	
<u>Available Fields:</u>			Selected Fields:	
Contracts.FileName	^	>	ProjectID	1
Contracts.FileTimeStamp Contracts.FileType		>>	ProjectName ProjectStart	
Contracts.FileURL		In Contestioned	ProjectEnd	l,
ProjectNotes		<		
OutOfPrint		<<		
	~	1.		

Now select **tblTasks** for Tables/Queries and send over the TaskID, ProjectID, TaskTitle, StartDate, DueDate and PercentComplete. Click **Next**.

Form Wizard	
	Which fields do you want on your form? You can choose from more than one table or query.
Tables/Queries	
Table: tblTasks	~
<u>A</u> vailable Fields:	Selected Fields:
Description Attachments Attachments.FileData Attachments.FileFlags Attachments.FileTimeStamp Attachments.FileType Attachments.FileURL	ProjectStart ^ ProjectEnd ^ TaskID TaskID tblTasks.ProjectID TaskTitle StartDate
Ca	ancel < Back Next > Einish
Form Wizard	
How do you want to view your data?	
by tblProjects by tblTasks	tblProjects_ProjectID, ProjectName, ProjectStart, ProjectEnd, TaskID, tblTasks_ProjectID, TaskTitle, StartDate, DueDate, PercentComplete
	Single form
Ca	ancel < <u>B</u> ack <u>N</u> ext > <u>F</u> inish

Here, we want to retrieve data from a couple of different objects. We can also choose from options on how we want to arrange our form. If we want to create a flat form, we can

choose to arrange by **tbITasks**, which will create that single form, with all the fields laid out in flat view as shown above.

However, if we want to create a hierarchical form based on that one-to-many relationship, we can choose to arrange our data by tblProjects.

Form Wizard	
How do you want to view your data?	
by tblProjects by tblTasks	tblProjects_ProjectID, ProjectName, ProjectStart, ProjectEnd
	TaskID, tblTasks_ProjectID, TaskTitle, StartDate, DueDate, PercentComplete
Cancel	● Form with subform(s)inked forms < Back

In the above window, we have the option to include a **subform** for **tblTasks**, or we can make that a linked form. This linked form is where tblProjects will have a button that will launch that second form filtered to the project that we have selected in that underlying projects form. Let us now select the **Form with subform(s)**, and then click **Next**.

In the following screen, you can choose a layout for your subform. The Datasheet View gets selected by default. The Datasheet View is similar to Table View. Now, click **Next**.

OIabular	
 ●Datasheet	
4	

In the following screen, you need to provide a name for your forms. Enter the name you want and click **Finish**.

Form Wizard						
	What titles d	o you want for you	r forms?			
	Form:	frmProjects				
	Subform:	frmSubTasks				
	form. Do you want () Open the	information the wi to open the form o form to view or en he form's design.	or modify the f	form's design?		
[Cancel	< <u>B</u> ack	liest >	Einish		

Access will give you a preview of what your form looks like. On top, you have the controls on your main form, which is from our **Projects** table. As you go down, you will see a subform. It's like a form within a form.

H and A	5 m	AccessBatebase : Database : Citchers: Mukammad Wagati,Doc., Mukammat Wagati 7 - 🗆	×
Tile Hume Colds Eds	emai Data Databaia Yoolo Datas	Need Of Teel free sets at your set of the	
View Cubest 5 All Access Objects =	It According Tometion It Descending "Indexided" It descending "Indexided" It descending "Indexided" It descending "Indexided" Start & Flav Start & Flav Itself Relationship "Independent"	Bafred	× 4
Seen. p Tables = 1 tables	frmProjects		
teasturmen tecontorere tecontorere tecontorere tecontorere tecontorere tecontorere teconomics teconomics	 Project 10 Project Start ProjectStart ProjectStart ProjectStart 	37 Cash is King: How to Cut Your Spending by Carrying Cash 4/30/2018 Task ID ProjectID 37 Task Title 5 37 Hire Technical Reviewer 6/10/2013 37 (New) 37 Record: H 1 of 2 For How Search 4	
Fermi View	Record # 4 35 of St + 4 + 7	Institut Search Naminox 📷 🖶 M	6

Multiple Item Form

You may also want to create a specific kind of form. For this, you can click on the **More Forms** drop-down menu.

Replication Parts - Templates	Query Query Waterd Design Querns	Form Form Design	form Mare	etion * Report	Report Blank Design Report Repo	Macro Article		
All Access Objects (# = mm. //P Tables // // tables // // // tables // // // // tables // // // // // // // // // // // // //				lgHiple timme iylasheet pët Yoem Indal Diving				
theOrder(Oxtain) Metropeds triflams triflams triflams triflams werkes triflams triflams triflams triflams triflams triflams								
Trestunitania nadar	1							Num Livite

From the menu, you can create a **Multiple Items** form, a **Datasheet** form, a **Split** form, or even a **Modal Dialog** form. These are typically bound forms; select the object that you would like to be bound to that form. This does not apply to the Modal Dialog forms.

To create this type of form, you will need to select the object in navigation pane first. Let us select **tblEmployees** here.

plication Table Table SharePoint Perta - Design Lists - mplides Setties	Query Query For Witand Design Querter	Form Black Design Form Tomes	Report Report Waard Design Report Blank Design Report Reports	Macon Macon Macon Macon Macon Macon Macon Macon Macon Macon	
Il Access Objects ® « een. p ables « istitution/unition istudium istudu					
Mathanayee turnitData turnitData turnitData turnitData turniture					

Proceed by clicking on **More Forms** and **Multiple Items**.

	Thereis () fords -	ab] Ao 📖 [] @ [] @ []			g Property User	
1	Dames		Contrast		ader/Factor the		
ľ	tblEmploys	10					
	Employee III		Carthiame	Addrend	Address2	Oly	State
5		Max	Oay	2556 Mohave 51	Optional	Schaumburg	14
L							
		Jamett	Frank	6433 Morgan Un	Optional	Schaumburg	5
ŀ	-	Claudine	dieff	21 berkley Ln	Optional	Schaumburg	41.
Ļ							
	3	Annemacie	Marks	BL Forest Ln	Optional	Schaumburg	5.
ľ	6	Cecif	Snyder	64 Crage 1.1	Optional	Schaumburg	4.
-	7	Ebra	Marcing	4753 Green River Dr	Optional	Schaumburg	<u>8</u>
ŀ		Delores	Townwood	1315 Citowerdaile LH	Optional	Schaumburg	- R.:
-		Authie	wiggins.	9876 Kingsley Dr	Optional	Schaumburg	6.
Ļ		Mark	Follard	8885 Stanley Ct.	Optional	Schauroburg	1.

The above step will further create a Multiple Items form, listing out all the employees.

Split Form

This type of form is divided in equal halves, either vertically or horizontally. One half displays a single item or record, and the other half displays a list or a datasheet view of multiple records from the underlying data source.

Let us now select **tblEmployees** in the navigation pane and then on **Create** tab. Select **Split Form** option from More Forms menu and you will see the following form in which the form is divided vertically.

The Human Couler Lee These Diseases (a) Form - View Diseases	ab) Aa 📼 [) 🤹 🕅 🖂 (j 💷 🔽	6 00 5		Logo Tále Dels and Time nade / Faster	DÖ Add Easting Fields Jacob	Steel		
All Access Objects 🖲 •	3 minuteper									- 1
lenth.	tblE	mployee								
Tables A	P 10	Software for the second								
Moliumolumban	Employee (2)	2		State	14					
the second second	HP COLUMN			L LEVILLE						
Billioneri Billioneri		Max		TO	602.04					
16/defiliada	1 (Sec. 1)			Thomas						
IliOubri	Online		Clay		(847) 535-6492					
TheContemporation	10000	The second se		1						
10Ptophilt.	Address	2556 Mohaye St		Rhoce Type	Type Heine					
infan										
Tempil	Address2	Optional		Email rday@mycompany.com		my;com				
Queries #		- 1711 - 1942 - 1		1	N. O. A. P					
Ferms ±				1						
Treilepisyee	Employee ID	FirstName + LastNa	and Address	I = Address2	City -	State	- žin	· Phone ·	Although a Thomas	
Roman Reserve	- submyee in	Max Clay		ave 1 Optional	Schaumburg		60194	(847) 555-6492		
terbuldaias	1	Janell Frank		an Lr Optional	Schaumburg		10193	(224) 555-9631		
	4	Claudine Goff		Un Optional	Schaumburg	14.	80225	(312) 555-3793		
	3	Annemarte Marks	31 Forest	in Optional	Schaumburg	11.	60193	(224) 555-1111	Cell	
	5	Cecil Snyder	64 Chage 1	n Optional	Schaumburg	H.	60154	(224) 555-2123	Cell	
	7	Elvis Manning	and the second	n Riv Optional	Schaumburg	10.	60193	(224) 555-6255		. 4
		Delares Taurae		rdal Optional	Schaumburg	. H.	10254	(224) 555-3.865		6
		Ruthie Higgins		Any C Optional	Schaumburg	(R . ?:	60193	(224) 555-4455		
	30	Mark Pollard	4685 Stari	ey Ct Optional	Schaunburg	ц.	80194-	(224) 555-9876	HUME	
	· [Nerve]									
	Report 4	+ mart. W. tas falas. Se	anth +							

28. MS Access— Modify a Form

We have learnt several ways to create simple data entry forms. Although the forms ease the process of data entry; these may not serve other purposes that you would want. They may not be catchy or user-friendly for what you have intended.

- Upon creating a form, the first thing you will probably want to do is resize or move the controls around.
- You might also need to add a control or remove a control.

We will now discuss how to modify your form in an easy way.

Controls

It is merely a generic term used to describe any object on a form or report that displays data, performs actions or items used for decorations such as a line. In other words, a control is just about anything that is placed on a form or report.

The following can be considered as controls:

- Objects such as labels.
- Unbound or bound text boxes that you can use to add or edit or even calculate an expression.
- Command buttons that perform actions like **Save**, **Open** an e-mail or **Print** and these buttons are also known as controls.
- It is just a generic term for any object on a form or report.

We will now look at the different aspects of making a form presentable and understand how to edit and modify a form. Let us now open our Multiple Items form which lists out all employees from **tnlEmployees**.

1 marcan	1	According To Selection	ar Bane	∑ lines P Sc Reptore		三百百 日日	
es Paite (* famil Panis) es Outeert %	rit	Set Among Set (\$1 Topple 1 Set A Party	Reco	ets Faig		h + = = = = ≦ + ± mateg	21
Il Access Objects @	a p	tblEmploy		agone /			
bies a Desemandam		Employee ID	Finthame	LastTrante	adment	4.down2	on
tsikuthen Itsikuthen Itsikuthen	ſ	1	Max	Chey	2556 Mohave St	Optional	Schaumburg
itebegturin Vetettilain	ľ		Janeil.	Frank	6433 Morgan Ln	Optional	Schaumburg
B Millions B Millions B Millions B Millions B Millions B Millions	Î	4	Clautine	Gott .	21 Berliey in	Optional	Schwumburg
		ŝ	Annematie	Marks	11 Forest Ln	Optional	Schaumburg
nien a net a		4	Cecil	Strycler	64 Osage Lit	Optional	Schaumburg
in fraktiski kan Bartaya Bartaya Martay Martaya Martay Martay Martay Martay Martay Martay Mart	1	,	Elses	Manning	4753 Groen River Dr	Optional	Schaumburg
	Ĩ		Defores	Townsend	1215 Obverdalle Ln	Optional	Scheumburg
	ľ	3	Buttue	Higgins	3674 Kingsley Dr	Óptional	Schaumburg
		14	tytark	Pollard	4685 Stanley CT	Optional	Schaumburg

As you can see a list of employees, but doesn't really look like a very user friendly list. Our controls are oversized. They are too big, spaced apart and do not provide a very useful list view.

To edit the appearance of your controls on this form, you have two form views that you can use. In the Home tab, click the **View** drop-down.

in Horne Cheste Tate	oval Data Database Tooli	Design Arrange For	that 🖓 Tall look which your went to	68		
A XCe	T lend		ΣTest ρ Safetas	Caller (Detail)	*E6:88	16.4
Factor S Formal Painter	Fitter La Formute Sort T Toppi	Ballande	Strating Ford Scilor	B 7 8 A- 2 .	2- # # # M	12 ·
	Statik Filter	Barter		Test F	and the g	
form View PCts 8 +	Tenitoperts 100 toologita	ili 🔄 Hechilipieterelles	physee \			
Lignut View P	tblEmplo	vee				
	10	D FirstNette	Lotherne	Address1.	Address2	City /
Design View	7	2 May	Clay	2556 Mohave St	Optional	Schaumburg
BalCustamera		and the second s				Charles and Charles and
themptory	-	1 Limit	Trank	6433 Morpin In	Detional	Schaumburg
test HD ala				and the second sec		
tsiOdes	-	4 Clautine	Goff	21 Berkiey Lts	Cotional	Schaumbürg
tmiConeryDatale tmProjecti		The World .	(1994)		0.0000000	Contra and Prove
milaite		5 Amemaria	Marks	91 Forest Ltr.	Optional	Schaumburg
Tawal.		* reserver	100000	Construction and	194600000	Provide State
eries a	-	8 Cetti	Snytter	64 Osage Ln	Optional	Schaumburg
feelinginger		e ceca	Polioter	an conge un	Captional	scraumourg
Tranky and and a party of	[Vitania	Law Street	Optional	a start and a start and a start
Southepatte		7 696	Manning	4253 Green River Dr	optional	Schaumburg
free Lab Tenter						
		# Gelores	Towreend	1215 Cloverdale Ln	Optional	Schaumburg
	-	9 Buthie	Higgins	1876 Kingsley Dr	Optional	Schaumburg
		UD Mark	Pollard	4685 Stanley Ct	Optional	Schaumburg
	BROOM N. L. LATE . A.A.A.	T. B. Labor Seatth	10.11			

You have the Layout View or the Design View, and both of these views are used to edit your form. The Form View opens up by default; this is the view you will use to interact with or edit the underlying data source.

🖬 la se che 🦂					AccessOutations : Details	ere-Crittern Muhammed Waganilio	Mutammed Weges	
File Hurne Colete	(inter	nel Duta Dutamate To	nde Des	an Anange Torra	a V Tell mer erhalt sins en	ent ha dan		
Themas (A) Forth -	R.	ab) Aa 🖮 [_		imper BD	5-1 DIMP 1007		
Il Access Objects	ii) +i	The transmission (The	tindum terre	Brothisistantings	hee /	WIGHT		
von.	P		mploye	e				
ittes 1 muuttaniutation	-	10	when the	ExstName	LautName	Address	Astron	OTY
 Multishanan Multishanan Multishanan 		•	2	Man	Oay	2556 Mohave St	Optional	Schaumburg
miliaterer merellete			3	Janett .	Frank	6433 Morgan Ln	Optional	Schaumburg
terDrakes 1 terDrakes 1 terDrakes 1 terDrakes		-	4	Claudine	Gott	21 Berkley to	Optional	Schaundurg
theffacture Tempil			5	Annematie	Merks	94 Ferent in	Optional .	Schaunburg
eries. mis Keelinglayee :			6	Cecil	Snyder	54 Ouage Ln	Optional	Schaunburg
 AnthalpielestEngique Instructure AnthalpielestEngique Anthalpieleste 			7	Ebyla	Manning	4753 Green River Dr	Optional	Schaumburg
		_	8	Defores	Townsend	1215 Cloverdale In	Optional	Schaumburg
				Ruthie	Higgins	3676 Kingsley Dr	Optional	Schaumburg
			10	Mark	Pollard	4685 Stanley Ct	Optional	Schauniburg
		Banken 14 1 af 9		Chickins Search	41			

To edit the appearance of the form itself, we need to go to the Layout View first.

When you switch to the Layout View, you will see a series of contextual tabs appear.

At the top of Access, you will see an area marked **Form Layout Tools** with three tabs — Design tab, an Arrange tab, and a Format tab and each of these tabs have different options for formatting the look or appearance of the form.

When you take your mouse and click on any one of these controls, you will notice that Access will highlight a given area of that form and all controls within that area are shaded a light orange whereas the actual control that you select will be shaded darker than the previous one or have a darker orange border around where you click.

Thereas Africator		ab] Ar			insige - 10 th			
Access Objects	P	in tender	tblEmploye	and the second s	azinyw \			
tematerius date	8	0.0	Trophyses ff	FIRSTRAINS	LastRame	AddressE	848/1012	City;
teliomen ItoCutteren			2	Max	Clay	2556 Mohave St	Optional	Schaumburg
Hottegioyoi Hettiliata				Janell	Frank	6433 Morgan La	Optional	Schaumburg
HolDellers HolDellers/Dellafe HolPeakets				Claudime	Goff	21 Benkley Ln	Optional	Schaumburg
Andrein Tempi		•	5	Annemarie	Marks	91 Forest in	Optional	Schaumburg
ms netropicyce	1			Cecil	Snyder	64 Osege Lit	Optional	Schaumburg
 Anthonyotanitasiane Instructure Instructure 			3	Chois	Manning	4253 Green Rover Dr	Optional	Schaumburg
and the second			- 1	Delores	Townend	1215 Cloverdale Ln	Optional	Schaumburg
				Ruthie	Hellinz	19575 Kingsley Dr	Optional	Schaumburg
		-		Mark	Pollard	4685 Stanley Ct	Optional	Schaumburg

Here you can resize your controls as you want by clicking and dragging your mouse to resize the height or width or both of that one control.

E		Pare Layout Toms	Q Tell you what you	tige TTT	eşatıbs. Məhərmət Weşa	ай — в х
View Thomes Linux - Name Thomas All Access Objects @ =	infram T milatio	and the second se	integer in	Tife Add Extrem Bale and Tene Fields Tents Redet / Fonter Basis	Property Showt	
anot. D	iii tblEmploy	en				
Melamaniantian		FirstName	Georgenee	Admenali	Address2	City
talilation .		Max	Clay	2556 Mohave St	Optional	Schaumburg
HeCutemer	1 H	Janell	Frank	6483 Morgan Ln	Optional	Schaumburg
thibspingte		Eleudine	GeH	23 Berkley Ln	Optinnal	Schaumburg
terretiata.	P	Achemarie	Marks	SIFORETUR	Optional	schaumburg.
Hidram	1112	i Cecil	Snyder	64 Osage Ln	Optional	Schaumburg
IteDolenitetan IteDolenitetan		Elvis	Manning	4753 Green River Dr	Optional	Schaumburg
iteProjetti IteProjetti		Defores	Townsend	1215 Cloverdale Ln	Optional	Schauroburg
Innat.		Ruthie	Higgini	SE76 Alegsley Dr	Optinnel	Schaumburg
Querries # Faerra s	in	Mark	Pollant	4685 Stanley Ct	Optional	tchaumburg
	* (New			1		
The American Street Str						
In Presetta						
The free families of the second secon						
The advertising of						
	Rest H. 4 Aura . A.A.F	T. HATTIN SERVER				
NUMBER OF ADDRESS br>ADDRESS OF ADDRESS OF ADDR						Number III III III

On this particular form, when you resize any single control, you also change the size of the rest of your controls on your form, this is because of how these controls are grouped. Let us now adjust all the fields the way you want by using the click and drag function of the mouse.

Theres Afrets	k	ab)	A	a 📼 🗋			Stope 1) Tale 13) Online and Tale	Add Existing Proper Fields Sheet						
Access Objects				tbiEmp	contraits nterrar ∫∃ teathraige loyee	destroiner \	Pode/fute	3coH	_					
les .		1		Petture	orthane	Address	Altred .	iony.	-	20	Picre	Prome Talan	Imai	cashfille :
Tim Per		F	2	Max	City	2556 Mohave St	Optional	Schaumburg	11.	62154	(847) 555-6452	Rome	rday@mycompany.com	Accounting Assertant
to Customes		H	3	Janell -	Frank	64E3 Morgan Lh	Optional	Schaumburg	12	60153	(224) 555-6631	Rome	(frank@ntycompany.com	Accounting Manager
Con The State Stat		H	4	Caudice	Geff	21.Bendey En	Optional	Schaumburg	14.	60155	(312) 583-3795	Nome	cgeff@mycompany.com	Administrative Assistan
minitiate		h	5	Annemarie	Marks	SS Ponest Un	Optional	Schaumburg	a.	60155	(224) 555-1111	Cell	amarks@mycompany.com	Accounting Assistant
SiOnaer		1	6	Cecil	Shyder	64 Osage Un	Optional	Schaumburg	Q.,	601294	(224) 555-2123	Cell.	canyder@mycompany.com	Accounting Assistant
terichitek-schelant. terifeksetet		Ħ	T	Bes	Manning	4753 Green River Dr	Optional	Schaumburg	L.	601533	(224) 535-6255	Cell -	enumring@niycompany.com	Office Coordinator
ter Tanto			8	Defores	Townsend	1215-Cloverdale Ln	Optional	Schaumburg	ц.	60194	(224) 555-3566	Cell -	ctownsend@mycompany.com	Admonistrative Associa
Templ		T1	<u>_</u> 9	Active	wiggers .	5676 Kingsley Dr	Optional	Schaumburg	16.	60151	(234) 535-4455	Coll -	rhiggris@mycompany.com	Warketing Coordinator
-			10	Mark	Pollard	4685 Stanley Ct.	Optional	Schumburg	п.	651514	(234) 525-9876	Rome	npollart@nyconpany.com	Marketing Coordinator
n -		•	-											
teduşeterdişteri terişete terişete														

That is one quick way of editing the height and width of controls in your form from this Layout View.

Themes

In Access, there are some basic ways to format your forms by using built-in themes, colors, and font styles, customizing fill colors and shading alternate rows. Let us now open **frmEmployees**.

🔒 😓 🖒 - e AccessDatal	base : Database- G\/Dsers\/Muhammad.W	Vaqas\Documents\AccessDatabase.accdb (Ac Muhammad Waqas 7 — 🗆 🗙
File Home Create Est	ternal Data 🛛 Database Tools 🖓 1	fell me what you want to do
View View Views Clubboard All Access Objects	Filter # Ascending Tr Selection Filter # Advanced # Advanced Tr Advanced Set & Filter Tr Selection Set & Filter Tr Selection	Image: Same and the set of
Search. J	e frmEmployee	
I toMuthoolundian		
toRuthers	Employee ID	1
to-Employee	FirstName	Max
tbiOrders	LastRame	Clay
toProjects	Address1	2556 Mohave St
Utemp2 Queries 8	Address2	Optional
Forms a		Schaumburg
hmMulipletemEmployee	State	n.
WmSubTaska	21p	60194
	Phone	(847) 555-6492
	Phone Type	Home
	Trnait	rclay@mycompany.com
	JobTitle	Accounting Assistant
	Record H + 1 of 9 + + +0	T, No Filter Search
Number created automatically	AVENUES CONTRACTOR AVENUES	Numinek 🗒 🗄 🗹

The forms that Access creates are plain and simple. They have a blue bar on the top and a white background.

If you want to see how else you can stylize these forms, you can go to the Design View or Layout View and explore some of the options you have on the Design tab in the Themes area.

File Home Create Externa	: Database- ChDstri/Mic	Perm Layout Tool: Muhammad Wagas ? - 🖸	×
View Therman Alfords *		Autorge Other Control Control Control Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image	(» ()
a a facet Aa		Max Clay 2556 Mohave St Optional	
Forms a limitantityre limitatioyre limitatione	City State	Schaumburg B.	
In Innibustasia	Zip	n. 60194	
	Phone	(847) 555-6492	
9	Phone Type	Home	-
Leyout View	ARCOND. IT IN I GY B I F I F I	Norm Lock.	MG.

If you click on the Themes' drop-down gallery, you have many pre-created themes to try out from. Hovering your mouse over any one of them will give you a preview of changing things like colors and font sizes and the actual font used. To apply a particular style, simply click your mouse on it and you can see what that looks like.

B the off a Acces	ssDatabase Database C/\Ucers\Mu	Form Layout Toxia	Muhammad Waqas 7 — 🛛	×
File Honte Create	Esternal Data Database Tools	Design Arrange Format	V Tell me what you want to do	
View Themes Fonts *	abl Aa 🔤 🗋		Add Sixting Property Fields Field Tale Tale Tools Tools	•
All Access Objects	🕞 er 🗐 timiProjects 🗐 trinSu	difasks 🗐 freiMulipletemlEmployee	ThosEmployee	×
Septil.	fmEmploye	ie .		
Tables Disatborhandtum Tolauthors Tolauthors Tolauthors Tolauthors Tolauthors Tolauthors Tolauthors Tolauthors Tolauthors Tomp2 Queries Forms	* Employee ID FastName LattName Addees1 Addees2 * Gray	2] Max Clay 2556 Mohave St Optional Schaumburg		
Trafficijestenificapioyee	State	IL.		
T WerdubTacks	Zip	60194		
	Phone	(847) 555-6492		
	Spons 17bs	Home		
	Record H 1 of 9 + 1	H AD To Backitter Search		-
Layout View			Num Lock 🗔 🖽	14

If you like the theme but you want to change the colors, you can adjust the colors by going back to the Themes group on the Design tab and choosing the color you like. You can also create custom colors to match your company's colors.

😭 👘 🖓 👘 🖓 👘 🖓 AccessDataba	ne : Database- C/\Users\Mu	Farm Layout Tools	Mubammad Waqas 👌 🛶 🛛	n ×
File Home Create Exten	nal Data Database Tools	Design Amonge Format 😨	Tell me what you want to de	
View Themas Office View Themas Office View Themas Office View Themas Office View Themas Office Tables	Chice Off		Internet for the second	
	Phone Type	Home		ī
	Record H 1 1 of 3 + H H	1 1 hu Filter Search		
Lapout View	There is a fight a set of the	a no man parti	Thum Lock	ii 🗠

Similarly, you also have a series of font styles to choose from. You can choose one from the many that come prebuilt with the Office Suite or you can customize those fonts, choosing a specific heading font, a body font and even creating a custom name for that font group and saving.

1 Page 2		ccessiDistations Database: Gi	Alterration State	Petry Legent Incom	Stationard Weater	i i
View Theres	Calors A Fontas Office	abl Ag			Stage	Add Easting Property Fields
All Access	Aa Aa	Office Calibri Light Sathri Office 2007-2000 Cambris	il miorres idoyce	(2) holdagintenderstere (2), i	imtropioyee \	
Beneathream SerConterne SerConterne SerConterne SerConterne SerConterne	A#	Cathler Ealthr Cathler Saiden Antai Antai Antai	D	2 Max Clay		
Herdonters D HERDonters D HERDonters HERDonters Quarters Formers	A#	Content Content Content Castelaria Castelaria Castelaria		2006 Mohere St. Optional		
Tradupter	A.	Franklin Golbie Franklin Golbie Franklin Golbie Sock		Salaanoboog II.		
III ferendisati karat	Ao	Century Gothic Century Gothic Century Gothic		601214		
	Ao Aa	The Can MT The Can MT The Can MT Cambrin Cambrin Cambrin		(847) 535-6492 More		
Layout view	Errit	orman Farris		and the second second		umture 🖽 🖬 🗠

Let us go back to **frmEmployees**. In this form, you will see that every alternate row is shaded light gray.

Tiew - Invest	ainter G	Y	11 De 12 Pe	escending 🛅 Ad Image Sort 🍸 Toy Sort A. Fitter	vanced + pgie filter All +	New E Parte Save 5 Find b: New 5 Find	▲ • ♥ · △ • Int Pe	- 11 - 12 2) ++ - 22 - (25 - 22 - 23 (2) - mutting	144 144	
All Access Object		165	tonP	apenta 🔄 frimiliad	Companying and a state of the s	ettemilingioper 🔄 fordinging	us /			- 1
arch. Jables	A.		-	tblEmp	loyee					
towatheriunction.			+ ID	PartName	LaoName	(Address)	Addaess2	(Gity)	Stat	유민
10(Author)		•	2	Man	Clay	2356 Mohave St	Optional	Schaumburg	Π.,	601
thiCustomers			3	Janell	Frank	6433 Morgan Ln	Optional	Schaumburg	II.	6015
🔟 thtEmployee			4	Claudane	Goff	21 Beridey La	Optional	Schumburg	П.	601
TERMIData		П	5	Americazie	Marks	91 Forest Ln	Optional	Schaumburg	п.	0015
100cders			6	Ceoil	Sovder	64 Osage Ln	Optional	Schumburg	II.	601
ttoOrdersDetails		H		Elmi	Manning	4753 Green Raver Dr	Optional	Schromburg	IL.	6015
to@vojects		H	8	Deloces	Towneed	1215 Cloverdale Lo.	Optional	Schunnburg	п	601
tullasias		Н	9	Buthie	Higgint	9876 Kingder Dr	Optional	Schaumburg	п.	6011
Temp2 Dueries	3	\vdash		Mark	Polland	4685 Stanley Ct	Optional	Schaumborg	IL.	6011
orma	8	-	****		- Custo	The states as	grannan		++++	0.01
Tredmplopen									H	
fmMultiplettendEmploye		1								
temilyments										
Trinisuli Testa				C 1af5 b b	(and Tabler 5	earch +				

The formatting option is referred to as **Alternate Row Color** and if you want to adjust that in a multiple form, go to the **Design View**.

88 19			saDatabase i Datab Esternal Data	Database 1		Torm Decian Taolo Arrange Fo	ermat 🛛 🕅 Term	• Muhy Lenne orbait yezz v	enmed Weges ent to de				
		+ + + + + + + + + + + + + + + + + + + +		n Mulipietiemit	Termathing S - No + 1 to Muncher Smployee	image - Bathy	Row Cafor +	2 13 Nota Change Jan Shape	1823 5	Shapa Fill Shapa Dul Shapa Eth Ng	dire -		1
Navigation Pane	Emp Form	North	LastNan		Address I	Add	Standard Colo Bo Color		Sau Zip	Phone		Pho	Tas

Select that detail section and then go to the Format tab and in background group you should see an option for **Alternate Row Color**. You can change the colors for alternate rows. To see what that looks like, simply go to the Form View or the Layout View.

3 Janell Frank 6433 Morgan Ln Opsonal Schaumburg IL 60193 (224) 555-64 4 Claudine Goff 21 Berkley Ln Optional Schaumburg IL 60193 (224) 555-64 5 Annemane Marka 91 Focert Ln Optional Schaumburg IL 60193 (224) 555-51 6 Cecil Snyder 64 Ouage Ln Optional Schaumburg IL 60193 (224) 555-21 6 Cecil Snyder 64 Ouage Ln Optional Schaumburg IL 60194 (224) 555-21 7 Ebra Manning 4753 Graen Raver Dr Optional Schaumburg IL 60194 (224) 555-61 8 Delores Towmend 1215 Cloverdale Ln Optional Schaumburg IL 60194 (224) 555-33 9 Ruthie Higgmy 98'6 Kingsley Dr. Optional Schaumburg IL 60194 (224) 555-33	File	Hor	茶 Cut R放 Copy ダ Formut Pants Clipbeard	er Filter Filter	ling To Selection - ding To Advanced - e Sort Toggle Filter A	hat you want to de	Find B		- 21-	- -	
e ID FastName LatoName Address1 Address2 Car Str. Zap Phone Image: Strain St		frmPro	and the Property line	the second construction of the	ettemitmployee 🔄 finiting	hoyee					4
Max Clay 2356 Mohave St Optional Schaumburg IL 60194 (847) 555-64 3 Janell Frank 6433 Morgan Ln Optional Schaumburg IL 60193 (224) 555-64 4 Clavdane Goff 21 Betkley Ln Optional Schaumburg IL 60193 (224) 555-54 5 Annermans Marka 91 Forsert Ln Optional Schaumburg IL 60193 (224) 555-51 6 Cecil Snyder 64 Orage Ln Optional Schaumburg IL 60194 (224) 555-51 7 Ebra Manung 4733 Grean River Dr Optional Schaumburg IL 60194 (224) 555-64		+ 113			Addrew1	Addenic2	Cer	100	Ze	Phone	Phone Tr
3 Janell Prank 6433 Morgan Ln Optional Schaumburg IL 60193 (224) 355-60 4 Clausdine Goff 21 Berkley Ln Optional Schaumburg IL 60193 (312) 355-37 5 Annemanis Marka 91 Forset Ln Optional Schaumburg IL 60193 (224) 355-37 6 Cecil Snyder 64 Osage Ln Optional Schaumburg IL 60194 (224) 555-21 7 Ehra Manung 4753 Green Birrer Dr Optional Schaumburg IL 60194 (224) 555-31	-					Opposal				(847) 555-6492	Home
4 Claudine Goff 21 Berkley Lis Optional Schaumburg IL 60195 (312) 355-37 5 Annemane Marke 91 Forest Lis Optional Schauenburg IL 60193 (224) 555-37 6 Cecil Snyder 64 Osage Lis Optional Schauenburg IL 60194 (224) 555-27 7 Ehus Manning 4753 Graan Birner Dir Optional Schauenburg IL 60194 (224) 555-67	H		Local Control		and the second se		COLUMN THE REAL PROPERTY AND	and in the second	A contract to be the	(224) 355-6631	Home
5 Annemane Marka 91 Forest Ln Optional Schauenburg II. 60193 (224) 555-11 6 Geeil Snyder 64 Orage Ln Optional Schauenburg II. 60193 (224) 555-21 7 Ebras Manning 4753 Green River Dr Optional Schauenburg II. 60193 (224) 555-61	-	316	100	- Britan V	ALC: ALC: ALC: ALC: ALC: ALC: ALC: ALC:	1000000000	- Contractor and Con	IL	III. House	(312) 355-3795	Home
6 Cecil Snrder 04 Orage Ln Optional Schaumburg IL 60194 (224) 555-21 7 Ebus Manning 4753 Graan Birner Dr Optional Schaumburg IL 60194 (224) 555-21	H	3	Annemane	Marin		A REPORT OF	Contraction -	IL.	- company	(224) 555-1111	Cell
	H	6	Cecil	Sorder	64 Osage La	II. State State Co	The sector of th	11	60194	(224) 555-2123	Cell
8 Delores Tournsend 1215 Clovendale Ln Optional Schaumburg IL 60194 (224) 555-33 9 Ruthie Higgoni 9876 Kingeley Dr. Optional Schaumburg IL 60194 (224) 555-33 10 Mask Pollard 4685 Stanley Ct Optional Schaumburg IL 60194 (224) 555-93		T	Ehras	Manning	4753 Genen River D	r Optional	Schanmburg	11	60193	(224) 355-6255	Cell
9 Ruthie Higgmv 9876 Kangeler Dr. Optional Sebaumburg IL 60193 (224) 555-44 10 Mask Pollard 4683 Stanley Ct Optional Sebaumburg IL 60194 (224) 555-91 * ### 60194 (224) 555-91		8	Delores	Townsend	1215 Clovendale La	Optional	Schaumburg	IL	60194	(224) 555-3366	Cell
10 Mask Pollard 4685 Stanley Ct Optional Sebaumbtarg IL 60194 (224) 555-91		9	Ruthe	Higgsonv	9876 Kingsley Dr	Optional	Schammburg	IL	60193	(224) 555-4455	Cell
		10	Mark	Pollard	4685 Stanley Ct	Optional	Schaumburg	IL	60194	(224) 555-9876	Home
	*	:##									

If you don't want any shading at all, you can choose **No Color** as your **Alternate Row Color** and that is more the traditional look from earlier versions of Access.

iew eves	3	frmPro	Rh Copy Ph Copy Format Pants Clipboard mets	ria 500	ding DAdvanced - Befresh	Save ∑ Save ♡ N Delete • □ Records	Pind B Find b ∧ A Find	1 1	· @ ·	- 13 2 +t - - 13 35 - 35 - 35 - 13 - matting	
			tblEmp	loyee	Addamst	Address	Cim	Ser	Zə	Dates	Parme Tr
1	•	140	Max	Clay	2556 Mohave St.	Optional	Schamburg	11.	60194	(647) 355-6492	Home
ŀ	-	-	Tanell	Frank	6433 Morgan La	Optional	Schiomburg	II.	60193	(04) 333-0492	Home
ŀ	-	4	Claudine	Goff	21 Berkley La	Optional	Schuamburg	11.	60195	(312) 555-3795	Home
ł	-	3	Annemane	Marks	91 Forest Ln	Optional	Schumburg	IL.	60193	(224) 555-1111	Cell
ł	-	6	Cecil	Snyder	64 Orage Lo	Optional	Schaumburg	11	60194	(224) 555-2123	Cell
ł	-		Ehra	Manning	4753 Green River Dr	Optional	Schamburg	IL.	60195	(224) 555-6255	GE
ł	-	8	Deloges	Townsend	1215 Clovendale Ln	Optional	Schaumburg	IL.	60194	(224) 555-3366	Cell
	+		Ruthie	Higgson	9876 Kingder Dr	Optional	Schaumburg	IL	60195	(224) 555-4455	Cell
	+		Mark	Pollard	4685 Stanley Ct	Optional	Schaumburg	TL.	60194	(224) 555-9876	Home
-		:==			1.000.000000.000	1.00 g-001001.		-		1.000.000.000.000	1.000

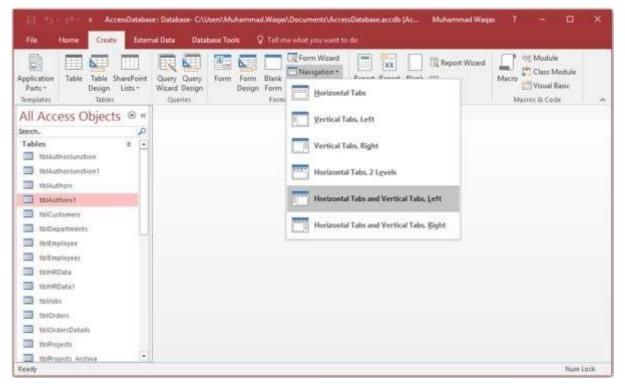
29. MS Access- Navigation Form

Access includes a Navigation Control that makes it easy to switch between various forms and reports in your database. A navigation form is simply a form that contains a Navigation Control. Navigation forms are a great addition to any desktop database.

- Microsoft Access offers several features for controlling how users navigate the database.
- We have already used navigation pane to navigate through all of the Access objects we create, such as forms, queries, tables, etc.
- If you want to create your own navigational structure and make it easier for the users to find the specific objects that they really need, you can build navigation form, which is a form that uses a navigation control so users can use or view forms and reports right from within that main navigation form.

Example

Let us now take a simple example in which we will create the navigation form. For this, go to the Create tab; in the Forms group, you will see this navigation drop-down menu.

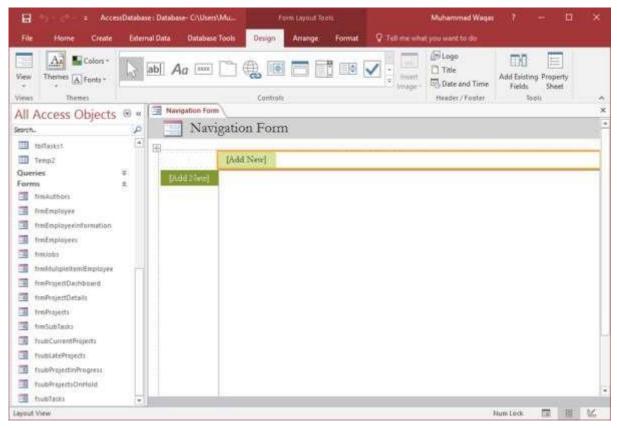


In this menu, you will see different layouts for how to arrange your forms and reports that you would like to embed on this navigation form.

- There is one with horizontal tabs, one with vertical tabs where all the tabs are aligned to the left, a vertical tabs layout where all the tabs are aligned to the right.
- There is a horizontal tabs layout that has two levels to it, so if you have a lot of objects that you want to display across the top, you can make use of this.

• You can have one where you have both horizontal tabs and vertical tabs, either aligned to the left or to the right.

In the following example, we will be using Horizontal Tabs and Vertical Tabs. To create that layout or that navigation form, simply click on it, and Access will create an unbound form, with a navigation control on it.



To add objects to this navigation form, the easiest way to do is through your layout view, by simply dragging and dropping objects to where you want them to appear.

Let us now drag **frmProjects** form from the navigation pane and drop it on the [Add New] on the top.

B 9	Environment Notes	
File Home Create Esternal Data Database Tpols	Design Analys Format Q Tallies what purposed to its	
These Trans	Contraction Contra	
All Access Objects @ = 3 Manual Ann		×
and Pictory Objects	on Form	+
TT HALL MALE		11
	Traines (Add New)	
The statement and a statement of the sta		
III thOugenments III thought III	mProjects	11
Interpropert		
D thitspayer		
	Preset ID 8	
The second	Project Nature Paratons Quantule 11	
III IIIiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii		
D south	Projectian 11/1/2006	
I photo	ProstEnd 2/15/2007	
Toffreight, John		
The the second s	Sumfortfulls Tail ID + PersonID + Tail Tail + Star Data +	
Inflama		
TRifestati		
D Jenui		
Querius #		
Farms a		
The Heatmanner		
D valagementeration		
Tradmalarety		
The Westman		
Table and a second seco	formul H. n	
The Trading of The Decision of Contract of		1
In the Page State	A R . (THER CO. N. P.) T. IN FROM (SHOP	
I Hadrepette		line a
Open A Very	Norton 🖪 🖽 🗹	

Similarly, drag **frmAuthers** form from the navigation pane and drop it to the left of the Add New Button.

