

# Microsoft Access

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# Agenda

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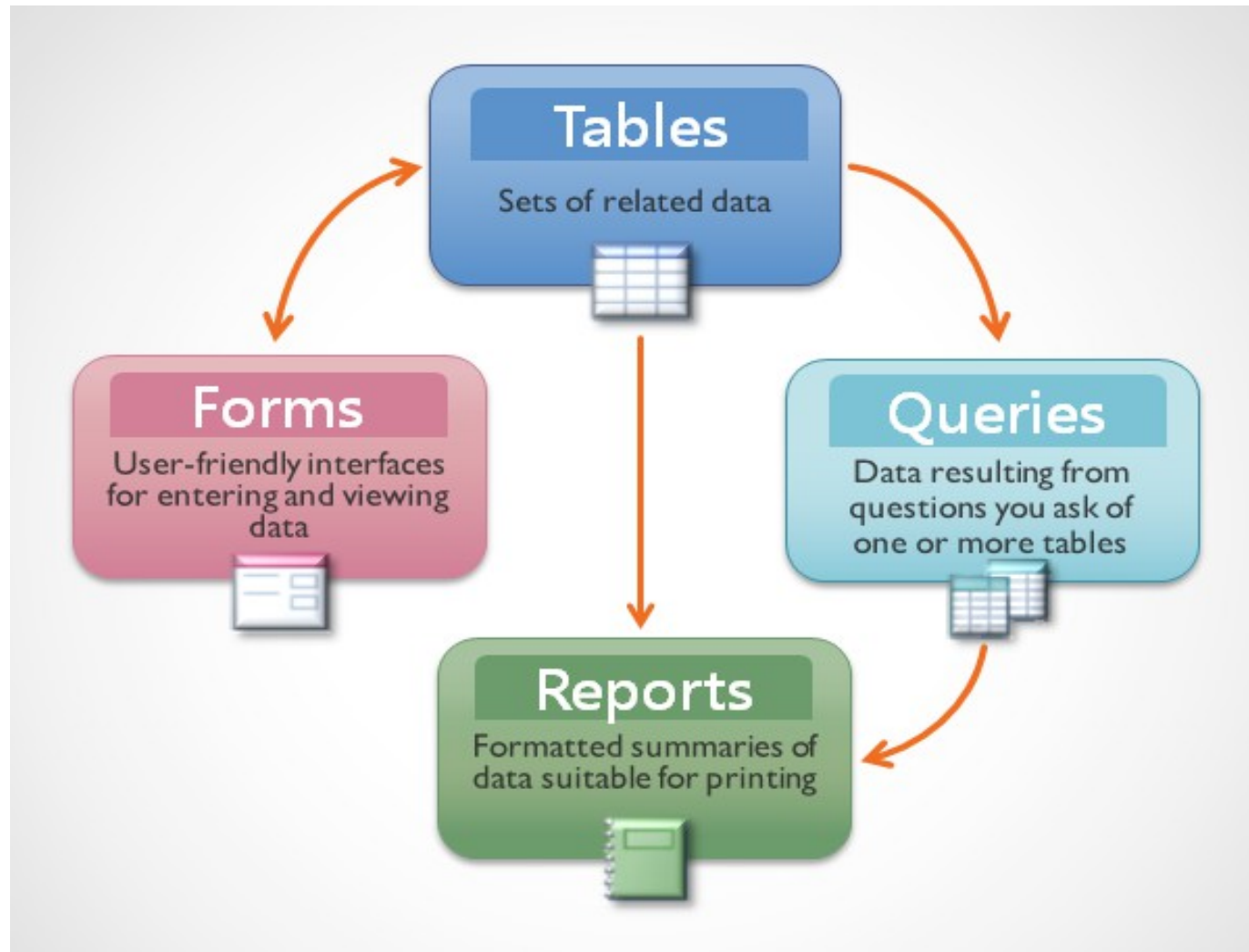
## ➤ **MS Access Overview**

# Intro to MS Access

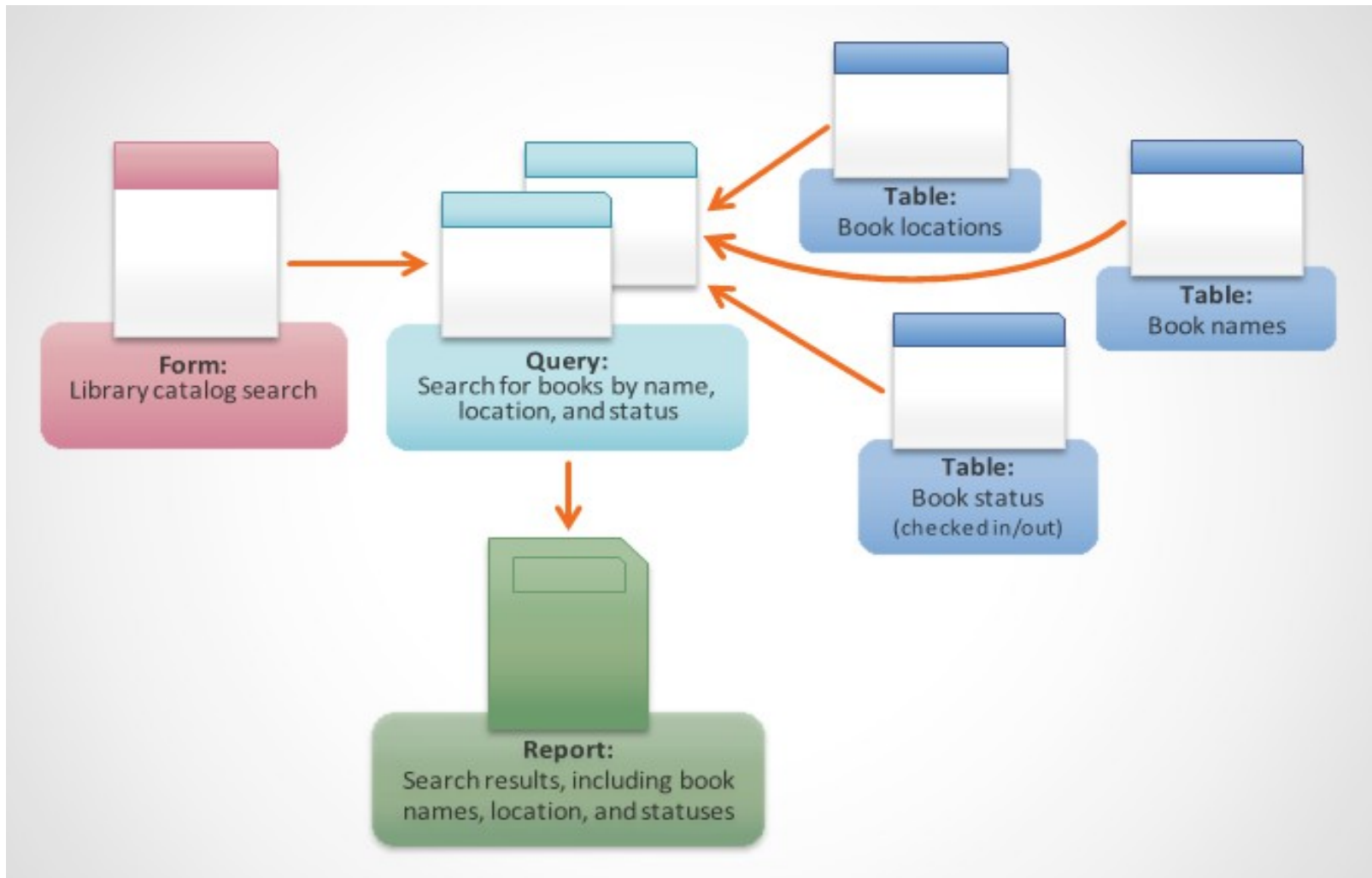
- **Simple and Flexible DBMS with Windows “look and feel”, as well as, integration with other Microsoft products (referred to desktop database)**
- **Same data definition, manipulation, and control as any other RDBMS product.**
- **Perform SQL Queries using graphical query development tool**
- **Abundance of Wizards and help functions**
- **User-friendly tables, queries, forms, and reports**
- **Simple overview of the big topics in Access, too much to cover every detail**