8 5				the life of the			er : Detakate: Crither/Alabammad Wage	Chicameteral Manaren	ed Wingen		
File Allowe CA	aato Licher	ul Date - Database Y	Dec Date	Arange	Farma	e Q feltere et	Me you ward to da				
Therease (A) Freedo		ab) Aa 🖃 [<u> </u>	Comat	0 (13		A second	25 Address (Address ()			
Il Access Obje	cts = =	Havigation Form	· · · · · · · · · · · · · · · · · · ·	_							
	P	Navig	ation Fe	m							
thikuthow	(+)	120 119 17									
1 think there 1			Interioret	[Add New]							
III INContantes		TemAsheer	ID I	First Name	M	Lint Name 1	Taurohilan	Git		70	() Performent
10/Departments		I COMPANY		E-Ages	1.8	Dimfer	2633 Hill Croth Paum Road	Cherry	CA	0.0034	130-540-6
C Intracional		St. Product of the		Michael	14	Bather	165 Hickory Heglin Dory	Harris Do Gome	SID	21078	443-845-8
D IDdDegropten		-	_	Olive .	D	Oterm	43 Luniel Lasse	Odens	TX	79742	432-363-8
12 TOMICula		1	1	Robert	TP	Vamagath	2091 Wahafield Street	Philothelphia	UPA.	19103	213-405-7
D IDertifichatar				Raman	14	Bradum	5807 Kenter Line	Chalatta	NC.	28210	704-424-5
d thises		-		Siama	11	Rimades	1337 Trise Avanua	Fost Landsolula	FL.	33300	305-315-6
TEAL PARTY		8	9	Jurna		Dte	2910 Oakwood Avenue	New York	NY	10014	212-638-3
thillemethetals			10	Nydia	11	Case	2933 Waght Court	Seattle	WA	90101	206-229-3
I Marrison (-	11	Tenette	A	Tohana .	41 Press Steart	Haparitera	WV.	21742	304.379.3
100 gently Andrew		1	12	Anne	11	Ener	1230 Varnniz Court	Million Mills	ME	03032	207-417-4
theff-meetri-			13	loosph		Kak	2035 Marrow Durie	Hasover	MD	21076	443-3334
Tortwice.		1	14	Guara	11	Cen	29 Willerer Stanet	Manapola	MIN	55401	163-271-1
1 meTernet		1 1	15	Includes	111	Carter.	2014 Surgoon Armon	Hamilton	HPA -	\$7109	117.974.3
I temp!	100		16	Lenne	10.	Williams	"51 School Hume Read	Taritree	MB	39213	601-669-1
			T.	Channelan	1.0	Templema	1968 Eche Lawy	Kalamatre	Att	49001	209-510-3
Time-man	-13		18	Methew	1D	Snale	2104 Hillesett Derve	Kest	WA	99001	20-172-1
1 Heddalayee			19	Easterly	18	Elect	J739 Parapart Stated	Bankgetree	159	000002	836-375-3
Tadagio, entered	Rkn		30	Tynine	11	Balary	3817 McVaney Road	Childrens	NC	28206	828-221-4
B Wellinghoppen			21	Jeress	L	Gurgo	#123 Dava Laur	Dearray	100	802.39	120-365-8
1 Harrison			22	House		Bulland	3104 Rockload Bred	Warrentas	MA	01606	774-625-3
Tradicipatroclimpi	11/11		1 .23	Chen	10	Manue	2830 Delistrate Arrenae	Sac Francisco	CA.	94143	413-356-8
1 metrostianauri	6		26	Boase	1.34	Ziglis	137 North Street	Linchibrarg	DVA.	24551	454-829-4
the Herent Details			Accest M	Actor	UP W and	Loost	1091 Perris Bear Lass	Waltania .	190	29691	864-118-3
Tellingette		11 million and	ALCON. N2		1.12	The Contractor	and a second sec				

Let us now add other forms related to Projects such as **frmSubTasks**, **frmCurrentProjects** etc.

85.000			Firm Layout Toxic AccessDatabase	Database- Cl/Users/Muhammad Wage/U	locuments/A Muhammad Waqa	s 7 - D	
File Home Create	Edemai ()	uta Dutabase Tools	Design Anonge Format 🛛 Tell me what	yeu wett to da			
ien Therres A Fonts *	k ab	🛛 🗛 📼 🛅	\$0550√\[Hiser Core			
ews Themes	100		Cartholi	Heider / Faster	Taoh		
II Access Objects	() « I	Navigation Form	A start				-
pet.	٩	Navigatio	n Form				
ToiHRDuta	1						
to:HROuta1			fimBiopers [Add New]				
toliobs		femAuthors	Project Name	+ Project Status	- ProjectStart - ProjectEnd +		-
tb/Ordett		freeSobTasks	The Great American Frontier	Waiting on Approval			
torOrdenDetails		a south the second	Great American Beaches	Waiting on Approval			
DiPlojetti		ftub/ContentProyects	Greatest Blanders of the 20th Century The Snake in the Shores	On Hold	6/25/2012		
DiPoets Avnie		fmhProsetlaProgram	The Light of Heat	Waiteg os Approval Not Started			
toProject15	101	fubProjectrOuHold	Huster of Someone	On Hold	2/25/2013		
th/Tasks		[Add New]	Visions of Danger	On Hold	4/29/2013		
D mūnkit		-burn (ven)	The Rover in the Thoms	On Hold	5/2/2013		
I Temal			The Soul in the Cering	Not Started Not Started			
ue renuc			The Memory is the Man The Cold Night	Not Started Not Started			
arms			The School of Lords and Ladies	Waiteg on Approval			
meiligthers			The Usualing Woman	Water or Approval			
Tratesplayer			The Hidden Postfolio of Villanous Secrets	Waiting on Approval			
heEsployeerternation			The Hidden Lenicon	Waterg on Approval			
TreEnployee!			•				
traiots							
frethulpleteinEnployee							
TreProvedDashboard							
TrisProjectDetails							
I nmProjetti							
Trefublatiks							
trubCorrentProjectr							
TrubLateProjects							
TubhojedinProgress							
tupProjectsOnHold			Record H 4 H HOL T, Ha Filter Search	11			
tublass		-					

Let us now add additional tabs across the top. We will first add the **frmEmployees** form.

8 5			Paris Sarry Tanta	Accelutional Parameter Colores Mahammad Magar Decuments A	D ×
File Home Could	1.04	minal Data Database Yourk	Design Amongs (Fernial	Q (all results) proceeded by	
Ves Dame Atom		ab) Aa 🖂 🗋	. • - • • •	V B C A State of Times	
Manus Themas		New Concernance	Cartrals	Health (Faster	
All Access Objects		a Navgatan farm	120		
Sect.		 Navigation 	n Form		
III torritiute					
The second second			fanfraser fanfandare	[And New]	_
thrising			frmEmployee		
III INDANI			Transfer Street		
1000 millionersDefacts					
TERFORMUL, Autowe					
tompent, Anne		4	Engine ID	1	
internation in the second			FartNetter	Man	
11 11 11 11 11 11 11 11 11 11 11 11 11			TarNe-	(Ler	
III templ				Car	
Queries.			Address	2556 Mediates 36	
Form			() and the second s	And Menale M	
The Industry of			Address 2	Optional	
HeCopiors			(1999)17-11		
Trefagilieres			Gir	Schamburg	
The Hannels					
I tattopetentapinet			3100	n.	
ToProcillamboard			1000		
instructionals			Ze	00194	
I mahanda				Construction of the second	
I Industatio			Those	(647) 353-6492	
🖪 featGarantPriseds					
💷 humanimumb			- Phone Tope	Hama	
🕮 fullfrigattefragtals					
The Assemble Property Contractor			Record A	inder Sommennen mennen Tille blever	-
T nietzau		•	100000 10000 - 10000 - 10000		
Landow View				Northeast 12	11.14

Now, you will see that your other project buttons have disappeared from the left and that is because they are attached to Project tab. All the buttons you view on the left are linked to whatever you have selected up the top. Now with the Employee tab selected, let us drag employees-related information to the left.

H D · · · ·	Estat	al Dara - Darations Troph - 1	lacop	-	Linear Tanta Arange Tarre		Databation Critition (Athanimus at W	Yagar) Chic umantof A	Mutammed W	-		
There are a construction of the construction o	R.	🗟 Aa 🖃 🗋 🧌	,			e 🔽 ≬ 📖	Intage + 100 Date an	10095 I	y Property Share			
ne) Postal					Corttals		Hander, (Papetar De	44			
Il Access Objects	8 4	Havipatten Form										
(A.	£.	Navigation	Fo	m								
Investory.	(*)				_							
a more lines			0	ml –	etti imiling	Titte [Add Net]						
T this en		Andinglevalationsing	Г	1	thEmp	alowee						
1 mailement		hmMakelebonEnekree				S TA						
thilliansDetails		[Add Sec]	(s 10	FimNam	Lattiliam	Addaesil	Addainat	:Oy	-34		1964
itsilling.exti		Analyzan .	2	2	Man	Chr	2556 Mohara Sc	Optead	Schaunborg	1 IL	60194	(847) 555-64
Williams, Archite				1	Jaird	Frank	6433 Morgan La.	Oyuncal	Schuimburg	11.	00100	(224) 355-66
Molth-quarter?				4	Classifier	Guff	21 Baddet La	Oyuntal	Schustelung	П.	60195	ath SSLP
in Terki				1	American	Marks	91 Found La	Oyuntal	Schmeiburg	IL.	80193	(214) 153-11
ID/Texts			Н		Ced	Service	64 Osage La	Optional	Scheinberg	п.	+0194	216 113-01
timp2	-		H			Manuag	City Game River De	Opusal	Schumburg	11.	60193	(224) 333-62
THTS	311		Н		Dislovies	Tewnood	121) Chrysdide Le.	Oyumal	Schranharg	IL	80174	224 155-33
frmingthere			Н						and personal testing			
Hadaqayyee			н		Rather	Heggett	9878 Eingsley De	Optional	Schmidrerg	11	40143	3274) 555-44
Unitalityeenformation			Ц		Mark	Polset	#685 Stasley Ct	Optional	Schumburg	П,	00594	(224) 353-98
(Incorptoyee)			1	1444								
francisco.												
TeldupticsEspaysy												
weinentlandumi												
HwProperDetails												
Tellingette.												
Helphian)												
Route Culment Magazza												
Numi atolivojanti-												
humblings their spale												
AutoProgettellinettelle Tealofactes			28.8	64. S	11091040	A HE The Initial Here is a	cerch [4]					
. realizable												

Now we have project information on one tab, employee information on the other. Similarly, you can add more tabs as per your requirements. As you can see that the name of the tabs is not appropriate, so let us start renaming some of these tabs to make them more user-friendly. The easiest way is to double-click on any tab or any button on the left and rename it as shown in the following screenshot.

lie Hove Ceste	- ta	enul Data Data	and Loos	Serge Acange Format Q Tail on shirt yry s	Stip.			
Therease Arease	R	ab) Aa 🗉	• 🖄 🍕		Ci Tate	Adul Existing Property Future Sheet		
fail Thereid				Certain	Header (Featur	Teals		
I Access Objects	€,	Bangation	fam					
φ 6.	7		ivigation	Form				
ID INHADADA	2		100					
Terestation at		1		Treasure Ranghover [Add.New]				
I meises		The second se	dian -	Privat Name	+ Privan Status	- Proscillant -	Prosedlad .	
1 TELDANNY				The Grout Amazon Frontee	Waiting on Approval			
the General Details			Title .	Great American Bearber	Waining the Appenvil			
Holling and I		Citite	# Transm	Octation Blanders of the 20th Century	Or Hold	E/25/2013		
thill-spects and an		Patient		The Statist is the Shoen The Light of Heat	Wahing in Approval Not Started			
(infloquetta)		Proper	On Hold	Huster of Scenese	Or Hold	2/25/2013		
INTERNA .		100	n Newl	Vision of Diagra	Os Heid	4/29/2013		
ID/THEE?		C. C	15 # 78V	The River in the Thumo	On Hold Net Started	5/2/2013		
tenat				The Soul in the Cring The Menuor is the Mas	Not Started			
eries.				The Cold Night	Not Stated			
ritris				The School of Lonin and Laden	Wanag on Approval			
Theory and the second s				The University Woman	Walling on Approval			
Hadingtoyee				The Holdes Portfolio of Villamon Seners The Holden Learns	Wahing on Approval Wahing on Approval			
trading/oper-tdormation				and a second particular	to make our otherwards			
(techplayee)								
Westing.								
meddurpatureEmployde								
nethquittailteant.								
TheProjectOrtans								
Trailly special								
Herb&Retti								
Taul: Currier#hopet51								
No.01.21279 specto								
huidhaetheless								
Automatic Company				Record 4	1			
TourisTakko	1.1	the second second		And a state of the second				

30. MS Access— Combo Box

When you enter data in any form, it can be quicker and easier to select a value from a list than to remember a value to type. A list of choices also helps ensure that the value entered in a field is appropriate. A list control can connect to existing data, or it can display fixed values that you enter when you create the control. In this chapter, we will cover how to create a combo box in Access.

Combo Box

A combo box is an object or control which contains a drop-down list of values that the user can select from.

- The combo box control provides a more compact way to present a list of choices.
- The list is hidden until you click the drop-down arrow.
- A combo box also gives you the ability to enter a value that is not in the list.
- In this way, the combo box control combines the features of a text box and a list box.

Example

Let us now take a simple example of creating a combo box. We have created a form for an employee as shown in the following screenshot.

Accestural	hase I Database- ChUsers/Muhammad Wag	ad.Document/AccessOstatiese.accdb	(Ac. Muhammad Wages 7	- 0	
Tile Home Gaste Est	ternel Duta 🛛 Dutabase Tools 🛛 🖓 Tell				
Verw Verw View Verw Chipbeand C	The 21 Accending To Selection * Sile Descending To Selection * De Remove barr To toggle Tobar Sent & Filter	Refresh X Deater			
All Access Objects	a Inntrophyse				×
Search. 4					-
	A.				
I to Humonlunction					88 ()
toliantocluncher1	LaitName				
III Ibikumory	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1				
tolautorst	Address1				
III thiCustemers					
100epathenti	Address2				
the first of the second					
the interproperty	Ciey	1		0	
III toleAdute				*	
toenData1	State				
thulons					
to/0/deta	Zę				
1600 demovitails					
to Projects	Phone				
ID/Projects_Archive					
indropeds)	Phone Type				
th/facks					
indiasks1	Estend				
TEM Temp2					
Queries 8 Forms 8	Inb.Lide				
	 Reserve # 10 of 10 + #1 + T. 	the Filter Search		Interesting and the second	
Form View			Num Lock	11 H N	64

We now want to create a combo box for Phone type because we know that phone type should be either **Home**, **Cell** or **Work**. This information should be available in the dropdown list and the user need not type this information.

Let us now go to the **Design View** for this form. Select the **Phone Type** field and press delete.

🔒 🐎 🐟 = Aco	essDatab	nose ; D	hatabase- Ci\Users\Mu_	Form Design Roots	Muhammad Wagas 7 —	o x
File Home Create	50	ernal D	ata Database Tools	Delign Anange Format	Ø Tell me what you want to do	
PhoneType Garame Garame Garame Garame	ond (Det	ai) A - 7	· n ·)∛ Fermin S• ≍== 5 %	ing and a large state	and Court Change Conditional	
Selection		Fort		Image - flow C Jumber Background	Color - Styles - Shape - Formatting GP Shape Effects -	·
All Access Objects			trmEmployee			
eorth_	÷	5	Detail	****	1 4 1 1 - 1	******
Tables	* 3					
To:Wuthoolunchan		11	Employee ID	EmploreeID		
1044uthoriunclion1		1	FuntName	FirstName		
tol4uthors				A BULL VALUE		
finomukidi III		1	LanName	LastName	1 1 1	
to/Customers		13		Tranc's strok		
TDiDepartmente			Addeest	Addem1		
tolEnpipyee		18	the sector of the sector s			
to Employees		z.	(Addured)	and the second se		
tonisData			Constant of the second s	Addems2		
toHROuta1						-mar -
T toUobi		1	C.47	CBr		
tbiOrders		1				
tbiOrdersDetails			State	State		
ID IDProjetts		-		88 Jun 1	- provide the second	
10 ItoProjects, Archive			Zqi	Zip		
to:Projects1		12		·····		
to/Tasks			Photex.	Phone		
toffasks1		1				-
Temp2			Phone Type	PhoneType		
Queries	*	13				
Forms	*	13	Emil	Emil		
TraiAuthors		12				
1 tratespage			JohTide	JobTide		
TrinEmployeeinformation		3				
m traitimployees						
timioba		4				
TenttolipietentEmployee		+				
trmProjectDashboald	18	- 11				
esign View					foun Lock	2 8 14

🔒 🍤 = Acce	ssOatabase	Database C\Users\Mu	Porm Design Tools Mulhammad Waqas 7 — 🛛
File Home Create	Externa	I Data Database Tools	Design Arrange Pormat 🛛 Tell me what you want to do
View Theres A Fonts -	la la	bl Aa 🚥 🗋	Constant of the second Time Constant of the second Ti
Views Theorem		Contro	
All Access Objects	8 4	m trmEmployee	
Search_		• • • • • • • • • • • • • • • • • • •	1 + 1 + 2 + 1 + 1 + + + 2 + + + 1 + 1 +
Tables.	* -	* RentSame	FirstName
toWuthoolundian		;	
Tottlandian's		LauXame	LastName
tol-Authors			
triamukat 🎹		Addisect	Addems1
tbiCustometr		1	
🛄 tb©epartments		Sddues2	Address2
TolEmployee		2	
to:Employees		- Cin	Cay
III toHRData			
toHRData1		State	State
muabi			
toiOnsets	-	· Zo	Zip
100 toilOnders2letails			
toProjects		Platine	Phone
10 ItoProjects_Archive			
toProjects1		. Internet and the second	
tb/Taska		•	
toffasks1		Email	Email
III Temp2			
Queries Forms	× .	A state of the second s	JobTitle
Design View	W. ISAN	*	Num Lock 🖽 🖽 🗌

Once the Phone Type field is deleted, go to the Design tab.

🔠 St 🗇 🖅 Atom	n Databain : Datab	ane-C\Usen\Mu_	fern Resen	faul)		Muhammad Wagas ()		□ ×
File Nome Create	Esternal Data	Database Tools	/ Design Arrange	Format	V Tell me wh	at you want tu do		
View Themes	ab . ^{KYZ}	Aa 📼 🗋		Incert III	Logo Title Date and Time Isoder / Tooler	Add Existing Property Fields Sheet Trails	Tab Drder 48	
All Access Objects	V AN							×
Search_	Ist Tet Control	Definitio		+ 3 + - + 1		1 5 - + - 4		1 - 7 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
Tables III IbiAuthoriunction	Use Contro							
IblAutharlundson1	🥭 Arthest Cg	nkroja					1	
thiAuthors							VI HACK III	
ThiAuthorit	200	Piddamil	Addresst					
III IbiCustomers							11	
th/Departments	R	Address	Address2				hi:	1.1
101Employee	200					10	17	
ItalEmployees		5.485	City			57		
THIHRDate							1	
IBIHRData1	-	State	State					
Tbilobs	S			100	the states	L. P.	1.	and the second se
tbiOrders		2.0	Ζip					
theiOentersDetain		50		-	_			-
tbiProjecta	8	Phone	Phone					
tb/Projects_Archive	-							
thifasks	÷.							
D mfakt	6	Email	Emai					
Tangal	0.00							
Queries	* .	SobTitle.	JobTitle	ing	anna teige ann ann	ran ran parta a series a	i/i/i/	
Forms	*	Eaching and a second	transfer all here store					
Design View						NK.	mieck 🖽	EL

Let us now select **Use Control Wizards** option from the Controls menu and then Select the Combo Box Control from the menu as shown in the following screenshot.

8 5 · · · Accest	Databases Data	ibase- C/(Users\Mu	Form Design To	00. T	Muhammad V	Augus 7	$\Xi^{(1)}$		*
File Home Create	External Data	Database Tools	Design Arrange	Format 👰 Tellimen	what you want to do				
View Themes A Forts +	^{₩VZ}] \=]	Contrar		Insert mage - Header / Fouter	Add Estiling Property Fields Street	Tab Order			
All Access Objects	(m) - m - m /	mEmployee			1.11 U				×
Seurch.	p	The second second	a 2 4				- 7 -	****	
Tables :	*	FeetName	FustName				1		
Instatheoundien1	1	LanName	LastName	+ +	1	7	-1		
thtAuthors1		Addams1	Addrent	1. 1	10	1.	-		
tbiDepartments	3	Addam?	Address2			+	-1		
ttiffinployee		City	Gity	11111		1			
toHRData	3		State	· · · ·			-4		
thione			Zip	1	l.	1	-		
tbiOrdersDetails	1								
toiProjects_Archive		Phinas	Phone						
thiProjects1									
toffacks1	1	Final	Email	-					
Queries Forms	8	TobTide	lobTitle	1.	-10	T.,	-1		
Design View	collection and					Numiore	1	1	2

Now, draw the combo box where you want and when you release your mouse then you will see the Combo Box Wizard dialog box.

 This wizard creates a combo box, which displays a list of values you can choose from. How do you want your combo box to get its values?
OI want the combo box to get the values from another table or query.
I will type in the values that I want.
Find a record on my form based on the value I selected in my combo box.
 Cancel CEaco Next > Enist

Here you have different option for data; let us select the 2nd option wherein, we will add the values and click Next.

Whathe To a	nbo Box Wizard at values do you w list, and then type adjust the width of it edge of the colum	the values you a column, drag	want in e	each cell. edge to the w		
ø *	Col1 Col1 Coll Home Work	1				
		Can	cel	< Back	Next>	Einish

Enter the values you want to be displayed in the drop-down list and click **Next**.

Microsoft Access can store the selected value fi in your database, or remember the value so you perform a task. When you select a value in you do you want Microsoft Access to do?	u can use it later to
○ Store that value in this field:	~
 Cancel < <u>B</u> ack <u>N</u> ext >	Einish

Click Next again.

1	What label would you like for your combo box? Phone Type
	Those are all the answers the wizard needs to create your combo box.
	Cancel < Back

Enter the **label** for your combo box and click **Finish**.

🗑 5 - 🗇 🔹 AccessOntaliases C	Database C/User/Mis.	Form Design Touts	Muhammad	Waqas t =	o x
File Home Create External D	Anta Database Tools Desig	a Arrange Format	🖗 Tell me what you want to do		
View Themes	🛛 Aa 📼 🗋 🍓 [and the second se		Coder Coder	
All Access Objects 🐵 « 🗐					×
Search.				1.5	
Tables & .	FactOreas	FireName			
thiAuthoriunction1 thiAuthors	LintOCame	LastName			
thiAuthors1	Piddorel	Addreni	10) 1		
ThiCepartments 2 thiEmployee	(Addarsa2	Address2	- 1		
talEnglogen	Ciz.	Cay	10		
ToliveDetar	State	State	- + C - C - C - C - C - C - C - C - C -		
10/0 rden	Z.e.	Zıp	10		
ttoProjects	Phone	Phone	- 1		
miProjects1	(Photos Trest)	Unboand		8	
thflasks1 8	Emil	Email			
Queries 8 . Forms 8 .	JobTide	JobTide I		and a second	
Trinhuthan	# Form Foater		1		
Design View	24049200011920911201		.1	Nurs Lock 🗐	

You can see that combo box is created but it is not aligned to other field. Let us do that first by selecting all fields and then go to the Arrange tab.

85	10 E	AccessD	latabase :	Databa	ne-Cittin	en\Mu		Form Designs Test	10		1	Muhammad	Warque	T	2		×
File	Home C	este	External	Osta	Databa	se Tools	Design	Arrange	Format	Q Tell me	e what you wa	it to do					
Contines II	Stacked Tabular Remove Leyo Table		ert lind	ne la Re	in Thigh two & Colo	III Selo III Selo	ct Layout ct Column ct Row	E Morge E Split Verse E Split Verse Morge / Se	ally ontafly	Aove Move Up Down Move	Ancho	Margins = (Padding = ring = rhon	G∏C →€ Sae/ Space	Align Sitting &	Bring to Frant Ordering		
All Acc	ess Obje	ects 6	∃ n		Employee	\								_			×
Search			A				+ + + + + +									111	* •
Tables			4		SautNam			FictiName							-		
	thoriunction							1									
	the clunities 1		1	1.1	Million			LastName	10	1			-		-		
LINESCOG.	thors							L. C.									
	dhoirs 1				Uddim:1			Address1									
_	stomers							1		_		_					
112	parteents		4		Aldered			Address2		- 10-			- 17-				
CERCISION OF	moves.							1									
	ployees.				City			Cirr									
toest																	
100 C	(Deta1		1		inate			State		1							
100ot	54							a state of the									
thiOn	tlets.			1	žą.	-		Zą	11				1.0				
thion	der Dysails				1												
T million	ctrauj				Datation	-		Phone		1					-		
th/Pre	yeth_Archive							Section and the second									
thePra	ijeds1					Barne Tre		Unbound							11111		
🗐 क्रास	18.5				1	220100 4.11	-	CHOOME						No.	Ť		
🖽 thillier	(RaT)		1		Email		-	Email							-		
III Temps	2					****											
Queries		1	2		ob Title	10		TobTitle	1	- J							
Forms.								logant									
1111	athore .			61	om Foote	100		-							-		
i trete	nployee																
Design View													(Nia	m Lock	110	188.	2

To the left, you will see the **Stacked** option. Click this button.

He Home Create		Database - Chiltern'Mu Data Database Tools	Com Design Talits Mutamened Wages ? - D × Design American Format Q Tell me what you want to do
Indiana III Tabular Indiana III Tabular Indiana III Remove Layout Japan	Incert Ince Above Belo		Column R: Init Yorkunity Manage Manage III Control Padding- Size Alian Bring Send
All Access Object	ç 🛞 e 📑	hondingstopen	
Storch	P		
Tables	- E	Emplonee II3	Imployed
ThiAuthoriumchon		- Manufacture interest statements	the second se
thisuthundunction!		PartName	FireName
antitiete 🔚		Lastiana	LatNeme
transport			Lationite
ThiCudements		- Address	Address
10 thiOspartments			
10 Holdsmanleyee			Adden+2
and Anthropping and			
tuiteli@ata			Litr.
THINRDALAT			
and And (later		State	State
thiOnberg			
III milOndersDetails		- Zp	Zp
- HUProyetta			
110Projects Archive		Parents	Phone
Tuffragects I.		- Landon and the second s	
inflatte		Physics Type	Unbrased
and anti-		limat	Lonal
1 templ		- Janggan and a state of the st	
Queries	× 1		Joh Tale
Furmu	¥		
1 InnAuttori			
thodanaioyee			
Design View		t)	Hum Lock 🗖 🗐 🔽

You can now see the fields are aligned.

To make the size of each field same we have different options, let us click the Size/Space button.

Instances Instan	low Left Right 🖽 Select Row Roves & Columns	mn III Split Venturally Move Move	Sinn Sinn Sinn Sinn Sinn
Access Objects (9) + tes (2) + Telisuthoriundian	Inningsoyn	EmployeeID	III: To fit III: To fullert III: To fullert III: To fullert III: To fullert III: To fullert
15444horlyndiant 154440horl 154440horl 15444thorl 1540atommi	PercName LostName	FaitName LeitName Addren1	In Space
toDepartments ToEmployee toEmployees toHtEDate	e contraction and a second sec	Addren2	December Humanian December Humanian December Humanian December Humanian December Humanian
ttstHData1 1906H 1960rden	Sian	State	61 Degresse Vertical Grid Grid
TerDedensDetails TerProjects TerProjects_Aschool TerProjects1	Zu Note	Zg Phoce	E Puter Soup to Grid Grouping
torfans torfans torfanst Temp2	From Trys fanal	Unbound Email JobTitle	E legen

From the drop-down list, click **To Shortest**.

8	5 Aco	essDatabas	ie: Die	abase- C/Useri	Muse	Form Design Tool			Muhammad	Waqan ?	115	۵	
. The	Home Creste	Giter	nel Det	Detabase	Tooli Desi	go Anninge	Format 😵	Tell me wh	urt you want to do				
Godle		Insert in Above 8		Insert Insert Left Right Rown & Column	Select Layou Select Colum Select Row		refailly Up	Move Down	 Control Margins * Control Padding * Anchoring * Position 	Sice/ Align Spece *	Bring to Front Ordenny		
All	Access Objects	5 ® 4	-	timEmployee.		neero contratation			United and a second second second		- UKSAN		:*
Search		Q							1 5 1 -				
Tabi			1) _ OE	unaloree ID -		and the second se							
- 11	194Authorium@on		1 - 9 b			EmployeeID					-(1		
-	IblAufhociunchim1			and Claster		FirstName							
=	1014uthors			ant Carta		LastName			1.4	-	_		
田	tblAuthors1		1.3	uddees []]]		Addeen							
- 11	tblCustamets		- 1	damen2		Addmi2							
=	thiDepartments			u n en					-				
13	tbit/mployee		1.0	iane i i i i i i i i i i i i i i i i i i i		State							
	thiEmployees		1	2.p		Zip							
=	TDH+RD ata		- 1	latine		Phone							
-	TDIHED HEAT		1	Same Type	di in the second	Unbound					14		
=	thunte			late:		Ental							
-	thiorden		1	obTile		lobTide							
177	BiOrdenDetails												
	thrProjects	- U											
111	thiP-ujechs Archive		1:1										
	thiProjects1		•										
	Inflactor.												
-	thflasks1												
-	Teen2		1:#										
Que			1			0.0.00000000000000000000000000000000000	441 121 121		10000				
Eurr													
3	Trankuthors												
1	mateuropee		R.								11		
Design	n View	121	1.24							frum Lock	52		K

Now go to the **Form** view.

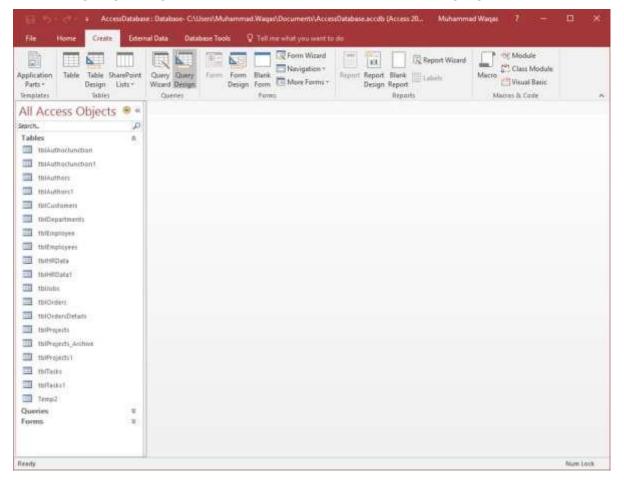
Anna Parter Viceous Farmer	T Harmony Take	nanced+ Belleph Blave Spatting Find by -	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	
All Access Objects @ •	Sait & Filter	Records Ford	Inst Farmatting	1 3
All Access Objects 🖷 •	and the second s	2		
Tables R				
This is been been been been been				
Trustantineture1	•			
-miAutheni	Employee ID	(a)	1	
Tureutrury 1	FiretOlassar	Man		
mrCostamers	LastStamus	Clay		
Thethese or treased by	(hiddewell	2556 Mohave St.		
that sugar a	Constitute.	Optional		
influence a	Cary	Sciuumbarg		
miHBDeta	State	11.		
A AND ADDRESS OF A DRESS OF A DRE	Zep	60194		
Hattation	Planet	(547) 555-6492		
TUICHINH	Phonese Types		191	
THACHARAN STREAM	Renal	Cell		
International Statements	Lob Title	Work		
million Arthon		Ew one		
THE				
The Station				
The second second				
Transf				
Querties 10				
formia R				
Time time attance				
instanginger	meconic te - 7 af 8 . 8 . 8	LHC To An Allow Search		

A user can now easily select any option for the Phone type.

31. MS Access— SQL View

In this chapter, we will be covering the SQL view. Whenever you create a query in query design, Access automatically creates the SQL query for you. This actually retrieves data from the tables. To see how your query is created in sql when you create it in query design, let us open your database.

Select the **Query Design** from the **Create** tab and add the **tblEmployees** table.



85			1	in second frame	ceuDatabase : Oatabase :		luhammad Waşas 🛛 T	- 9	×
View Run Select Make / Table Results	+! Append	Vi Update Cross	tab Delete 😢 Pa	tion es-Through	Tell mir what you wont t for insert Rows Drow Table Delete Rows Delete Delete Rows Delete Rows Delete Rows Delete Del	"유미buert Columns ※ Delete Columns 콘테 Return: All		 Property Sheet Table Plannes Hide 	
All Access Objects	🖲 H	(Interior	1						×
Search	P		tbiEmplo	vite -					-
Tables tuikuthodundion tuikuthodundion tuikuthos tu		1	* Employee(D FuntName LaitName JobTitle Address1 Address2 City State Dip FurferredPhone PreferredPhone Email	pe					
thiOrdersDetails		•							- 140
milliouxda		91.1							
 ItsProjects_Arctive ItsProjects1 		Field: Table: Sort:	Employee(D tb/Employee)	FirstName tbiEmployees	LastName Ib/Employees	PreferredPhone tbiEmployees	toEmployees		
toffacka Toffacka		Show Criteria: or		2	2	2	Ø		
Itempl									
Queries Forms									E
			411						10
Ready	_		Second and Second				Num Loc	- El -=-	2

Select the field you want to see as query result and then run your query.

File Home Create Create Sew Parts Bh Copy Parts Strengt To	ander Fit	er Selection T Selection T Subscending T Selection T Subscending T Selection T T Advanced T T Toggie Film	Betrech B:	New X Totals Save V Spelling Delder * More *	$\begin{array}{c c} & \mathcal{O}_{\mathbf{s}} & \mathcal{S}_{\mathbf{s}} \\ & \rightarrow & \mathbf{s} & \mathbf{s} & \mathbf{f} & \mathbf{g} \\ & \mathbf{h} & \mathbf{h} & \mathbf{h} & \mathbf{h} & \mathbf{g} \\ & \mathbf{h} & \mathbf{h} & \mathbf{h} & \mathbf{h} & \mathbf{h} \\ & \mathbf{h} & \mathbf{h} & \mathbf{h} & \mathbf{h} & \mathbf{h} \\ \end{array}$	$\Delta \cdot = = - 12$	
eun: Cupitioaraf	- 14 17	Soct & Filter		Records	Tint	Seat Frimutting	1.65
dl Access Object	5 🖲 e	EmoleneelD + FuntName +	LastName	+ PreferredPhos	e · Email ·		
arch_	Q	Res	Chy	(847) 555-6492	on - Email -		
altites	*	2 Incel	Frank	(224) 555-6631	In the second se		
thiAuthochunition	1.4.4.1	3 Claudane	Goff	(312) 555-5651	dayl-Epicaciel		
miAuthoriunchent		4 Annemice	Mada	(224) 555-1111	sufficient and the second		
		9 Ceol	Sorder	(224) 555-2123	entroles (2 picture		
101Authors		6 Ehva	Mannang	(224) 355-6255	and all a set of the s		
Thieuthers?		* Deloses	Towmend	(224) 355-3366	dire sumding		
thiclustomers		8 Rothie	Higgsons	(224) 335-4435			
miDepartments		9 Mark	Foliard	(224) 555-9876	The second se		
		10 Todd	Watson	(224) 555-3333	The second se		
thingityee		11 Vagil	White	(224) 355-4444	lute [person		
100Employees		12 Keith	Colton	(224) 355-5555	Louise Spinst		
tini-HRIDeta		13 Term	Casyford	(224) 555-6666	mention light		
10040Data1		14 Katheone	Emerane	(224) 555-1777	A CONTRACTOR OF THE		
thundra.	10	15 Hector	Palton	(224) 555-8888	Infoliation II present		
		16 Winfred	Hale	(224) 555-9999			
10/Orders		17 Ternie	Hamey	(224) 333-7891	dianey. (2 years)		
thiOrdersDetails		18 Chanty	Hendricky	(224) 555-6649			
thurweight		19 Herman	Muerry	(224) 555+3389	hermony Similar		
The second second second second second	10	20 Marce	Odom	(224) 555-4431			
thiProjects_Archive		21 Anders	Ons	(224) 535-6161	and the provided		
Tatalio (alta 1		22 Kaitlin	Rammusnen	(224) 355-7171			
threasks.		23 Camilie	Ror	(224) 555-8181	com li patanoon		
millants)		24 Maria	Satrage	(224) 555-9191	and the local		
Tempil		25 Astesio	Silva	(224) 555-1010	and the group of		
		26 Junior	Sparka	(224) 555-1234	and the Party of t		
ueries arms	1.1	27 August	Tate	(224) 355-5464	all's a contractor		
2/1910		28 Marguente	Wooten	(224) 555-8611	nin recent pro		
		29 Veres	Witten	(224) 555-1119	CALIFORNIA DALLARD		

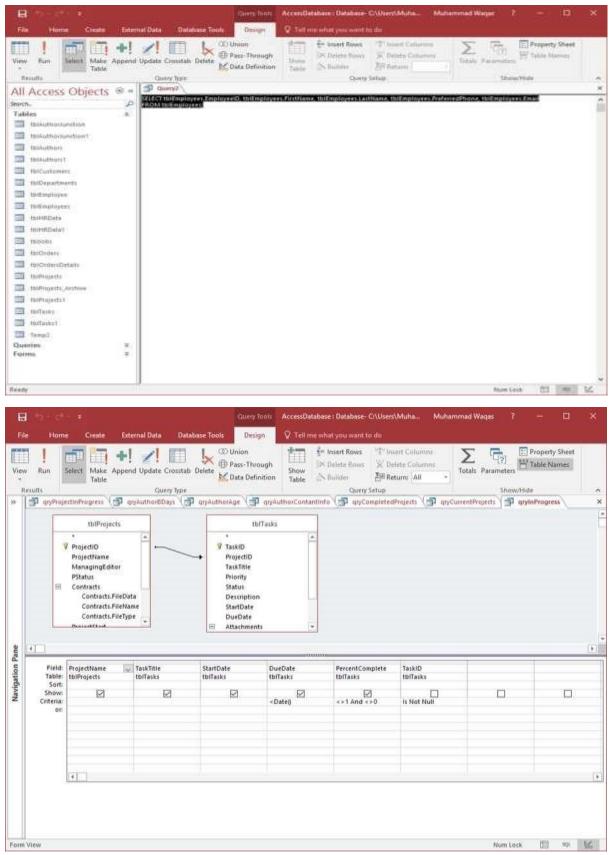
You can now see all the employee information as query result. You have selected certain fields in the Query Grid; at the same time, MS Access has also created an SQL Query with the results obtained from your Query Grid.

New Parts Stores		Le Pernove Sort T Topple Filter		e Spelling eta + More +	Find R + B J	ы (Detail) + 11 + 12 12 <u>1</u> = 1 = 12 +	
Datasheet View	14- 14-	Sort & Filter		econde	Find	led Formatting To	
1111 (MARCON 1680)	ts @ «	D Query?		-			-
SQL SQL View	Q	EmployeeID . FintName .		PreferredPhore	e - Emul		
inder ihre anner		Ren	Clay	(847) 355-6492	and the second second	1	
10 State 10		2 Janell	Frank	(224) 555-6631	dista Special	14	
Design View		3 Claudine	Goff	(312) 555-3795	120 (TALEONIA	8	
10.		4 Annemarie	Marks	(224) 555-1111	Marris 2 Ca	12	
1b(Author)		5 Cecil	Surder	(224) 555-2123	CHILDRE & DATA		
Trinkidthorst		6 Ebu	Maroung	(224) 555-6255	1	0	
thiCustomers		7 Delores	Towniend	(224) 555-3366	de canada		
		S Rothie	Higgen	(224) 555-4455	dame Tries	#6	
tbiDepartments		9 Mark	Polisid	(224) 555-9876	ingalaul Syn		
1biEmployee		10 Todd	Watson	(224) 555-3333	TALLON & DO		
thifmpiovers		11 Vagd	White	(224) 555-4444	Table Ppen		
TERROWA	-	12 Keth	Cotton	(224) 555-5555	lection grant	65	
		13 Temi	Canvford	(224) 555-6666	have find up		
TataQRHidt		14 Kathenne	Enverson	(224) 555-7777	home		
Thilons	-	15 Hettor	Fulton	(224) 555-8888	historia anti		
thiOrders		16 Winfred	Hale	(224) 555-9999	ntik Speni		
1biOrdersDefails		17 Tecne	Haney	(224) 555-7891	therepour		
		18 Chanty	Hendricks	(224) 555-6649	ch-militick+ (j.p.		
Ib(Prop(d)		19 Herman	Monsy	(224) 555-3389	pursual 4 be		
BiProjects_Archine		20 Marcie 21 Andres	Odom	(224) 555-4431 (224) 555-6161	insdia San		
th/Projects (22 Kaitin	Ortaz		stant & person		
th/Tacks			Ramumen	(224) 555-7171	Desiminant		
		23 Carrille 24 Maria	Roy	(224) 555-8181	and Specific		
thrTanks1		24 Maria 25 Antonio	Savage Silva	(224) 555-9191 (224) 555-1010	most spin a per	-	
Temp2		26 James	Sparka	(224) 555-1010	indra person		
hueries		27 August	Tate	(224) 555-5464			
ormi	=	28 Marguente	Wooten	(224) 555-8611	Car Specie		
		29 Venia	Webern	(224) 555-1119	torsconeilige torsconeilige	1	
		A7 19444	44.79444	ANT) 222-5557	1.4.1		

To view the SQL, go to the Home tab. Select **SQL View** from the View menu and you will see the SQL of your query.

Example

The following is another example wherein, we will see the projects in progress.



Let us now run your query.

16 m		×
View	Max Max Mathematical Mathematical	
Navigation Pane		
Salta	Record: H + 1 of 1 + H + T hurring Search	×

To see the SQL, select the SQL View from the View menu.

Gentante - Contraction	AccessDatabase: Database: Clubert/Multia. Muhammad Waqos F - D	×
File Home Create External Data Database Tools Design	🖓 Tellinne sehat you swert to do	
View Run Select Make Append Update Crosstab Dielete Mass Officiation	Street Street Roset To insert Columns To insere	
Results Query Spe	Query Seture Show/Hide	
appProjectosProgress appAuthorBDays ap		×
Revigation Pane		
Porm View	Num Look 12 744	2

You can see the SQL query which is generated by Access automatically. This helps retrieve data from two tables.