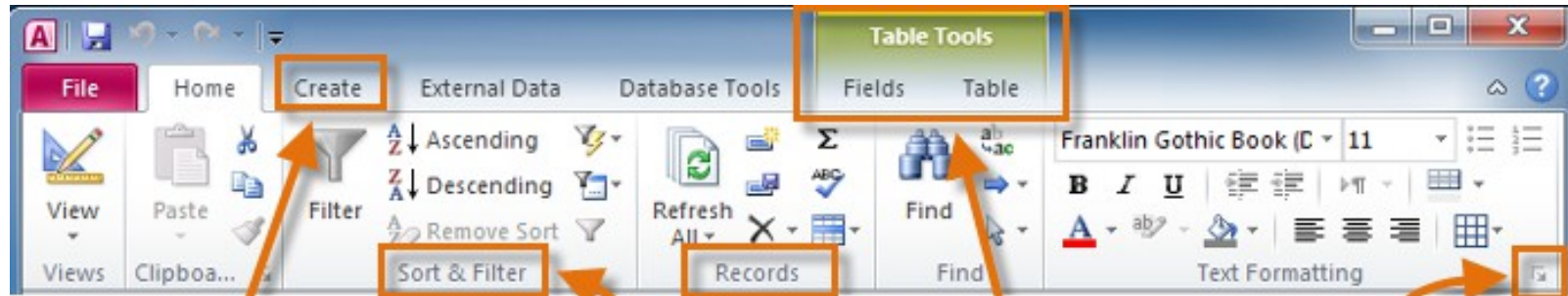
# Access Objects



# Access Objects Example



# Getting Started

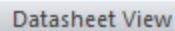


Click a tab  
to see more  
commands

Each tab is  
divided into  
groups

Contextual tools  
tabs appear when  
certain items or  
views are selected

Some groups will  
have an arrow that  
you can click for  
more options



# Table Design View: Defining Attributes, Data Type, and Primary Key

The screenshot shows the Microsoft Access interface in Table Design View for a table named 'TblEmployee'. The ribbon at the top includes 'File', 'Home', 'Create', 'External Data', 'Database Tools', 'Acrobat', and 'Table Tools'. The 'Design' tab is active, showing options like 'View', 'Primary Key', 'Builder', 'Test Validation Rules', 'Insert Rows', 'Delete Rows', 'Modify Lookups', 'Property Sheet', 'Indexes', 'Create Data Macros', and 'Rename/Delete Macro'. On the left, the 'All Access Objects' pane shows a list of tables: 'TblBook', 'TblCategory', 'TblContact', and 'TblCustomer'. The main area displays the table structure with two columns: 'Field Name' and 'Data Type'. The fields are 'EmpID' (Text, marked as the primary key), 'EmpName' (Text), 'Sex' (Text), 'Address' (Text), and 'DOB' (Date/Time).

Field Name	Data Type
EmpID	Text
EmpName	Text
Sex	Text
Address	Text
DOB	Date/Time

Multi-Select rows to define a composite key



## Table: Datasheet View

To open a table, double-click its name

The table will open and appear as a new tab on the Document Tabs bar.

ID	First Name	Last Name	Street Address	City
1	Floyd	Beckham	7 East Walker Dr.	Raleigh
2	Lucinda	George	789 Brewer St.	Cary
3	Jerrold	Smith	211 St. George Ave.	Raleigh
4	Brett	Newkirk	47 Hillsborough St.	Raleigh
5	Chloe	Jones	23 Solo Ln.	Raleigh
6	Quinton	Boyd	4 Cypress Cr.	Durham
7	Alex	Hinton	1011 Hodge Ln.	Cary
8	Nisha	Hall	123 Huntington St.	Raleigh
9	Hillary	Clayton	2516 Newman	Raleigh
10	Kiara	Williams	9014 Miller Ln.	Durham
11	Katy	Jones	456 Denver Rd.	Cary
12	Beatrix	Joslin	85 North West St.	Raleigh
13	Mariah	Allen	12 Jupe	Raleigh
14	Jennifer	Hill	2100 Field Ave.	Raleigh