32. MS Access— Formatting

One especially useful formatting tool in Access is the ability to apply **Conditional Formatting** to highlight specific data. Let us take a simple example of conditional formatting.

Example

In this example, we will be using a form **fSubCurrentProjects** in our database.

File Hume Criste Lit	ternel Data - Outabase Social Design Arrange Format	Q Tell me what you wont to me	ų.			
Freedmader + Q Select All II - II Select and	A - D - I = D = S - N	der Opener Constant inn Dahler Steam Constant Soften Steam Formation Control Form	A system and	No.		
All Access Objects	14 June		- 1110			
work.	D p project Name	On Time States 2	Number of Lass Table	Perset Star		
🗗 aytrunyeekdainin	Netwo Too Late Reconnecting with Yaras Adult Children	On Time		1/26/2013		
indrichtstricking	The Potos; the Seroil, and the Cauldree	Late	- 38	1/26/2013		
P anfulfianat	The Great American Ferration	On Tame				
alitettesteri	Genit Aminiran Beaches	On Tatus				
anteceint	Cash is King: How to Cat Your Spendarg by Castring Ca	di Lais	2	8/30/2013		
P entateProjette P entateProjette	Gouner Bruden of the 25th Century	Os Time		8/25/2012		
anthelegingkätterr	The Soulier as the Shores	On Tame				
P enfectioned	The Light of Hint	On Tana				
anthiantDashasanti	Hates of Someone	On Time		2/25/2013		
🗜 antrastritopon	Gimming Up Nobiodr	On Tatat		3/29/2015		
gaphaeth	Willing of Dram	On Tene		2/26/2015		
3 anPhilestally/lather	Vision of Darges	On Time		4/29/2015		
anthumbdening	The Bowr on the Theorem	On Time		3/2/2013		
Proprogents Central #	The Soul is the Centre	Os Time				
P antheasts/victarias	The Mercure is the Man	On Term				
🗗 anfinettenn S anterstengtröksseinige	The Cold Night	On Time				
Carry Carry	Anue Wares	Late				
S Hallattan Without Materia.	The School of Lowls and Ladies	On Term				
The Contravent Without Materia	The Unmilling Woman	On Time				
iotmi 8	The Helden Portfolio of Villances Secure	On Taxa				
New Autors	Tis Halfen Lencon	On Tana				
The Intelligent	108 (1000001 1000000)	1.78 J arrest				

We have a list of all of the projects in this database and we have also got a couple of new fields like the **On Time Status** and the **Number of Late Tasks**. This form is created from another query.

- Table Table	end Update Cro	utab Deleta 🔀 De	ea-Through shaw ta Definition Table		· T ^{al} Insert Columns ※ Debte Columns 관리 Return: All Setup	Totals Paramet	Property Sheat	
All Access Objects	1 10	amentProjects P						
		1071	Qeits		qryLateCourt			
annofferfillage		1	1					
geykatt-o-Cardantaria		Projectione			RopertMaese CountEREpetate			
T anyi-uthardiustation		ManagingEditor		100				
and any and any and a second second		Patatan						
T appCurentPreiects	8	Cardradta Cardracts File	Outa					
and multiple states (14)		Comacty-File	Name					
and run in a second second		Corritects File	Allah .					
🗗 anfuttanes		ProjectStart ProjectEnd						
atsiePringente		Budget						
2 enteriction		Projectivater	3					
		Cold Citizet	*					
🚰 atstataPeljetti	+							1.0
	1 100	12711-01-01-01-01-01-01-01-01-01-01-01-01-0		12/07/02/5	Den Vizioni	Second States		14
P antidokuatiele	1 100	Projectione	PStatus tuiProseds	Project Start to Projects	ProjectEnd	CountOfDueDate	Online: MICountOrShaeDate(=0, 1ate; -On time 1	1
🗊 antizikuatiela 🗊 antivenajnjatitterr	Field Table Sort	thiftigjects.	ttsProjecta	terprojects	15/Projects	onLateCount		
🗗 antisskupterin 🖻 antitsengelattern 🗗 antitsengel	Field	tbilhojecti 2					Online: M(CountOrDueDate)=0, Tate : On Time 1 E3	
9 anläskusteis 9 antärkusteis 19 antärkajosplätterr 19 antärkäiteis	Field Table Sart Show	itsihojedi.	ttoProjects	terprojects	15/Projects	onLateCount		
9 antiskustera 9 antiskustera 9 antiskustatus 9 antiskustatus 9 antiskustatus	Field Table Set Show Criticia	itsihojedi.	ttoProjects	terprojects	15/Projects	onLateCount		
9 antiokatos 9 antiokatos 9 antioatas 9 antioatas 9 antioatas 9 antioatas 9 antioatas 9 antioatas	Field Table Set Show Criticia	itsihojedi.	ttoProjects	terprojects	15/Projects	onLateCount		
anti-skalens	Field Table Set Show Criticia	itsihojedi.	ttuProjects	terprojects	15/Projects	onLateCount		0
griddwaphere sentranaphysiation sentranaphysiation sentranaphysiation sentranaphysiation sentranaphysiation sentranaphysiation sentranaphysiation sentranaphysiation sentranaphysiation	Field Table Set Show Criticia	itsihojedi.	ttuProjects	terprojects	15/Projects	onLateCount		
systekkeptere	Field Table Set Show Criticia	itsihojedi.	ttuProjects	terprojects	15/Projects	onLateCount		
application process application	Field Table Set Show Criticia	indikajenti Ed	ttuProjects	terprojects	15/Projects	onLateCount		
systekkephere systekk	Field Table Set Show Criticia	indikajenti Ed	ttuProjects	terprojects	15/Projects	onLateCount		
systakapters	Field Table Set Show Criticia	indikajenti Ed	ttuProjects	terprojects	15/Projects	onLateCount		

In this query, we have a join between a table and a query that will display the count of due dates or how many projects have tasks that are overdue. We also have a calculated field here that uses the IF function to determine whether or not the count of the due date is greater than zero. It will then display the words **Late** if the project is late or **On Time** if that specific project does not have any overdue tasks.

	and interaction and the state of the state o	enflataben : Ditahen C		as wearing	rimed wiegen	
the second second		Tell me what you work to	@these It	88 - II		
Fann-Header +	(a) (Formation (a) (a)	12113 13	TP mark	diam'r		
Select AB B I H A	A+ = = = 1 N + 12 2 Beckpoord About	State Charge Cavity States 1 Strapy - Former	D (base D	Sector 1		
fembles 1	hand Ramber Raispround		panatting			
Il Access Objects 🖲 🖷	The free Committee (Pay Converting on)	10.7				
	ALC: NOT					
ante, p 19 automplefeditionite (2) 19 automplefeditionite	Project Name	On Time States	Manifest of Late Tasks	Paoyeet Start		
🗊 unfourtyenlauteries	Novas Too Late: Reconsering with Your Adult Children	On Taxe		3/26/2013		
🖗 aufzerigentiterdet	 The Poston, the Secol, and the Cashbon 	Law	20	3/26/2013		
P ppfullianei	The Great American Prostar.	On Time				
P aynhogress	Great American Beacher	On Tana				
g estateCount	Cash in King How to Cat Your Speeding by Castring Cash	Late	2	6/10/2018		
P anjistetramiti	Goustest Elunders of the 20th Century	On Taxe		6/25/2012		
🗊 gylaskapheld . 🗊 gylaskaphatälas	The Souhe ist the Simon	Ou Tame				
🗊 myötanagängöllähan: 🚽 myötanagängöllähan:	The Light of Host	Or Teur				
9 aphramaticum	Hurris of Semana	On Trim		2/25/2913		
anthuezofopett	Gowing Up Nabody	On Term		3/29/2013		
antriants	Willow of Dream	On Taxa		2/24/2013		
automitateme	Vinon of Darger	On Tame		4/29/2013		
👂 aphuntititenini	The Row as the Thomas	On Tane		5/2/2013		
P anthroperts Contential	The Scalar file Cenag	Ou Tinia		an an arrange		
9 estruntowotania	The Mensort in the Man	Ou Time				
🖗 qohijetlais		On Time				
9 and and a second seco	The Cold Night					
Dient .	Arus Wares	Late	2.			
Thils/Press William Mahilten.	The School of Lords and Ladan	On Time				
P HoCultemers Without Match	The Unveiling Woman	On Tens				
Trinkathers	The Hidden Postfolio of Villamon Secon	Ou Tana				
Improvider	The Hidden Lemons	On Time				

Example 1

In this example, we will be using the above form to understand how you can use Conditional Formatting to highlight specific pieces of information. We will now highlight every single project that is currently running late. To apply Conditional Formatting to one field or more than one field, we will need to switch over to the Layout view.

Now, select the **On Time Status** field.

Provide a series	Contraction of the local data and the local data an	krestbilding (latabaie O	Ghani Mahammi	and Wangacold	Multiserrised Warper	
Mail Marriel Cooke Salari	w Data Database Tools Dough America Fermat	Q. Tell what want to a	11.			
Griffine Garmond (Betald		1000 雨	Cathage Hi			
televenti B F B A	- A	Clark Charge Conditio	ing Kapy G			
	And Number Satisfield	 Diplos - Dispos - Formatt Content for 				
Il Access Objects = =	ThebConnetthants # apConnetthappite		() () () () () () () () () () () () () (
n ALCESS CALIEUS	Here were all the second second second second					
Si enforgetellingedi (*)	Paramet Plates	On Time Statu	Number of Late Term	Propert Start		
ant menores Addresses	Never Too Late Researcing with Your Adult Children	Os Tent		11/20/2018		
antennissentationen	'The Prilos, the Scioll, and the Cathlace	Late	28	1/26/2018		
P aryPuttioner	The Grant American Frontient	Che Terrat				
9 antettagente	Gaar American Beachas	Oatine				
P etylandizant	Calls is King How to Car Your Specifies by Carrieg Call	Late		6/10/2018		
antenet/opents	Oversett Blueden of the 20th Contart	On Tame		8/25/2012		
S stitutelistike	The Stale is the lines	Cie Time				
autoritared	The Light of Heat	Ou Time				
S anProxitDanScent	Hunter of Summons	On Terrat		22/25/2018		
1 ale Pringer (and a second	Gerning Up Nebody	Che Time		3/29/2018		
P quebigants	Willow of Dream	On Terrar		2/34/2013		
9 alphaetolishattac	Vouum of Darger	Ou Tame		4/22/2018		
autropathitationand	The Rest is the Themes	On Terra		3/2/2018		
P androuentedentiality	The Soul as the Const.	Chi Tané				
an Property Clarks	The Memory is the Man	On Turns				
1 aufbigerTaues	The Cold Nucla	On Tame				
S differitangitäänninentai S Daatut	Anne Waves	Late				
Distaliant Without Makman.	The Solitors of Londy and Ladies	On Time				
C. Bollowine and the state	The Second of Long Woman	On Time				
ermi 8	The Eddar Fuethin of Viliana Search	Che Tanat				
Tantaman .	The Fiching Factories of Videorius Security					
instantase .	The Philippe Lemons	Ou Tame				

Now, go to the Format tab.

El	and the second se	zzenilletatume i Delahieme C Q Tell me untuk anna merek ta			Muthermold Wegen 7	
	th → Ø Transformer (a) (b) (b) (b) (b) (b) (b) (b) (b) (b) (b	- Vote - Dope - Frend	Facilities	dire."		
All Access Objects 🖲 🖷	a hubbernthurch (your system of the					
arph. (P B) ² any Consel-And-Property (a) any Consent-Property (a) any Consent-Property (a) any Consent-Property (a) any Consel-Angelow (b) any Consel-Angelow (c) any Consel-Angelow	H Encourt Name Networ Too Law Reseaseing with Your Adult Children	Chi Time Some	Number of Law Tails	Present Start		
antrarigentinester	The Perios, the Sciril, and the Caultion	Law	20	1/26/2015		
P anfullianei	The Great American Frontier	On Tame		100000000		
🖉 ayiningen	Grant American Beather	On Taxa				
P entrefectioned	Cash is King How to Cat Your Spending by Carring Cath		2	6/10/2013		
🦻 anlatéhajens	Granteri Humber of the 20th Century	On Time		6/25/2012		
9 aylookaafinin	The State in the Supress	On Time				
guilderegengtüller:	The Light of Heat	OnTime				
9 unfliefstateid 9 unftreestDashkowid	Harris of Somerse	On Tana	1	2/25/2013		
anfrantisfrapan	Geowing Up Ninbody	On Tana		3/29/2013		
P antiacts	Wiley of Dram	On Tens		2/26/2013		
antivistativister	Viami of Darges	OwTine		4/29/2013		
aufrumhliteniei	De Breen the Doom	On Time		3/2/2013		
anterio Constant		On Tana		3(6(4))48		
20PhiliothWOTwee	The Soul in the Cering					
9 aphietlaite	The Mersory at the Man	On Tame				
9 andreianghildsbeintal	The Cold Night	On Tens				
P Curry1	Abuse Wgreet	Late	#)			
 Millioners Without Materia. ReCultement Without Materia. 	The School of Loods and Lasten	On Tana				
arms #	The Unveiling Woman	On Time				
toskathan	The Hidden Postfolio of Villamon Securit	On Terre				
Transmission	The Hiddea Lennus	On Tutat				

On that Format tab, you should see a group called Control Formatting and a special button for Conditional Formatting. Let us now click on Conditional Formatting.

Conditional Formatting Rules Manager	?	>
how formatting rules for: OnTime		
🛅 New Rule 💦 Edit Rule 🔀 Delete Rule 🔺 🔻		
Rule (applied in order shown) Forma	it	

You will now see a Conditional Formatting Rules Manager and currently we have no rules applied to this control. Let us now create a new rule by clicking on the New Rule button.

New Formatting	Rule							?	×
elect a rule type:									
Check values in t		or use an exp	ression						
Compare to othe	r records								
dit the rule desc	iption:								
Format only cel	Is where the:								
Field Value Is	- between		~			and			
Preview:	No Format Set	В	ΙU	<u>></u> •	<u>A</u> - F	e.			
						-		-	-
							ОК	Can	cei

You will now see a New Formatting Rule dialog box. We will first specify the type of rule we will be creating and here we have two options. The first option is to **check the values in the current record or to use an expression**, and the second option is to **compare this record with the other records**.

We now have only one of two values in our form; either On Time or the word Late and that is from the given query. Let us now select the "**Field Value Is''** from the first combo box and then select "**equal to''** from the second combo box. Now, type the word "**Late''** in quotation marks.

New Formatting Rule		?
Select a rule type:		
Check values in the current record or use an Compare to other records	expression	
Edit the rule description:		
Format only cells where the:		
Field Value Is equal to	🗸 "Late"	
Preview: <u>AaBbCcYyZz</u>	I U 💁 • 🔺 🖻	
		OK Cancel

We can now set our Conditional Formatting, how we want this field to look like if the word **Late** appears in that field. Let us now change the font color to red and make it **bold**, **italic** and **underline**, and that's our conditional rule. Let us now click **Ok** and then click **Apply**, and **Ok** again.

	AND COMMERCIAL PROPERTY AND ADDRESS OF		Suberri Muthermed Weger D	- Muhammad Wagas	N 🕾 🖳
File Hume Create Latern	al Data - Outlinate Toold - Design - Arrange - Format -	Q Tell me what you wald to			
Gentreme - Generrumal (Debail)	(* U) * 🖉 favoring (* 1)		Dabape Fill -		
SelectAll A J U 🔺	· A · = M = S · · · · · · · · · · · · · · · · · ·	Gunt Divers Conde	coul Shape Outline		
Leterllan d	and Rumber Bastypound		Barg we wanted to be a set		
Access Objects 🖲 🖷	The free company and the second secon		1		
an recess copees a	TE .				
🕆 angCompierleidProjecto 🕞	Parant Name	Che Tietur Status	Number of Preset S Law Tank		
P anteninyenistatestes	Networ Too Late: Reconsecting with Yoar Adult Children	On Time	1/26/20	811	
f enfremmentetenset	The Poton, the Semil, and the Cankleon	Late	20 1/26/20	553	
gurutianes	The Gent American Printing	Chi Tana			
antificages	Great Amazona Boarbar	On Time			
🗊 aylahaCaunt	Cash is King How to Cat Your Spending by Canving Cash	Late	2 0/10/20	1.1	
anisistrasis	Genetest Blunders of the 20th Contary	Che Time	1/23/28	112	
P anjianakushuna	The Seale is the Shores	On Terre			
9 enflategrigtäten 9 enflategrigtäten	The Light of Heat	On Time			
S anteritarier	Haster of Societies	On Time	2/25/2	112	
anPropettin/Propettin	Growing Up Nahodr	On Time	3/29/2		
anniedi	Wiley of Dram	OnTime	2/26/28		
anProsettelleventer	Vinces of Danges	OrTime	4/29/20	0.4	
gryPropertitionendest					
apProvenCollista	The Rever in the Therms	On Tana	5/2/20	#	
anPropertuWOTasks	The Soul as the Centry	On Term			
9 UNProjectfaild	The Minney is the Man	Che Tana			
P ayZerriangthikasherritas	The Cold Night	On Time			
Query!	Azuer Waves	Late	2		
P Thingther Without Materia.	The School of Lords and Ladies	On Time			
BiCultonen Wilton Miton.	The Usynday Woman	On Torre			
armi a a	The Halden Portfolio of Valances Second	Os Tane			
the best best	The Hidden Leuron	Cite Time			
	Record if a dial 27 a an - This fills Search				aua 🗟 📆

You can see that the word **Late** is formatted now. This is one example of how to create a very basic conditional format rule.

Example 2

Let us take another example. Here, we will make the title or the name of the project **red** and **bold**, **italic** and **underline**. Select the project name control on your form.

The Horne Colate Erio	ernal Da	es Outstaar Sooli Design Arrange Format 🖓	ten me what you even to d		and shall a		
Fojechises (*) Germond (Deb	0	• IV • • Farmating	(2.13) B	Ct Shape H			
Select All B J W J		· · · · · · · · · · · · · · · · · · ·	Quite Change Condition	nat Prope O			
American	Feet	Number Kattgrund	Stohn - Shave - Tarmatt		1000		
All Access Objects 🛎 *	11 1100	InstitiamentProjects	111000				
work	E	E					
19 an Complete Projects		Project Name	On Term States	Number of Late Tailo	People Stat		
antronyee+ddamar		Nerve Two Later Reconnecting with Yang Adult Children	On Time		1/26/2013		
anfansionstander	П	The Potos, the Serol, and the Cauldons	Late	38	1/26/2018		
P anfuttianat	П	The Great American Printee	Os Time			-	
anteringen	н	Guar Amusican Beaches	OsTatas				
S aguradaum	1	Cash is King: How to Cat Your Spending by Ganting Cash	Late	2	8/10/2013		
P anjusteRojetta	н	Gourser Bineders of the 21th Century	Ou Time		8/25/2012		
S syleenustett	н	The Index at the Shores	On Term				
antinitiatei	н	The Light of Heat	On Time				
anthisettDastassant	Н	Hanne of Someone	On Time		3/25/2013		
antheiderhopen	H	Genning Up Nobody	Os Tatat		3/79/2013		
🗗 qohijetti	H	Wiley of Doam	On Tent		2/26/2015		
3 atyPhijestalij/kather	H	Vision of Darges	On Taxa		4/29/2013		
🗗 anthriethickeniel	H	The Brits as the Thoma	Os Terra		3/2/2013		
Prijetti Cettule	H	The Soud as the Corneg	OsTime				
The anti-manter of the second second	H	The Memory is the Man	On Term				
🗗 anffrigettaan 🗿 anffrigettaan	H	The Cold Nulls	Os Time				
Curri C	H	Artus Wares	Late	12			
S Halletters Without Material	-	The School of Lords and Lades	On Taxa				
TRiCartanen Without Mater	H	The Userilling Woman	OnTime				
Formi a	Н	The Holden Portfolio of Villainom Second	OrTerr				
The Authors	H	The Halden Lencon	On Time				
itrednatigen	lu-	ne 14 4 5 ef 21 + H - Tota tion Search	1000				

We will now go back to our Format tab and click on Conditional Formatting and create a new rule for that specific control as shown in the above screenshot.

New Formattin	ng Rule							?	×
Select a rule typ	pe:								
Check values in Compare to ot	n the current record or u ther records	ise an exp	ression						
Edit the rule de	escription:								
Format only Expression Is	cells where the:								l
Preview:	No Format Set	В	ΙU	<u>></u> -	<u>A</u> -	1=:			
							11 2500		
							OK	Ca	ncel

Here, we will not be checking the value of the current field we have selected, but we will be checking it against another field on this form. Select **Expression Is** in the first combo box and then click on ... button at the end as in the above screenshot.

Examples of expressions include [field1] + [field2] and [f	field 1] < !	5)	
[CountOfDueDate] > 0				Ж
			Ca	ncel
			H	elp
			<<	Less
xpression Elements	Expression Categori	es	Expression Values	
fsubCurrentProjects Functions AccessDatabase.accdb Constants Operators Common Expressions	<form> <field list=""> Label0 Label1 Label3 Label4 ProjectName ProjectStart CountOfDueDate OnTime FormHeader</field></form>	~	<pre></pre> <pre> AfterUpdate AfterUpdateEmMacro AggregateType AllowAutoCorrect AutoTab BackColor BackShade BackStyle BackThemeColorIndex BackTint </pre>	

In the Expression Categories, you have every single object that is on this form. Doubleclick on **CountofDueDate.** This will send the reference to that control or that field up to our expression builder and condition if it is greater than zero. Now, click Ok.

Edit Formatting	Rule				?	×
Select a rule type	1					
Check values in Compare to oth	the current record or use an er records	expression				
Edit the rule des	ription:					
Format only ce	lls where the:					
Expression Is	[CountOfDueDate]>	0				
Preview:	AaBbCcYyZz B	I U 🛆	• 🔺 🖻			
				OK	Can	cel

Let us now click Ok and then, click Apply and Ok again.

🖶 👘 🗇 = AccessDataba	e : Database- Ci\Users\Mu Porn Layout Tools	Muhammad W	inges 7	- 8			
File Home Create Este	al Data Database Tools Design Arrange Format 🖓	Tell me what you want to do	U.				
Y ProjectName - Garamond (Deta	• 11 • 11 Farmating •]		A Shape Fill				
Select All B I Y A	Image * Row Color *	Styles - Shape - Formattin	Cluck Change Conditional ≧ Shape Outline * Shape Shape Conditional @ Shape Officers * Control Formatting				
All Access Objects 🗟 «	TubCurrentProjects						
earch. p	Æ						
LLL IDSYSPECTS	Project Name	On Time Status	Noosber of Late Tasks	Project Start			
toProjects1	Neves Too Late: Reconnecting with Your Adult Children	On Time		1/26/2013			
T toffacks	The Pation, the Scroll, and the Cauldron	Late	20	1/26/2013			
tbiTasks1	The Great American Frontier	On Time					
Temp2	Great American Beaches	On Time					
Jueries ¥	a B J y A - A - E = E S S + 12 J Background Alter Image - four C Number Background Alter Image - four C Background Cess Objects S S Sector Constant Sector Constant Sector Constant Sector Constant Sector Constant Description, the Secoll, and the Cauldron The Great American Promise Great American Beaches Cash is King: How to Cast Your Spending by Carryin atta a		2	6/10/2013			
Torms E	Gasatest Blanders of the 20th Century	On Time		6/25/2012			
T ImEmployee	The Snake in the Shores	On Tame					
TrmEmployeeinformation	The Light of Heat	On Time					
TemEmployees	Huster of Someone	On Time		2/25/2013			
timistra	Growing Up Nobody	On Time		3/29/2013			
TraktulipieltemEmployee	Willow of Dream	On Time		2/26/2013			
TerProjectDathboard	Visions of Danger	On Time		4/29/2013			
1 fmProjectDetails	The Boyer in the Thomas	On Time		5/2/2013			
TemProjetts	The Soul in the Crining	On Time					
TubCurrentProjects		On Time					
Tublate/rojetti	The Cold Night	On Time					
TubProjedinProgram		Late	2				
ThueProjectsOnHold	The School of Lords and Latins	On Time	(1993)				
TubTaski •	Record H + 6 of 21 + H + To Poter Search	20121000					

That was an example of Conditional Formatting on a field based on values in another field.

Example 3

Let us now look at another example of conditional formatting. Let us assume, we want to see which projects are more late or have more late tasks than other late projects. Select the Conditional Formatting option.

Conditional Formatting Rules Manager		? ×
how formatting rules for: CountOfDueDate		
🛅 New Rule 🛛 🐺 Edit Rule 🛛 🗙 Delete Rule 🗠		
Rule (applied in order shown)	Format	
Value > 0	AaBbCcYyZ	z
value > 0	Auboccijz	*
	OK Control	Analy
	OK Cancel	Apply

Click on the New Rule button to create a new rule and then click Ok as in the above screenshot.

New Form	natting Rule					?	×
Select a ru	ule type:						
	lues in the current to other records	record	or use an expressi	on			
Edit the ri	ule description:						
Territory (er format settings: w <u>B</u> ar only Shortest Bar		Longest bar				
Type:	Lowest value	~	Highest value	~			
Value:	(Lowest value)	-	(Highest value)				
Bar <u>c</u> olo	pr		Preview:				
					E	ок	ancel

In the New Formatting Rule, we will now select a rule type **"Compare to other records"**. Let us further change the **Bar color to red**. We want our shortest bar to represent the lowest value and the longest bar to represent the highest value. Let us now click Ok and then, click Apply and Ok again.

If CountOfDueDr + Garamond (Detail) 11 *							Muhammac	(Weges (?)	- 8	
File Home C	reate Est	ernal D	ata Database Tools	Design: Ar	range Forma	at 😨 Tall	me what you want to			
Y CountOfDueDr -	aramond (Det	aiti -	• 11 • 3				202 1	Shape Fi		
70000026-00 04	Selection Foot Number Bockground							El 🔽 Shape O ional tting 📿 Shape D formatting		
All Access Obi	ects 🖲 🛛		IsubCurrentProjects							
10/1/L	J.	5	Ŧ1							
toProjects toProjects_Archive toProjects1			Project Name				On Time Status	Number of Late Tasks	Project Start	
		h	Never Too Late: Rec	onnecting with Y	out Adult Child	lten	On Tame		1/26/2013	
torrayka		•	The Potion, the Sci	oll, and the Ca	uldrea		Late	20	1/26/2013	
III - Holfaski T		H	The Great American	Source and the Source and So			On Time		CONTRACTOR IN	
III Temp2			Ganat American Bea	the second s			On Time			
Queries	8		Cash is King: How	Great American Frontier est American Besches ib is <u>Kinge</u> Haw to Cart Your Spending by Corrying atest Blunders of the 20th Century Soake in the Shores			Late	1 2	6/10/2013	
Forms TE tre-Authors	8	-	Greaters Blunders of	and in Ring: How to Cut Your Spending by Carrying instant Blunders of the 20th Century he Soulin in the Shores			On Turns	-	6/25/2012	
TrmEmployve	1	17	The Scale in the Shor	tel			On Time			
InEmployreinform	ation		The Light of Heat				On Time			
frmEmployees			Hunter of Someone				On Time		2/23/2013	
Tresiuns		H	Growing Up Nobod	ie Snake in the Shores ie Light of Heat setter of Someone					3/29/2013	
hinAhulipletteniEng	piupee		Willow of Deam	Sealer in the Shores Light of Heat ster of Someone rwing Up Nobody low of Deeam					2/26/2013	
TimProjectDanhboa	ot		Visions of Danger	at American Beaches is <u>in Kings: How to Carl Your Spending by Carrying</u> test Blanders of the 20th Century Soulae in the Shores Light of Heat er of Someone wing Up Nobody w of Desam or of Danges Roves in the Thoms Soul in the Crying Mensory in the Man			On Tame		4/29/2013	
ImProjectOctails		H	The River in the Thor	201			On Turne		5/2/2013	
frmBrojects frmSubTasks		H	The Soul in the Cryin	£.			On Turne			
tsubCurrentProjects		H	The Memory in the M				On Tana			
fuoblateProjects		H	The Cold Night				On Time			
fubProjectinProgra	en:	-	Arare Waves				Late	2		
TsubProjectsOnHold	đ		The School of Locds		1.822.22		On Tune			
fiubTella wout View	-	Red	and: 14 4 2 of 21 + +	a di Tana Ang Pata	Search			Num Lock		1

You can now see Conditional Shading applied as in the above screenshot. Let us now go to the Form view.

File Home Create	Ente	rnal D	ata Database Tools 🖓 Tell me u	rhall you want to do					
H Con In Copy Parter of Format Pair		Y Fiter		in New ∑ Bier New ∑ Bieresh a+ X Deteter - □	and -		· · · · · · · · · · · · · · · · · · ·		
ews Clipboard	- 60	-	Soct & Filter	Records	Field	Text	Formatting		
II Access Objects	(i) +		tsubCurrentProjects						
win_	Q								
to@rsyects	-		Project Name		On Tarrie Sta		inber of	Propert Start	
10 Projects_Archive		L			250000	1	rte Tasko	102212025	
to@rojects1			Never Too Late: Reconnecting with		On Time	_		1/26/2013	
ttriTaska			The Potion, the Scroll, and the C	Sauldron	Late		201	1/26/2013	
tolfasks?			The Gout American Frontier		On Time				
Temp2			Great American Beaches		On Tame				
ueries.	¥		Cash is King: How to Cat Your !	Spending by Carrying Cas	b Late		2	6/10/2013	
fimAuthors	×.		Greatest Blunders of the 20th Cent	uey	On Tame			6/25/2012	
WmEmployve	17		The Snahe in the Shores		On Time				
ImEmployeeinformation			The Light of Heat		On Time				
fmEmployees		-	Huster of Someone		On Time			2/25/2013	
trealutes		H	Growing Uo Nobody		On Time			3/29/2013	
hinklulipleteniEmploper		-	Willow of Dream		On Time			2/26/2013	
TrmProjectDainboard		-	Visions of Danger		On Tene			4/29/2013	
TreifrajectOctails		-	The Rover in the Thoma		On Time		11	5/2/2013	
frmProjects		H	a second de line, e contrat.		1,000,000,00			2/4/2012	
hmSubTasks			The Soul in the Cering		On Time				
1 Asub Current Projects			The Memory in the Man		On Time				
fuoblateProjects			The Cold Night		On Time				
fiubProjectinProgress			Azure Waves		Late		2		
TsubProjectsOnHold	i farm	1	The School of Lords and Ladies		On Time				

33. MS Access— Controls and Properties

In this chapter, we will be covering **Controls and Properties** available in Access. We will also learn how to add controls to forms. Controls are the parts of a form or report that you use to **enter**, **edit**, or **display** data. Controls let you view and work with data in your database application.

- The most frequently used control is the text box, but other controls include command buttons, labels, check boxes, and subform/subreport controls.
- There are different kinds and types of controls you can create, but all of which will fall into one of the two categories bound or unbound.

Bound Controls

Let us now understand what Bound Controls are:

- Bound controls are ones that are tied to a specific data source within your database such as a field and a table or a query.
- Values can be either text, dates, number, check boxes, pictures or even graphs.
- You use bound controls to display values that come from fields in your database.

Unbound Controls

Let us now understand what Unbound Controls are:

- Unbound controls on the other hand are not tied to a data source, and they exist only in the form itself.
- These can be text, pictures or shapes such as lines or rectangles.

Control Types

You can create different types of controls in Access. Here, we will discuss a few common ones such as Text box, Label, Button Tab Controls etc.

Text Box

- Typically, anything that is in a text box will be bound, but not always.
- You can use these controls to interact with the data stored in your database, but you can also have unbound text boxes.

- Calculated controls will perform some kind of calculation based on an expression that you write and that data is not stored anywhere in your database.
- It is calculated on the fly and live just on that one form.

Labels

- Labels will always be text and unbound.
- Normally, labels are not connected to any source in your database.
- Labels are used to label other controls on your form such as text boxes.

Button

- This is another type of popular control; these command buttons usually perform a macro or module.
- Buttons are usually used to interact with the data or objects within your database.

Tab Controls

- Tab controls give you a tabbed view of controls or other controls in your form.
- Adding tabs to a form can make it more organized and easy to use, especially if the form contains many controls.
- By placing related controls on separate pages of the tab control, you can reduce clutter and ease your work with data.

Hyperlink

Hyperlink creates a hyperlink on your form to something else. It can either be a web page or even another object or place within your database.

Some Other Controls

Let us now look into some other controls:

- You can also create a web browser control and navigation control, groups, page breaks, combo boxes.
- You can create charts, lines, toggle buttons, list boxes, rectangles, check boxes, unbound object frames, attachments, option buttons, subforms and subreports, bound object frames and even place images on your form.

Example

Let us now look at a simple example of some of these controls by creating a new blank form. Go to the **Create** tab in the **forms** group and click on **Blank Form**.

TE Street Accesibilitation	se i Database- CAlbers\N	Subammad Wagas\Documents\Acce	stDatabase.accdb (Access 20 Muhamm	ed Wagas 🛛 👘 — 🗉	a x
File Home Create Exter	nal Data Database To	sels 🛛 🖓 Tell menuhat you want to			
Application Parts * Immpiates	Query Query Witand Design Querrs	Form Blank Design Form Construction - Form Form	Feport Report Bank Design Report Report Report Report	Macro Macro Winual Basic Macros & Code	
All Access Objects 🖻 *					
Search					
🖾 toiHitbata 🔄					
III 100HRData1					
III toutes					
tulOrders					
to/OrdersDatalle					
thiProjects					
tolProjects_Acotive					
ttidProjects1					
Inflates					
toffacks1					
III Tempi					
Queries R					
Pine duplicates for taliauthors					
grykatnoräge					
gryAuthortDays					
grykuthorContantinto					
gyAutherDuplicites					
🗊 (nyCampintadProject)					
ggCurrentProjects					
🚰 uryEmployeeAddresses					
🗗 grjEnpligee:Extended					
Ready	-				Num Lock

The above step will open an unbound form, which is not attached yet to any item in our database.

Norm Output Database Database <thdatabase< th=""> <thdatabase< th=""> <thdata< th=""><th>星</th><th>Accesibal</th><th>abauer Database-</th><th>Citthen Mu.</th><th></th><th>rm Layout Too</th><th></th><th></th><th></th><th>Muhammad W</th><th>igen 7</th><th></th><th>•</th><th></th></thdata<></thdatabase<></thdatabase<>	星	Accesibal	abauer Database-	Citthen Mu.		rm Layout Too				Muhammad W	igen 7		•	
Yeev Thermont Yeev			isternal Date 🛛 🕻	Detabase Tools		Anange		Q Tell m	e entre entre e	ent to de :				
View Tennes Cantrols Header / Seaters Indix All Access Objects Indix All Access Objects Image: Im		Aa Colorr	ab] Aa				-	22.2	insert.	Engo	6 (e. e. e.	uting Pre	perty	
Field List * Field	Views	Thenes			Cantz	nh								
Sector Provide List Introl#Data Introl#Data Inthondot Introl#Data </td <td>AIL</td> <td>Access Objects 🖷</td> <td></td> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>× Field</td> <td>d thet</td> <td></td> <td></td> <td>×</td>	AIL	Access Objects 🖷		0						× Field	d thet			×
indificultaria indificultaria indificultaria indificult										Lici	U LISU			300
1004000abit 100400abit 100400abit <td></td> <td>tol#RData</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>of sidelieve of</td> <td>he added</td> <td>to the cu</td> <td>ment</td>		tol#RData	-								of sidelieve of	he added	to the cu	ment
modati modati modati modati modati modati modati modati modati modati modati modati modati modati modati modati modati modati modati moda		torHRDwta1												
Introductor Introductor </td <td>-</td> <td>most:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>the s</td> <td>pum attables</td> <td></td> <td></td> <td></td>	-	most:								the s	pum attables			
ittillingedi ittillingedi <td>=</td> <td>taiOniters</td> <td></td>	=	taiOniters												
in the Winserth, Andrews in Minagetta in Minagetta in that as is in this is is is in this is is in this is in thi	111	tui-OrdersDetails	-											
Ind/Propertial Internation		tistProjects												
Intillasis		tollyments_Archive												
Infinition Infinition <td>112</td> <td>th/ProjectsT</td> <td></td>	112	th/ProjectsT												
Nemo: Querries A Prod dugBlates fur 100/uthors grayAuthorContantinfo grayCurrentFunctio grayEurophyseAdditerises grayEurophyseExtended	-	tto/Tasks												
Queries A Prod duplicates for tblokuthons OpdathonsQn Opda	=	to/TusksY												
Prod duplicates for folivations productions productin		Temp2												
anyAuthorAge anyAuthorContantine anyAuthorContatine anyAuthorContantine anyAuthorContantine anyAuthor	Quer	nes A												
anyAuthorContantInfe. anyAuthorContantInfe. anyContantOuplicates. anyContantProjects anyExployeeEduteries. anyExployeeEduteries. anyExployeeEduteries.	구	Find duplicates for thiAuthors												
Implementation Containt Data Implementation Containt Data <td< td=""><td>爭</td><td>gry9uthar8ge</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	爭	gry9uthar8ge												
gryAustrurDuplicates gryCompletesBrundt gryCompletesBrundts gryEmployeeAddumies gryEmployeeEAddumies gryEmployeeEAddumies expExployeeEAddumies	2	anyi-uthorsDays												
Image: Comparison of the second state of the second sta	5	any-hutterContantinite												
OrgContentPoints OrgC	F	gryAuthorDupRotes												
gryEmphyseAddieses gryEmphyseAddieses e Decent. H (1 of 1 + H) Search + + +	Ŧ	an/ComplictedProjects												
aryEmployeesEstanded Paramat. # (1 of 1 + #) / (2 mo film) Search + +	9	grgCurrentPolyerts												
Remark # > [of 1 = # > To ho To ho To ho + 4]	3	uryEmpinyeeAddussies												
	爭	un EmployeesExtended				-				1000				
	Lawrence	Olivia -	. Revorat. 18	1.011	5, P. 11, Te, 190	Annin (Sear	179			12121	Martin Color		1200	10

By default, it will open in layout view as shown in the above screenshot.

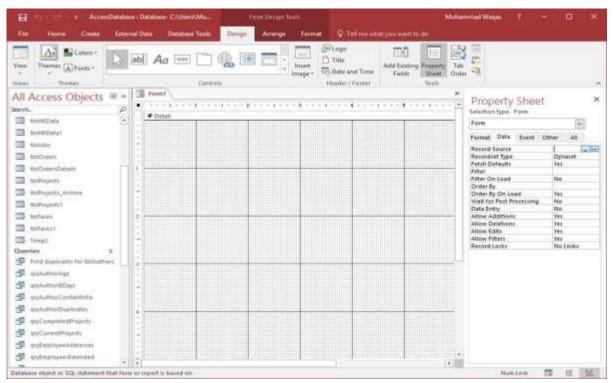
🖬 fan c'hr 😑 Accesiletai	bere : Detabore - C/U	ers)Mu	hum Design Taple		6	Auhammad Wagas 👘	r – a	*
lle Horne Greate Ed	ernal Data 👘 Datab	ese Toola Design	Aninge Form	et: 🗴 Tellina of	at you ment to do			
ew Themes A Fentls -		Contrats	intert trage	Date and Time Header / Tuster	Add Easting Pioperty Fields Sheet Trick	Tel 4		
Il Access Objects 🗟 🖲	r Toemt							9
nh. F			1			• E • • • • • • • • 7 •		1.1
100HHData						1112		
tuiteRDate 1								
interes .	7							
thiOrden	- E							
1 ttr:DidersDetails	1							
thiProjects								
telProjects, Archive	-							
BullProjectab								
Tuffasha	1							
1 thillainni								
Temp2	-							
peries ±	2							
Find duplicates for talkuthors	15							
p uphiminage	-							
anti-ten	-							
ag-AuthorContentinte								
grywutherDuplicates								
gryCompletenProjects								
gg/CurrentProjects	-							
anfinateseelddresses	T							
gotmologeeitstended								

Let us now go to the Design View to add fields.

On the Design tab, click on the Property Sheet.

🔒 👘 🗇 = Accentiatan	ine: Dirahase- C\Usen\Mu	Form Design Table	Muha	mmail Wages 📅 🚽	a ×
File Home Create Edu	enal Outa Database Tools	Design Anange Format	Q Tell me what you want to do		
View Themes	abi Aa 📼 🗋 (invert	Diago) Title Cate and Time Header / Fueter Tech Header / Fueter Tech	2	
All Access Objects 🖷 🖉			×	Property Sheet	×
III meelbata	- Central			Faim	1
III thirthDate1				Format Data Event Of	ther All
mbubs biOxders biOxders biOxders biOxders biOxders biOxders biPropetty_AngAlee biPropetty				Caption Default View Allow Grow View Allow Com Databact View Allow Layout View Picture Dyse Picture Tring Picture Tring Picture Tring Picture State Mode Wridth Auto Cartisle Auto Cartisle Auto Cartisle Auto Cartisle Auto Cartisle Receit Selectors Norgation Buttorn Norgation Buttorn Norigation Buttorn Norigation Cartison Disting Lines Scraft Basis Cashes Suttorn Mar Mas Stutorn Mar Mas Stutorn	A Single Form Vet Alo Tet Embedded glonei No Centar Clip 6.1694* No Sinable Vet Vet Vet Vet No South France Vet No South France Vet No South France No South France No No South France No No No South France No No South France No No South France No No South France No No No No No No No No
utpCulmentProjects				Split Form Orientation	Detecheet or
ggEnployenidation				Split Form Splitter Bai Split Form Outasheet	Ves Allow Edits
gryfinpisynesErienden	(+)			Split Form Printing	Form Only 👻
Ortign View	1010			Numbook	

On the Property Sheet, click on the drop-down arrow and make sure Form is selected, and then go to the Data tab.