Datasheet View

Record: 1 of 195

No Filter

Search

Num Lock

# Table Features

Customers						
ID	First Name	Last Name	Street Address	City		
32	Larry	Binder	124 Heuristic Way	Raleigh		
33	Samantha	Ferguson	2380 New Cove Rd.	Garner		
34	Tim	Cheng	9 Atlantic Blvd	Raleigh		
35	Greg	Newton	2520 Hopkins Rd.	Raleigh		
36	Bob	Allenson	3201 Glenwood Ave. Unit A	Raleigh		
38	Zoe	Altman	817 Hillsborough St. Apt E1	Raleigh		
39	Danny	Haverford	202 Cedar Ln.	Raleigh		
40	Vig	Aurelio	53 Pine St.	Raleigh		
41	Jeffery	Bergman	1245 Ross Park Dr.	Raleigh		
42	William	Bittiman	1122 Glenwood Ave.	Raleigh		
43	Megan	Draper	311 Cook St.	Raleigh		
44	Dick	Whitman	105 David St.	Raleigh		
45	Marjan	Jameson	202 C St. Unit A	Raleigh		
46	Colin	Hopkins	321 E. Edenton St.	Raleigh		
47	Hakim	Auden	921 Dawson St.	Raleigh		

# Table Navigation

t & Sort & Filter		Records		Find	
Employee Database Navigation		Categories		Customers	
	ID	First Name	Last Name	Street	
+	7	Alex	Hinton	1011 Hodg	
+	8	Nisha	Hall	123 Huntir	
+	9	Hillary	Clayton	2516 Newr	
+	10	Kiara	Williams	9014 Mille	
+	11	Katy	Jones	456 Denve	
+	12	Beatrix	Joslin	85 North V	
+	13	Mariah	Allen	12 Jupe Dr	