On the Data tab, you will see that the Record Source remains blank. Let us assume, we want to create a form that's going to be tied to two different tables in our database. Now click on ... button. It will further open its own query builder.

Show Table		?	X
Tables Queries Both	1		
tblAuthorJunction			
tblAuthorJunction1			
tblAuthors tblAuthors1			
tblCustomers			
tbiDepartments			
tblEmployee			
tblEmployees			
tbHRData			_
tbHRData1 tbDobs			
tblOrders			
tblOrdersDetails			
tblProjects			
tbiProjects_Archive			
tbProjects1 tb[Tasks			
tblTasks1			
Temp2			
-			
	Add	0	lose

Select the tables that contain the data you want to display; click on the Add button and then close this dialog box.

Results	Stitute Append	Corry fipe	C: Union Pass-Through M: Deta Definition	the page		e Calumini	adada 20 Miles	the Numes	Aver Close As Dese	
	formt i Query that through yeas through yeas former i Query that through yeas throu			IndHRData - II EngloyeetD StartSalary Hours HavData BenefitEtectio			×	Property S Selection type: Fit General Abox Secure		lata
4 Field Table Store Citena St	9		-		D	D	•			

Let us now select all the fields from tblEmployees and drag to query grid, and similarly add all the fields from tblHRData.

Now, click Save As and give this query a name.

Save As		?	×
Save 'Query2' to:			
qryEmployeesData			
As			
Query			~
		_	
	OK	Car	ncel

Let us call it **qryEmployeesData** and click **Ok** and then close the query builder.

😸 🗄 - 🗇 = AccentBataber	ne : Ditahioe - C/Uses/Mu	form Depiger Sault		Muhammed Wages 7	- 🗆 ×
File Home Create Editor	nal Duta Database Tools Design	Arrange Format Q Tells	me what you want to da		
Vers Opposed 5	T Security T Security II Decoding Distances In Formation T Security In Formation T Security Sector 200	inc time ∑ forcels ∰Same ⊃ Spelling All × Debte · ⊕Mare · Freends	Freed 1		
All Access Objects	form form			Property Sheet Selection type: Form	×
tubritUaks1 tubritUaks1 tubritUaks1 tubritus				Recorded Type Fetin Defaulti Filter Filter Om Lead Order By On Load Order By On Load Order By On Load Order By On Load Wall for Post Processing Data Entry Allow Additions Allow Deletisos Allow Edits	er All gryEngloyee:Oata um m Dynaset fes No No No No Fes Fes Fes Fes Fes
Questies X Image: Second				Recard Locks	Ne Locks
* Driigs Vew	(4)			Num Lo	a 🖬 🖩 🕼

You can now see the query as its Record Source. We have now bound this form to an object in our database, in this case qryEmployeesData. We can now start by adding some controls to this form and to add any one of the controls, go to the Design tab and view your options from the controls group.

Accel	uDatabase : Datab	lain- C/UrenUMu			latal))		(i n	Auhammad Wagas 👋 ?
File Home Create	External Data	Database Tools	Design	Amange	Fermat	Q Tell me lab	at you want to the	
View Themes Arons -					inset E	F Logo) Tabe S Date and Time Header / Foster	Add Easting Property	Tal and the second seco
All Access Objects	V 100							* Field List ×
Sharot_	Ba Second	Defaults			124 1.1.1.1	1.1.2.5 1 .7.7.7.	111111111111111	
m##Data	S Use Control	i Mozente			1			No fields available to be added to the current view.
TOFFEDuta1	Active Co	introlis						T Show all tables
100000	100				-			
THOrden	+							
ThiOrdersDetails								
III MPRojects								
10Pojecti_Aschae	2							
toProjects1								
toffests	T.							
Terfania 1								
Quercies								
Pint dupbales for thinks								
anteringe	(Det). 3 (Second							
F unkutturbDen	2							
🗇 unikumarContantinia								
gy/AuthorDuphcates								
JunCompletedProjects								
P an/CurrentProjecta								
g untautigeskädresses	i i i							
anteninyertidended								
Deugn View	-341(4)						. 0	Aun Lock 📅 🖼 🕍

From the Controls menu, you will see that the Use Control Wizard is highlighted as in the above screenshot. This little button has that highlighted box around it by default. This means that the control wizards are turned on. This is like a toggle switch. When you click on the toggle switch the wizards turn off. Clicking it again will turn the wizards on.

Let us now click on the Label and drag this label and enter Employee Information and then go to the Format tab to format it as in the following screenshot.

🗄 🍤 - 🔄 = AccessDatabe	e : Datahase: C\Uses\Mu	Form Declary Sould		Muhammad Wagas 7	- 0 >
File Home Create Edor	ual Data Database Tools	Design Arrange Format 🔍	Tell me what you want to do		
Label0 - Geramond Detail	24 - A 1	hitting		Shape Fill =	
Select All H / U 🛕	. A. EEE 1	a a tar a Background Abamate		Shape Outline -	
The second se		Jmage * Rass Color +	Spin- Shape - Formatting Q		
Selection	Fund Formt	filmfor Reciproced	Contrast Formattie	10	
Il Access Objects 🐵 «					
anth. P	# Detail				
11 tutvitlata					
thinkDate?					
d thinks	÷	Employee Inform	ation		
thiOrders	8				
tuiDidersDetails	1	Sing failuging the stat			
thiProjects					
toiProjects_Archive	Ť				
tullyojeztiit					
TE feffaille.	1				
B thillaskal	Ş				
Tamp2	÷				
turries ±	1				
Find dupilitates for talkathors					
p gryssamirkige	8				
aniAuther8Copt	-				
gry-kuttur Contantinita					
🗊 grykuthörDuplitates					
gryCampirterRisjerts	3				
ggComentPhajecta	-				
g gofingtajeelddreises	1				
antmployeesDate					
nige Vew	4			Num Lock	

You can choose to apply a bold style or change the font size of text inside that label etc. This control appears inside the detail section of your form. It makes more sense to position this label inside the form header section, which is not visible yet.

🗑 🦘 - 🚓 AccessDatabase: Database: CAU	Useri/Mu	Muthammed Wegas	- 1	- B - ×
File Home Create External Data Data	deex Tools Design Amange Formul Q To	all year to hait year weart hit day		
W Detail •	a tomating -	2 0 1 Stope Fit		
¹ 1 ₂ Select Al 0 1 11 P ₁ · <u>∆</u> + = =	S S S S S Background Alternate Image - Rins Color - 1	Quick: Change Conditional Styles - Shape - Formatting @ DiaperEffects -		
Selection Funt	foamber Background	Cantrol Fernatting		~
All Access Objects @ * Tormi				×
Search. D	· · 1 · · · 1 · · · 2 · · · 4 · · · 3 · · · 4 · · · - 4	1 + + - 4 + + 8 + + + 1 + + + 8 + + + 1 + - +	1.++++++	8 4 - <u>*</u>
i tuinitouta				_
10HRDota1	Employee Informatio	272		
🔟 tatlais -	- micergeory man parameters			
III Bildrains				
I talOrdanDetails				-
In the sector				
ttiProjects, Aestave				
thiProjects)				
10 18/Tavita 2				-
toffaskat -				
III Soul -		Build [vent_		
Queries s.		Tab Crobel.		
Tinil duplicater for thikuthers		Easter	-	4 -
🗇 uphuttionige		A Fill/Back Color +		
🗊 gryfictholfDege		Hill Alfernate Fil/Back Caler +		
🗊 upeditorContactinto		Buter		
🗊 atykathorDuplicates		Digit Digit		
🗊 gy_CompletedProjects		😭 Page Header/Frater		
∰ upCurentProjects		Form Hesder/Footer		
🗊 unfingfogreAddresses		Eorn Preparties		
🗗 anfinainyeesDate		E Propetties		
Tesign View		14	wetack IR	3 52

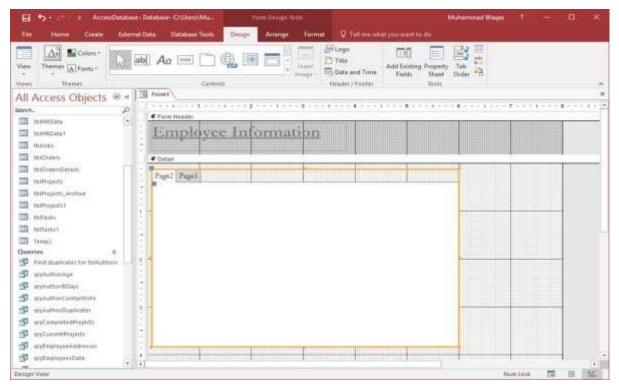
Right click anywhere in the background of that form and choose **Form Header** as in the above screenshot.

🖬 🖘 🐡 🗧 AccessDatabas	se : Database- C:\Users\Mu	Form Design Tools		Muhammad Waqas ? — 🛛	×
File Horne Create Extern	nal Data Database Tools	Design Arrange Format	Q Tell me what you want to do		
IY Detail - E§ Select All B I U A Selection	• <u>→</u> • = = = \$ 9 Font		nate Quick Change Conditiona	GP Shape Effects *	^
All Access Objects « search_ IbiHRData	Form Header	1 • • • 2 • • • 1 • • • 3 • • • 1	×	Property Sheet Selection type: Section Detail	×
tbl/RData1 tbl/obs tbl/orders	Lamployee Apployee Apployee Apployee			Format Data Event Other All Visible Yes Height 5.25"	×
tbiOrdersDetails tbiProjects tbiProjects_Archive				Back Color Background 1 Alternate Back Color Background 1, Da Special Effect Flat Auto Height Yes Can Grow No	arker 5%
tbiProjects1				Can Shrink No Display When Always Keep Together No Force New Page None	
tblTasks1 ☐ Temp2 Queries ≎				New Row Or Col None	
Find duplicates for tblAuthors	2				
gryAuthorContantinfo gryAuthorDuplicates gryCompletedProjects					
gryCurrentProjects gryEmployeeAddresses					
gryEmployeesData	4		×	Num Lock 📼 🗄	

Move this control into the Form Header area. Let us now create some other controls from the Design tab. At this point, Let us say, we want to distribute all our fields into two different tabs.

🖯 🕫 🗧 🔹 Accessibilit	ere: Dinabase- C/Wsen/Mu	Firm Design Table		Muhammad Wages	1 10 1	
File Plome Cropte B	enal Data Database Tools /.Des	gn Anange Format	Q Tell me what you want to do			
teres Themes	ab) Aa 🚥 🛄 🚱			aperty Tala Dider 49		
Il Access Objects 🖻	formt					
970A.		. 5 1 1	· - · · · · · · · · · · · · · · · · · ·	1 1 1		• • •
🔟 mmillata						_
10 tokiRData1	Employee II	iformation				
miter-						
textOviters	Cetal.					
tbiOrdenDetails						
100Projecto	15					
tto:Projects_Arshive						
thuFraperts1						
🛄 folfanks						
🔟 milleriet	Č.					
Temp?	6					
ueries R	1					
Find duplicates for taskathon						
p qnAuthorAge	5					
Ø giy≂athor8Dig)	5					
🛱 qn=utherContamonte	18					
9 agivethiribushates						
🛱 gryCampintedProjects	1					
UrsChanentProjects						
🗊 ggEnplayenidatrom	:					
🛱 gryfinpiopersDinie						
tigs View	<u>- </u> +]				mtock 🖬 🗐	- 14

From the control menu, you can see the Tab Control which will create tabs on your form. Click on the tab control and draw it on your form in the detail section as in the above screenshot.



It will create two tabs - page 2 and page 3 as in the above screenshot.

Let us now start by adding some controls to this tab control.

If we want to view some information that's stored in our underlying query, click on the **Add Existing Fields** option from the Ribbon in Tools group to view all the available fields from our underlying query.

🗑 🧿 = 🔹 AccessDataba	ne: Ontahine- C/Usen/Ma	Form Design Teals.	Muhammad Waga	• 7 - D ×
File Home Create Ede	nel Deta Datathase Tools	Design Anange Format	Q. Tell me what you want to do	
View Themes	ab) Aa 🚥 🛅 🤅	a a a a a a a a a a a a a a a a a a a	Add Lasting Property Table	
All Access Objects ® = Serrit. Serrit. Ministicuts Min	fort Hesdet Employee Page2 Page3	Information	★ Field List State Zup Refered@Route	loyenD pe
Design View	10.14			Num Lock 🗇 🗄

To bring the existing fields to the page, select all the fields available in the Field List as in the following screenshot.

😝 👘 👘 🖕 Arrendhataka	ere (Database: Cillbert/Mic-			Mutammad Wages 7 -	
File Hume Criste Ede	mul Data Database Toola d	Design Amange Format	Q fiel our what you want to do		
View Theres African	ab) Aa 🖮 🛅 🛱		Loga The Date and Time Madde J foots	et Onder *=	
All Access Objects ® = Sector Sector MultiPatibals MultiPa	C C C C C C C C C C C C C C C C C C C	Information		Field List Show all senses Finally a consistent for their senses. Hittingal operating for their senses. Hittingal operating the senses Final Senses Senses The Professional Senses Senses The Professional Senses	×
Design View				Num Lock	12 36

🔒 🈏 AccentDatabiere	Dinahase C\Users\Mu	Form Dation Tools		Muhammail Wages 7 - El	×
File Home Crotte Edem	e Outa 👘 Outabase Tools	Design Aminge Format:	Q Tell me what you want to do		
Gradiene Statute Tabute Forever Abov	E Haart Frank Hund III Se E Heart Insent Hund III Se E Belans Left Right III Se Bows & Columns	Inct Calumn Inct Calumn Inct Rose Merge 2 Spill Merge 2 Spil	Spill Many Many Up Down MAAA	nd Margins - noi Peobro soning - soning - turiture Societ - Align Bring Send Societ - to Finite fail align Societ - Societ - Societ	
All Access Objects @ « serve	formt Detail Detail	billemp oven E FurtName LattName Job Life w Addren 1 Addren 2 Crit State Zap		Field List Field State Field	×
Ortign View	1			Num Lock 🗐 🗐	1

Now, drag the fields to Page2 of the tab control as in the following screenshot.

Now, go the Arrange tab and select the **Stacked** layout.

8 5-0-4	Accessio	ditition a l	Database- C	Wiensthe-		en Dassan Ta	ele la				Muhammad	Water			ы ж.
The Home	Creater	Titernal C	Data D	etabane Tools	Design	Ameige	Format	Q Test	ne eftet yng ge	et wa					
Gridines Stacked Volume	Terreive Layeut	Aboue	Beigw La Ra	ert insert	Select Layout Select Calum Select Raw		Split Split Venically H Ahorge / Sp		Move Move Up Down Have	Control	Control Anchoine Padding - + Position	Spectra	Align	Bring Bring to Front 1 Ordering	Send Back
All Access Ob	jects	0 + II	Funnt	1.	A						Field List				×
Search.		2 -			1 2 .						E Inew at				
turtilate		E .									Field: mailable				
THE HEAT			# Detail		1. Y		11	1. II.			16/Employe				
in tuttette		10	Page	Paula							Fittiliamm				
tutOvaers		1.1	1.40-	s allow t							Luttiliame Jobilete				
ttskOktersDetails.		1012	1								Apdieci1				
🗰 taiPtajetta		1	1 E	Thillenniture	-	The Ballion	slowes Ba	1		_	Address2				
🛄 taiProjects, Avitor	ve	1		Portanjini se	1 Hanginover	ry Mantering	noliser tra	diminents		_	City Hate				
III tamayahi)		12		FuniSana		FirstNa	NOT				110				
minute .				LaitNeme		LairNa					Freterreit				
Entraiset				-							Preterradie Estat	entipe			
Temp?		112	1	ou Little		obTiti	e .			100	ThirefiDuta.	tripin/ee/D	£.		
Queries		1 12		Addison		Addres	ri1				StartSalary				
Pind duplivater h	ur talauthia	5 175		Raddama		Addres				_	Hours				
grySatharApt			-			Seyan				_	BenefitEled	tions			
🗐 anykutherkilaur				fiπ.		City									
TanjāstherContan		1.1		ban		#State -									
🗿 gyildhiriDupiko				P.C.											
angCampteledha	(erts	1	-	kφ.		Zip				_					
angCurrentProject			11	PreferredPic		Petter	adPhone								
🗇 antrakyeskila	xesken.			PreferredPhe	and Trends	Peter	edPhoneT	-		101					
🗊 qrytmailiumm/Cal		1		-		- Activity	CAL SOLULY			10					
🗐 qayfingiligeestate	ended	6		Crital-		- innut									
gy/Liftlate)		* 4	11			111				()	10				
Design View		200									(199)	nu	1008	10	11 M

E Se et a AtomsDatatio	in Dilation Chillion Mu	Farm Design Toxis		Alutiamere	et Wegen 1	- •	×
The Home Create Ede	mal Data Database Tools	Design Anange Farma	🖉 Tall per solat you weet	Aturalue			
	art broat broat strat	Select Layout Select Column Select Row Using Split Versieht Minger/	Split Split Harm Move Split	Central Control Anchor Mergers - Padding - Puttion	Space* *	Ering Sent to Front to Back	
All Access Objects 🖲 🖷	1 tunt			* Field Lis	4		×
Search. D		$i+\cdots+2<\cdots+i>\cdots=2<\cdots$	1 4 1 8	the second s			55
ToneEuta -		alite di calitate si i		📑 Data a	in fair this view:		
tantetatet	# Dytail	- 12 V		and the second sec	ets Engloyee()		
THURSE .	-	in succession in the second		Fortham			
tato-days	Page2 Page3			Lasthiana			
TI thithpersDetails				JubTitle Address1			
The second secon	A DERData Lambert	ALL	Data EmployeeID	Address2			
theProperty, Anthene	A Stattfalart			City			
The intervention	Henry	SoutSi		State 20			
III thiTaska		Hown		Preferred	mone		
I toffeeter	HinDits	HaveD			PhoneType		
Temp3	2 - DesettElermont	Benefi	Election	Erail	Destaured		
Queries a				tiertialer			
Prind duplicates for tol-uttien	13 .			Physics			
T appliationlage				Hecoste			
grufutherftDesi	1 I I I I I I I I I I I I I I I I I I I			Generatitis	influence.		
graAuthorContaidinfa	- 4 0						
grafietherOumcates	12						
anConsteledProjects							
5 anclanantfrajatta	12-						
and mattered at the state							
arctmatesentData	12						
antimalitorectutencert	2						
D onfuthanes							
Daligh View	101	1		(1)00	Nett Linck	TE E M	2

On the second page, let us now add the remaining fields from this query.

You can go through and make any adjustments to the size and width of these controls to get it looking the way you like.

Once you are done with formatting click on the **Save As** icon to save the form with the name you want.

Save As	?	×
Form <u>N</u> ame:		
frmEmployeeData		
		ancel

Click Ok and go to the Form view to view all the information in that form.

AccestDatature AccestDatature The Home Create Ethernal	: Database: C:Ubert/Muharsmad Wage/Do	umente Access 200		Muhammad Wagas 7 —	е ×
Very Person Diploment G	According To Selection * According ™ Selection * Decombing ™ Selection * Decombing ™ Selection * Table Set A Filter	esh & Save Spelling th X Delate + ⊡ there - b	Replace Go In - Select - II / V.	$ \begin{array}{c c} \cdot & & & & & & & & & &$	
All Access Objects 🖷 +	mtmploymData				3
Seron. P DentElute DentEluter DentEluter DentEluter	Employee Infor	mation		1	
	billEmployeesEmployeedD FattStame LanName JobTitle AddressT AddressT AddressT Cry State Zig PostenatidPioner PostenatidPioner FattenatidPioner Frank	2 Janual Frank Accounting Manager 6433 Morgan La Optional Definitioning IL 60195 6224) 555-6631 Home			
9 aplunanfregen 9 aplantapreiddreses 9 aplantapreiddesas 9 aplantapreidde	Record # - 1481 - # # *)	- Tasun			9

The tab control is breaking up our controls or our fields into two screens to make viewing and adding information easier.

All Access Objects	Page2 Page3	ormation		
n na hainn a' suid ann an h-				
	shiftEDen EmgleyesID Starfahry Hean HanDan BenefaElieteon	\$ \$10,000.00 40 12/10/2009		

34. MS Access— Reports Basics

In this chapter, we will be covering the basics of reports and how to create reports. Reports offer a way to view, format, and summarize the information in your Microsoft Access database. For example, you can create a simple report of phone numbers for all your contacts.

- A report consists of information that is pulled from tables or queries, as well as information that is stored with the report design, such as labels, headings, and graphics.
- The tables or queries that provide the underlying data are also known as the report's record source.
- If the fields that you want to include all exist in a single table, use that table as the record source.
- If the fields are contained in more than one table, you need to use one or more queries as the record source.

Example

We will now take a simple example to understand the process of creating a very simple report. For this, we need to go to the Create tab.

The second s		en Muhammad Wayan Dorumento Arces see Tooth 🛛 🗘 Tell me solut yng word to	«Datalane accells (Access 2007 - 2054 file form do	ut) — Muhammad Waqas	n ×
Application Parts + Simputen	and the second se	Form Form Bank Design Form Tame	Report Blank Design Blank Design Stank Report	Macon Macon Wasat Law Macon & Case	
All Access Objects 🐵 •					
Search. D					
🛄 taPojini 💽					
Tarrents, Aritran					
III IIIPropetti I					
THITACKE					
terfactor.					
Temp2					
Queries #					
Pine Bupilitier for thikuthon					
🗇 qiyikathariga					
grpådfturfilban					
gryAutherContantiefe					
gryAuthorDuphiates					
granuletedProjects					
T angCummifragatta					
and and a state of the state of					
gryEngtreenData					
🗐 antepbyersteinten					
🗇 qyFuttianei					
P aninhupmu					
antuteCourt					
D aniatofficiente					
antunkapfield					
- and later in all data					
Really .					

Before clicking on the Report button to create a basic report, make sure the proper query is selected. In this case, **qryCurrentProjects** is selected in your navigation pane. Now click on the Report button, which will generate a report based on that query.



File Home Create Esternal	Database-GAUserAMu	Report Legend Tank nange Format Page Setup	V Tell messfully		emant Weepen 7	- #
Themes Africators 5 Sort	where compare sound a set of the	addin Wester Historyadi.			le Add Exits to and Time Fields	ng Property Shant
dl Access Objects 🐵 🖷 📲	gryCarrentProjects					
ann. p 2 taibrainte 2 taibrainte Annove	qryCurrentProjec	cts		Se	nanlay, July 2, 2016 1.09-20 AM	
taiPagentil	Project Name	Project Status	ProyectStart.	ProjectEnd	Sumber of Late Tasks	Oittime
thifaile thifailet	Netw Too Law Reconnecting with Your Adult Children	In Program	1/26/2013			On Tame
Trop2	The Potion, the Sciril, and the Cauldines	In Progress	1/26/2015		×	Late
Find duplicates for tolkuthers	The Great American Proster	Waiting on Approval				On Tame
🗊 grykutturisge	Great American Beaches	Waiting on Approval				On Tene
🖗 -anskatoodillaen 🗣 -anskatoollaen	Cash a King How to Cut Year Spendag by Carring Cash	In Progress	6/10/2013			Late
P arpsutherOusticates	Greatest Blanders of the 20th Century	On Hold	6/25/2012			Os Tene
9 an Completed Projects 9 an Committee and	The Studie at the Shores	Waiting on Approval				Co Tame
P anfineleyeenddresser	The Light of Heat	Not Started				On Tame
anteratorendata	Hinter of Someone	On Hold	2/25/2013			On Tante
antauligresExtended	Gauwag Up Nabody	In Progress	3/29/2013			On Time
g qqfutlianai	Willow of Dream	In Progress	2/26/2013			On Tene
🗗 antishagini	Visions of Danges	On Hold	4/29/2013			On Tane
graniateCount	The Rous in the Thoma	On Hold	5/2/2013			On Time
🕆 angladefragenta	The Soul is the Crying	Not Started				On Time
anicolicativiti	The Memory is the Man	Not Staned				On Teme
PayManagingLation					0	G # 1

You will see that the report is open in Layout view. This provides a quick way to adjust the size or width of any of your fields that you see on the report. Let us now adjust the column widths to make everything fit in a better way.

anone in another	ar Balahase Ciliker(Mu. Ergentizer nat Data Database Tonis Design / Avange I	of Inclu format Page Setup	Q Tel menhation	Muthammed (Notes 7 — El
Themese A Farity - Arson	Σ Totals ·		0 5	Fage Date at Numbers To Date at Numbers Trade	Course Annual Annual
Il Access Objects 🗟 🔹	uryCunentProjects	anwa.			
ent. D Etifnjeti -	gryCurrentProjects			Seturd	ar, jole 2, 2016 111146 AM
II taiProjects1	Project Name	Proyest Status	Projection P	nyetfiel Tele	OnTime
I tuffaika I tuffaika	Nerve Too Late: Reconstruing with Your Adult Children	In Progress	1/26/2015		On Time
Tempi	The Poton, the Scinil, and the Cauldron	In Progress	1/26/2013	20	Late
bueries 💷 📃	The Great American Prottier	Waiting on Approval			Ou Time
P ogsatteräge P ogsatteräge	Giear American Beather	Waiting on Approval			On Tana
GradiatharContantinte	Cash n King How to Cut Your Spanding by Carrying Cash	In Progress	6/10/2013	2	Late
P gyAdharDupitater	Greatest Blanders of the 20th Century	Ou Hold	6/25/2012		Ou Tana
P ayConstitutestructu P ayConstitutest	The Statle in the Shores	Wating on Approval			On Tura
aryEncployeekditeries	The Light of Heat	Not Started			On Type
antopinyeenData	Hunter of Sceneone	On Hold	2/25/2013		Que Tirter
CryEmployeesExtended	Growing Up Nobody	In Program	3/29/2013		On Tana
P syfullians	Willow of Desam	In Progress	2/26/2013		On Tune
p gyinProgram p gyinProgram	Vances of Danger	On Hold	4/29/2013		On Tatle
ground and a second	The Byte is the Thoms	On Hold	5/2/2013		On Tatte
P untertration	The Soul in the Grying	Not Staned			On Tana
anthing and atom	The Memory in the Man	New Grand			On Tena



ia Home Create Estenia	d Data Database Tools	Design / Anange	Format Page Setup	😨 Tell inst whiet your	entities)		
W Dames (A) Forits - Group (A)	E Totale - Tride Details	Aa 🔤 🗋	🍓 📑 💷 🔽	D + Inst	Page Dates	nd Time Add E	Scatting, Property data Sheet Tests
Access Objects 🐵 *	gryCummtProjects						1000
n. (D	R Greatest Shunders of d	e 20th Century	On Hold	6/25/2012		On Time	
tsiProjects	The Snake in the Shorer		Waiting on Approval			On Time	
tb/Projects_Archine	The Light of Heat		Not Started			On Turse	
estata	Huster of Someone		On Hold	2/25/2013		On Time	
thifasha1	Growing Up Nobody		In Progress	1/29/2013		Ou Time	
Terral	Willow of Dream		In Program	2/26/2013		On Time	
is i	Vations of Danges		On Hold	4/29/3013		On Time	
Field duglicates for thilid thore crystatherage	The Rose in the Thomas		On Hold	5/2/2013		On Time	
anter and a second seco	The Soul in the Crying		Not Staned			On Taxe	
anying the Contentinte	The Memory at the Ma	6	Not Started			On Time	
grphutmerDuplicates.	The Cold Night		Not Started			On Titte	
anyCompletedRygerby	Алио Warei		In Progress		2	Late	
any Current Projects	The School of Lords as	d Lades	Waiting on Approval			On Tune	
aytepayeekidense aytepayeekidense	The Uswilling Woman		Waitang on Approval			On Time	
apyExployeerExtended	The Hidden Postfoko o	f Villancus Secreta	Waiting on Approval			On Time	
ophihogresi optateCount	The Hidden Lenicos		Waiting on Approval			On Time	
onyLateProjetts	-		21				
anyl-ookup/Tatid					Page 1 o	E1	
ayManagingEditors	1				1.1.10		

Scroll down and adjust the page control at the bottom.

This was a very quick way to create a very simple report. You could also make minor changes and adjustments from the report design view.

🖬 🎭 🖑 🔹 AccessDat	e : Database- G/Wien/Mu Report Design Tools Muhammad Wagas 7 - 🗇	
File Home Create I	nal Data Database Tools Design Arrange Format Page Setup Q. Tell mis what you want to do	
Size Margins Print Data Only Page Size	frait Landscape Columns Page Setup	
II Access Objects 🙆	aryCurrentProjects	
arch.	· · · · · · · · · · · · · · · · · · ·	1.11
tbiProjects	Report Header Parter Parter Parter Parter Parter	_
to/Projects_Archive		
tbiProjects1	Fage Header	
10ffasks	* Project Name Project Statis Projections Name Outrans	_
thiTasks)	Cortal	
Temp2	ProjectName PStatus V ProjectStart ProjectEnd Count OnTame	
veries 8		
Find duplicates for tblAuthors	""Page" & (Page) & " & (Page)	
p gryAuthorAge	€ Report Footer	_
aryAuthortDays	=Count*)	
p gryAuthorContantinfe		
gryAutherDuplicates		
P gryCompletedProjects		
P gryCurrentProjects P gryEmployeeAddresses		
aryEmployeesData		
p grytmployeestata		
gryFullNames		
p grynProgress		
gryLateCount		
avyLateProjects		
anyteskupfintit	2	
gryManagingEditors		
sign View		E C



- Just like forms, a report is made up of a variety of different sections.
- You have the detail section, which is where all of your data lives for the most part.
- You also will see a page header and a page footer section; these appear at the top and at the bottom of every single page in your report.

Let us now change the Title of the report and give it another name.

🗄 🍤 - 🔅 ∓ AccessBatat	Database-C/Uhem/Ma. Report Design Tools Muhammad Wagas 7 -	
File Home Create Ed	L Data Batabase Tools. Design Amange Format Page Server 🖓 Tell me what you want to do	
Argens Print Data Only Print Data Only Print Store	and Landscape Columns Page Peper Landscape Capout	
Il Access Objects 🐵	gnConnotProjecta	
mil.	- Contracted a for the generative strength of the contracted strength of	
🛙 miPojedi 🗧	€ Arput Header	
thiPageds, Antiwe	Current Projects	
thiPipiertet	Time()	
Tuffants	Progetteadar ProverState ProverSt	
B millaskel	• Constitution of the second s	
Teripi I	ProjectStatt ProjectStatt ProjectStatt ProjectStatt Count CeTrme	
ueries a .	Foge Faiter	
Fine dualitation for 103Authors	="Page" & (Page) & " of t & (Page)	
any-suther-	€ Report Footer	
any	=Count*)	
goviumerContantinite		
g upplominDupitates		
aryCompletedProjects		
anyCumentProjects		
anthaloyeeAddresses		
avyEmployeesDute	4	
arythininysectionated		
anyFulffames		
aginfragresi	*	
anytateCount		
acyLateProjects		
anteskupfinit		
gyManageogEattors		
and the second	-) E G	

Click on the save icon to save your report.

×	?	
		e:
		Projects
Cancel	Cat	OK
		OK

You will get the above dialog box.

Enter a name for your report and click Ok. If you want to view what this report will actually look like, in Print Preview, you can go back to the View button and click on Print Preview to see what this report would look like when printed either on paper or as a PDF.



et Size Margini C Hose Margine t Size Margini C Hose Data Only et Page Size Access Objects @ # 14		Two Mare Form	n facel Tex		dore - Close Point - Preview Close Preview	
TACLESS OBJECTS & C						-
1 miProjecto (*) 1 miProjecto (*)	Current Projects			Tata	6e, jay 2, 2016 1 26 40 AM	
tailyoperts)	Project Marte	Esset Date:	(Precientines)	Towned Tow		
Exification Exification 1	Never Too Late Reconsering with Your Adult Children	In Pingan	1/26/2015		Ov Tem	
Temp?	The Potton, the Scroll, and the Cauldoon	In Program	1/28/2018	- 20	Late	
enies # 1 Find duplicates for thirk/others	The Great Advances Provider	Warting on Appeoral			On Tana	
I qykutholige I qykutholige	Guat America Beather	Waiting on Approval			On Time	
on/katherCantantinte	Carity in False. How to Cut Yaw Spending by Casering Carity	In Program	0/10/2018		Late	
- any#athor/Duplicates	Greatest Blanders of the 20th Century	On Held	4/23/2012		OnTere	
gryCoopinte@ropints	The Scale in the Sincest	Watting on Approval			OnTine	
anyConsettPagests						
and on the second secon	The Light of Heat	Not Started			On Time	
ontriployerData	Plantas of Instancia	On Nold	3.93/2013		On Tata	
-gryEmployresExtended	Growing Up Nobody	In Propert	3/29/2013		Op Time	
anytuitianes	Willow of Donard	In Property	2/26/2013		OnTime	
qytebogissi	Vainu of Danges	Ou Hold	4/28/2013		On Time	
opyLateCount	The force in the Thomas	On Hold	3/2/2013		Co.Tera	
qqLiteProjects	The Sold in the Certain	Not Started			OcTany	
entoolupfield	The Memory at the Men	Not based			On Tana	
optimagingtation	The Cold Night	Not Started			Oct. Time	
quitotilanes	Ahas Tares	In Progett		2	Late	
gryProjectDainteand	The School of Locals and Locas	Warang on Approval			Co Tem	
l gyfrojetinfrognis I gyfrojeti					1000	
i aryProjeda aryProjettatlyAuthor	The Unwilling Wannah	Meand on Volenies			On Time	
anProjectaEntervated	The Hidsley Particles of Villamous Secrets	Wating on Approval			On Take	
ang/Yapetsi/Offense	The Hidden Lenices	Waterg on Appendi			On Time	
aryProjectTacks	1	-				

Using the tools on the lower right-hand corner, you can zoom in or zoom out. You also have some buttons on the Print Preview tab that appear automatically when you switch to Print Preview. In the zoom section, you've got a view for one page, two pages; or if you have a longer report, you can view four pages at once, eight pages or twelve pages. You can also adjust simple things such as the size of the paper that you are using to print, the margins for your report, the orientation, the number of columns, page set up, etc. And that is how you can create a very quick simple report using the Report button on the Create tab.

Create a Report Using Report Design

Report Design is another method for creating a quick report in Access. For this, we need to use the Report Design View button, which is like the Form Design button. This will create a blank report and open it directly to the Design View, allowing you to change the control source and add fields directly to the Design View of the report.



And the second s	ne Database GAUber mai Data - Oataber		eOntabase accells (Access 2007 - 2016 file form	ut). Muhammad Wagas	t := (4)×
Application Parts - bespite: Table SharePoint Design Litts - tables		Com Form Black Chargeton - Design Farm Chargeton - Form, Form, Chargeton - Form, Com	Report Report Waard Design Report Reports	All Module Class Module Class Module Class Module Marco & Code	
All Access Objects @ #					
cyclampinedhapath					

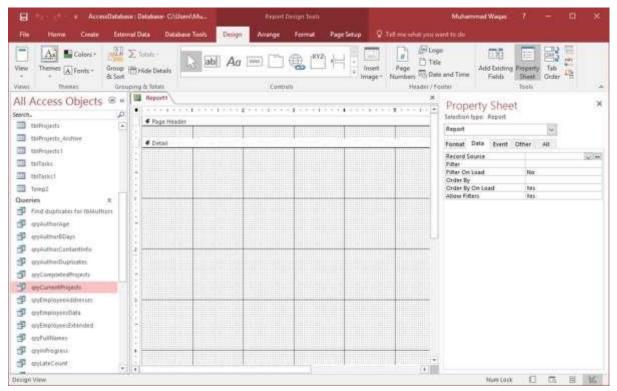
Let us now go to the Create tab and click on the Report Design button.

It will open a blank report or an unbound report, meaning this report is connected to no other object in our database.

Accessitation	e : Distahane - Cità	hered Min-	Armet	Deniger Toolb		Muhar	metWeen 7		*
File Hame Create Edan	el Data - Data	base Tools	Aninge	Format Dag	e Setup 🛛 🕅 Tri	me arbeit ynse want tie do			
View Diemet A Forts + Group A Sort	∑ Totals = ∰Hide Details oing & Totals	b) ab)	Aa 📼 🗂	€ ^{KV2}) (=	i Inset	Poge Data and Time Header / Footer	Add Existing Propert Fields Sheet Tools		
All Access Objects 🗟 🕷	I Reports								×
Search.	· · · · · · · · ·					Construction of the second	and the second second		****
🛄 tarProjecta 🛋	- Pogernes	44	Ť		1				
theProjects_Andrive	# Detail								
tuffigietti)									
m tarfanat	1								
Treni									
Queries =	i								
🗿 Find dupficates for IbAAuthors									
🗇 -oyisharige	S								
grynathartCapt	3								12-
g ang-atharContantinfe	1								
P gyslutherDuplicates									
D aryCompleterProperty	C								
P opCuranthijeds									
🗐 untreferenderen 🗗 untreferendete	8								
graphiproprietoria	1								
graphillianes									
anthogissi									
and ate Count									
* Droigs View	4		41.00	ra an an an an an			Num Look E	TA 8	14



On the Design tab in the Tools group, select the Property Sheet. This will open up the Property pane.



On the Data tab, assign a record source to this report, to connect it to a database object as in the following screenshot.

AccesiDataina	: Database - Chilhers Ma	Report Design Teats		Muhammad Wagas	7 – A 🛪
File Hame Orate Estern	al Data Dataliana Toolo	Draign Anange Format Page Sets	👳 👔 🔽 Telj me whet you want t	n(h))	
View Themes A Fonts + Group 2	E Totale + Hide Detaile reg & Intale	Ao 📼 🗋 🏶 🙌 🕂	Inset Page Dute and Invader (Fotos	NUCCE INCOME.	aperty Tab
All Access Objects 🐵 =	Beport Flage Heatler			roperty Sheet	3
🛄 tuikajeda 💽	· ····		- Au	port	1
thiProjects_Althree	# Detail		And a second sec	mat Data Event O	tur AD
stoProjects?			10	icerd Seame	015
TRITAILS				ter j	dry-FuthorAge dry-FuthorAge
B mitaket	5			ter On Load Idel By	qryAuthorContantinfo
Terrail				idel By On Load	gn/kuthorDuplicates gn/CompletedProjects
Jueries A	5			faw Filters	gryCurrentProjects
First duplicates for BAAdhon					gryEngloyeeAddresses gryEngloyeesData
P - gryhutharkipe	•				dryEmployeerExtended gryFulNames
🗗 areAdmir@Days					qryimProgress.
grynutherContantinte	2				gryLateCount gryLateCount
🗭 grandmerDupticates.					gryLaskupfield gryManagingEditors
aryCompintedProperty					qryNotStarted
P and wremProjects					
P aytopicyreAddeller	5				
antenpugeenDate					
g uvEmployeeithdended	2				
D systumates	2				
D autohogress					
S untateCount	1		+		
- uturent	• [and the second			



Select **qryLateProjects** from the drop-down and now, the next step is to go through and add some fields to this report by clicking on Add Existing Fields list button on the Design tab.

E S · · · Accesio	hatarhaise : Da	tahana-G\\then\\	<u>0</u>	Francis	negr Dain.			Muhammad Wagan 7 - El	
File Home Create	Esternal De	ta Oxfabine 7	oals Dutign	Aminge	Format	Page Setup	👽 Tali meanhat you w	wet to du	
View Dierses Al Frents + Gr	Dia 2 to the Hit Soft	de Details	ab[Aa	Cantra	& 1 ⁶⁷²	H ;	et Page mon	e Add fasting Poperty Tab Coder	
All Access Objects 5 Serve. turbojecti turbojecti, Arthur	P	Flags Header	******				··········	Diversi altitudes Product available for this view Propertitiance	×
toffacts toffacts toffacts toffacts toffacts								Text/Trie DustDate PersentComplete	
Operation # Image: state of the s									
🗊 epi-diseCantantinto P epi-diseDuptusken P epi-completesPrepris									
opConstitutes opConstitutes opConstitutes opConstitutes opConstitutes opConstitutes									
orgenitieren orgenitieren orgenitieren									
Droign Vew	• •							Mantada 🖸 🖾 🗉	K

Select the fields as in the above screenshot.

🖬 🧆 🤲 e Accessibilitation: Data	dame-C/\lber\Ma-	Repart Onsean Just	-	uhammad Waqas 🕴 🗕 🖽	×
File Home Create Esternal Data	Outabase Tools	tign/ Anange Format I	lage Setup 🛛 🖓 Tali me what you want to r		
View Dames Grouping &	e Details	Aa 📼 🛅 🍓 🕅 .	Fage Stage	ime Add Lasting Property Tab	
Seron.	Page Header		E Total	available for this view.	×
tulPopets1	Detail	ProyectName TaskTida	1	ropestitane auctive Kyddae wisantCompiete	
Tempi Ourries Tring Ind dustrates for thisultern Tring Ourries Tring Output	Plante Nervet Council	DueDate *** PrecentComplet			
gynattorbOays c					
opCannothipeds opCannothipeds opCannothipeds opCannothipeds opCannothipeds opCannothipeds					
P ayEnpXyreiDitoded ayfrifilmen P ayinhegess					
anLateCoont anLateCoont and a			(*) (*)	Numbro E E E	2



Drag the fields to you report as in the above screenshot. Go the Arrange tab, and in the Table group, you have a couple of options to choose from.