Record: 13 of 196

No Filter

Search

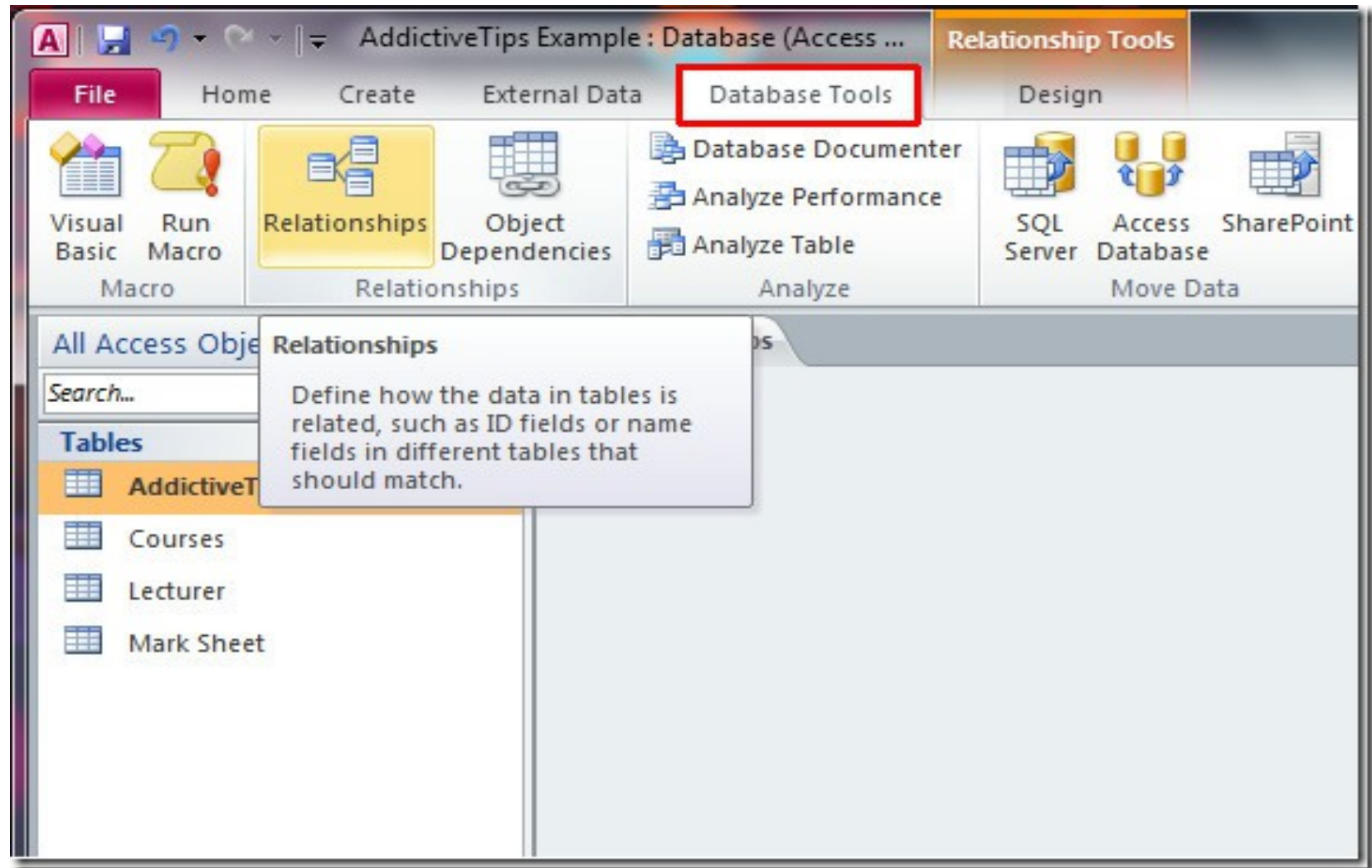
Next record

Click the arrows  
to navigate  
through the  
records