🗄 🆘 🕐 i Accesilatabas	e : Database : C/Uhen/Ma	Report Design frame.		Muhammad Wapa 7 — Cl	×
File Horne Create Estern	ul Duta - Relabese Tools	Design Aurings Format Page	Setup 🖓 Tall mainhat you v		
labre	t Papel 2023, 1027 (E) t Heart Heart Heart (E) to Actual Latt Eight (E) Roast & Column	Select Column Select Column Salect Row Salect Row			
All Access Objects 🖲 🖷	Report!	1 * * * 2 * * * 1 * * * 2 * * * 4 * * *	×	Field List	×
Servich.	# Rage Fiesder	1		2 Stani all tables	
🛄 talProjeda 🍥				Fields martable for this view:	
thillingisty Anthras	€ Dutail			Project/kame	
thiProjects 1	1			Taskiblia DueOuta	
Tilleter Till sufficient	1			PercentEmplets	
thilashi!	1 Support No				
Queries =	i Ties Ties	TatkTitle			
Find dualicates for talluthors	Dis Dir.				
🗐 ansistrarian	2 Page 1	minister PescentComplet			
🗇 ayisathiot04/1					
gykuthorContentinte	1				
🗇 en-Adharðugbilden:					
anyCompletedProjects	\$				
🗇 opCurrent/Regists					
🖈 antespojeskamenes	1				
🗐 anterplayeeiData					
🗊 ayyEmployeexExtension	÷				
🗊 anfrittioner					
🗊 ogiskiegans		100 mm			
anviateCount	1				
Drugn View	1241	4	.01	turson E E E	32

There is a stacked layout and a tabular layout, which is a layout that is very similar to a spreadsheet. Let us select the tabular layout.

AccesiDatabase	Database Chilbers/Mar.	Report Desig	e linas		tuhammad Wagan 🛛 7 🛛 —	- ×
File Home / Greate Estern	el Della – Detabase Tools	Design Amange Fo	errial: Page Setup	Q. Tell me what you want in		
Table	t Insert Insert Insert a Below Left Right III 1 Rever & Column		only Humanitally Up	e Mixe Control Control Orien Margine - Padding New Postion		*
All Access Objects ® *	A REAL PROPERTY AND A REAL	i)	Prose Carrier		eld List Show at Tables transfable for this news	×
telfonjectut telfonjectut telfonjectut telfonjectut telfonjectut	# Octall				ProjectNerve TaxeStra OurOate PercentComptate	
Queries a find doplicates for Milliamos	ProjectName 7	ast Title DueDure	PescentComplete			
🗊 ayindhalige 🗊 ayindhalige						
aysiuttorContactinto applicationContactinto applicationContactinto applicationContactinto						
D aytanishiyets D aytanishiyets D aytaniyyethili	3		2 202 202 202 202 202 202 202 202 202 2			
gryEmployeesDitended. gryEmployeesDitended. gryEmployeesDitended. gryEmployeesDitended. gryEmployeesDitended. gryEmployeesDitended. gryEmployeesDitended. gryEmployeesDitended.						
Design View	1	eren der seinen der der		1.00	Numiled 1 Di	a M

You can see that it moves all of the labels up to the page header area. These labels will appear only once at the top of every page and the data query will repeat for every record in the



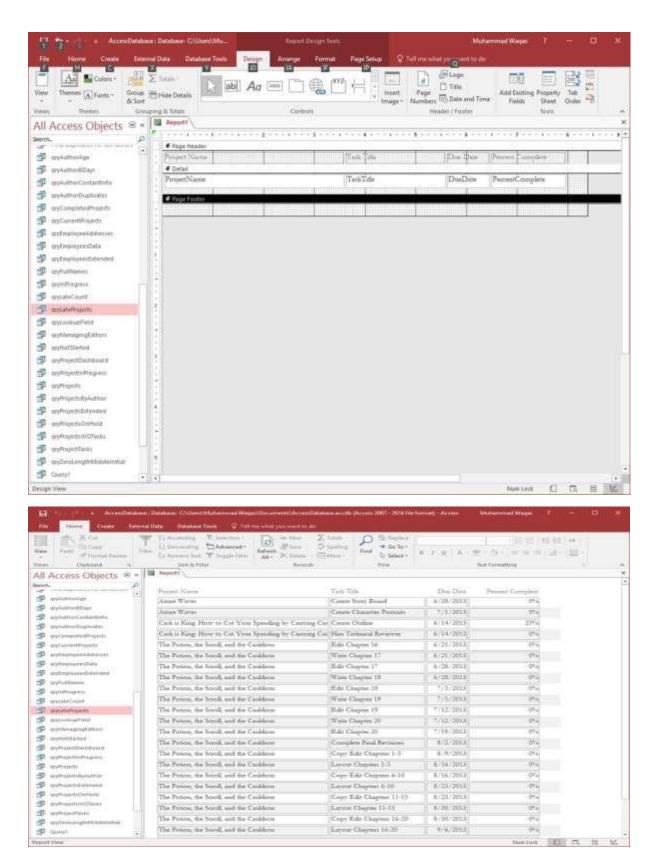
Details section. Now, you can go through and make some adjustments to make your ProjectName field wider.

8 5 · · · A	costilatatase :	Database CAlibe	n\Me_	Francis	beelger finnin.		Wannad Wagns 7	- 4
File Home Creat	E Edunal	Dota Detabe	ne Tools Des	ign / Anninge	Format Page Setup	V Tell me what you went to		
These Aforts -	Group (#	Totate Hide Details	🔊 🔤 А	a 📖 📄		seet Support	Inne Add Existing Property Fields Sheat Tools	Tab Conter
dl Access Object	5 8 - 1	Beports						
aven.	R		+ + + + + + + +	- E > E +	2	1. · · · · 1. · · · · · · · · · · · · ·	· · R · · · · R · · · · R · · ·	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)
🕫 arsinathari Age	•	Page Heade			10166-246	10 m the	Protein Complete	
an-dhuiltan		€ tistal				and the second	and the second second second	and the second s
gryAuthorCentertinte								
anyAuthorDupRester								
anCompletedProjetts		PrinterName		10	TaskTitle	DoeDate	PercentComplete	
g ayConntProperty			n Pauli selline	- In contraction of the				
anteringer-timener								
antessoreituta								
aryfmpioyeeilldended		-						
Cryfuttanes								
anti-Progress	1000			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
antitytours								
D wytanellogiens								
grytootupField								
anthing mything								
anyfortStarten								
gryProjet/Dauhitsant								
anthoritation								
🗊 anyFrajetti.								
p opprojectully/uttor	8							
anyProjectionstead								
araFrajectsOndiała	8							
oryPropertieWDTacks								
🖗 opperspectations	1000	# Page Foster						
anginalengtritiditein	niae -		1			- I,		, Land
Cuery1								
sign View	- neglity						huminok El	D. 8 M

As you can see in the above screenshot, there is a lot of space between Detail section and Page Footer.

Let us drag the Page Footer up to reduce the space as in the following screenshot. We will now go to the Design tab and click on the View button and choose Report View.





You can now see that some project names are not complete; you can adjust this with either the design view, or you can use the layout view to do that.



B 5- C + F ArrenDutatio	se / Database Children Mus. Pront Land Tolli			Iuriammad Wagas - 7	- 2
file Home Create Erter	nal Data Database Tools Design Amange Format 3	Page Setup 😨 Tail menultut yo	a ward to de		
me Themes (A) Forts - Group 	Σ Totals- in Hide Oxfalls		Page Riseben	Date and Time Fiel	isting Property de Sheet
and the second second	arry & Tetan Canton		Pearls	er/Feater	Tean
I Access Objects *				ananan anan sa sa b	
	Prisert Name	Tech Title	Die Des	Farrant Complete	
aniying an	Anue Wares	Create Scort Board	6/28/2013	0%	
E gyphathar@Days E gyphathar@Days	Arms Warm	Coute Character Portcatt	7/1/2013	0**	
etyAuthorContaining	"Cash is Xing: How to Cut Your Speeding by Casting Cash	Cenate Outline	6/14/2013	23%	
an/ConsidedHajach	Cash a Kang How to Cat Your Spending by Carrying Cash	Has Technical Reviewer	6/14/2015	0%	
anj CummiProjects	The Potine, the Scool, and the Cashfron	Edit Chapter 16	6/21/2013	014	
angtimp/loyee4ddreiser	The Potton, the SocolL and the Casideon	Wate Chapter 17	6/25/2013	014	
qrjfmpinyresData	The Poston, the Scroll, and the Caudron	Edit Chapter I?	6/28/2013	014	
unyEmployeesExtended	The Potion, the Scroll, and the Cauldone	Wate Chapter 18	6/28/2013	014	
qrj#utitiarret	The Potton, the Scool, and the Cauldron.	Edit Chapter III	7/3/2013	0%	
eminProgress encateCount	The Potton, the Serol, and the Couldron	Wate Chapter 19	1/3/2013	01%	
untalaProjetto	The Poston, the Scroll, and the Cauldron	Edir Chapter 19	7/12/2013	01 w	
entookapfield	The Potion, the Seroll, and the Cauldron	Wate Chapter 20	7/12/2013	0%	
anyt Alanagang Editions	The Poune, the Secol, and the Canàdron	Edit Chapter 20	7/19/2013	0%	
(esphants)(arteul	The Poton, the Secol, and the Canddron.	Complete Faul Remon	8/2/2013	012	
qtyProjectDachboard	The Potton, the Secoll and the Canidron	Copy Eds Chapters 1-3	8/9/2013	014	
anyPhysiothPrograms anyPhysioth	The Poton, the Stroll, and the Catalone	Larout Chapture 1-5	8/16/2013	019	
any reprise any reprise and a second second	The Potne, the Seroll and the Catalines	Corry Edit Chapters 6-10	8/16/2012	0%	
unProjectulatended	The Poton, the Secol, and the Couldress	Larurat Chaption 6-10	8. 23. 2013	01.	
anyPropertyDermold	The Potton, the Seroll and the Canideous	Copy Edit Chapters 11-13	8/23/2013	0%	
www.energiana.	The Poton, the Scroll, and the Cathleon	Larmat Chapter 11-15	\$/36/2013	019	
anyPropertTecks	The Potion, the Stroll and the Canidron	Copy Edit Chapmer 10-20	8/30/2013	0%	
qty2etaLengthkhauteratuul	The Potions the Second and the Catalhous	Larma Chaptara 16-20	¥/6/2013	015	
Querri (*	the stand in Star an a change	And the second second second	ALCONTRACTOR IN		

That is how we create a simple report just from the Design View.



35. MS Access— Formatting Reports

In this chapter, we will learn how to format reports. You will find that there are a lot of similarities between formatting reports and formatting forms but there are a few tools and tricks that are specific to reports. Let us now look into the concept of report sections and grouping.

For this, we need to open a report that we created in the last chapter. Here, we will see how some of this information is displayed on the report.

A Copy Point Story Story Strend Failer	Literating Totestor Director Director	ting and + Go Ta-		o de la companya de l	
Access Objects @ .	Beport				
h	Prost Name	Tab Tile	Die Den 2	Annual Complete	
anykuthonkige	Satisfie Wilson	Cenate Story Board	6/29/2013	0%	
erpAuther0Cept	Arms Water	Cente Chamiter Portain	7/1/2013	. (7)	
gyyAuthorContantinelo gyyAuthorDoptinates	Cash o King How to Cut Your Spending by Castring Cash	Coute Outline	6/34/2013	23%+	
epiluthoDoplicates anyCompletedRoplets	Cath & King, How to Cut Your Spendarg by Carring Cuts	Han Technical Reviewer	6/14/2013	014	
anCurrent Brauents	The Poster, the Scenil, and the Cauldron	Edit Chapter 16	6/21/2015	01+	
and management of the second	The Potton, the Send, and the Casildenn	Waite Chapter 17	0/21/2013	in.	
aryEmployeenDate	The Potton, the Secold, and the Casaldonu	Ede Chapter 17	6/26/2013	0%	
untreproveststended	The Potson, the Servil, and the Cauldonn	Wate Chaptes 18	6/25/2013	0%	
ep/ulflames anim/magnets	The Poton, the Scoul, and the Cauldenn	Ede Chapter 18	T/3/2013	0%	
entrePrograms englaterColumn	The Potton, the Semil, and the Cauldren	Wate Chapter 19	7/3/2013	0%	
any Metricanity	The Potton, the Scenik, and the Cauldenn	Ede Chapme 10	7/62/2013	0%4	
dyteekupFint	The Poton, the Scroll, and the Cauldran	Wate Chapma 20	7/12/2013	64%	
upphlahaprophilities	The Potton, the Scoul, and the Cauldonn	Edit Chapter 20	7(19/2013	0.0%	
Definition	The Posser, the Scanik, and the Cauldonn	Complete Final Revision	8/2/2013	C*+	
spyProjectDashteoand	The Ponce, the Small, and the Cauldran	Copy Edit Chapten 1-5	8/9/2013	0%	
anti-mantine and	The Poton, the Scoll, and the Cauldon	Layout Chapters 1-5	8/16/3813	0%	
asphosettelle-futtion	The Posco, the Smill, and the Cauldron	Copt Eds Chapten 6-10	8/16/2013	. 0%	
mphijedstiteneed	The Potton, the Sentil, and the Cauldeno	Layout Chapters 6-10	8/33/2013	Q***	

Here, we will start with the report section and grouping.

Let us now go to the Design view of this report.



B	5 Attent	in an	Dutahane- CISU	sentititu		Report	Decays Torra				Multammed Wage	1	8	a ×
ra	Nome Croits	[aternal 1	Arta Data	tase Tools	Design	Anange	Tornat	Page Setup	Tell me	what you want to she				
View View	Themes [A] Sares - Ge Themes	Sort.	Totale + Hide Detaile a di Totali Reportt	ab 🛛	Aa	cort	.co (19억 전 6	aart Pag age - Numb	Hoose Di Tate Hoose / Forther Hoose / Forther	Add lisiting Propet Fields Sheet Trails	Table Code	E.	
All	Access Objects	6					-3							
1	qıykattırıkğa	10	Page Head Project No. Ottal					TeleTide		De Die	Purpu Congisti			
市市	qtyAuthorffDays qtyAuthorCorduntintu	1	ProprilNan # Page Funt					TashTide	1	DiseDute	Promo/Complete			
88	stykuttorDuptcates styCampintedProperts		• rage raise	117 117										
9.9	aryCarcerdPhageds aryEmployee/aldresses													
中中	qryEmpirepensities													
田田	any and and													
P	gryCareCount	ė												
田田	antainfrajets antookapFelli													
中田	alsManagingEditors anyRest[tarted													
中中	atiPropritDechboard atiProjettinProgram													
中市	anPopetti anPopetti													
-	gspogertsErtended	1												
-	🖸 💿 🛲			a 🐴	1		4 🔳	11 8	AB	S 🛃 🚺	1 🧛 💑			~ *

You can see that there's not a lot to look and here only page header, details section, and page footer are visible. You can add an additional couple of sections very easily.

8 5 Acc	enDulahese) Dutahuse C	Albert Me	Report Design Train			Multammed Wages	3 -	a	×
(File Home)) Crede	External Oata Da	rtabene Tools Denig	n Anarge Format	Page Letap					
Verse There A Forth - Verse There A Forth - Verse There A Forth -	Send States Group State Outsite Grouping & Marris Grouping & Marris (9) = Barport		Carettain		Heren/Fooksi	here	10 E 47		
Sect.	P # Page bi		2						1.1*
T mautherige	College Prover			The Test	Die Date	Part of Christele 1			
F applutterSDays	4 Detail	()) () () () () () () () () (The other states		The Content of the State	4		
🗐 inskuttur Contantinio	ProjectN	ame		TaskTide	DieDate	NovertComplete			
g aphiltaCapitater	€ Page II	autar			Build Event_				
🗐 wyCampieledRisjects	1				Sorting and Grouping				
🗿 wyCurrestProjette	2				Tab Oxfort.				
🗿 uylaptayeekiideesee					Eatta				
🗊 untraligentite					Fill/Back Color 4				
🗊 aytapiojeestrended				5	Algorithts Fill Back College 1				
🗊 systuttianen					Bular				
🗊 aynhagess					light.				
🗊 syyLateCourt	÷.			17	Testing				
I anialefficients				13	Page Header/Fourter				
F optimikupTrest					Report Haden Vooter				
🗊 anyklanagingkalturi				1	Beport Properties				
🖈 opdiotStatteil				1	Beparties				
🗊 upPrzeitlattionati				1000					
🗿 nyProjettinProgram	÷								1
🗊 appPizjetti									
Disorget Verse						Tium Lock	0 6	8	Mc.

Right click anywhere on that report and you will see Page Header/Footer and Report Header/Footer. This particular report does not have that Report Header/Footer visible. Let us select that option and go back to the Report View.



	Laurana Takana Σin Laurana Badascat	King: Food + Baller				
· // Ferrial Pairesi	Is thereas hor Thege fins At. X Dents . 12 Mar	er & Select -		· (81) (81 = 191)	101 (101 C	
MI Access Objects @ +	Set & Tiller Reports	Putt		et Parrivatting		
All Access Objects 🗟 *	1					_
20% (*)						
P ersituttion-pe	Project Name	Taok Trife	Dos Date	Pyrneit Complete		
P www.therfilian	Azure Wiever	Create Story Board	6/25/2013	0%		
P anykuthorCentantinio	Azine Waves	Create Character Portraits	7/1/2013	95		
9 ayAatharDugikalin 9 ayCangingathaying	Cash o Keep How to Cut Your Spending by Carring Cash	Cante Outlan	6/14/2015	25%		
anCarmilhanni	Cash o King How to Cot Your Spending by Carrier Cash	Hire Technical Beviewer	6/14/2013	0%		
P anterproposition	The Potion, the Smell, and the Cauldrene	Edit Chapter 18	6/21/2013	0%		
andreases and a	The Potion, the Scool, and the Canlifron	Wate Chapter 17	6/21/2013: 6%	66		
P antronyasitrimaid	The Potos, the Small, and the Cauldran	Ede Chapter 17	6/25/2013	0%		
P opromove	The Protos, the Scool, and the Cauldren	Water Chapter 18	4/28/2013	0%		
P animeters	The Potoo, du Scool, and the Cauldana	Ede Chapter 18	7/5/2013	0%		
P qqLateCourt	The Poton, the Secol, and the Canidron	Winte Chapter 19	7/3/2013	0hs		
P uniteletioned)	The Potton, the Scotl, and the Cashing		*/12/2013	2.2		
p antoekupfield p antoekupfield		Eds: Chapter 19	7/12/2013 0%			
D anticititated	The Poton, the Scool, and the Cauldron	Wate Chapter 20				
P anPropertientiques	The Potson, the Scool, and the Cauldinas	Edg Chapter 20	7/19/2013	016		
P antropetiningens	The Potoo, the Scenil, and the Cauldron	Complete Final Revision	8/2/2015	0%		
P anyProjects	The Potion, the Scool, and the Cauldion	Copy Edd Chapsen 1-5	8/9/2013	0%		
(*))	The Bernet de Caralt and des Plantanes	18 mart Phi mart 1.8	A TRANSFORMER	Mam Lock	0 11 11	-

You can see it just adds a little colored area at the very top of the report. In the Design View, expand that area by hovering the mouse right at the top of that page header divider, clicking and dragging down. This will add more area to the report header.

🖯 5- 🗁 = AccesiDianase	: Distate: Ollimbia. Arguit I	mign Midel	Mutammad Wagan 🥇	- 0 8
File Home Civile Estern	al Dans Outlinhave Tools Design Amunge	Format Page Selup Q Tell me what ye	in sealth to do.	
reno Benno Group	E Tonne Helde Dynale mg & Tuble Report Seport	Kv2 + Page D Inagt - Numbers	Logo Talk Data and Time /Toutor /Toutor	
All Access Objects				
erch. P	Cheport Heather			
P erstutterder				
g arykathorffiliaye				
gryAuthorCentantortu				
🗿 unjéuthorflugilteire				
🗩 wyCanalitadProjects	4 Page Haader			
angCaerentRespects	Periori Nama	The Se	Die Dote Director Chargela	
p gritegeeetaare	Eletai ProsetName	TechTele	DueDate PresentComplete	
and and an and a second second		Letklese	Concoultant Accencoultants	
Distriction of the second second	Page Pooter Report Fouter			
P aphattana				
P antowegress	P			
D antateCourt				
💬 anjualaProjesta				
🗊 entianspruttern	5			
	1			
P anfropedminagress	4.			
P anyProjects (+				
Nulan Stew			Mettod 1	CI 11 114

In the Report View, you will now see more area at the very top of the report as in the following screenshot.



M D To Carly From Process Pander	The Documents Theorem In the Distance The Di	ing a Ge To -	7. N. A - 22	田田 (M 	
een Oigboant S	Jart & Falm Records	Find	5	ist formatting	
Il Access Objects @ .	Report				
en. ρ p quatmorage φ quathoritizer φ quathoritizer φ quathoritizer					
P (gryAuthorDupMutter)	Troort Name	Test Title	Die Des	Parent Complete	
P quCanaieledhairds	Ames Wieres	Canate Story Binard	0/28/2013	0%	
P upGormfFrejects	Amore Wares	Create Character Portraity	7/1/2013	01.4	
P grytnaniyeekdonniks P grytnaniyeeslikta	Cash a Kag, How to Cut Your Spendarg by Carrying Cash	Caute Outine	6/14/2013	23%	
 MAREARDANDEEPUNCH 	Cash is Korg How to Cut Your Spending by Carrying Cash	Has Techanal Reviewer	6/14/2015	01×	
aufmannersfutended	termine to come where the second strational and constrained to the		1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		
	The Printing die Scenil, and the Cauldians	Edit Chapter 16	6/21/2013	0%	
3 mfullann					
3 yyyf yllfanwy 3 yryf yllfanwy	The Profess, the Scenil, and the Cashiann	Edit Chapter 16	6/21/2013	OP-w	
3 gypfudhanon 3 gyptohogens 3 gyptohogens 3 gyptohogens	The Porters, the Scoul, and the Carabians The Porters, the Scoul, and the Carabians	Edit Chapter 16 Wate Chapter 17	6/21/2013 6/21/2013	0% 0%	
D gepfortunges D gepthages D gepthages D geptachages D geptachages D geptachages	The Potion, the Scenil, and the Caubleon The Potion, the Scenil, and the Caubleon The Potion, the Scenil, and the Caubleon	Edit Chapter 16 White Chapter 17 Edit Chapter 17	6/21/2013 6/21/2013 6/25/2013	0% 0% 0%	
3 graf-afranen 9 graf-bragens 3 graf-brackant 9 graf-brackant 9 graf-brakkantien 9 graf-brakkantien	The Potion, the Scenil, and the Caubleon The Potion, the Scenil, and the Caubleon The Potion, the Scenil, and the Caubleon The Potion, the Scenil, and the Caubleon	Edit Chapter 16 Wate Chapter 17 Edit Chapter 17 Wate Chapter 18	6/21/2013 6/21/2013 6/28/2013 6/28/2013	0% 0% 0% 0%	
 pryfuellanen pryfuellanen pryfuellanen pryfuellanen pryfuelefingets pryfuelefingets pryfuelefingets pryfuelepingtation pryfuelepingtation 	The Potion, the Scenil, and the Canddoon The Potion, the Scenil, and the Canddoon	Edit Chapter 16 Wate Chapter 17 Edit Chapter 17 Wate Chapter 18 Edit Chapter 18 Wate Chapter 19	6/21/2013 6/21/2013 6/28/2013 6/28/2013 7/3/2013	0% 0% 0% 0%	
P gryfolfanon P gryfolfagess P gryfolfocant P gryfolefrigets P gryfolefrigets P gryfolerigetatus	The Potion, the Scenil, and the Canddoon The Potion, the Scenil, and the Canddoon	Edit Chapter 16 Wate Chapter 17 Edit Chapter 17 Wate Chapter 18 Edit Chapter 18	6/21/2013 6/21/2013 6/28/2013 6/28/2013 7/3/2013 7/3/2013	0% 0% 0% 0% 0%	

The Report Header and Footer controls appear at the top of the first page of that report. The report footer controls what you see at the very last page at the bottom of the report.

8 5 Acce	i Dista kao	ei Detrebene- COV	Usentum		Neprost D	high high				Mutaminad Wate	- 1	÷	O	
File Home Croate	Diter	al Dans - Dans	have Tools	Derign	Amunge	Format	Page Setup	Q Telle	ne ober yne oert te de					
Vee Denni Afores -	Group (dx Sert	E. Tunuk 11 Hide Oyturk 11 g A. Tuluk	X abi	Aa 🖂	centre	1	17-1 H	unt P	Appendice of the second	Add Linding Proper Fields Sheet				
All Access Objects	(i) «	Thoday II		-										
erch.	P	175				1 1		1		1 - 1 - 4 - 1 - 1 - 1	242	1111		
and and a state of the state of		Erport II												_
anykathorffiliaye														
p grykuthurCentantiniu		1												
arpitatharDupiterin		1												
P anCanalatedProjects		# Page Itea	de.											-
T angCaramillingerit.		: Print 20	ens (1 1 1 1 2 4		Die Dwe	Bland Gumple				
p grytingstopeen.com		# Detail				1.2.11.11.11.11	200 100 1			20.00.00	-			_
andrangestantive T		ProjectNa					TaskTele		DeeDate	PresentComplete				
Distriction of the second second		# Page Foo # Report Fo												
P and and a second			100			9.1 M.M		111111						
P ant//reprat														
P antahelaum														
P anytabetapeta		8												
ggtoorupfield		1												
🗊 entriansproptitions														
anticittatee														
P unProjectilarithouril														
· andropertimitespress														
anProjects	+	41												
Nuigh View										Then 5	1.810	13 1	7. 10	12

The Report Header and Footer is different from your Page Header and Page Footer. Anything that is placed in the Page Header will appear at the top of every page. Likewise, anything that is placed in the Page Footer will repeat at the bottom of every page.



8 5 AccenDitation	Database ChlisenhMu	Report Delign Table		Muhammad Wagas 🕴 — 🗆	×.
File Plane Create Diternal	Data Database Tools De	age Amonge Tormat Page Setup	Tall me what you want to do		
Yine Heren Greuse	Shide Details		t Page Inte	Add fronting Fragerity Tale Fields	
All Access Objects S = 1	Report Asport Finaler		×	Property Sheet Selection type: Section	8
P sylumotics				Format Data Event Other All	
anyAuthorContaction	-			Vizibie red	
P anjumentuplicates				Height 0.2757 Back Color Background 1	
🗿 գոյնական միզնու	€ Page (fitedal			Special Effect Plat Auto Height Res	
P ayCarentTripada	Priper Name	1204.264	ilbi+0	Drupley When Allexys	
P unterplayeedationaa	# Ortail	TaskTide	15.5		
P antrologenData	ProjectName	13181308	DorDa		
P antradagentidended	# Fagt Faither # Appart Faither				
P anfullions	-	nti menengini kiningan hising			
P approvagence					
T grytateCount					
P afyLateProjects					
P antennafina					
🕐 syManagingtófan					
P anfortitates					
P an/ProjectDatoboanti					
P anfraintinhagens					
🖶 antrasetti 🔹 🗧			0.00		
Make abard statist	Sh-		0.5108	turning E E I	0.550

Now you can add additional grouping levels, and to do that, you want to make sure you have the group sort and total area turned on.

In the Grouping and Totals section of the Design tab, click on the Group and Sort button which will open Group, Sort, and Total area at the bottom as shown in the following screenshot.

and the second s	: Database ChildentiMu. Peperd Design New. 4 Data Database Tools <u>Design</u> Anange Format Page Setup. © Toff me what you want to du	Mutanimud Wagas - 7 - El - X
View Tremet (A) Sants- Group (E Totali Trisle Details Mig & Totali Mig & Totali Mig & Totali Contrali	Add Lineting Property Tak
All Access Objects @ *	Report	Property Sheet × Sector type Sector PageMedeclection
 anykathardalaays anykatharContantintu anykatharContantintu anykatharContantintu 		Parmill Data Event Other All Violale Inv (a) Height 0.2757 Back Color Background 1 Second Effect Plat
P ayCanaletrathopeds P ayCanonthopeds P aythypopersidences	Constants Primer Norm Primer Norm De De De De De De De De	Speciel Effect Full Auto Height Nes Display When Always
🗊 unfinalizentikta 🗊 enfinalizentiktendud	Apge Foster According to a test	
D anfraitheann D anfraitheann D antraiteCount		
D extension D extension P extension P extension P extension P extension	1 1 Gringe, Tarri, and Total *	
griffegetbutteset griffegetbutteset griffegetbutteset griffegetbutteset griffegetbutteset comptifiee	ll≣ Add a group ∄l Add a sort	Nation 10 EL II 62

You can now add additional groups or grouping on any control that you have in your report. Let us now click on Add a Group.



	Report Design Texts	1	Midnemmad Weiger	t - 0	×
The Home Create Esternal Data Database Tools	Design Arrange Format Page Setup	Q. Tell me what you want to de			
Versi Theory Oncorry & Tatal		Incent Reader / Traile	Add Xenting Frequency To Fields Death Math	e 25	
All ACCESS C/DIECES		····· · · · · · · · · · · · · · · · ·	Property Sheet Selection Sport Report Report	G) Ber Al	x
orywithinContermitie orydiateschantereitie orydiaeentethingerei orydiaeentethingerei orydiaeentethingerei orydiaeentethingerei orydiaeentethingereitie	ngleis		Capton Default View Allow Report View Allow Lapitot View Picture Tring Picture Tring Picture Site Mode Width Auto Center Auto Entite Scott Style Scott Style Scott Ban Control Ban	Report View Dev Ne Devledded Donedded Donedded Donedde Center Cel Ve Ne teal Tesl Sathe Sath Devledde Sath Devledde Sath	100
supplicities again gold at an analysis of the second at an	Regettivere Taxine Becont Complete	- 	Clear Butten Mo Kok Butten Klevnikk Show Keps Margins Dod X Grid I Lapsut For Prett Dig Keep Together Polyt Rege Polyt Reges Polyt Redes Polyt Redes Polyt Redes Polyt Redes Polyt Redes	tes Both Enable# Det 24 24 24 24 24 24 24 24 24 24 24 24 24	
Design View	Pagemention		NonLook.	E [] B	12

In the above screenshot, you can see the underlying control source for report with the project name, task title, due date and percent complete. Let us now say we want to group all of our late tasks by project, so select Project Name from the list.

And a second second second	www.Database-Childsenhilds	Consel Hone Format Page Settup Q'Tallima	M	uhammad Waqan 🤚 — 🖽 🗙
View Themes A Famps - Group 7 7 8 500	E Totale Contra Contra	nun.	Additional Terrer Additional T	Flasting Property Table Property Sheet Transport Table Property Sheet Transport Table Property Sheet Transport Table Property Sheet Transport Table Property Sheet Table Property
emplastinatiOnyn enplastinatiOnyn	Pope Haster Pope Kaste Pope Xaite Constructed 2000 Pope Name Pope Name Pope Toole Separt Pacies	TeaTule	Die D Seine Die D Seine Die D Seine Die Die Sein	ile Tes
articate Cuert application appli	*1 Grow, Sort, and Total Scrup on Projections * with A on tag * . A DE Add a group 1/2 Add a sort	lee •	*****	Num Loca 30 175 10 124

Now you will see an additional grouping level **ProjectName Header** above your details section. Instead of the project name appearing alongside each individual task that is late,



we can now move this control up to this project name header. You can select it, and then press **Ctrl + X** on your keyboard to cut that from that details section and click anywhere in the background of that project name header, and then press **Ctrl + V** to paste that control in that project name header.

B 5 Accention	ser Database- Children/Mis. Papart Denyn Toda	Mufummad Wagas 7 - D 🛪
Ale Home Chate Ene	nd Data Database Sools Design Amange Format Page Setup 📿 Tail me what y	Contraction of the
View Therman (A) Foreta + Freesaw	The Details ab Ag and a set and a set a se	Add Entiting Property Tale Date and Time Table Date and Time Table Fields Shiet Code Table
All Access Objects * *	Report Z	* Property Sheet * Statutor type: Yest Box
epikultusebben epikultusebben epikultuseben epikultuseben epikultuseben epikultuseben	Fage thater This of None	Furnart (g) a Decent Place: 4/da Wildle Ver Witth Litopr regist 0/25
ကြာ ရက္ခြဲသား၏မိုင်ငံသာ ကြာ တွင်ကျားများနေနဲ့အခါစစ်စေ။ ကြာ ရက်ကျားရာကြေ။ ကြာ ရက်ကျားများဆိုက်စားကျ	Projectivere Prader Project/Varma Project/Varma Project/Varma TraitTrais	Top Output
愛 cry5-attacers 愛 annohogens 愛 cry5-terCount	Page faote Kapat Foote	Bioter Caler Background 1, Daker 31 Spool Print Rot. Spool Barn Name Fort Name Galamond (Detail Fort Sace 11
applieftenett applieftenett applieftenett applieftenett applieftenettenettenettenettenettenettenette	e Group, Sart, and Tutal	Ford Xingsh Ford Vinight Ford F
월 sphijetisjudies 월 sphijetisjudies 월 sphijetisjudies	Group on ProjectName * with 4 on tap * . More ► B [±] Add a group 2 + Add a sort	The Specing O In Hyperink Sta Display A Hyperink If Hyperink Hyperink Target Godine Style Top Godine Style Top Godine Style Top Godine Style Top Transparent Godine Style Top Transparent Transparent

You can now go to the Report View and see the adjustments made to group the things in the report as in the following screenshot.

File Home Create Advance	Database. Critised Mutaerenad Wegar Documents Access Database. Data Database Tools Q: Let me what you wont to do			Muhammad Wagas	8 E B	
New Opposed 5	Ly Remain face of Taggin Filler Age - X Delete - 1000 Set 6 Filler Remain	any Hart + Golor		n (1997) Control (1997) Kal Furnating		
All Access Objects 🗟 *	Interneti /					
Sert. P P gynastherage P gynasthereitiger						
gystathis/cententerio gystathis/Cententerio	Propert Name	Table Tribe	Dise Den	Period Complete		
anyCampbeledProadts	Amon Water					
1 anCurrentProperty		Canata Character Posteals	7/1/2013	$0^{h_{q}}$		
P (rjeingrigen faltenning		Course Stores Boant	5/28/2013	0%		
D instinationerData	Cash is King How to Cut Your Speechog by Carrying Cash					
P unfunnaestatanged		Cenate Outline	6/14/2018	23%*		
P anyPuttigeners		Has Technical Reviewse	6/14/2013			
D aninProprie	and the second second second	Film Lectored Journanies	[]/[0](14/2035)	(100a)		
# antiateCount	The Potton, the Scenil, and the Californ					
P apparenterents		Edd Chapter 20	7/19/2013			
P antestarfinit		Eda Chapter 16	6/21/2013	01a		
P gyfdingphytotau		Wate Chapter 17	6/21/2018	0%a		
P anyfautitarted		Eds Chapter 17	\$/25/2013	0%		
1 engPropertDaintevare		Weite Chapter 18	6/20/2015	0%*		
alpellegenderer		Ede Chapter 18	7/3/2013	114.		
P anPogents		Wate Chapter 19	7/5/2013			
gevPropertylyAuthor						
1 and and a second seco		Wate Chapter 20	7/12/2013			
P aphaethOrmula + 10		. H	10.000.00000			



Every single project has its own little level on its own line, and then underneath that area you will see all of the tasks that are late for the above project. With that changed now, you can go through and start formatting your report in the Layout View.

If you want to make the project name bigger, then drag the line below and change the font size to 20 in the Format Tab.

B 5 Accentiatati	ee Database CribsenMas	Pront Layout Touli			Muhammad Wagas		•	
File Home Create Ene	mal Data Database Soola	Resign Amerge Format	Page Setage Q Tail me what yo	and the second				
FrejectName - Galamand (Deta	al) + 22 + 🕂 Palen			Shape Fill /				
Select Al B J U J	• <u>2</u> • ≡ ≡ 5.3 feet	K Y (S) (2) Background diverse Image* Res Cal Norther Background	N CLAX Charge Conditional					
All Access Objects 👻 *	Heporti							3
artik. P B eseketnosige P eseketnosiges B eseketnostaturete								d.
🖗 eykilhadapialm	Project Name		Tash Tale	Due Date	Person Complete			
1 anyConstitutions	Azure Waves	é	1					
🗊 eryCurrentProjects 🗊 erytheritykkAddrasses			Casara Chasartes Postaatt	1/1/2010	055			
grifmpliturenData			Cente Stury Board	6/29/2013	0%			
D aybrarayeestatemand	Cash is King	How to Cut Your	2					
P entrattiones	Canal to Ashig		Cente Outline	6/14/2015	2514			
P animpropries			Hat Technical Reviewes	6/14/2013	05%			
🗇 eylateCsurt 🕤 eylateCsurt	The Potion	the Scroll, and the C	D. C.					
P argentation		the weeking mile are a	Ede Chapter 20	7/19/2013	044			
🗐 qeyhlanagangdidtors			Edit Chapter 16	6/21/2015	- 0%			
P egitatStation	International Action of the local		-10					_
1 quiProjettCashboard	Group, Sort, and Total							8
월 alphantospan 월 alphantospan 월 alphantospan 월 alphantospan	III Add a group	* with A on bug * , Mos #					**	×
Apout View	·# :				Num Lost	-0	C5	K

You can increase the width of the control to cover the entire width of the page.

E St. Accenilated	int Talabase Chines Mu	Martin Martin		Autommed Weges	
File Home Create Erte	ernel Data Detabase Tools Design Arrange	Formel Pege Setup Q Tell me what yo	ne ward to die		
If Prejecthiame + Geramonal (Deta	eft - 22 - 4 Familie - 15		Shape Fill *		
Select AT B J H		pround dimension (GLALE Change Considerant)	Shape Outline *		
Leischan	Fort Number	rge > Ruis Conter > Dryles > Mount > Formatting > Rackground Control Pointed			14
All Access Objects @ *	and the second se		3		
hert. D					1
enykattionkan enykattionkan					
anduttorContactoria					
p gafathurDushahri	Funert Name	10.11.10.10.	Die Den	Premer Concellent	
P sycamaterallysists	and the second se	Tarih Titin	Dis Dis	Petrone Compares	
P ungCalmentPlayants	Azure Wayes				
P andrepisgentations		Course Charactur Pontails	7/1/2013	0%	
🖅 untingingersidata		Create Story Board	6-25-2013	0%	
🚰 unfrasigensödendasi	Cash is King How to Ci	it Your Spending by Carryi	no Cash		
P egruttianni	cash in reing, riow to co	Construction of the second	A CONTRACTOR OF THE OWNER		
P ayinProgram		Greate Oteline	8/14/2013	22%	
P untate Count		Hite Technical Reviewse	6:34/2013	Q16	
Patrialefrajetta	The Potion, the Scroll, an	nd the Cauldron			
anNunagingLittais		Edda Chapter 20	7/19/2013	0%	
+D anytestilaries			2 140 Page 1		118
P anPraintDathboard	Diritida, Sort, and Total				
🗊 apenantritragnia	Grout on ProjectName * with 6 on Tap *	ton a			+ + X
🗊 andenjam	11 Add a group 11 Add a sort				
P and a state and	wad a group wad a sort				
型 -asymutationenee					
P (g)PspectoOethold					
Exposit View				There Lands	N M D



To remove the border around the control, click on the Shape Outline in the Format tab as in the following screenshot.

8 5 - C + AccesDation	Database CitchenAMa	Report Laport South		Malasima	e Weger 👘 🕴 🕇	-	о ×
file Home Cruste Diferon	A Data Databese Tooli - De	sign Amange Format F	age Setup 🛛 🖓 Tell me what	etne Haand Karela			
17 Projecthame - Galamond (Detail)	+ 20 + 1 (monation	Sec. 10 Redgeword Alleran	Call Change Conditional	2 Drape Fill+			
Select Al 0 J U A -	2+ 5 2 2 5 % *	lierage * flow Color		A TABLE COLORA DE LA CALLER			
All Access Objects 🖲 #	Reports						×
Sect. P graditherige 3 graditheribbes graditherContactions				Standard Colors			
🗊 gij#atterbusteater	Prejat Name		Tals Tide		ingline (
an/implifeProviti							
🗊 gijCurrentProjecta	Azure Waves						
🚅 qıştingiliyeeAddresses			Create Character Postcars		.05V		
P alybrapinyeesiData			Coute Stricy Board	Datoparent	0%		
P qufinpisperstatendet	Cash is Miner D	ow to Cut Your S	anding by Core	G More Colon.			
S Withman	Cash is King. fi	low to Cut 1 out 5	pending by Carry	E Lote Thickness	*		
P anythingers			Coaste Ciudine	III Live Lype	 23% 		
I alytateCount			Has Technical Reviewer	673472013	014		
T mildefnjetti T nykoni of ent	The Potion, the	Scroll, and the Ca	uldron				
P mytherapogration	11 CONTRACTOR OF LEVEL		Edit Chapter 20	7/19/2013	Of a		
T aufertilaries			manen i se	A 199 (1997)	-		*
 Constraint (Constraint) 	Group, Sort, and Total						
1 averantinthogens	I Group on ProjectName * +						ലാഹി
🗊 welficieda S wyProjecti ByWelfran	Add a group 21						
anfrontablendes anfrontablendes anfrontablendes anfrontablendes							
Pshort Arek					Nonton, 3	0 G	目に

Select the **Transparent** option.