Click here to  
create a new  
record

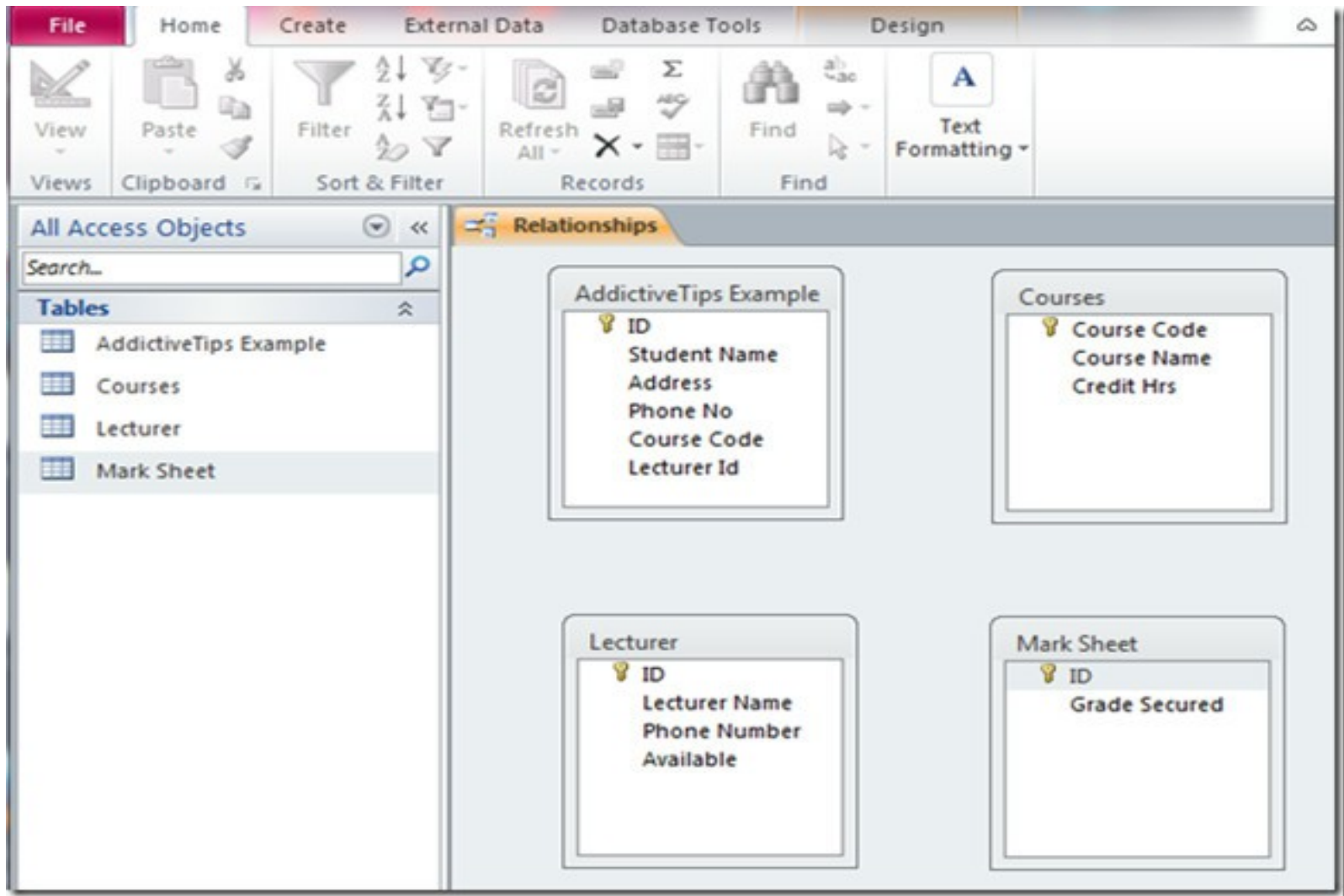
Use the search box  
to search for any  
record within the  
open object