B 5 AccenDitatio	sel Daninale- ColDientMa	Report Import No.			Automnad Wagas	ð.	- (0	1 ×
File Home Credit Eder	rul Data - Ontahase Tools - Design - A	Reunge Rormat Page Setup	Q Tell me what you	seet to do				
IY GroupHaadert =	Second Management		The second se	Shape Fill -				
Gileet Al D / U A	· A	Background Alternate Chick		Mape Option				
Selection	Para Number	Image + Resc Color + Styles - Background	Shape - Formatting					
All Access Objects	Amport \	and the second se	0.001/01/02/01/000	9				
Sect. P								1
18								
P arybuttonige								
P grykathor@Days								
grykathorContentisti								
grykathorDugication	Presset Name	Tank Tel	6C	Dise Data	Pertast Complete			
an CompletedProject;	Azure Waves							
The subsection of the subsecti	Landa C. TT B.T.C.	Too Ministra		In an a state of the				
P gritmptepeskadrunn			haracter Poetrain	7/1/2013	01-			
and material and a second seco		Courte 5	ory Board	6/25/2013	10%			
P stylingteynarObindyd	Cash is King: How to	o Cut Your Spendie	ag by Carryin	ng Cash				
and and a second		L Create C	BELAG ST	6/14/2013	-			
P apprenting the					- 23%4			
P optateCount		Has Ter	hacal Benevee	6/14/2013	016			
D antescoffeit	The Potion, the Scro	ll, and the Cauldron	n					
P anhungunglatura		Ede Ch		1 7/19/2013	014			
D gonathates		P. 1. 191		A CTL OWNER				(-
D enPropetDantibuard	Group, Sort, and Total							112
10 anProvidmProgram	Group on ProjectName * with A on to							
D atsProjects							100	
P anPropertitiveather	11 Add a group 11 Add a so	prt						
P approximation								
and any Property Chattanat								
Lapost View	<u>u</u>				Num Lock	-11	7 . 18	12
								and the second

Let us now go to the Design View as in the following screenshot.



🔒 🎂 🚓 🐑 AccesiDatabase : Databa	re CUbe/Mile Proof Druge Taro	Muhammad Wager 7	- 0 ×
File Horse Dreate Emeral Data	Database Tools Oreign Amange Format Page Settap Q Tail nor what you went to do		
When Thermatic Application Thermatic Ap	Atabi Ac Iven Control Figure 1 Action	Add factors Property Table Product Dates	
All Access Objects 🗟 * 📲 🛤	off		
Selech.	ipert Miadw		Conceptual designed and the
D myhutbookje			
🗊 stjóuthartDays			
p essiuthorContantivity			
🗊 anykatharDapitaine			
	ige Hudar	and the second second	
Address and a second se		Permit Crimplets	
A diligning and a second secon	sjedflære Header		
🗊 qotmprosestbata 🕴 . Pf	ojectName		
🕐 and implementation and			
🗊 gyfuntianer	TatiTda DisDus	PresentComplete	
	nga Pavitas		
p antercourt	ipoit Faithir		
P antareffigiett			
P instanupfield			
P anterespectation			
P entorthaned			
	ort, and Tatal		×
1 avProximPropers	muz on ProjectName * with A on fog * . Mare >		4 X
(m) (m) (more set)	II Add a group 11 Add a sort		2000.000
🗊 gryPropettabyAuthor	Had a group in Had a son		
📅 quffiqaithEdunisis			
P antyopetsionneit			
Design tree		Butilack 🔲	5 H K

Adjust the task title to the left of your page as in the following screenshot.

🛱 🏷 - 🖈 AccesiDatabi	ee: Databare- Chilbert Mu-	Head Decas Tech		Muhammad Wagter 7	- C ×
No. Horse Deale Title	mai Data Database Tools	Pesign Anange Tormat	Page Setup		
View Thermes (A) Fords - Resser	∑ total ⊡Hoc Details	Aa 📼 🗋 🍓 🏧	Handher Date and Tens	Add fasting Property Tax Folds: Start Taxt	
All Access Objects @ Sect	Capert Header Page Header Page Header Truck Table ProjectName		Die Das Perce Gambre		36
antimativestationaid antimativest antimativest	Conset TankTide TankTide Auge Paulte Apport Paulter Apport Paulter Group, Surt, and Tatel		DasDats PennerComplete		
approximitivapers approximitivapers approximitian approximitian approximitian approximitian approximitian approximitian approximitian approximitian		eith k on top ● . Mos ► Add a sort		Num Lock	× • •

Let us now bring the data from the Page Header section to the **ProjectName** header section using **Ctrl+X** and **Ctrl+V**.



Accestation	e i Database- Childrein Mu	Report Groups News		Muhammad Warper	- 0 ×
	al Data Database Tools Dep	an Anange Format 1	Nge Setup 😵 Tell me what you great to		
View Themes A Funts - A South	E Tortale - Constanting in Tortale - Constanting in Tortale - Constanting - Constanting - Constanting in Tortale - Constanting in Tortale - Constanting - Co		mage - Harrisen G Date and Header / Fotor		
and a mention of the state					
Seen. p □ tengl Queries # Prof dualization for thole-driven P syn-antron-fige any syn-antron-fige	✓ Fapad Hader				
P anyAuthorContactions	C Pape Haadar				
P annutherDuplicater	ProjectName				
pyCamplebathopads pyCamplebathopads pyCammthopads uptophyperside pythophyperside aptophyperside pythophyperside pythophyperside	Tash Tols • Detai TashTols • Page Forter • Report featur		Dise Date . [Perret Complete] DeeDee [PerretComplete]		
🗇 anterfragrass					
1 optateCourt	2				
D antisteProjects					
1 interventien	*] Great, Sort, and Tatal				
The structure of the st		110 - Marga - 9128 5 8 P			
រដ្ឋា ព្រុមដែរដែរកេន ឆ្នាំ នាទីស្រាយដែរដែរលេរ ឆ្នាំ ព្យូទីស្រាយកំពោះពេរ ឆ្នាំ នាទីស្រាយ	Grout on ProjectName * w				* * X
appropricting/withor				Bum Look	0 5 8 80

Let us now go back to the Report View. You will now see that the labels appear directly above the controls that they describe.

Contraction of the local division of the loc	CONTRACT ALL DESCRIPTION OF A DESCRIPTION	inter-sense of the sense of the					
E B Xoe	Li Accenderg T Selation	B State - D State	P + 60		······································	0.41 ()#3	
	The La fermine last. They be like	Refeat X Dates - These	Finit Di Sein	The second second second	文(なりの日日日	2-101-	
en Cigboard ()	Latt & fater	Records	find	22 I	Int.Femaltrip		
Access Objects @ =	I Hepirtt				10000000000		
th. P	18 Mars						
tingt E							
veries #							
Find maticates for talkation							
giykultunkge							
anykathur@Days	Azure Waves						
0 qiykultuoContantinta	Task Tole	1	ha Dire Pe	man Complete			
anyAuthorOuplication	Course Character Portraits		7/1/2013	0%			
gryCompietedPinyeth	Caute Story Board		6/28/2013	01.			
angCurantifistanti	1						
gryforginges Addresses	Cash is King: How	v to Cut Your Spen	iding by	Carrying Casi	a		
attfrapingenOsta	Task Tide	I	he Date De	went Complete			
and and a second s	Cente Ottlere		6/14/2015	23%4			
0 anyfullflamm 3 anyfullflamm	Has Technical Reviewes		6/14/2013	014			
anglateCourt	The Device she C	and the Could	Contract of the second of the				
) emilateFrojecti	The Potion, the S	croll, and the Cauld	ron				
antestation	Task Tide	r	He Date 14	erent Comgileta			
antherapmatetion	Edd: Chapter 20		7/19/2013	Of a			
nerffinilliariest	Edit Chapter 16		6/21/2013	-17° e			
anPhantGanilaani	Wats Chapter 17		6/21/2013	01.0			
and service and a service of the ser	Edde Chaptar 17		6/28/2013	0%			
3 and name	Wate Chapter 18		6/28/2013	01.			

If you notice, you will see that there is no space between the tasks and the next project name. There should be additional space in between. For that, we need to add **ProjectName Footer**.



B 5 Accention	ees: Delatoue: CribientMa. Papart Design Tolik	Mufummad Wages 7 - D X
Virge + Thomas Africa	ned Over Outblace Stolls Design Anange Formal Page Setting Q Tail free whet you want to de Σ Taile : E Traile Octable Detable A a more : Traile Octable Cardinate : Inter Octable : Inter Octabl	Add Ensteing Property Tale Freids Sheet Oxfor At
Seenth. P D forego C Querries & A D ford Buglicates for TERAUTHOR D stylications ge D stylications (D see		
명 appendixed contantanta 의 applemente 의 applemente 의 applement 의	Comparate Project Name Project Name Construct Complete Construct Complete Page Fooles Frape Foo	
D anfattanet D anfattanet D anfattanet D anjattingen D anjattingen		
D aphiesgegidtos D ophitikets D aphiestisets D ophiestisets D ophiests	Group on Projectione * with A on bus *	÷ + x
Dengt Vew	<u>.</u>	Number 10 CL H M

Now, go to the Design View.

In the Group, Sort and Total area click on the More button next to the project name.

You will now find all the options for how to group and sort by project name as in the following screenshot.



B 5 AccerDatato	se: Database: ChildrenhMu	aport 0	henyn Toilli		Muhammad Wages 7	- D ×
File Home Create Ener	nal Oata - Database Soch	Design Amerge	Format Page Setup	Tail me what you want to the		
View Thomas (A) Forts + Group A Said	∑ totali i Etitide Detali array & Totali	🛛 Aa 📼 🗋		aet Numbers Date and Time	Add Environ Property Talk Fields Sheet Order 4	n
All Access Objects ® *	III Report					×
Invit Invit Invit Invit Ourries A Find supficies for tabletions envicement envicement	Report Header Reger Header Reger Header Report Header Report Rocket Task Task Task Task Report Rocket Report Rocket		De De			
PoplatoCourt PoplatoNejesti	i.					
P ertentuafiett	e Group, Sort, and Total					1.00
्रि सार्वविषयात्रात् वि सार्वविषया वि सार्वव्याप्रस्था वि सार्वव्याप्रविद्यालय	Group on Propertitional	tum 🕈 - do nat kneg geno	ertize usine * . with no tota at ingether on one page * .	n *- wetchie workender, wetce fo Leist 4	and other *.	ו×
P stylhuperts P stylhuperts/Splatture Design View					Num Louis 🔟	

Here, we have a property called **Without a Footer Section**. Let us change that option by clicking on that little arrow next to the words **Without a Footer Section**.

	Acen	mDutatione i i	Dealine Civi	hertMate		I fromt	Design Totals	X			Malammad Weges	1	.0 ×
-	Harrist)	Emmel (hata Data	baux Teolo	Design	Arrange	Format	Page Setup	Q. Tell me set	at you want to de			
View View	Therein A Fonts			ab	[] Aa			18 18		Stopp Table Data and Time water /Teater	Add Enting Property 1	10 C C C	
All	Access Objects	0			11112								***** <u>*</u>
		6	# Report H	*****									
	Terrigi	100								1 10 11			
4													
-51	and a second sec												
-	systation@Dwgs	1											
3	and the Containvelo		4 Page fins				1.4						
3	gradutter Dagitates		Projec	tName									
-51	up/CompletedProjetts		L					and the second s					
5	wyCurrentProperts		Tool: Tota	-				Die D	e Som	Duniyarie			
5	uryf.metisgeediddetuni		# Detail					DuD	ta (PersetC	Constant of the local division of the local			
5	what managements that a		# Fage for					Lages/d	in Stammer	centrate			
-57	apphysioprestidented		# Happet Fa				-03						
5	wyfulliane)												
3	ipyniProgress	1											
5	wstateCourt	-											
3	upplateth special												
5	antacoupfield									1			1
57	systianaprigizition		map, Sort, and										
5	anyHofStarts-4									initiatit, with a b	andet sertine. * -		2 0 X
÷	igg#rageifflishboard			ut a footer set	and the state	and the second se	ual together	nu turé trebé 🔔 –	1915 4				
5	arythapetholikogrees			ut a footer res		a sort							
P	ang#rajetti												
-57		10											-
Drug	re Wittew										Thirt Last:	 E 	14 16

Change it to **With a Footer Section**.



B 5 AccesiOstation	Balabase ChildrentMan	Report Design Toda		Muturmined Weiger	7 - D X
File Home Create Delete	d Data Database Tooli	Design Amonge Format	Page Setup		
Vine Thomas A Funds - Genup (2	E Torde 1 B Hole Details imp 6, Trials	Aa 💷 🗋 🏨 🖤	inart Fage	Title Add Estating Property	
All Access Objects @ .	III Report				
Search.					
1 fangt (+	• Algorithoder				
Queries #					
🚏 Find diadicates for SSAdhore					
💬 eppluttentige					
T any Autour BD ago	4 Page Hander				
🗊 qiyAultusCurtariinta	· Projectitiana Header				
1 anykatharDapitation	ProjectName				
🗊 ergCongreteiProperty	The Dec	1	Due Date: A areas Case		
T atyCurrentProjects	*		Diar Diste - Parent Case	went 1	
🗊 onforpingenAddresses	# Defail TaskTide		DaeDate PercentCom	when the second s	1
atsfrapingenData	· Projectilans Paulier		Printing Printing-put	Amon.	
gryfangeligeestatensted			1.7		10
P applituitions	Summer and summer sum	and a second second second	come according to the second		-
P anjothagan	# Page Foster				
P antifictuat	the second second				
D emilateFrejetti	# Report Footer				
D instantient	+				(4)
P enManagemptations	formup, hort, and Total				*
P antikatikaring	- Group on ProjectName *	with A on tap.* - By entire value 1	with no belais * - with little Gold	in edd, with a header reidion *	×
D enPropetDanibases	with a funder section *	· . Ito not keep group together on an	er page * . Lans 4		
1 anfrajatinfragana	B= Add a group	Add a sort			
D apropriet					
T apfraintalplature *					
Daligh Wew				Rented	1 17 11 194

As you can see in the above screenshot that the ProjectName Footer section beneath the Details section is added. This will act as the footer for that project name group.

Let us now go back to the Report View.

🔒 🐘 d 🚦 🗧 Acces0atabase	Database C\Bsen\Muhammad.Waqa	n/Documents/AccessDatabase accel	(Acces 2007 - 2016 6	ile format) - Access Mut	ummad Waqas	? – D	×
File Home Create Externa	i Data Database Tools 🛛 🖓 Tell i	me what you wast to do					
Vev Paste Story Fame	💷 flemove Sort . 🍸 Toggle Filter	Int New ∑ Totals Beltech Im Save Im Spelling All+ X Deleter Im Mare	Find Select *	s z u A · ½ ·)EE 5 0+ 533	⊒- (<u>⊞</u> -	
Views Gipboard G	Sort & Filter	Records	Find	Text F	ematting	15	×
All Access Objects & *	a seport						-
Search. D					7		
Temp2							
Queries 2							
Find duplicates for tolkathon							
gryAuthocAge	Azure Wayes						
qrykuthor6Days qrykuthorContantinto	manes						
gryAuthorContantines	Tank Tale	1	Dae Date - Perter	st Complete			
gryCompletedProjects	Coeste Character Postraits		7/1/2013	0% e			
ayCumentProjects	Create Story Board		6/28/2013	C ^e lo			
anEmployeeAddresses							
anénployeesDita							
an/EmployeesExtended	Cash is King: How	v to Cut Your Sper	iding by Ca	arrying Cash			
angeuttanes	Task Title	*					
aninPrograms				st Complete			
antisteCount	Conste Outline		6/14/2013	25%			
anyLateProjects	Hate Technical Reviewer		6/14/2013	Of/e			
P antookupfield							
gryManagingEditors	771 D						
gryNotStarted	The Potion, the So	croll, and the Caulo	ron				
an/ProjectDashboard	Task Tida	1	Dae Date - Perter	st Complete			
🗗 qnyProjectinProgress	Edit Chapter 20		7/19/2013	0%			
🗗 anfitojeati	Edit Chapter 16		6/21/2013	0%			
🗊 an Project By Author	and confirments						
Report View					Num Lock:	1 4 5	14



To remove shading or the appearance of background for alternating areas in both the Details section and in the Project Name area, go to the Design View again.

B 5- ···· F AccesiOatala	er Databauer Childrent Mus. Bepart Design Tools		Muhummid Wagas 👔 🚽 🛛 🗴
- A	nd Deci (Database Stoch) Design <mark>(</mark> Anange Format Page 5 ∑ Totals : Bride Ontals (Decis) (Decision (Decis	ingent Pige Ditte	Add Entring Project
T 17 (8005)	arrey & Totais Cardrais	Image - Numbers (1) Date and Time Hunder / Funder	Tatlah Shiet Outer ***
All Access Objects * *	Report Account of the second	×	Property Sheet * Selection type Selion Detail
Operation A IP Find Bagilicates for Statutions IP IP synkultransige IP IP synkultransDays IP IP synkultransDays IP	 Page Mader Page Mader Page Mader 		Farmal Data Svent Other All Visible Yes Se Height Color Background 1 Afternate Back Color Background 1 Afternate Back Color Background 1, Darker Sh Seenal Effect Park
学 ankaharDamana 学 ankaharDamana 学 angCanatedHigeni	ProjectName Tudi Tale	he Date Berrart Complete	Auto Height Ala Con Grow Height Ala Can Shrink Height Awage Dealling When Alwage Keep Topither Yes
월 atylingsogenddilleset 월 atylingsogendlata 월 atylingsogendlata 월 atylingsogendlatanioù		heiDate Petreat Complete	Ferrer Neve Page None Neve Row Gr. Col None
P enintrapris P enistreCount P enistreCount	€ 20ga Fister € Report Footne		
optimization optimization optimization optimization optimization optimization optimization	Group, Sort, and Tatal Group on Projections * with A on box * . More + BE Add a group ²¹ Add a sort	* * X	
Dengs Vew			Number 10 CL H M

Let us change the Details section first by clicking on the detail divider and then open Properties sheet.

On the Format tab, change the **Alternate Back Color** to **No Color** as in the following screenshot.

H 5 - AccenDulatione	Delabase Childen Union Design Salas		Nutrammat Wagay 7 - 🖽 🛪
film Home Courts Literna	Data Dalatase Tools Design Anange Format P	aga Satup 🛛 🖓 Tati nan untut yau want tu du	
View Thereis (A)Party - Dinner (P	Inder Details Inder	Harast Fage Dise and Time Health / Scale	Add Easting Property Tel: 42 Fords: State Order 42 State A
All Access Objects (# =) Seen. (*) (*) Overries (*) (*) (*) (*) (*) (*) (*) (*)	Report Header		Property Sheet × Stintton type. Sedata Betal Fremat Odds Seemt Other All Value Val
applicables/app applicables/app applicables/contaction/s applicables/contact	ProjectName Trainitian Name		Height 0.2517 Ren Celler Schargeund 1 Alternate Reis Colori II (2006) Spenial United Plut Auto Height No. Can Donal No. Can Donal No. Opsight When Always
P aylanterföginti P gyfryfarioeddoryr P gyfryfarioeriddory P gyfryfarioeriddod P gyfryfarioeri	CashTele TashTele • Synactiones Footer		Krep Together Yes Store Head Plage Histore Heav Row Or Cell Histore
D anto-Rogert D anto-Rogert D anto-Rogerts D anto-Rogerts	Page Techn Agent Feature		
aphlanganglither aphlanganglither aphrophiliphic aphr	Grown on ProjectName * with 8 on top *. Mixe *	* * X	huminat [] [5] 10 [2]



Similarly change the Alternate Back Color to No Color for both ProjectName Header and ProjectName Footer and go to Report View.

file: Home Groats Edges						
I IL Xor	Linearden Balances B Hann Duel			日日日期月	15	
iere Faits of Ferral Faites Fi	In Internation Control And		THE ALL ALL ALL ALL	· · · · · · · · · · · · · · · · · · ·	102	
two Clobourd A	Set & Filer Recents	Pint.		Text formatting		
Il Access Objects 🖷 «	Incom W			1.		
ech. P	Azure Waves					
Tampi ·		1477-147				
aurries A	Turk Tick		at Complete			
Find augilitates for thikulters	Course Character Portuality	7/1/2013	016			
P enAuthorApe	Cente Story Board	6/28/2013	10%6			
P anyAuthentiliaya						
P systema Contentiniu						
The second	Carly in Diana Lines and Car Vana Co			1.		
application (Completely)	Cash is King: How to Cut Your Sp	ending by C	arrying Cas	n		
🗊 ansCamaleterProjects		and the second second	and the second sec	n		
🖗 an Constitution of Constitution 🖗 an Constitution of Constitution	Tuà Tiù	Die Date Parte	er Complete	n		
P opCompletaProject P opCommBajests P optimisenstaterom	Tesh Tith Create Guilze	Dise Date Patter 6/14/2013	er Cemplete 25%	n		
P ogConstetsProjects P ogConstelPojects P ogSnatiseret.starrere P ogSnatiseret.star	Tuà Tiù	Die Date Parte	er Complete	n		
P ursCanaretedProperts P ursCannetMapolits P ursEnablepretAterrores P ursEnablepretData P ursEnablepretData	Tesh Tith Create Guilze	Dise Date Patter 6/14/2013	er Cemplete 25%	n		
P systemateteProjects P systematetes P systemates P systemates P systemates P systemates P systemates P systemates	Trais Tans Conste Outline Hare Technical Reviewer	Die Dirs Paris 6/14/2013 6/14/2013	er Cemplete 25%	n		
P ursCanaretedProjects P ursCannetHappits P ursEnareteHappits P ursEnareteHappits P ursEnareteHappits P ursEnareteHappits P ursEnareteHappits	Tesh Tith Create Guilze	Die Dirs Paris 6/14/2013 6/14/2013	er Cemplete 25%	n		
grycanutetethiopets wycanesthiopets wycanesthiopets urytrassepetateresee wytawsepetateresee wytawsepetateresee wytawsepetateresee wytawsepetateresee wytawsepetateresee wytawsepetateresee wytawsepetateresee wytawsepetateresee wytawsepetateresee	Trais Tans Conste Outline Hare Technical Reviewer	Die Din Pane 6/14/2013 6/14/2013	er Cemplete 25%	n		
P ogCompleteRholects P ogConnetNojects P ogforelegenetAtorores P ogforelegenetAtorores P ogforelegenetAtorole P ogforelegenet P ogforelegenet P ogforelegenet P ogforelegenet P ogforelegenet	Tok Tim Const Outine Har Technol Reserve The Potion, the Scroll, and the Cau	Die Din Pane 6/14/2013 6/14/2013	ar Complete 23% 0%	n		
ygCompleteProjects ygCompleteProjects grgfmalisyreitdansing	Tesh Ten Centre Outine Har Technol Reviews The Potion, the Scroll, and the Cau Tesh Tata	Dee Date Press 6/14/2013 6/14/2013 6/14/2013 0/14/2013 0/14/2013	er Complete 23% 0%	n		
P upComptetsProperts P upConnetRepets P upConn	Tech Tim Centre Outine Mar Technical Reviewer The Potion, the Scroll, and the Cau Tech Tata Edit Chapter 20	Dee Date Frans 6/14/2013 6/14/2013 6/14/2013 0.16/2	er Complete 25% 0% at Complete 8%	n		
yyComptetsPhotest yyComptetsPhotest yyComptetsPhotest yyComptetsPhotest yyComptetsPhotest yyComptetsChartest yyComptetsPhotest	Taile Title Carrier Outine Mar Technical Reviewer The Potion, the Scroll, and the Cau Taile Taile Edit Chapter 20 Edit Chapter 10 Wates Chapter 17	Dee Date Faces 6/14/2013 6/14/2013 6/14/2013 0/16/2013 0/00 Dee Date Faces 1/19/2013 6/21/2013	er Complete 23% 0% 0% 0% 0% 0%	n		
yyCompreseRegists yyCompreseRegists yyCompreseRegists urythmategenet.dennese	Tesh Tite Cente Outre Mar Technol Revene The Potion, the Scroll, and the Cau Tesh Tite Edit Chapter 20 Edit Chapter 20 Edit Chapter 17 Edit Chapter 17 Edit Chapter 17	Dee Date Fame 6/14/2013 6/14/2013 6/14/2013 0/16/2013 0/16/2013 0/16/2013 0/21/2013 0/21/2013 0/21/2013 0/2013	er Complete 23% 0% 0% 0% 0% 0%	n		
gryCompleteRhight wyConnetRhight wyConnetRhight wyConnetRhight wyContenenData wyContenenData wyContenen	Taile Title Carrier Outine Mar Technical Reviewer The Potion, the Scroll, and the Cau Taile Taile Edit Chapter 20 Edit Chapter 10 Wates Chapter 17	Die Die Fins 6/14/2013 6/14/2013 6/14/2013 0/16/2013 0/00 Die Die Fins 1/19/2013 6/21/2013 6/21/2013	er Complete 25% 0% 0% 0% 0% 0% 0%	n		

You can now see how the report looks. To see how your data will print page by page, let us go to the Print Preview.



and the second		and the second	se Page	-	2
	Show Margina		o Pages		
Print Size Margins	Print Data Only	ontrait Zoom	Refresh Excel	Test Close P	A
5 ° 5 1	40.1		Parenter and and	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	State of the second sec
Print Page	I am	Page Layout Zoo	m Da	ta Close Pri	EVIEW .
All Access Object	cts 🔍 « 🏴	eportt			
earch.	Q				_
Temp2	-				
Queries	2				
Find duplicates for th	Authors	Azure Waves			_
gryAuthorAge		States - Antistees	12/12/01/12/14	0.00	
gryAuthor8Days		Talk Tris Covie Classifier Perhalts	Dia Dere Persen 7(1/2013)	Complete ON	
	8	Create Start Board	8/28/2213	04	
gryAuthorContantinie					
gryAuthorDuplicates				1.1213	
gryCompletedProjects	2	Cash is King How to Cut	Your Spending by Cam	yung Cash	
gryCurrentProjects		This Div		Caujie	
aryEmployeeAddresse	6	Gauer Outage Hare Training Reviewer	6/14/2013 6/19/2013	19%	
gryEmployeesData		TALL STORES, PROPERTY	. (17) (dir)(4		
The second se					
gryEmployee1Edende	2	The Potion, the Scroll, and	the Cauldron		
gryFullNames		Test Tele		Caugine	
grytnProgress		Edit Clapter 27	7/19/2213	0%	
gryLateCount		Eds Clapter 10	8/21/2013	044	
gryLateProjects		Nine Chapter 1? Edit Clapter 11	8/27/203	0%4 244	
gryLookupField		With Chapter 18	1 3 21	200	
gryManagingEditors		Edit Cherosi 18	7.5/2013	0%	
		Nitze Clapse 19	13 213	25	
gryNotStarted		Wilder Chapter 20	7/12/2013	0%	
gryProjectDashboard		Renew Galler	9/0/263	014	
gryProjectinProgress		Complete Paul Receives	63/201	264	
gryProjects		Copy Eds Chapters 1-3	8.9/2013	0%	
gryProjectsByAuthor		Larout Chapters 5-5	8/18/2013	244	
gryProjectsExtended		Copy Eds Chapters 0-10	8/16/2010	0%	
		Layout Clayton 610	\$ 2/215	0%	
gryProjectsOnHold		Copy Eds Chapters 11-13 Lerrors Chapters 11-13	8.25.2213	0%	
		Active station roots	90 No. 400.0		
gryProjectsWOTasks					
gryProjectsWOTasks gryProjectTasks					
	initial				

This is how it will look like when you print it.



36. MS Access— Builtin-Functions

In this chapter, we will be working with Built-in Functions. In Access, there are close to a hundred built-in functions and it is almost impossible to cover every single one of them. In this chapter, we will cover the basic structure, syntax, and use some of the more popular functions, and also the pitfalls, so that you can go exploring some of the other functions on your own.

Functions

A function is a VBA procedure that performs a task, or calculation, and returns a result. Functions can generally be used in queries, but there are other places that you can use functions.

- You can use functions in table properties, for example, if you want to specify a
 default value for a date/time field, you can use the date or the Now function to call
 up the current date/time information from your system, and input that value
 automatically.
- You can also use functions in an expression when you create a calculated field, or use the functions inside form or report controls. You can use functions even in macro arguments.
- Functions can be quite simple, requiring no other information to be called, or, simply reference one field from a table or query.
- On the other hand, they can also get quite complicated, with multiple arguments, field references, and even other functions nested inside another function.

Let us now look into some examples of using built-in functions.

Date & Time Functions

Let us now understand the Date and Time functions:

- The Date() function is designed to return the current system date. This function does not require any function arguments or additional information. All you have to do is write the name of the function and those open and close parentheses
- There are two very similar built-in functions Time() and Now().
- The Time() Function returns the current system time only and the Now() Function returns both the current system date and time.
- Depending on the data that you want to track, or store, or query, you have three built-in, easy-to-use functions to help with that task.



Let us now open your database and create a new query using query design and add tblProjects and tblTasks.

			ny Toola 🛛 Ac	cemDatabase : Database · O	Musers\MiaMub	ammad Wagas 👘 🏹	- 8	
File Home Create Exter	nal Data: 3	Database Tools	esign 🖓	Tell me what you want to				
View Run Jesuits.	Query b	pe Data C	hrough Iefinition	how Sable Curry 5	Thinsert Columns Delete Columns Zill Return: All etup	Totals Parameters	Property Sheet	
All Access Objects 🔍 «	M Report	gryProjectTasks	<u>\</u>					- 3
Serrit. P Querries A Prind dupbcates for tit/Authors g up/AuthorApr g up/AuthorDitys g up/A		ItilProjects ProjectID ProjectID ProjectID ProjectIDame ManagingEditor PStatus Contracts.FileDa	la me		* TaskiD ProjectiD TaskiTitle Priority Status Description StanDate DueDate Mitachim Attachim	r ents.FileData ents.FileName ents.FileSype		
anyinfrogress	(•T)							
giylateCount gi uykateProjecti	Field	ProjectName	TaukTitle	StartDate	DueDate	0		1
g anjianiupfield	Table	tbiProjecti	tbiTasks	tb/Tasks	tbiTasks	1		
🗗 aryManogengEditori 🚰 aryMatStarted 🛃 upProjectDashboard	Sort: Show Criteria on	Ø	Ø	Ø	Ø			
gryPrejestinProgress								
🗊 anProventa								
aryProjectsDyAuthor								
ansProjects ge unsProjectsDjokuthar ge ansProjectsDjokuthar		4						0
I ansfraett ansfraettillpfuttur I ansfraettillpfuttur I ansfraettilloffatt		•						0
aryProjects aryProjectsDipAuthor aryProjectsDipAuthor aryProjectsDirtnate aryProjectsDirtnate aryProjectsWDTasks		4						0
anyProperts		1						

Add ProjectName from tblProjects and TaskTitle, StartDate and DueDate from tblTasks and run your query.

\mathbf{X}	A Cut	21 Ascending To Selection -	a Hi Ne	V. Contraction of the second sec	Q	Cali		+ 11	+111	
new.	Copy F	itar	Refresh	4100	Find	++ B	1 18	1111 (H)		
9 9	Furmal Peictor	Er Berneverbert 🝸 Toggle Filter	All- XDm	tte - 🛄 More-		R = 4	12.14	<u>∆</u> - ≡ =	三 : (1)	
lews	Clipboard 74	Sort & Filter	Re	epids -	Fin	d.	1	last Parmathing	75	
All Ac	cess Objects 🗟 🖷	Teport ProjectTaiks								3
stren.	Q D	Project Name	(*)	Task Title		Start Date	e • D	ue Date 🔹		
	-	Never Too Late: Reconnecting wit		and the state of t		2/4/		2/8/2013		
Queries	2	Never Top Late: Reconnecting wit	th Your Adu E	dit Chapter 2		2/4/		2/8/2013		
F Find	duplicates for tS/Authors	Never Too Late: Reconnecting wit	th Your Adu E	dit Chapter 3		2/4/	2013	2/8/2013		
arys	uthorAge -	Never Too Late: Reconnecting wit	th Your Adu R	evise Chapter 1		2/11/		2/15/2013		
100	uthor6Den	Never Too Late: Reconnecting wit				2/11/		2/15/2013		
- Childs	uthinContantini ii	Never Too Late: Reconnecting wit	th Your Adu R	evise Chapter 3		2/11/	2013	2/15/2013		
-		Never Too Late: Reconnecting wit		10.00 (10.000) (10.000 (10.000 (10.000) (10.000) (10.000 (10.000) (10.000) (10.000) (10.000 (10.000)) (10.000))) (10.000) (10.000) (10.000) (10.000) (10.		2/25/		3/1/2013		
	uthorOuplicates	Never Too Late: Reconnecting with				2/25/		3/1/2013		
3 an<	ompirete dProjecta	Never Too Late: Beconnecting wit		New York and the second		2/25/		3/1/2013		
🗊 (m)(Surrent Proyects	Never Too Late: Reconnecting wit		The state of the last of the second sec		3/4/		3/8/2013		
ant	mpluyeeAddresses	Never Too Late: Reconnecting wit				3/4/		3/8/2013		
	AployeesData	Never Too Late: Reconnecting wit				3/4/		3/8/2013		
	mployresEdended	Never Too Late: Reconnecting with		and the second se		3/18/		3/22/2013		
1.1.2.2.5	ALL STATES AND	Never Too Late: Reconnecting wit		production and the West of the Land		3/18/		3/22/2013		
T wyf	umanes	Never Too Late: Reconnecting with				3/38/		3/22/2013		
aryli	Progress	Never Too Late: Seconnecting wit	and the second second second			3/25/		3/29/2013		
anti	ateGount	Never Too Late: Reconnecting will		and the second sec		3/25/		3/29/2013		
aryta	ateProjects	Never Too Late: Reconnecting with		a same of the second		3/25/		3/29/2013		
-	ookupfield	The Potion, the Scroll, and the Ca		reate Plot Overvie		1/26/		2/4/2013		
	200703/==	The Potion, the Scroll, and the Ca		reate Character Po	traits	1/26/		2/4/2013		
-	fanagingEditors	The Potion, the Scroll, and the Ca		/rite Chapter 1		2/4/. 2/18/		2/15/2023 2/22/2013		
	kotShieted -	The Potion, the Scroll, and the Ca The Potion, the Scroll, and the Ca		dit Chapter 1 evise Chapter 1		2/10/	1000	3/1/2013		
any?	rsjertDashboard	The Potion, the Scroll, and the Ca		evise Chapter 1 /rite Chapter 2		2/25/		2/22/2013		
anyP	tujettmPtogress	The Potion, the Scroll, and the Ca		dit Chapter 2		2/18/		3/1/2013		
	trupento	The Potion, the Scroll, and the Ca		evise Chapter 2		3/4/3		3/8/2013		
	njeitsByAuthor	The Potion, the Scroll, and the Ca		/rite Chapter 3		3/11/		3/35/2013		
		The Potion, the Scroll, and the Ca		dit Chapter 3		3/18/		3/22/2013		
1.000	hiperticklanded	The Potion, the Scroll, and the Ca		/rite Chapter 4		3/18/		3/22/2013		
anyP	bishnOnthiald	The Potion, the Scroll, and the Ca		dit Chapter 4		3/25/		3/29/2013		

You can now see all the different tasks from all projects. If you want to view the project tasks that are in progress as on today's date, then we have to specify a criterion using a **Date()** Function to look at projects that start on or after today's date.

Let us now specify the criteria underneath the StartDate.

Vers Fun Selett Mate Appen - Table	Quing 1	abab Delete br D	sion na-Through nta Defection	Shere Debe Room Table Debe Room Table Debe	Trinant Calarres Delete Colorre Billiteture: Al	Tataly Parameter	Triperty Sheet E Telm Normal			
All Access cogects > 4		telline Projectium Projectium ManagingsCole Platase Contracts, Pro- Contracts, Pro-	r IeDala Wilaro		* * Tausto Negosto Taustos Neely Status Deioratos Status Dautas attaches Attaches	ents, FileData ents, FileNamé ents, FeleType				
1910-09-0049-00	117									10
III Milliogetti IIII Milliogetti, Antove	Frend Table	thiPreparty	Task700e HolTaska	StartCate Hartpaks	DuriDate Toffacke		1			1
iteResettat	Sart Shew Criteria ar	12	13	-+Data)	R	D.	0	0	α	
III Inflatori III Impl Queries II										

The criteria starts with an operator **greater than symbol**, followed by an **equal to symbol** and then **Date Function**.

When we run this query, all the tasks will occur either on today's date or in the future as in the following screenshot.

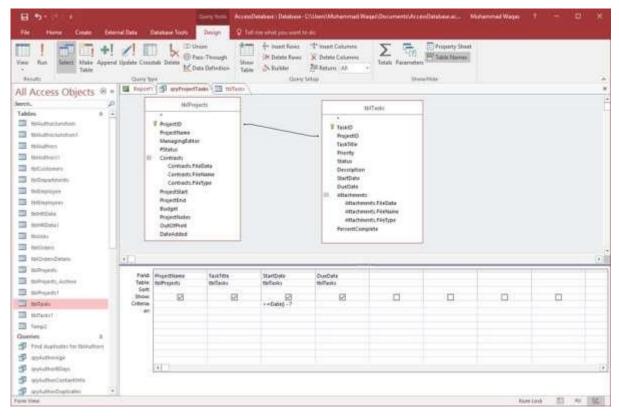
B 221 21 4	AccessDatabase : Database : Chlisen/Muhammad/Wagat/Document/AccessDatabase.accdb (Access 2007 - 2016 File format) - Access Muhammad/Wag	ж 7 – Г ×
File Hone Create	Esternal Data Database Tools 🗘 Tell me what you want to do	
M A X Ca	Totals Ω Selection · D Selection · D Selection · · · · · · · · · · · · · · · · · · ·	Sec. 1
Very Parts	The 11 Decceeding CAdvanced Balance Speling End Go To -	
 Stemat Painter 	ter Steason Sont T Toggin She Age - X Delete - More - D Select - S - A - A - A - A - A - A - A - A - A	
Views. Clipboard	C. Set & Hiter Records Find Set Formating	G A
All Access Objects	🛞 « 📓 Report) 🗇 anythojectlaska 🗐 tallasas 🔪	×
Starch.	Project Name • Task inte • Start Date • Due Date •	
Tables 2	The Potion, the Scroll, and the Californ Edit Chapter 29 7/8/2016 7/12/2016 The Potion, the Scroll, and the Cauldron Write Chapter 20 7/8/2016 7/12/2016	
tsi=uthettunction	The Potion, the Scroll, and the Cauldron Write Chapter 20 7/8/2016 7/12/2016	
tb/Author/unction/	·	
tbikuthan		
Tilluttors1		
to/Curtonen		
tbiDepartments		
toEmployee		
to/Employees		
TBHRData		
tbiHRData1		
Tbilebs		
tbiOrders		
Tb/CrdenDetails		
th/Projects		
tbiPiojectu, Archive		
ttiProjectul		
teitasis		
🔲 milasist		
Tonol I		
Queries a		
Find duplicates for toiPuthan	8/5	
gi uppAutholAge		
T application SDays		
D anskutherContantinte		
goAutheOuplicites	+ Record H (1 of 2 + H + T Ito Film) Search	
Datashert View		Num Lucia 🔝 🖘 🔛

This was an example of how you can use the Date() function as query criteria.

- Let us now say this query needs to be more flexible in terms of the dates it is pulling starting this week.
- We do have a couple of different tasks that began this week, that are not showing up in this current list, because of our criteria. It's looking at start dates that are equal to today or above.

If we want to view the tasks that started this week, that have not yet completed or should complete today, let us go back to the Design View.

Here, we will add some additional information to these criteria. In fact, we want it greater than or equal to today's date minus seven days.



If we type minus seven and run the query, you can see the tasks that started this week as well.

the set of the second sec	entilistateen Dalaheen CollientiAlehemmed Wegali Dacamentrijkramiliakatee as dit (Asses 2007 - 2016 Ne hormal), Assess Micharmed Was mal Daka - Oxietaan Yoolo - 🖓 Tellme ohni yris wert to m	m f - 9.	
NCA	$ \begin{array}{ c c c } \hline \hline & & & & \\ \hline \hline & & & \\ \hline \hline \hline & & & \\ \hline \hline & & & \\ \hline \hline \hline \hline$		
Il Access Objects 🗧 🕯	🖉 report 🗇 gomagetinda 🛄 tallant		
ann. () Jahlen 8 () Disistrasisentum Masattasisentum)	Heiget Name Tank Title Start Date Due Date The Bollow Hui Staff An Ander Stofford Edit Chapter 18 7/5/2016 7/5/2016 The Bollow, the Scroll, and the Cauloron Write Chapter 19 7/5/2016 7/5/2016 The Bollow, the Scroll, and the Cauloron Bitl Chapter 19 7/5/2016 7/5/2016 The Bollow, the Scroll, and the Cauloron Bitl Chapter 29 7/8/2016 7/5/2016 The Bollow, the Scroll, and the Cauloron Write Chapter 29 7/8/2016 7/12/2016		
9 Milathan 9 Milathant 9 Milathann			
 Hollogaloven Hollogaloven Hollogaloven 			
Benefician Benefician Benefic			
2 MADroes. 2 MADroesrOvtois 2 MADroesrOvtois			
1 Million di Landiana 1 Million di Landiana 1 Milliona			
I teñeset I tenst arries #			
P find dializates for foliation P wykatnickyr			
P webathe Cartantino	Record H - Tate (+ H H) Tonotton Search		
aubert View		Num Lora and ap.	14

DateDiff() Function

The DateDiff() Function is another very popular date/time function. The DateDiff Function returns a Variant (long), specifying the number of time intervals between two specified dates. In other words, it calculates the difference between two dates, and you get to pick the interval by which the function calculates that difference.

Let us now say we want to calculate our authors' age. For this, we first we need to create a new query and add our authors table and then add FirstName, LastName, and the BirthDay fields.

E South Court Entertail	nia /i	and the second	ALC: NOT	Delabase : Database: C'Ultur 1 mai unati you went to do	v)Muhammad Wagari	(Document) Acce	utletatione ac	ihanmad Wagan	1 - 1	ē *
Terris Ram Results	date Creat	tub Delete MCDen	en den a Through Shan a Defention Tabé	Str Dalada Kanan 😿 🛛	eart Columns elete Columns dum: 4.9 *	State Farameter	Property Steel			-
All Access Objects 🗧 📲	 Reports 	1 portunation	in 🚛 titlani 🗍	P Gunny2						_
en. P	-	elautor								
ables # E	-									
Thisdradurettan	1.0	Autment0								
WatedSprighterinti		Parathiaeos Maddiebelikiai								
Billioffield		LasiName								
16Hattore)		Street&dayes:								
15Cutoren		CHy Date								
3 millionetmente		Jucone.								
As/Disatoyee		TelephineNetber								
Baltagappees		Email	1							
investigate	_	testartet.								
(Sale)(Calar)										
Bitoba										
BADYDER										
MAD-InerrOwtprin										
3 tehests										
B toPhijadt_Atthine (a)	111							_		ł
a tafaas	eute 1	Festivate	Lastfiame						1	11
I teffenet	Table: Sort	taskethon	thiAuthors	talifuttors						
Tenal	There	B	B	8	0					
urries #	Criterian det									
Find duplicates for tonistion	100									
9 wykattoorige										
and the states										
and attraction and and and and and and and and and an										
		(+)								
🔹 galatherDuphater 🔹										

We can calculate people's age by calculating the difference between their date of birth, or birthday and whatever today's date is.

Let us try using the DateDiff Function in a new field.

🔒 5 - 👌 s AccessDatabas	e: Database-	Ci\Diers\Mu Qui	ny Taola		Muhammad Waqas ?	– 🗆 ×
File Home Create Extern	al Data	Oxtabase Tools 0	esign 🛛 🖓 T	ell me schat you want to	do	
View Run Select Make Append Results C	1x Delete	Union Pass-Through Data Definition grgProjectTacks	Show A Bu	Query Setup	Columns.	ameters perty Sbeet lie Namen tide
All Access Objects	-	10-	1	-		
Tables # 1064uthor/undion 1064uthor/undion1 1014uthors1 1016uthors1 1016uthors1		tolAuthors AuthorID FirstName Middleinitial LaitName StreetAddress City State DipCode TelephoneNumber Email Birthday				
tbiProjects tbiProjects_Archive	10.00 m					2 1
tb@rojects1	Field		LastName	Birthday	Age: DateDitt['yyyy', Birthda;	
16/Tasks1	Table: Sort:	977747694949-53	tblAuthors	tblAuthors		
Temp2	Show: Criteria	2	Ø	Ø		
Queries 2 Prid duplicates for tblAuthors grjAuthorAge grjAuthorBOays grjAuthorContavitinte	or					
g otyAuthorDuplicates •		1			Num Lod	x 🗉 🗢 🔽

Let us call it Age followed by a colon, and then write DateDiff Function.

- The first function argument for the DateDiff function is the interval, so type "yyyy".
- The next function argument is the first date that we want to calculate by, which, in this case, will be the Birthday field.
- The third function argument is whatever today's date is.

Now, run your query and you will see the new field which shows the age of each author.

File Home Create	Eite	nal Duta 🛛 Databa	se Tools 🛛 🖓 Tel	l me what you want b	o do			
View Cut	uinter 1	Ascending Ascending I Descending Descending Ascending Soft & Filter	B- Refresh	in New Σ in Save 5 X Delete • ⊡ • Records	$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \\ \end{array} \\ \\ \end{array} \\ \hline \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ $	Calibri \cdot 11 B I U $ \frac{1}{2} \frac{1}$	• E E 	
All Access Object	1.000	Beportt	qryfrojectTacks	🔳 thiTaska 🗐 😡				1
	5 9 -	FirstName	- LastName -	Birthday +	Age -			11
earch	م	Edgar	Rhodes	4/17/1970	46			
Tables	2 4	Michael	Barber	3/11/1943	73			
tb6AuthorJunction		Olive	Obrien	6/12/1957	59			
tblAuthorJunction1		Roland	Yamaguchi	11/19/1976	-40			
tblAuthots		Ramiro	Bonham					
tblAuthors1		Shawna	Rhoades	8/3/1961	55			
tb/Customers		Joyce	Dyer	2/26/1950	66			
		Nydia	Canty	4/20/1957	59			
22		Timothy	Johnson	4/3/1967	49			
tbiEmployee		Annie	Francis	3/18/1946	70			
tbiEmpRoyees		Joseph	Kirk	5/25/1945	71			
toHRData	1.3	Grace	Cruz	9/25/1960	56			
10-HRDeta1		Jackeline	Carter	3/22/1975	41			
thughs		Lauren	Williams	7/19/1967	49			
		Christopher	Templeton	4/30/1984	32			
		Matthew	Steele	3/21/1942	74			
tbiOrdersDetails		Elizabeth	Elliott	5/4/1943	73			
1b/Projecta		Tyrone	Barney	9/24/1947	69			
tbiProjects_Archive		Jessica	Griego	8/10/1945	71			
tbiProjects1		Homer	Bullard	4/19/1940	76			
thiTasks	_	Cheri	Moyer	4/17/1966	50			
A CONTRACTOR OF A CONT	-	Bonnie	Ziegler	12/15/1947	69			
thiTasks1		Anthony	Lopez	8/1/1968	48			
Temp2		Joseph	Jenkin	6/26/1940	76			
Queries	2	Beau	Brown	2/28/1961	55			
🗐 . Find duplicates for tblAu	thor	Eugene	Paimer	5/7/1963	53			
- and shadles	2	Record: H 1 of	9998 + H + 1	(No Filte) Search				

Format() Function

The Format() Function returns a string, containing an expression formatted according to instructions contained in a format expression. Here is the list of user-defined formats which can be used in Format() function

Setting	Description
уууу	Year
q	Quarter
m	Month
У	Day of year
d	Day
w	Weekday
ww	Week
h	Hour
n	Minute
S	Second

B 2. 4. 4		100	Contraction of the second	Database : Database: C/Wsers/Muhamm	Muhammad Wagas 7	- ¤ ×
File Home Create Ette	mel Data I	Detabase Tools	Design Q Tr	Errre what you want to do		
View Run - Results	Query ly	tab Delete M Data pe	Through Sho Definition Tabl	e Suider Zell Return: All Guery Setup		perty Sheet le Names
All Access Objects 🐵 🖷	E Repart	g appresentau	a influence	🖆 directal /		
ierch. A Tables & totkothetiuntion totkothetiuntion1 totkotheri totkotheri		tbilluthers Authorit0 FirstName Middeinitial LastName				
mAuthors1 th/uthors1 th/uthors4 th/customers th/customers th/spicyees th/spicyees th/spicyees		StreetAddress StreetAddress City State JpCode TeisphoneRumber Email Birthday				
ttelepatal telepatal			17			
intercients						
🖽 thiTesks	Field: Table:	Lastflame toiAuthors	Sirthday tblAuthors	Age: DateDiff('yyyy',Birthday,Date\$)	Formati(Birthday], "mmdd") 🔤	
thiffeensi Temp2 Queries & A Find duplicates for thilliuthers	Sort: Show: Criteria: or	8	R	Ø	2	
- and third in						

Let us now go back to your query and add more fields in the same using the Format() function.

Type the Format Function. The first function argument will be an expression, which can be almost anything. Let us now have the birthday field as the first and the next thing is to write our format. In this case, we need month, month, day, day. Write "mmdd" in quotes and then, run your query.

Verse Chipboard	1		Toppie Filter	Refresh AE- Record AE- Record	∑ Tetalı [™] Spelling • ■ Mare •	P Select Find D Select Find	• B I U == == ++ + ++ +++++++++++++++++++++	
All Access Objects	1.4	And in comparison in the property of the local data	the same in Alexandra provide in the protocol of Winepo	tailanas 🏐 Ques				×
Search.	a	FirstName -		Birthday -	Age -	Expri •		P
Tables 8		Edgar	Rhodes	4/17/1970	46 64			1
T trillathethurution	H	Michael	Barber	3/11/1943	73 03			
tol-uthoclunction1		Olive	Obrien	6/12/1957	59.06			
		Roland	Yamaguchi	11/19/1976	40 11	119		
tsGuthers		Ramiro	Bonham	000000				
THRUthers1		Shawna	Rhoades	8/3/1961	55 08	5 - 1 - C		
th/Customers		Joyce	Dyer	2/26/1950	66.02			
111 ttiDepartments		Nyttia	Canty	4/20/1957	59.04			
III faitmainpee		Timothy	Johnson	4/3/1967	49 04			
		Annie	Francis	3/18/1946	70 03			
tolEmployees		loseph	Kirk	5/25/1945	71 05			
top+RData		Grace	Cruz	9/25/1960	56 05			
toHRDate!		Jackeline	Carter	3/22/1975	41 03			
This matter		Lauren	Williams	7/19/1967	49.07			
III tosCodera		Christopher	Templeton	4/30/1984	32.04			
		Matthew	Steele	3/21/1942	74.03			
ttilOkderiDetait		Elizabeth	Elliott	5/4/1943	73 05			
ttiProjetti		Tyrone	Barney	9/24/1947	69.09	0.1		
torrojette Anther		Jestica	Griego	8/10/1945	71.08			
in indrajectut		Homer	Bullard	4/19/1940	76.04			
10 Tesks		Cheri	Moyer	4/17/1966	50.04			
Contraction of the second s		Bonnie	Ziegler	12/15/1947	69 12			
		Anthony	Lopez Jenkin	8/1/1968	48.08			
Temp2		Joseph	Brown	6/26/1940 2/28/1961	76.06			
Queries A		Beau						
Find duplicates for tblauthors		Eugene	Palmer	5/7/1963	53 05	207		

It is now taking the date from the birthday field, 4 is the month and 17 is the day.

Let us add "mmm" and "mmmm" instead of "mmdd" in the next fields as in the following screenshot.

8.5		Query Touts Acc	etaDatathase - Database- Chillorrow	uhammad Wagad Documents.	Muhammad Wagas 7	- 4	
File Harns Create Ester	nel Date - D	Artabana Toolo 🛛 Oesiger	Tell one what you want to do				
View Run Results All Access Objects ® #	Chirry fe	tals Delete Costa Definition Ta	die ABuilder 20 Retur Guery Setup	Columns Z 1(2)	Property Street PCTable Nativas		14
		Tb/Aufhors					
torbogents torbogents, Anthine							+
Instructure instructure	Table:	Age: DataDiff('yyyy',(Birthdag),Datats	Espril: Format((bitthday), 'mmdd')	Expi2: Format(Birthdag), 'Himm')	Format(Enthday), nonner §	Gel.	
I tetalori Tempi Quertes II	Sarti Show Ottenia: 90	업	B	2	a		
 Privid dupticalies for tankadrons modulthest as 				101			11
leady					Number	間等	14

Terr Factor	Filter		Refresh All - X Delete	∑ Totals ∵ Spalling + □ More *	Find Select -	Callen B I U 📥 - 🕾	• 0• ⊞ (⊟ • ☆ • = =	(100 m) (40 m) (100 m) (100 m)	
iews Olphonet G	Sort & I	the second second second second second	Reter	and the second se	find		Unit Fermilting		
All Access Objects 🗟 🖷		myProjectTasics 1	and the second se	511 C					
aut	FirstName -		Birthday -		a second a second s	spr2 + Espr3	1		
ables a a	dgar	Ahodes	4/17/1970	46 0417		April			
10440Thoriustation	Michael	Barber	3/11/1943	73 0331		March			
BiAuthorJunction1	Olive	Obrien	6/12/1957	59 0613		June			
CONTRACTOR CONTRACT	Roland	Vamaguchi	11/19/1976	40 1119	Nov	November			
tti-Patteri	Ramiro	Bonham	1222000	and some		0.0000			
th/Author/1	Shawna	Rhoades	8/3/1961	55 0803		August			
theContamers	Joyce	Dyer	2/26/1950	66 0226		February			
TotCopartments	Nydia	Canty	4/20/1957	59:0420		April			
tutispiues	Timothy	Johnson	4/3/1967	49 0401		April			
	Annie	Francis	1/18/1946	70 0311		March			
fillenpinyees	Joseph	Kirk	5/25/1945	71-0525		Mary			
B tio+AData	Grace	Cnua	9/25/1960	56 0925	F	September			
turritipata (Jackeline	Carter	3/22/1975	41 0323		March			
Thinks	Lauren	Williams	7/19/1967	49.0725		July			
BiD-bet	Christopher	Templeton	4/30/1984	32 0430	1	April			
and the second	Matthew	Steele	3/21/1942	34 0321		March.			
BirCritersDetails	Elizabeth	Eliott	5/4/1948	73.0504		May			
tt:Properts	Tyrone	Barney	9/24/1947	69.0954		September	12		
10Frojectz, Acchieve	Jessica	Griego	8/10/1945	71 0810		August			
a terrepettet	Homer	Bullerd	4/19/1940	75 0415		April			
- tertaika :	Cherl	Moyer	4/17/1966	50 0417		April			
A CONTRACTOR OF A CONT	eonnie	Degler	22/15/3947	69 1215		December			
titaikut.	Anthony	Lopez	8/1/1968	48 0901		August			
Temp2	Joseph	Jenkin	6/26/1940	76 0629		June			
lueries 2	Beau	Brown	2/28/1961	55 0225		February			
Prind disployates for taskutmary	Eugene	Palmer	3/7/1963	53.0507	May.	May			

Run your query and you will see the results as in the following screenshot.

In the next field, it is returning the first 3 character from the name of the month for that birthday and in the last field you will get the full month name.

To see the month followed by year from birthday, let us add the "yyyy" as well as shown in the following screenshot.

B 22-0-1		AccenDatabase, Database, Chiloent	Autommed Water Documents	temmed Wates († 🚽 🔍 🗙
File Home Create Esterna	Data Database Tools	Derign Q Tell me what you want to do		
Veer Run fejutto	pdate Crossials Deleter	a-Through Share Sec Debrie Rose & Debriefen a Definition Table Share Berlin Berlin Berlin Second Sec	te Columna Z (7)	
All Access Objects 💷 🖷	📓 Reports 🚍 androjection	an (III millions) (IP disease)		
Serrot. 0 Tables 8 4 1 Mathematication 1 Mathema	Bull-uther	*		
The frequency of the fr	n Field, Table:	deg[_mmdd] Espei: Farmel([Bethiday]_mann)	Expril Facest(Sichday), research)	Tapol: Format/Sirthday, server, "yyyy)
Definiture Temp2 Queries x	Sott Show: E Offenia ar	a ia	2	Ø
🗇 Find duplicates för Bolkutmary				
	a second s			

Let us run your query again.

Vera Parter Parter	Arr 11 Accending 11 Descending 12 Percent for	Advanced *	Refresh All- X Delete	∑ Tomin ⊋ Spelling • ⊡ More *	P Select -			
deser Optioant 5	Sattle	Filtar	Ento	nth	Filed	16	st Formatting	14
All Access Objects 🐵 *	📴 Report i 🗇	upprojectiaiks	tuffanks 🔂 Que	192				
ent. Ø	FirstName	LastName -	fiirthday +	Age -	Espri - Ex	pr2 Expr3	+ Expet +	
lables # 🗄	Ed (12)	Rhodes	4/17/1970	46 04	17 Apr	April	April, 1970	
B this attention then	Michael	Barber	3/11/1943	73 03	11 Mar	March	March, 1943	
	Olive	Obrien	6/12/1957	39.06		June	June, 1957	
164ufhoriunflion1	Roland	Vamaguchi	11/19/1976	40.33	19 Nov	November	November, 197	
1856 altars	Famiro	Bonham						
thi4utturt	Shawna	Rhoades	8/3/1961	55.08	State	August	August, 1961	
III RACLeitumen	Joyce	Dyer	2/26/1950	66 02		February	February, 1950	
InDepartments	Nydia	Canty	4/20/1957	39-04	00 C	April	April, 1957	
	Timuthy	Johnson	4/1/1967	49 04		April	April, 1967	
	Annie	Franzis	3/18/1946	70.63		March	March, 1948	
This mali year	/fqeat	RHR	5/25/1945	71.05		May	May, 1945	
TLINIData	Grabe	Cruz	9/25/1900	56.09	27. C.	Septenvber	September, 19	
tunifiData1	Jackeline	Carter	3/22/1975	41.03		March	March, 1975	
III turnes	Lauren	Williams	7/19/1907	49 97		July	July, 1967	
10Crawi	Christopher	Templeton	4/30/1984	32 04		April	April, 1984	
C.N.C.M. Compared as	Matthew	Steele	3/21/1942	74 03		March	March, 1943	
11: Untersilietaks	Elizabeth	Elliott	5/4/1943	73 65		May	May, 1943	
TE TEFT WARTS	Tyrone	Barney	9/24/1947	69.09		September	September, 19	
11:Ptojects_Archive	Jessica	Griego	8/10/1945	71.08	201 - C.	August	August, 1945	
toiPrecenti i	Homer	Bullard	4/19/1940	76.04	ten and a second	April	April, 1940	
instailes	Cheri	Moyer	4/17/1966	30.04	1-0.00	April	April, 1966	
	Sonnie	Ziegler	12/15/1947	69-12		December	December, 194	
D tofferst.	Anthony	10pei	8/1/1968	48.00		August	August, 1968	
Timp?	deseph	Jenkin	6/26/1940	76.06		June	June, 1940	
Dueries 8	Beau	Brown	2/28/1961	55 92		February	February, 1961	
Public displayers for IDAN/Horn	Eugene	Palmer	5/7/1961	53 05	27 May	May	May, 1963	

You will now see the month followed by a comma and then the year.

Ilf() Function

The IIf() Function is an abbreviation for "Immediate If" and this function evaluates an expression as either true or false and returns a value for each. It has up to three function arguments, all of which are required.

- The first argument is any expression that you want to evaluate.
- The next argument stands for the true part, which can be a value or an expression returned if your first expression is true.
- The last argument is what you want returned if your expression is false.

Example

Let us take a simple example. We will create a new query using query design and add tblAuthors table and then add the following fields.

He Home Cleate	1204	el Data (Database Tooh	seem on the process	Database Database me what you want b		mmad Waqas 7 — 🖸	×
View Rum Results	pend	Update Cross	asb Oelete M Da		For Insert Rows	¹⁰ ¹⁰ Insett Columns X Delete Columns Σ∰ Return: ΔII → Setup	Totals Parameters	
All Access Objects		and support	Jim. Internations	and them received to	The second is the	A REAL PROPERTY AND A REAL		ĵ.
Search_	9		thiAut	thors				
in meyagents)	1.							
10/Tasks		1	AuthoriD					
thefases)			FirstName Middlemitial					
Temp?			LastName					
Queries a			StreetAddress					
Find duplicates for thilluther			City					
🗊 gryduthoriùge			State JpCode					
gryAuthortiDays	11		TelephoneNumbe	E				
gryAuthorContantinfo			Email					
🗊 gryäutherDupikater.		.e.				001151		- 1 P.
🗊 an/Completedhujetts	1.11	field	FirstName	Middleinitial	LastName	Furtame: (FirstName) &	· · · & (Middleinitial) & · · · & (Lasthame)	æ
gryCurrentProjects		Table: Sort:	thiAuthors	tbuluthors	thiAuthors	7.5 77310 *** 702018770	E MARCHINEDRA COMMUNE	
antrasiajeeldamies		Show:	Ø	2	2		. E	
gryfmpioyee:Data		Criteria	1 / 1 mm / 1					
grutingingeeititended		10000						
graffuttilanies								-
gryinPrograss								
P unstateCount								
🗗 anyListeProjects								
			D. denda					
gryt.vokupHeld								
grytvakæfteld								

You can now see we have three fields — FirstName, MiddleInitial, LastName, and then this concatenated field, which is pulling all three fields together. Let us run your query to see the result of this query.

The state				partoocumentiva I me what you wa	cresaDatabase.accdb () nt 15 de	Access 20	Muharema	e waqaa 🛛 🔿		! ×
M	A Cut	Ascending	Yr Selection *	Da in N	rw Z Totals	〇型	Calibo	- 1	1 -	
	Bh Copy	1 Descending	Advanced -	B HS	ve 💆 Spelling	P +	B / U	1921 82 14	- 100 ·	
View	Pasta S' Surrent Familier	Filter Da Rammur La	n Triggin Filter	Alt + X De	dete - More-	Fied D	A . 4	A	- 11	
viewa	Cipbuard G	Sort &	or and the second second	1 New Yorks	tecoruta	Find	-	Text Formatting		1 1
	the man	the state of the s		the second s	and the second s			and identifiant		
All /	Access Objects 🐵 «	FirstName	and the second se	Property and the state of the local division	and the second sec					
inarch.	م.	Edga	8	Rhodes .	Edgar B. Rhodes					
-		Michael	t t	Barber	Michael T. Barber					
	Thirry age 153.5	Olive	0	Obrien	Olive D. Obrien					
_	10Packs	Roland	P	Yamaguchi	Roland P. Yamaguo	ini i				
	ttellauks1	Ramiro	A	Bonham	Ramiro A. Bonham					
	Temp2	Shawna	3	Rhoades	Shawna J. Rhoader					
Quer	nes a	Joyce	A.	Dyer	Joyce . Dyer	2.				
-	Find duplicates for tolkathers	Nydia	1:	Canty	Nydia J. Centy					
-	anAuthorAge	Timothy	Å	Johnson	Timothy A. Johnso	10				
1	anAuthorSDays	Annie	ĩ	Francis	Annie L. Francis	W				
-		Joseph		Kirk	Joseph , Kirk					
1	gryAuthorContantinfs:	Grace	1	Cruz	Grace J. Cruz					
3	any#uthorDupicates	Jackeline	Ϊ.	Carter	Jackeline J. Carter					
1	gryCompletedProjects	Lauren	R	Williams	Lauren R. Williams					
P	anyCumentProjects	Christopher	8	Templeton	Christopher 8. Ten	noteton				
-	onEmployeeAddresses	Matthew	D	Steele	Matthew D. Steele					
-	aryEmployeesData	Elizabeth	8	Bliett	Elizabeth B. Elliott					
-	A DAME CONTRACTOR	Tyrone	н	Barney	Tyrone H. Barney					
-	anEmployeeiExtended	Jessica	L.	Griego	Jessica L. Griego					
3	gryFs/INames	Homer		Bullard	Homer . Bullard					
1	aninPrograss	Cheri	D	Moyer	Cheri D. Moyer					
-11	gyLateCount	Bonnie	M	Ziegier	Bonnie M. Ziegler					
	unitzteProjects	Anthony	P	Loper	Anthony P. Lopez					
문	gryLookup/ieid	Joseph	G	Jenkin	Joseph G. Jenkin					
-		Вели	A	Brown	Beau A. Brown					
-	anfilenegingEditors	Eugene	L	Palmer	Eugene L. Palmer					
1	gryNotStarted: +	Record H = 1 of	9996 + H + 3000	Aus Filter Seal	uby .					

Now, you can see the result of the query, but you will also notice that some records do not have a middle initial. For example, the Joyce Dyer record does not have a middle initial, but in the FullName field you will see the period that really doesn't need to be there. So, go back to the Design View. Here, we will concatenate the name in a different way using the IIf Function.

B 9		Gara Inc.	Accessibilitatione: Dentitione: Critismi Weintermed Regari Documents/Accessibilitations activity. Mathematel Weiges 🕴 🗕 👘	= ×
File Hone Cleater Edge	Hal Deta	Detabata Total		
Very Ran Nearly Name I	Design 1	EC Dela Definition	Brown Brown Tolsawron Thread Columnon Thread Columnon Thread Columnon Brown Thread Columnon Thread Columnon Thread Columnon Thread Columnon Brown Thread Columnon Thread Columnon Thread Columnon Thread Columnon Grand Stread Thread Columnon Thread Columnon Stread Columnon Stread Columnon	
All Access Objects 🛎 🕷	III Report	1 1 1 1 10 Projections 1 1 1 1	Carro Carros Freedom	-
1005. P		thilliothery		1
Schlagerter Montanie Montanie Montanie Montanie Montanie Montanie Montanie Montanie in Montanie in Montanie in Montanie Montanie in Mo		 Avtrart0 Farthase Matematus Lartiase Matematus City Social Social Risphonethaster Email 		
P aysuttorDuatorter P aycompileationants	1000	(Summannenser		
aufurenthoieth	Flate: Table:	Future (Fittime) & & M	idden fultimet) itShubental i Nul Di Shubentals-",Frittunel & '' & Lattune, Frittunel & '' & Mudental & '' & Sattune)	1
P unbartanetation P anteranetation P anteranetation P anteranetational	Set Thew Cotena at	8	ø	
P anfallana				
\$ synthesis				
🗇 estimicaut				
S aguningan		â.		i.
D stalovenusters		19911		
3 aylanagingtitter				
🕈 anjiketitanad 🔶 +	1			-
Fore Wee			Marcinet III	14 142

Let us write the name in another field and call it FullName1 and then type the IIf function.

- The first function argument for the Immediate If function is going to be your expression. In the expression, we will see if the middle initial field is blank or is null.
- The next argument is the true part. So, if the middle initial is null then we would want to display the FirstName and the LastName.
- Now, for our false part if the MiddleInitial is not null, then we would want to display the FirstName, MiddleInitial, and LastName.

Let us now run your query and you will see the results as in the following screenshot.

X m X CA	1	2 21 Aniandrig	T Selection+	Ten in the		L Replace Calibo	· · · · · · · · · · · · · · · · · · ·	
Inter Fatte	1.16			Ration 2 in	Find	torior a r u A	19 D	
4 . Planta Paint		La Sarrison Las		A2- X04		(Select *		
met Chatheral	5. 	Carl A.F			And in case of the second seco	1.0	Set functions 5	
II Access Objects	5 4 2		estimation 1					
and a second	P		Multileputia +		Fulliane -	FullMarnel -		
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	141	100	# 1	Ahodes .	Edgar B. Shodes	Eligar B. Rhodes		
D Ibmaniti		Michael	14.1	Barber	Michael f. Barber	Michael Y. Barber		
🔟 - Hoffwile		Dive	B	Cibroen	Olive D. Obrieh	Olive D. Obmen.		
milwish		Relate	(P)	Varnaguetri	Ratand P. Yamaguchi	Roland P. Yamagachi		
i tent		Ramiro	A	Bornam	Randro A. Sonham	Ramito A. Bonham		
latrice A		Shawna		Rhindet	Shaoma /. Rhittades	Shawne I. Rhoides		
Prod manual as the Workstown		Toke		Dyer	Joyce . Dyer	Joyce Dyer		
		Nydia	(A)	Canty	Nytlis I. Canty	Nydia L Canty		
an-diseipe		Timothy	A	Johnson	Timothy A. Johnson	Timothy A. Johnson		
1 (setterffDay)			h	Francis	Annie L. Francis	Annie L. Francia		
usAuthor/contaction		Noselių		THE	loseph Kirk	Joseph Eink		
T annumerbasenter		State	(4)	Cour	Grade J. Crud	Grace J. Chuz		
appropriate at the second		Jackeline	2	Carler	Jacketine J. Carter	Jackeline J. Carter		
Contraction of the second s		Läufen	00.0	Williamd	Lauren R. Williams	Lauten P. Williams		
P wyCurrentHispett		Ovistopher	8	Fempletin	Christopher B. Templeton	Ovistopher B. Templeton		
antranopretektestes		Matthew	0	Storie	Matthew D. Steele	Matthew D. Steele		
At Cheverage a		thateth	8	ESott	Elizabeth B. Elilett	Shoubeth B. Elliott		
and rest and the second second		Tyrons	(H)	Samey .	Tyrone H. Barney	Tyrona H. Barney		
P anhaliana		Jennia	6 -	Griego	Desire L. Griege	Henning 1, Gelego		
Contraction of the second		Homer		Butlett	Humer . Bullerd	Homer Bullard		
S ayofogetti		Cheri	D	Moyer	Cherl D. Moyer	Cheri D. Moyer		
P approximate		Bonnie	M	Diegber	Bonnie M. Ziegler	Bonnie M. Ziegler		
antideProjetti		Anthony	p	Lopec	Anthony P. Loper	Anthony P. Lopes		
T apparent field		Sowph.	6	Jerskin .	Joseph G. Jenkin	Joseph G. Jenkin		
		Beau	A	Retwn	Beik/A. Brown	Geau A. Broom		
any support of the second second		Espine	(h -	Fabraer	Eugene L. Palmer	Espene L. Palmer		

37. MS Access — Macros

In this chapter, we will cover the basics of Macros in Access. A Macro is a tool that allows you to automate tasks and add functionality to your forms, reports, and controls.

- Macros in Access work a bit different from Macros in Word or Excel, where you essentially record a series of keystrokes and play them back later.
- Access Macros are built from a set of predefined actions, allowing you to automate common tasks, and add functionality to controls or objects.
- Macros can be standalone objects viewable from the Navigation pane, or embedded directly into a Form or Report. Once you have created database objects like tables, forms and reports, Macros can provide a quick and easy way to tie all those objects together to create a simple database application that anyone can use or even modify, with relatively little training.
- Macros provide a way to run commands without the need to write or even know VBA code, and there is a lot that you could achieve just with Macros.

Creating a Macro

Let us start be creating a very simple Macro that opens a form when a command button is clicked. For this, we need to open your database and frmEmployeeData form in which we have created two tabs.

	AccessEndedeare: Endedeare: Crither/Mindowered Waget/Document/AccessEndedeare: Bill (Access 2017-2018 for format) - Access Mindowered Waget		= ×
He Home Cirele	Educated Dates - Database Taple - Q: Set Investment on the Control of Control		
and the second se	a tart & the Based Find Text had femality is		
All Access Objects			*
Bents.	Employee Information		
19 Carryl 19 Thington Witcal Habiyes 19 Thington Witcal Habiyes			
Form 9 Industry 9 Indu	Address Jural FireCome Jural LardNove Prash JordEo Account Manager Address1 Optimal Address2 Optimal Cim Scheenschang None IL Zip attifty Parline 32:40:325:6631 Parline Scheenschang Email Intelliguenemperingen		
The State of State	* Showed R = 1 of 1 = 4, in A = Ton Prov. Secon		
Fore View	Net Contract of Co	INT. IT.	1 K.

B 5	tump	reign Term.	AccessOptabase - Datato	mi Chibert Mata.	Muhammad Wag	a. 7 -	- 12	*
File Horse Create Enternal Data Database	Tools Oeilign Ar	moge Format	Q Telling what you set	en terste				
Une Theres	Cimei	KYZ - Inaet		Add Easting Property Fields Sheet	Tat I'l View Co	de Form's Massos S		
Secon.	1	nation						
taikuthun Without Mulchin forcurtureurs Without Mutchi								
Forme = Page2 Page Transuttant Transuttant Transuttant Transuttant	řį –							
Timteslependata	colorest EmployeeID	thEmploren Erop	Intra ITI		_			
Trinting layer information	Neme	FuntName	WINNER:					
TrovEngillynes	Sim	LanNams						
Treating		lobTitle		103				
- THE CONTRACTOR OF THE PARTY O		Addaese1		101				
The second secon		Address2						
Tenfrejerte		Car						
Tentustasa - Star		State						
ThutCurrentPoints		Zıp						
	medfhour	PreferredPhone						
	medPhoneType	PreferredPhoneTyp		100				
TuttPrentsOntrant Error	Contraction and the second	in the second se		193				
To fusitate								
Invigation Form					1.00	1		
Osulgo: View						Asim LOOK	17 H	10

In this form, we can add a button allowing users to open up all of the job information.

Let us now go to the Design View of this form and add button form the Controls menu. When you release your mouse, you will see the Command Button Wizard dialog box.

Sample:	What action do you want to pressed? Different actions are availab			
	<u>Categories:</u> <u>Record Navigation</u> Record Operations Form Operations Report Operations	Actions: Find Next Find Record Go To First Record Go To Last Record		
	Application Miscellaneous Cancel < Back	Go To Next Record Go To Previous Record		

There is a couple of ways to build that Macro action, but the simplest way is to simply use the Command Button Wizard.

Sample:	What action do you want to pressed? Different actions are availa	o happen when the button is ble for each category.
	Categories:	Actions:
	Record Navigation Record Operations	Apply Form Filter Close Form
	Form Operations	Open Form
	Report Operations Application Miscellaneous	Print a Form Print Current Form Refresh Form Data
	Cancel < Back	Next > Enish

For common actions like opening a form, select Form Operations from the Categories list and then select Open Form from the Actions list and click Next as in the above screenshot.

frm	Authors Employee	^
	EmployeeData EmployeeInformation	
fim	Employees Jobs MulipleItemlEmployee ProjectDashboard	~

You need to specify which form you would like to open with the command button. For now, let us select **frmJobs** and click **Next**.

Command Button Wi	tard			
Sample:	Do you want the form?	he button to fin	d specific informati	ion to display in
	for a specific e	employee or cus	open a form and di tomer. Decific <u>d</u> ata to displ	
		form and show a	all the records.	
	Cancel	< <u>B</u> ack	<u>N</u> ext >	Einish

In this screen we have two options, we can **open the form and display a very specific record**, or we can **open the form and show all the records**. Let us select the second option and click Next as in the above screenshot.

Sample: View Jobs	If you choose Text, you can type choose Picture, you can dick Brow	
	Iext: View Jobs Picture: MS Access Form	Biowse
	Show All Picture	es

We could have the command button itself display a picture or you can select the Display Text. Here, we want the text View Jobs to display and now click Next.

Command Button Wizard	Mat do you want to name the button? A meaningful name will help you to refer to the button later. CmdViewJobs That's all the information the wizard needs to create your command button. Note: This wizard creates embedded macros that cannot run or be edited in Access 2003 and earlier versions.				
	Cancel	< <u>B</u> ack	Next >	Einish	

You can now provide a meaningful name to your command button as in the above screenshot. This can be used in other codes or other Macros. Let us call this **cmdViewJobs** and click **Finish**.

Now go to the Form View.

Accembinations 1	Database- C-Warn/Muhammad/Wagas/Do	cumintri Access Databane accetts (Access 2007 - 2016 His h	ormati - Ac. Muhammad Wegas 7 -	a ×
Elle Home Create External	Deta Detabase Tools 🔍 Telline ad	ter proceeding to the		
Very Carponer School Factor	La Dessending Ladiancest -	$\begin{array}{c c} & \text{int New} & \sum t_{\text{train}} \\ & \text{int New} & \overline{>} \ \text{Spring} \\ & \text{int Save} & \text{int Save} \\ & Save int Save $	$\label{eq:states} \begin{split} & \cdot \left[\begin{array}{c} \cdot \\ \cdot $	
Search. D	Employee Infor	mation		
🗿 qylanlangthilddamau 🤅				
Duept .	Page2 Page3			
🖈 taikathan Without Matchin	and the second s			
Difference without Materia				
Farms 8	Giffingdorwer, Einsplerweith	1		
This Authors	PieteNature	Japal		
I Instantion	LartName	Freek		
indegringesfleta	EmbyTrille	Accounting Manager		
tretegisperiolaneukan	Addrews	6433 Morgan Le		
Tenting Content	Addition of T	Opponal		
Trents depictment appleade	Circ	Schranhaeg	View John	
metagetDentraut	Track.	IL.		
interpretenter	Zep	60193		
The Free Free Free Free Free Free Free Fr	Partness(Phines)	(204) 555-6631		
Trentantasa	ForferindDhineType	Hame		
TubCorrettPresste	Entral	the figure may de com		
1 IndiataProjecta				
Tabhoodnhogess				
TubPrgett/Oritute				
Trub/Jacks	0.		304	
I Hangeton Parts	and A. Lingto C. R. P. M. Station	Search		
Farm View			Num Loca	田民

You will now see a View Jobs button on your form. Let us click on it.

H Accounter	Datahaan Chilomi Muham	mad Weger/Documents/AccessD	latabase accilli (Accesi 2007	- 2016 The formall - Ac.	Mutammed Waters 7	- ¤ ×
File Home Create External	Data Database Tools	Tal me aftet yns want te d				
Very Catalogy France Party	H	den - anced - ge Tither All - X Under - Decom	Spelling Find &	Ge To - Select + 0 J. U	 ・ 日日日田 ・ グ・ク・コゴモモロ Bet Formating 	
	fretmoreperbata 1	toutute				×
sent p	tbl]obs					
171 T						
adcardraidanniggionera	1	(a) (a)				
Deerg1	logille	(Naw)				
The Contenent Without Match.	Department	1	101			
Forms E	Tels/Tele		12			
trestation;	160.1776		-			
International In	Manninen Salary	30.00				
TreifinginyeeDate	Salato Caso	30.00				
Tradingtoyeeinformation	JubDeimgtion					
in freiEmployees	The Period William					
Trestates						
trebbsbylettentEngtioner						
TechnijedDastonarik						
tronProgentDetatto						
Trail/queta						
TrefsbTarits						
TsubCurrentProperts						
fututeProjects						
TubPajedtr@rogress						
INDPROPOSITE ON PROVIDE						
Tubfaus						
	accede 14 1 - 5 of T	1. Tolia Polar Search				
Parrs View					Num Look	間目に

Now you have a form open, but you will not be viewing any information. Let us go back to the frmEmployeeData form Design view. Make sure that the command button is selected and click on the Event tab on the Property Sheet.

8.6.4	Form Oncogn South	AccesiDatabase Database Chilsens	Midua. Midnenmad Wagas 7	- a ×
File Hume Croate External Data Database Tools	Design Arrange Format	Q Tell mer arbeit yne went he du		
Verse Therees Chineses Chinese			Sheet Order +C Convert Form's Maca Notice	en to Visual Basis
All Access Objects and All Access Objects and All Access Objects and All Access of the All Access of t	Information		Property Sheet Selection type: Consort Button ordView/step Format Data Invent Other	All Decided Marrol
Instructurent instruction Instructurent instruction Instructurent instructurent			On Mause Op Dri Mause Move On Sig Down On Sig Down On Sig Up On Sig Up On Sig Up On Sig Up	
Tabitats Tab			+	5 H 14

Upon clicking, you will see an embedded Macro created by the Wizard. If you now want to modify this Macro, click on the ... button to open up the Macro generated by the Wizard.

B	Aire Many front Aire	en Outubare : Databare - 12: Uvert Michanniad Waqar, Documenti Access Outubare accele (Access 2007 - 2016 He t.	Muthi	mmad Wagas 7 — 13	
10	Home Design 🖓	Tell you while you went to do.			
1 fun	*3 Group Step +3 Convert Horne to Wood Base Book The Mark Step Step Step Step Step Step Step Step	Image: Second Callapse Equand Callapse Equand Callapse Equand Callapse Action Shope All Image: Second Callapse Equand Callapse Equand Callapse Equand Callapse Equand Show The Callapse Equand Show The Callapse Equand Show The Callapse Equand Show The Callapse Equation (Show The Ca	×		
Rankystitere Planes	Openform Farm Name Insoluts View Farm Vitter Name Writes Condition Data Mode Window Mode Itionnal Add New Action			Action Catalog Servit. Program Fine Connect C	* P
Ready	k			10000 La	rck.

This is the Macro Designer and on the right you will see the Action Catalog. This is where all of your actions will live in folders. You have the Data Entry options, Data Import/Export and so on, and on the left in the main area you have another Macro. It only contains one action, and clicking on that one action you can view other properties for that specific action.

File Horee File Horee I Signa Step File Horee File	Dears	- Q1	uBatalase : Debatase : Cilleen/Multermeid Wage/Document/LAccell/Debates accub (Accell 2007 - 2016 file 1. Multe d're what and we what to the Expand Collapse Equand Collapse Actions : Actions : All : All : Cilleon : Since : Dank All : Sinc	ennedWege ? - C ×
E Openform	llew Inne Iton Iode Iode	Trontolas Torritolas Torritolas I Nermal	Instruction Instruction	
Ready				Num Lock

You will see the form name and you can hit that drop-down arrow to view the forms available in your database. You can change how that form is viewed, you can have it open to Form view, Design view, Print Preview at your choice. You can apply a filter name or a Where condition. Here we want to change the Data Mode because frmJobs is set to the Add Mode which only allows the addition of new records. We can override this here in this Macro by changing it to the Edit Mode.

Secondaria 1000	and the second	enOutainene : Danatonner: Ch.WoentyMach Tell mer entaat your weest to die	ermat Wagat Datu	mintr/Accine0	rtahaan accidb (Ac	cesa 2007 - 2018 file f., MA	uhannnad Wagas 🦩 — 🗆 🗙
1 73 Single Step Fain F3 Convent Macros to Rom		Figure 1 Collapse Expand Collapse Actions Actions All Collapse/Expand	Catalog Actions Show/hide	See A	Close		* Action Catalon
Operations From Name View Form Name View Filter Name Where Condition Data Mode Window Mode * [Addit Nees Action	Farm a Este Normal					Vaulate Parameters	Servite
Teacy							Num Lock

Now save your Macro, and then close the Macro Designer and go back to the Form View.

Accessibilitations		cuments/AccessDatabase.accids (Access 2007 - 2010 File) Not your word to do	humat) - Ac., 🛛 Muthermad Waters 📑 👘 🗖	×
Vera Vera Vera Vera Vera Vera Vera Vera	IT	in New ∑licits in Blave ⊃lipeling in X Dates = ⊡lines factors for all for the first lines for all	$\begin{array}{c} (1-1) = \left(1 + 1 + 1 \right) + \left(1 + 1 + 1 + 1 \right) + \left(1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 $	
Smith. P	Employee Infor	mation		
andernangPAbdoctrinat	Contract of the contract of the			
P Guergt	Page2 Page3			
Diskathers Willread Maldren	222240504			
Distantioners Without Materia				
Fairing E	millionderset finglerealD			
Tentadore	FieldName	(and		
intrativeData	S.ast/Name	Frank		
Timtaalayelnfamanan	3+shThile	Accounting Manager		
10 fortestores	Address 1	2433 Margan La		
78 traines	Addem2	Optimul	and the second se	
Territaligistamitromer	City	Schaundnarg	View John	
The free figer the shine and	State	IL.		
induperDelate	Zip	60193		
Treefregants	TechnordTimer	(224) 525-66H		
The feetune lacas	Performant Photos Tryon	Home		
TauleConventProjects	Harvait	dan bergen ander		
TouttureProjects	FF & DESIGNATION			
TakthermentsHoppens				
TrubPriped Control #				
Tout Tarts			2	+
the second s	Received int - Forth - A at A - To bin for	her Search		
Farm View			Num LOOK III	12

Let us click on View Jobs again.

and the second second	faternal Date	Database Tools	nad Waqad Documents Acces		Certan and a state line	1911	Muhammad Wagan 7 -		
Very Captorni S	Filter	Accending Tr Selec Descending Tr Adva Remark Set Tr Togs Set & Offer	eiceif- Betreth Bave		Find Select -	#13 #	+		
All Access Objects) + 🛄 th	linto 🗐 Antimproph	itata 🔄 Imdubs						2
Search_	10	tbllobs							
Sk. dila districtionen	- 1								
asPojeff/Drimdel		1ab2D							
P anteristication		Jeptin							
Taika and Alighted Works		Department	Production	121					
anfrajettiviki		JoisTate	Manuping Edmr						
gylleislengthitiddieleitui		logram	venueling report						
D Curry1		Misiamuri Salaire	\$40,000.00	-					
Billiokhuri Wahauf Matches		Salart Cap	\$\$5,000.00	_					
ThiContoners Without Match.									
Timiadhpai		JohDenngrinn	The managing editor is impossible for the overall						
1 fordeginger			quality, time, and bridget						
TimEngligerData									
I feed material and and and									
T fmlautoer									
Trestation									
meklulpiellentbagipper									
The Report Dathloant									
imfrajactietain									
The free fragents									
Timiniana	1								
TubCarrentProjects									
TublatePropets	+ Bacorte	(* 1.0f.20 * .*)	. Tolin fine Seath						
arm. View							the took	E	14

You can now see that it opens your frmJobs form and allows you to scroll through all of the available jobs in our database.

38. MS Access— Data Import

In this chapter, we will be talking about importing data in Access and what kinds of data you can import using Access. Normally data is stored in various formats, files, and locations, which makes it hard to get and use it. If you have data in a spreadsheet, a SharePoint list, or some other format, you can import it into an Access database with just a few steps, making it much more, easily available in Access.

- The Save As command is generally used to save a document in another format, so that you can open it in another program.
- In Access you can't use the Save As command in the same way, you can save Access objects as other Access objects, but you cannot save an Access database as a spreadsheet file.
- To save Access as a spreadsheet file, you will need to use the import feature on the External Data tab.

Different Types of Data Access Can Import

To understand what kind of data you can import in the Access data, let us open your database and go to the External Data tab.

		= Acces	sDatabase : Databa	ise- C:\Users\Muha	mmad.W	Muhammad	Waqas	2			×
File	Home	Create	External Data	Database Tools	Q Teli n	se what you war	it to do				
Saved Imports	Linked Table Manager	Excel Acc	ess ODBC Database	Text File XML File More * Saved Exports		t XML PD	F Email	TTW N	ord Mer	ge	~
Navigation Pane *											
Ready										Num Lo	ock

In the import & Link group, you can see the different kind of options available for data import in Access. Following are the most commonly used data import formats.

- Microsoft Office Excel
- Microsoft Office Access

- ODBC Databases (For example, SQL Server)
- Text files (delimited or fixed-width)
- XML Files

Example

Let us look at a simple example of data importing from an Excel file. Here is the data in Access file.

B 7.0				miAutheroduc	- हिल्ला			Muhammad Wages DD	- 0	
File Tions	inert -	Page Leyout	Formulas Data Ances	Yew Addres Tea	- 01	all me what	your search for all		A >=	
ante a		· 6· 4	$A' = = \bigoplus_{i=1}^{n} \otimes_{i} \cdot \bigoplus_{i \neq j} \operatorname{Weg}_{A}$ $\bullet \equiv = = \bigoplus_{i \neq j} \boxtimes_{i} \boxtimes_{i} \bigoplus_{i \neq j} \operatorname{Heg}_{A}$	Text General et & Center + \$ + % + % North	- 19.8 - 3	Condition Formattion			k Find & Select •	
42	11 28 2	< Ji Br	madette							
4 N.		0	0	E.	1.5	G :	1	10 10	1.11	
FirstName	Middletnitial	LastName	StreetAddress	City	State	ZipCode	TelephoneNumber	Email	Birthday	Г
Bernadette		Weissman	4767 Clair Street	Waco	TX	76710	254-730-9090	8.Weissman@fakemail.com	9/18/1955	
Edgar	8	Rhodes	3633 Hill Croft Farm Road	Childe	CA	95926	530-540-6619	E.Rhodes@fakemail.com	4/17/1970	
Michael.	T	Barber	65 Hickory Heights Drive	Havre De Grace	MD	21078	443-843-1464	M.Barber@fakemail.com	3/11/1943	
Olive	D	Obrien	43 Lourel Lane	Odessa	TX	79762	432-363-8039	O.Obrien@fakemail.com	6/12/1957	
Roland	P	Yamaguchi	2091 Wakefield Street	Philadelphia	PA.	19103	213-405-7061	R.Yamaguchi@fakemail.com	11/19/1976	
Ramiro	A	Bonham	3807 Kooter Lane	Charlotte	NC	28210	704-424-9614	R.Sonham@fakemail.com		
Jose	1	Caine	998 Tuna Street	Southfield	MI	48075	810-963-5604	J.Caine@fakemail.com	6/23/1965	
Shawna	1	Rhoades	1337 Tyler Avenue	Fort Lauderdale	FL	13309	305-317-6087	S.Rhoades@fakemail.com	1/3/1961	
Joyce		Over	2930 Oakwood Avenue	New York	NV	10014	212-659-5910	1.Dyer@fakemail.com	2/26/1990	
Nydia	4	Canty	2933 Wright Court	Seattle	W6	90101	206-228-1891	N.Canty@fakemail.com	4/20/1957	
Timothy	4	Juhnson	41 Froe Street	Hagerstown.	WV	21742	304-378-2594	T.Johnson@fakemail.com	4/3/1967	
Annie	L	Francis	1210 Victoria Court	Milton Mills	ME	03852	207-477-6521	A.Francis@fakemail.com	3/18/1946	
Joseph		Kirk	2031 Harron Drive	Hamover	MD	21076	443-532-0685	J.Kirk@fakemail.com	5/25/1945	
Grace	4	Oruz	29 Willioon Street	Minneapolis	MN	55401	763-277-7648	G.Cruz@fakemail.com	5/25/1960	
Jackeline	3	Carter	2014 Simpson Avenue	Harrisburg	PA	17109	717-974-2901	J.Carter@fakemail.com	3/22/1975	
Lauren	8	Williams	751 School House Road	Jackson	MS	39213	601-669-7119	L.Williams@fakemail.com	7/19/1967	
Christopher		Templeton	1968 Echo Lane	Kalamazoo	MI	49007	269-870-3270	C.Templeton@fakemail.com	4/36/1984	
1 Barrethreisi	-	service.	1984 Millionit Parken.	East	vin.	Senos	762 271 2714	M Charle Shinemail com	afra frant.	
	tts/Currtacts	(A)					el .			5

To import the data in Access, we first need to open the Access database and then go to the External Data tab as in the following screenshot.

8	5 • ∉-	= Accessi	Database : Databas	e- C:\Users\Muha	mmad.W	Muhammad W	aqas	1 -		×
File	Home	Create	External Data	Database Tools	🖓 Tell m	e what you want	to do			
Saved Imports	TC: Linked Table Manager	Excel Acce	SS ODBC TATABASE	ext File (ML File Nore * Exports	Excel Test	XML PDF File or XPS Export	Email	Word Merge	e l	~
**										
Navigation Pane										
Navig										
Ready									Num Loc	k

In Import & Link group, you will see an option Excel. Let us click on that option.

t External Data -	Excel Spreadsheet		?	>
Select the so	ource and destination of the c	lata		
Specify the sour	ce of the definition of the objects.			
<u>File name:</u>	s-pt1\materials\&-access-2013-essen	tials-pt1-m06-exercise-files\Exercise Files\AuthorsList.xisx	Browse	
Specify how an	d where you want to store the data in	the current database.		
() Import	the source data into a new table in th	he current database.		
		vill create it. If the specified table already exists, Access m nade to the source data will not be reflected in the datat		
O Appen	d a copy of the records to the table:	tblAuthorJunction		
	pecified table exists, Access will add t es made to the source data will not b	he records to the table. If the table does not exist, Acces e reflected in the database.	s will create it.	
🔿 Link to	the data source by creating a linked	table.		
		link to the source data in Excel. Changes made to the so e source data cannot be changed from within Access.	ource data in Excel v	tiit
			182	

Browse the Excel file from which you want to import data and the then we have different options to store data. Let us select the first option and click Ok.

		ie worksneet or r	ange. Which worksheet or range would you	uner		
Show Workshe	ets tblContact	s				
Show Named B	anges					
nple data for works FirstName	heet'tbContacts'. MiddleInitial	LastName	StreetAddress	City	State	E
Bernadette		Weissman	4767 Clair Street	Waco	TX	7
Edgar	B	Rhodes	3633 Hill Croft Farm Road	Chico	CA	þ
Michael	т	Barber	65 Hickory Heights Drive	Havre De Grace	MD	k۱
Olive	p	Obrien	43 Laurel Lane	Odessa	TX	71
Roland	P	Yamaguchi	2091 Wakefield Street	Philadelphia	PA	1
Ramiro	A	Bonham	3807 Kooter Lane	Charlotte	NC	Þ.
Jose	J	Caine	998 Tuna Street	Southfield	MI	4
Shawna	2	Rhoades	1337 Tyler Avenue	Fort Lauderdale		Þ
Joyce	E	Dyer	2910 Oakwood Avenue	New York	NY	¥1
Nydia	J	Canty	2933 Wright Court	Seattle	WA	9
Timothy	A	Johnson	61 Froe Street	Hagerstown	WV	1 0 0 0
Annie	F	Francis	1230 Victoria Court	Milton Mills	ME	0
Joseph		Kirk	2031 Marron Drive	Hanover	MD	2

Here you will see the preview of your data. Now, click Next.

🔳 Import Spreadsh	eet Wizard						×
	an use your column head ain column headings?	dings as field nar	nes for your table. Does the first				
First Row Cont	ains Column Headings						
FirstName	MiddleInitial	LastName	StreetAddress	Citv	State	Z	
1 Bernadette		Weissman	4767 Clair Street	Waco	TX	7	~
2 Edgar	в	Rhodes	3633 Hill Croft Farm Road	Chico	CA	9	
3 Michael	г	Barber	65 Hickory Heights Drive	Havre De Grace	MD	2	
4 Olive	D	Obrien	43 Laurel Lane	Odessa	TX	7	
5 Roland	P	Yamaguchi	2091 Wakefield Street	Philadelphia	PA	1	
6 Ramiro	A	Bonham	3807 Kooter Lane	Charlotte	NC	1 2	
7 Jose	J	Caine	998 Tuna Street	Southfield	MI	4	
8 Shawna	J	Rhoades	1337 Tyler Avenue	Fort Lauderdale	FL	3	
9 Joyce		Dyer	2910 Oakwood Avenue	New York	NY	1	
10Nydia	J	Canty	2933 Wright Court	Seattle	AW	9	
11 Timothy	А	Johnson	41 Froe Street	Hagerstown	WV	2	
12 Annie	L	Francis	1230 Victoria Court	Milton Mills	ME	0	
13 Joseph		Kirk	2031 Harron Drive	Hanover	MD	2	
14 Grace	J	Cruz	29 Willison Street	Minneapolis	MIN	5	v
<				×.	s	>	
			an an ar ar				
			Cancel < Back	Next >	Finish		
							4

In the Preview, you can now see that the first row contains the column headings. Let us now check the check box and click Next.

	ne 'Field Options' area.					
-Field Options	-					
Field Name:	PirstName	Data Type	: Short Text			
Indexed:	No	Do not	import field (Şkip)			
1111						
FirstName	MiddleInitial	LastName	StreetAddress	City	State	z
Bernadett	-	Weissman	4767 Clair Street	Waco	TX	7
Edgar	в	Rhodes	3633 Hill Croft Farm Road	Chico	CA	9
Michael	т	Barber	65 Hickory Heights Drive	Havre De Grace	MD	
Olive	D	Obrien	43 Laurel Lane	Odessa	TX	27
Roland	P	Yamaguchi	2091 Wakefield Street	Philadelphia	PA	h
Ramiro	A	Bonham	3807 Kooter Lane	Charlotte	NC	k l
Jose	J	Caine	998 Tuna Street	Southfield	MI	4
Shawna	t	Rhoades	1337 Tyler Avenue	Fort Lauderdale	FL	b
Joyce		Dyer	2910 Oakwood Avenue	New York	NY	h
Nydia	J	Canty	2933 Wright Court	Seattle	AN	9
Timothy	A	Johnson	41 Froe Street	Hagerstown	WV	2
Annie	L	Francis	1230 Victoria Court	Milton Mills	ME	1 2 4 5 H 5 2 2 0 V 5
Joseph		Kirk	2031 Harron Drive	Hanover	MD	2
Grace	T	Cruz	29 Willison Street	Minneapolis	MN	5

You will now see a dialog box where you can set the data type for each column/field. If you don't want to import any field, just check the check box which says do not import field. Once you are done with the FirstName field, just click on the MiddleInitial field.

a construction of the second	e 'Field Options' area.					
Field Options						
Field Name:	MiddeInitial	Data Type	Short Text			
Indexed:	No	Do not	import field (Skip)			
percentary a	11 K	987. Ann 1997.9				
FirstName	MiddleInitial	LastName	StreetAddress	City	State	z
Bernadette		Weissman	4767 Clair Street	Waco	TX	7
Edgar	3	Rhodes	3633 Hill Croft Farm Road	Chico	CA	9
Michael	R	Barber	65 Hickory Heights Drive	Havre De Grace	MD	n v
Dlive	D	Obrien	43 Laurel Lane	Odessa	TX	7
Roland	B	Yamaguchi	2091 Wakefield Street	Philadelphia	PA	1
Ramiro	A	Bonham	3807 Kooter Lane	Charlotte	NC	2
Jose	5	Caine	998 Tuna Street	Southfield	MI	4
Shawna	3	Rhoades	1337 Tyler Avenue	Fort Lauderdale	FL	3
Joyce		Dyer	2910 Oakwood Avenue	New York	NY	1
Nydia	J	Canty	2933 Wright Court	Seattle	WA	9
Timothy	R	Johnson	41 Froe Street	Hagerstown	WV	2
Annie	1	Francis	1230 Victoria Court	Milton Mills	ME	0
Joseph		Kirk	2031 Harron Drive	Hanover	MD	2 5
Grace	T :	Cruz	29 Willison Street	Minneapolis	100	5

Let us now go through all the fields and then, click Next.

IDFirstNameMiddleInitialLastNameStreetAddressCitySt.1BernadetteWeissman4767Clair StreetWacoTX2EdgarBRhodes3633Hill Croft Farm RoadChicoCA3MichaelTBarber65Hickory Heights DriveHavre De GraceMD4OliveDObrien43LaurelLaneOdessaTX5RolandPYamaguchi2091WakefieldStreetPhiladelphiaPA6RamiroABonham3807KooterLaneCharlotteNC7JoseJCaine998TunaStreetSouthfieldMI8ShawnaJRhoades1337TylerAvenueFortLauderdaleFL9JoyceDyer2910Oakwood AvenueNew YorkNYNY10NydiaJCanty2933Wright CourtSeattleWA11TimothyAJohnson41Froe StreetHagerstownWV12AnnieLFrancis1230VictoriaGourtHanoverMD14GraceJCruz29WillisonStreetMinneapolisMNV	1 NUM NUM NUM 2 NUM NUM NUM 3 NUM NUM NUM 4 NUM NUM NUM		record in your table	efine a primary key for your new table. A pr e. It allows you to retrieve data more quickl v			
222EdgarBRhodes3633 Hill Croft Farm RoadChicoCA3MichaelTBarber65 Hickory Heights DriveHavre De GraceMD4OliveDObrien43 Laurel LaneOdessaTX5RolandPYamaguchi2091 Wakefield StreetPhiladelphiaPA6RamiroABonham3807 Kooter LaneCharlotteNC7JoseJCaine998 Tuna StreetSouthfieldMI8ShawnaJRhoades1337 Tyler AvenueFort LauderdaleFL9JoyceDyer2910 Oakwood AvenueNew YorkNY10NydiaJCanty2933 Wright CourtSeattleWA11TimothyAJohnson41 Froe StreetHagerstownWV12AnnieLFrancis1230 Victoria CourtMilton MillsME13JosephKirk2031 Harron DriveHanoverMD	ID FirstN	ame MiddleInitia	al LastName	StreetAddress	City	Sti	
3MichaelTBarber65 Hickory Heights DriveHavre De GraceMD4OliveDObrien43 Laurel LaneOdessaTX5RolandPYamaguchi2091 Wakefield StreetPhiladelphiaPA66RamiroABonham3807 Kooter LaneCharlotteNC77JoseJCaine998 Tuna StreetSouthfieldMI88ShawnaJRhoades1337 Tyler AvenueFort LauderdaleFL99JoyceDyer2910 Oakwood AvenueNew YorkNY10NydiaJCanty2933 Wright CourtSeattleWA1111TimothyAJohnson41 Froe StreetHagerstownWV12AnnieLFrancis1230 Victoria CourtMilton MillsME13JosephKirk2031 Harron DriveHanoverMD	1 1 Bernade	ette	Weissman	4767 Clair Street		TX	~
44OliveDObrien43 Laurel LaneOdessaTX5RolandPYamaguchi2091 Wakefield StreetPhiladelphiaPA66RamiroABonham3807 Kooter LaneCharlotteNC7JoseJCaine998 Tuna StreetSouthfieldMI88ShawnaJRhoades1337 Tyler AvenueFort LauderdaleFL99JoyceDyer2910 Oakwood AvenueNew YorkNY010NydiaJCanty2933 Wright CourtSeattleWA11TimothyAJohnson41 Froe StreetHagerstownWV212AnnieLFrancis1230 Victoria CourtMilton MillsME313JosephKirk2031 Harron DriveHanoverMD	2 2 Edgar	в	Rhodes	3633 Hill Croft Farm Road	Chico	CA	
5RolandPYamaguchi2091Wakefield StreetPhiladelphiaPA66RamiroABonham3807Kooter LaneCharlotteNC7JoseJCaine998Tuna StreetSouthfieldMI8ShawnaJRhoades1337Tyler AvenueFort LauderdaleFL9JoyceDyer2910Oakwood AvenueNew YorkNY010NydiaJCanty2933Wright CourtSeattleWA111TimothyAJohnson41Froe StreetHagerstownWV212AnnieLFrancis1230Victoria CourtMilton MillsME3JosephKirk2031Harron DriveHanoverMD	3 3 Michael	I I	Barber	65 Hickory Heights Drive	Havre De Grace	MD	
66RamiroABonham3807 Kooter LaneCharlotteNC7JoseJCaine998 Tuna StreetSouthfieldMI8ShawnaJRhoades1337 Tyler AvenueFort LauderdaleFL9JoyceDyer2910 Oakwood AvenueNew YorkNY010NydiaJCanty2933 Wright CourtSeattleWA1TimothyAJohnson41 Froe StreetHagerstownWV212AnnieLFrancis1230 Victoria CourtMilton MillsME3JosephKirk2031 Harron DriveHanoverMD	4 4 Olive	D	Obrien	43 Laurel Lane	Odessa	TX	
7JoseJCaine998 Tuna StreetSouthfieldMI8ShawnaJRhoades1337 Tyler AvenueFort LauderdaleFL9JoyceDyer2910 Oakwood AvenueNew YorkNY010NydiaJCanty2933 Wright CourtSeattleWA111TimothyAJohnson41 Froe StreetHagerstownWV212AnnieLFrancis1230 Victoria CourtMilton MillsME3JosephKirk2031 Harron DriveHanoverMD	5 5 Roland	P	Yamaguchi	2091 Wakefield Street	Philadelphia	PA	
8 Shawna J Rhoades 1337 Tyler Avenue Fort Lauderdale FL 9 Joyce Dyer 2910 Oakwood Avenue New York NY 0 Nydia J Canty 2933 Wright Court Seattle WA 1 Timothy A Johnson 41 Froe Street Hagerstown WV 2 12 Annie L Francis 1230 Victoria Court Milton Mills ME 3 Joseph Kirk 2031 Harron Drive Hanover MD	6 6 Ramiro	A	Bonham	3807 Kooter Lane	Charlotte	NC	
9JoyceDyer2910 Oakwood AvenueNew YorkNY010NydiaJCanty2933 Wright CourtSeattleWA111TimothyAJohnson41 Froe StreetHagerstownWV212AnnieLFrancis1230 Victoria CourtMilton MillsME313JosephKirk2031 Harron DriveHanoverMD	7 7 Jose	J	Caine	998 Tuna Street	Southfield	MI	
010 Nydia J Canty 2933 Wright Court Seattle WA 111 Timothy A Johnson 41 Froe Street Hagerstown WV 212 Annie L Francis 1230 Victoria Court Milton Mills ME 313 Joseph Kirk 2031 Harron Drive Hanover MD	B B Shawna	J	Rhoades	1337 Tyler Avenue	Fort Lauderdale	FL	
111 Timothy A Johnson 41 Free Street Hagerstown WV 212 Annie L Francis 1230 Victoria Court Milton Mills ME 313 Joseph Kirk 2031 Harron Drive Hanover MD	Joyce		Dyer	2910 Oakwood Avenue	New York	NY	
212 Annie L Francis 1230 Victoria Court Milton Mills ME 313 Joseph Kirk 2031 Harron Drive Hanover MD	0 10 Nydia	J	Canty	2933 Wright Court	Seattle	AW	
3 <mark>13 J</mark> oseph Kirk 2031 Harron Drive Hanover MD	1 11 Timothy	7 A	Johnson	41 Froe Street	Hagerstown	WV	
	212 Annie	L.	Francis	1230 Victoria Court	Milton Mills	ME	
414 Grace J Cruz 29 Willison Street Minneapolis MN 🗸	3 13 Joseph		Kirk	2031 Harron Drive	Hanover	MD	
	414 Grace	J	Cruz	29 Willison Street	Minneapolis	MIN	v

Here are the different options for primary key. Let us select the first option and click Next.

Import Spreadsheet	Wizard	х
1	That's all the information the wizard needs to import your data.	
	[mport to Table: tbiContacts]	
	□ I would like a wizard to gnalyze my table after importing the data.	
	Cancel < Back Einish]

In the last dialog box, you can enter the table name of your choice and click Finish.

tt External Data - Excel Spreadsheet		?	×
Save Import Steps			
Finished importing file 'D:\Tutorial\Tutorials\MS Access\Access 20 1\access-2013-essentials-pt1\materials\6-access-2013-essentials-p 'tblContacts'.	013 Desktop Essentials Part pt1-m06-exercise-files\Exercise Files\AuthorsList.xisx' to t	able	
Do you want to save these import steps? This will allow you to g	uickly repeat the operation without using the wizard.		
Sage import steps			
		Close	

If you want to save all these steps, then check the checkbox and close the dialog box.

Let us now go to the Navigation pane. You will see a new table is added here and when you open the newly added table you will see all of your data in Access.

File Home Cresta Deterrol Data	DatabaseTools 1000	a take Q	10	a and a second						
and Links Links Link Acres COSC	That File Strick, File Mare 1 Lipsch		F drink	and Merge						
manual de la constante	THE REAL	Experi	51 (S)	50×						
II Access Objects 🛎 🖷 📲	(Contacts)									
p. p	and the second se	 Middleinillia - 	LantName		5000	-+ Bulode	+ TelephonieN -	Enail	Bettstey =	
dis + -	Bemadette		Wettsmart	4767 Clair Stres Waco	TX	76718	254-753-9090	8.Weisiman@	9/18/1955	
I thill desire a share	2 Edgar		Rhodes.	3633 Hill Croft : Clikos	CA	15028	530-540-6619	E.Rhotles@fak	4/17/1970	
T million and and and	3 Michael		Sarber .	65 Halkory Heig Havre De Grace		21078	443-343-3464	M.Barbergilfak-	3/11/1943	
	4 Olive	0	Obsien	43 Laurel Lane Ordensa	TX	29762	432-363-6029	0.0brien@fak	6/12/1957	
1 toCenate	5 Roland	*	Vemáguetti	200) Wakefielt Philodelphia	TA.	19308	215-405-7063	A.Yamaguchi@	11/19/1978	
1 tesContrarents	6:Rambro	(A)	Bonham	1807 Kooter La Charlotte	NC.	2973.0	304-424-9614	R.Bonham@fai		
T multisparkinisery.	7.1218		Caiter	998 Turta Stree Southfield	MI	480.75	810-963-5604	1 Caire@fater	4/23/3168	
1 Hillmannet	8.Shouna	(a)	filmiades.	1317 Pyler Ave: Port Lauderblah		33309	305-317-0007	5.Rheades@tai	8/3/1981	
	9 Jayne		Oyer	2910 Oakwood New York	10'	10014	212-859-5910	1.Dyer@fakem	2/20/1950	
1 to Conjunction	38 flydia	4	Carety	2933 Wright Co Seattle	W/A	20101	206-228-1891	N.Carity@fake	4/20/1957	
2 moltilitate	15 Tienathy		Johnson	41 Fine Street Hagerstown	WV	21942	304-378-2594	T.Johnson@fai	4/3/1967	
D 10/048210841	12 Annie		Francit	1230 Victoria C Malton Mills	ME	DIRE	367.477.6531	A.Francis@fale	3/18/1946	
3 tototo	13 Joneph		83rk	2031 Harron Dr. Hanover	MD	21076	443-532-0685	1.tirk:Pfakerna	5/25/1985	
a nomi	34 Grace	111	Chur	29 William Str. Minmeapolis	MN	15401	783-277-7648	G.Cruz@fikem	9/25/1960	
1 wormsbites	15 Jackeline	(1	Carter	2014 Steepion / Harrisburg	94	13,708	717-974-2901	1.Carter@faker	3/22/1971	
	15 Lauren		Williams	TEL School Hitu Lackson	MS	39313	001-609-7119	L.W/liamsgrtai	7/19/1967	
1 to Property	17 Chrostopher	1.0	Templeton	1908 Eriho Lahel Kalamacoo	Mi	49007	269-676-3270	C.Templetong	4/20/1364	
TRANS, Athe	15 Matthew	D.	Stevie	2184 Hillernit E Kont	WA	10031	255-372-8714	Materiegtale	3/21/1942	
1 tortegetet	15 Eluabeth		titlet.	3789 Prospect ! Endgeton	<u>N0</u>	06362	856-575-2752	E.Elliott@take:	3/4/1943	
a tellente	20 Tyrone	(H)	Barney	1817 Weivaney Charlotte	NC .	28206	828-221-4310	LBarney@faile	9/24/1947	
Turbake!	21 leinica	1	Griego	4125 Davis Late Denver	02	80239	726-365-8238	Löniegogiitake	8/10/1945	
	32 Humer	-	Bullant	3108 Rockford Worcester	MA	01608	774-628-5429	HCBullard@fak	4/19/1940	
	2X Chest	D	Moyer	1010 Delevare San Franciss	CA	94143	415-154-3178	C.Mayer@late	4/17/1966	
ueries -1	24 Bomile	54	Zingler	737 North Stree Lynchburg	Wh.	34551	434-025-6403	R.Ziegber@faks	12/13/1947	
P Kanal diagnosalites from the Australian	25 Anthony	in the second second	111241	3001 Posit Bear Wathalia	10	29691	864-715-3187	Augengfahe	8/1/1968	
avaidhoidge + Talaida	a at 1 1 at 10000 A Ar A	T. MALANN I See							111111	

Example

Let us now look at another example of importing data from the Access database. Let us go to the External Tab again.

	ور در در ور	∓ Acc	essOatabase : D	atabase- Ci\Us	ers\Muha	mmad.W	/aqas\D	oc	Muhar	mmad V	Vagas			×
File	Home	Create	External Da	sta Databa	ise Tools	Q 1	ell me v	vhatiyo	u want t	o do				
Saved Imports	Linked Table Manager	Excel A	CCESS ODBC Database	Text File	Saved Exports	Excel	Text File	XML File	PDF or XPS	Email	Ca Aci	rd Merge		
22		import	CE LINK.						port					^
Navigation Pane														
Ready													Num I	.ock

In Import & Link group, click on the Access option.

Get External Data - Access Database	?	×
Select the source and destination of the data		
Specify the source of the definition of the objects.		
Eile name: D:\Tutorial\Tutorials\MS Access\Access 2013 Desktop Essentials Part 1\access-2013-essentials	Browse	
Specify how and where you want to store the data in the current database.		
Import tables, queries, forms, reports, macros, and modules into the current database.		
If the specified object does not exist, Access will create it. If the specified object already exists, Access will number to the name of the imported object. Changes made to source objects (including data in tables) v reflected in the current database.		
Unk to the data source by creating a linked table.		
Access will create a table that will maintain a link to the source data. Changes made to the data in Access in the source and vice versa. NOTE: If the source database requires a password, the unencrypted passwo with the linked table.		
ОК	Cancel]

Browse the Access database from which you want to import the data and then select the first option which says Import tables, queries, form etc. Now, click Ok.

Import (Objects					? ×
Tables	Queries	Forms	Reports	Macros	Modules	
tblAut	nor Junctio	n				ОК
tbDep	artments loyees					Cancel
tblHRD tblJobs	lata s					Select All
tbiProj tbiProj tbiTasi	ects_Arch	ive				Deselect All
(DIT dis	6					Qptions >>

In the above dialog box, you can see different tabs for Tables, Queries, Forms etc. from where you can select what kind of data you want to import.

nport Objects	? >
Tables Queries Forms Reports Macros	s Modules
Author Directory Current Projects	ОК
Employee Address Labels Employee Directory	Cancel
Late Projects Projects	Select All
	Deselect All
	Qptions >>

Let us go to the **Reports** tab and select any report you want to import; you can also select all the data by clicking on the **Select All** button. Let us select **Projects** and click **Ok**.

et External Data - Access Database		?	×
Save Import Steps			
All objects were imported successfully.			
Do you want to save these import steps? This v	will allow you to quickly repeat the operation without using the wizard.		
Save import steps			
		⊊lose	

Now, close the dialog box. In the navigation pane, you will see that a new report is added. Let us open this report and you will see all the data in that report.

Tile Home Create External Data	COMPAREMENT OF THE OWNER.	ell mé what you want to do		and and an and a second se	
Seven Linker Talls Imports Managar Import Linker Talls Incer Access ODEC Database	- 1924-976 (Test XML POF Amail @ More - Fat File or XPS Expert	hepe.		14
All Access Objects 🐵 - 📲 🕬	etts .				×
Smith P					- 6
S talamon Without Mating	ojects				- L
Turcustomers Without Match					
Ferens 8					-
Trestations 7	PStatue	Completed			
I trestautives					
Trend matrice of Date	Project Name	Eventhing You Didn't Know 2	About Vierwain		
T tredsqueyerintprination	Francest Names	Mr. Duris walks the average are	st through every possible	thing in UMware Really	
I tradingtoyees		a's not as boung as it sounds		A	
T tratulat	Turk Title		Tank Status	Pennent Calcuplate	
Trenkhaligiettemilingropee			1		
TrmProjectDathboard					
ToohuedDetails	Persont Name	Evil Loop's Canal			
1 tro-Frajanta	Persont Nature				
The Subfaile		A hird lower's compassion.			
TubCurrentProperts	Tash Tide		Task Status	Persont Complete	
Trublatamejeda					
TubProjectivPropress					
TubPigantiOnHald	Penjett Narra	Financial Planning During Differ	cult Tames		
CE tsubProjectsContaids	Primari Ninter	A guide to keeping financially to	nonoose haaf weath at team	Det Tarpata	
Tuditana .	Task Title		Tesh Status	Pennent Changdete	
TRANSpation Form					
Reports a					
III Property					
Repark View				munico El 🗔 B	E 162

39. MS Access- DataExport

In this chapter, we will understand how to export data from Access. Data export is actually the opposite of importing data. In importing data, we bring data from other formats in Access, while in exporting we save the data in other formats.

To understand what kind of data you can export from Access data, let us open your database and go to the External Data tab.

8	5.6.	= Acces	sDatabase : Databa	se- C:\Users\Muha	mmad.W	Muhammad Wa	qas	r -	۵	×
File	Home	Create	S ODBC	Database Tools Text File KML File More *	Excel Text	what you want b XML PDF File or XPS		Access	9e	
»	Manager	import & I	A CONTRACTOR OF A CONTRACT OF	Cipito		Export				
Navigation Pane										
Ready									Num Lo	

In the Export group, you can see the different kind of options available for data export from Access. Following are the most commonly used data export formats:

- Microsoft Office Excel
- Microsoft Office Access
- ODBC Databases (For example, SQL Server)
- Text files (delimited or fixed-width)
- XML Files

Example

Let us look at a simple example of data export from Access. Open your database where you want to export the data from. In the Navigation Pane, select the object that you want to export the data from.

	elabase Mere* Exports File File or XPS Export	Access			
dl Access Objects 🔹 🛚	🗿 agPropertsOnthall 🗿 anyPropertsWDTadas 🗐 ugPro	and the second se	the second second second second	120.0007.001	
arch.		us · Project Notes -	Task Title +	Task Status	+ Percent Con +
B thiPajedit	This is Not Your Side Completed	A married couple			
The sectors and	For Love and Proofreading: A Grammar Completed	The essential gui			
tratest E	My Mother is Not A Fish Completed	The autobiograph			
Terrol	Romance Canyon Completed	A couple split by A subtle twist of			
Contraction of the second s	Snowing in Las Vegas Completed Rebuilding Eden Completed	Following a twee			
lumies a	The Potion, the Scroll, and the Cauldro in Progress		Edit Chapter 3	Completed	100%
P Find duplicates the tablications	Never Too Late: Reconnecting with Yoi In Progress		Revise Chapter 9	Completed	100%
🗜 urpAttYnjetts	The Potion, the Scroll, and the Cauldro in Progress		Create Plot Overview	Completed	100%
P opplication of	The Potion, the Scroll, and the Cauldro in Progress		Create Character Portraits	9.2.2.0.20.0.0.0.0.0.0.0.	100%
p applutmentDags	The Potion, the scroll, and the Cauldro in Progress		Write Chapter 1	Completed	100%
argAldhorCentantinte	The Potion, the Scroll, and the Cauldro in Progress		Edit Chapter 1	Completed	100%
grydatterDupitates	The Potion, the Scroll, and the Cauldro in Progress		Revise Chapter 1	Completed	100%
and the second state of th	The Potion, the Scroll, and the Cauldro In Progress		Write Chapter 2.	Completed	100%
p gyCimpleledProjects	The Potion, the Scroll, and the Cauldro In Progress		Edit Chapter 2	Completed	100%
P argCummilProjects	The Potion, the Scroll, and the Cauldro in Progress		Edit Chapter 4	Completed	100%
p uppExployeeAddresses	The Potion, the Scroll, and the Cauldro in Progress		Write Chapter I	Completed	100%
ArytinglogeerCate	Never Too Late: Reconnecting with You In Progress		Revise Chapter 8	Completed	100%
p antimplayeestbended	The Potion, the Scroll, and the Cauldro in Progress		Write Chapter 4	Completed	100%
g gyfuthienes	Never Too Late: Reconnecting with You in Progress		Edit Chapter I	Completed	100%
aninhogress	The Potion, the Scroll, and the Cauldro in Progress		flevise Chapter 2	Completed	100%
	Never Too Late: Reconnecting with Yoi In Progress		Edit Chapter 6	Completed	100%
P ayuteCoont	The Potton, the Scool, and the Cauldon in Progress. Second 4. 1 of UA 4. H 4. The Starting Search		Write Chanter 6	Completed	100%

You can export the data from table, query, form, and report objects etc. Let us select the qryAllProjects and then, go to the External Data tab.

On the External Data tab, click on the type of data that you want to export to. For example, to export data in a format that can be opened by Microsoft Excel, click Excel.

ort - Excel Spread	sheet			?	×
Select the des	tination for the data you	ant to export			
Specify the destin	ation file name and format.				
<u>F</u> ile name:	C:\Users\Muhammad.Waqas\Do	uments\qryAllProjects.xlsx		Browse	
File forma <u>t</u> :	Excel Workbook (*.xisx)	V			
Specify export op	ions.				
	ita with formatting and layout. s option to preserve most format	ing and layout information when	exporting a table, query, for	m, or report.	
14410 - 0.000	destination file after the export s option to view the results of th	peration is complete. export operation. This option is a	available only when you expo	ort formatted dat	a.
Select th	ily the selected records. s option to export only the selec irds selected.	d records. This option is only avai	ilable when you export form.	atted data and	
			ОК	Cancel	

Access starts the Export wizard. In the wizard, you can set the information such as the destination file name and format, whether to include formatting and the layout, which records to export. Once you are done with the required information, click Ok.

port - Excel Spreadsheet	?	3
Save Export Steps		
Finished exporting 'qryAllProjects' to file 'C:\Users\Muhammad.Waqas\Documents\qryAllProjects.visx' successfully.		
Do you want to save these export steps? This will allow you to quickly repeat the operation without using the wizard.		
Sage export steps		
	Close	

On this screen of the Wizard, Access usually asks you if you want to save the details of the export operation. If you think you will need to perform the same operation on a recurring basis, select the **Save export steps** check box and close the dialog box.

The following Excel file opens up.

	gryAlProjectiator - Excel		diammed Wages	m — O >
in Data Series	. Ven Add-an Sam Q failmeadutya	a www.thm.elu		A Share
a 昭昭 巴N Mgrand	hege & Center + \$ + % + % 21 Conditional Fermatting +	Table + Styles + +	Debete Format	Arr P Son & Find & Nam Select Same
~		2		
Project Status	Project Notes		Took Status	errent Complete
Fat Completed Completed Completed Completed Completed Completed Completed Completed Completed Completed Completed Completed	Yet another guide to staying healthy, this diet book stands apart from the rest in that each A quarterly literary journal dedicated to Mr. Davis walks the average user through every A short story about a college intern, living up to A true tale of the Ghost of Shakersville Packing Junches doesn't have to be a chore. New to stay same whilst driving with your A guide to keeping financially smart in these hard economic times. A walkthrough for Mothers with beething children. Short stories sent in by new Mothers for other new Mothers to read.			
Completed	A bird lover's companion.			
Completed	Following the style of other popular wisard novels published recently, this book is filled with wit and puns galore. You are taken into the world of Furry Dabbles a young wisard suffering from Tourette syndrome and the only hope for saming the world.			
Completed	in quarterity neerary journal depication to			
	4			
	Augumni Augumni Augumni Fet Completed C	Image in the second	Image and the second	Image and the second

Let us now suppose you want to export data to a text file, on the External Data tab, click on the Text File.

xport - Text File		? X
Select the de	stination for the data you want to export	
Specify the dest	nation file name and format.	
<u>F</u> ile name:	C:\Users\Muhammad.Waqas\Documents\qryAllProjects.txt	Browse
Specify export o	otions.	
Export	data with formatting and layout.	
Select t	his option to preserve most formatting and layout information when exporting a table, query	r, form, or report.
🗹 Open ti	e destination file after the export operation is complete.	
Select t	his option to view the results of the export operation. This option is available only when you	export formatted data.
Export	only the selected records.	
	his option to export only the selected records. This option is only available when you export t cords selected.	formatted data and
	QK	Cancel
	UK UK	Canver

Specify the export options and click Ok. You will see the Encode dialog box, wherein we want to export the data in default encoding.

Encode 'qryAllProjects' As	?	×
Choose the encoding to use for saving this file:	0	ж
O MS-DOS		ncel
O Unicode O Unicode (UTF-8)		

Select the first option and click Ok.

port - Text File	?	×
Save Export Steps		
Finished exporting 'qryAllProjects' to file 'C:\Users\Muhammad.Waqas\Documents\qryAllProjects.txt' succession	ssfully.	
Do you want to save these export steps? This will allow you to quickly repeat the operation without using	the wizard.	
Saye export steps		
	Close	

On this screen of the wizard, Access usually asks you if you want to save the details of the export operation. If you think you will need to perform the same operation on a recurring basis, select the **Save export steps** check box and close the dialog box.

You will now see that the Text file is open.

argalifregettint Hidapad Da bill fyrrat Pas Help					- 0
Project Name	i Project Status	Project Notes	Tank Title	Task Status	Percent Complete
The Healthier You: Tips from America's	Completed	Yet another galde to		1	1
Picarton Quarterly 1.1	Completed	A quarterly literary		1	1
Flamel For All Seasons	[Completed	1		1	1
Everything You Didn't Know About Veware	Completed	Mr. Devis walks the		1	1
Myles Prover: The World's Fastest liters	Completed	A stort stary about	*****	1	1
The Homeless Shost	[Completed	[A true tale of the]		1	1
On Boy! Jully Sanduiches	[Completed	Packing Junches		1	1
Ne're Almost There: Car Games for Long Trips	Compileted	How to stay same		1)
Financial Planning During Difficult Times	Completed	A guide to keeping			1
The ARCs of Toddler Testh Cleaning	Complated	A salkthrough for			1
Heart Hooks: Stories for the New New	Completed	Short sturies set	1.1221	1	1
Upon Becowing Crookest: The Impossible Choices		A definitive look		1	1
Ocean of Buld Branches	[Completed.	[A look at some of]		1	1
Evil Loon's Canal	[Completed	A bled lover's		1	1
The Potion and the Scroll	Completed	Following the style		ł)
Picarcon Quarterly 1.3	[Completed	A quarterly literary		1	1
Where's Humas The Trucker's Rostaldo	Empleted	A travel guide for		1	1

Similarly, you can explore other options as well. Thus, it is highly recommended to play with other import export features too.