# Create Relationships

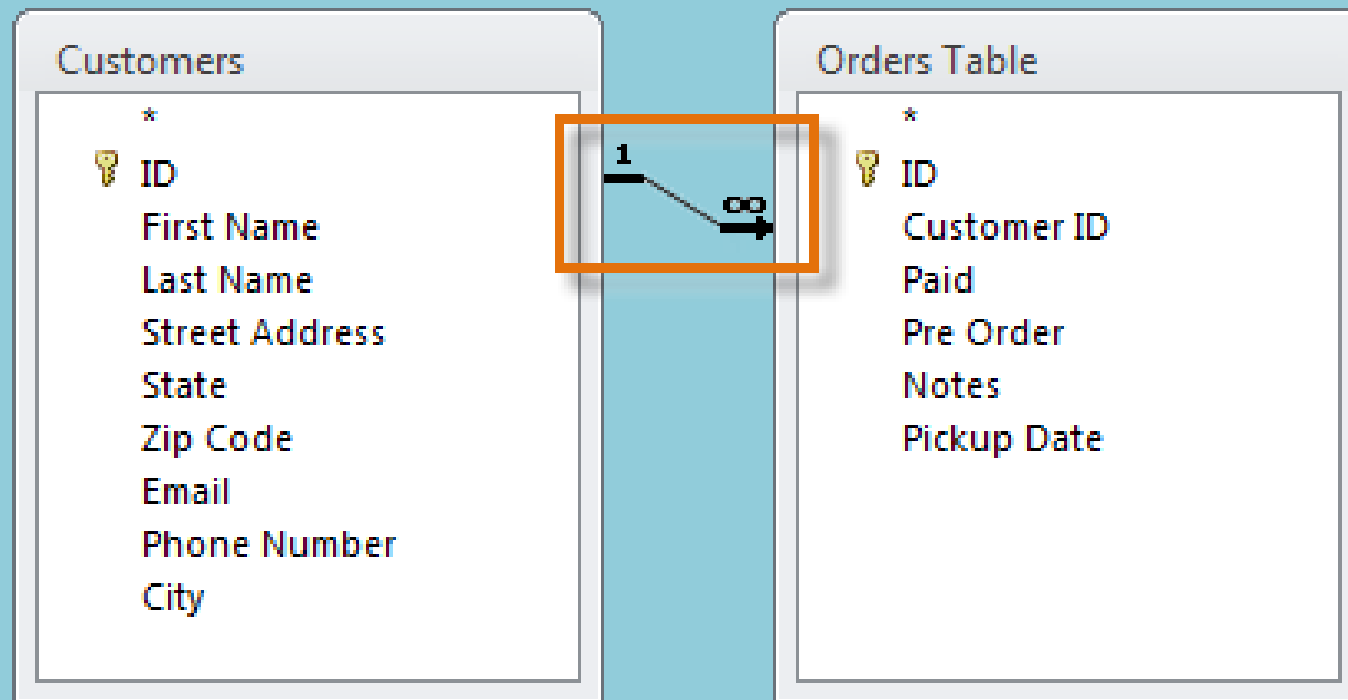




# Create Relationships



# Object Relationship Pane



# Creating a Relationship

Table Names

**Edit Relationships**

Table/Query: **ITEM** Related Table/Query: **ORD\_ITEM**

ItemNumber	ItemNumber

☒ Enforce Referential Integrity  
☐ Cascade Update Related Fields  
☐ Cascade Delete Related Records

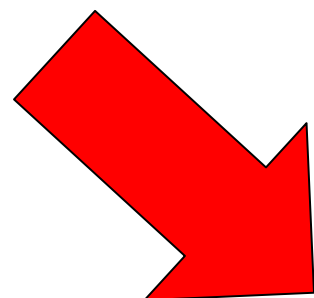
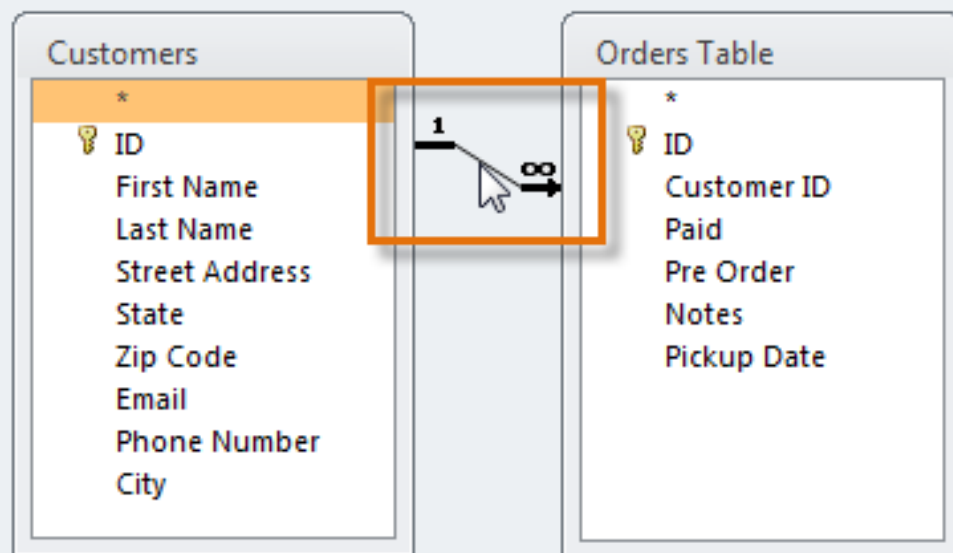
Relationship Type: **One-To-Many**

Buttons: Create, Cancel, Join Type.., Create New..

Field Names

Enforce  
Referential  
Integrity = Checked

Define Cascading  
Rules



Select option 2 for a  
Left to Right join

Select option 3 for a  
Right to Left join

**Join Properties**

Left Table Name	Customers	Right Table Name	Orders Table
Left Column Name	ID	Right Column Name	Customer ID

☐ 1: Only include rows where the joined fields from both tables are equal.

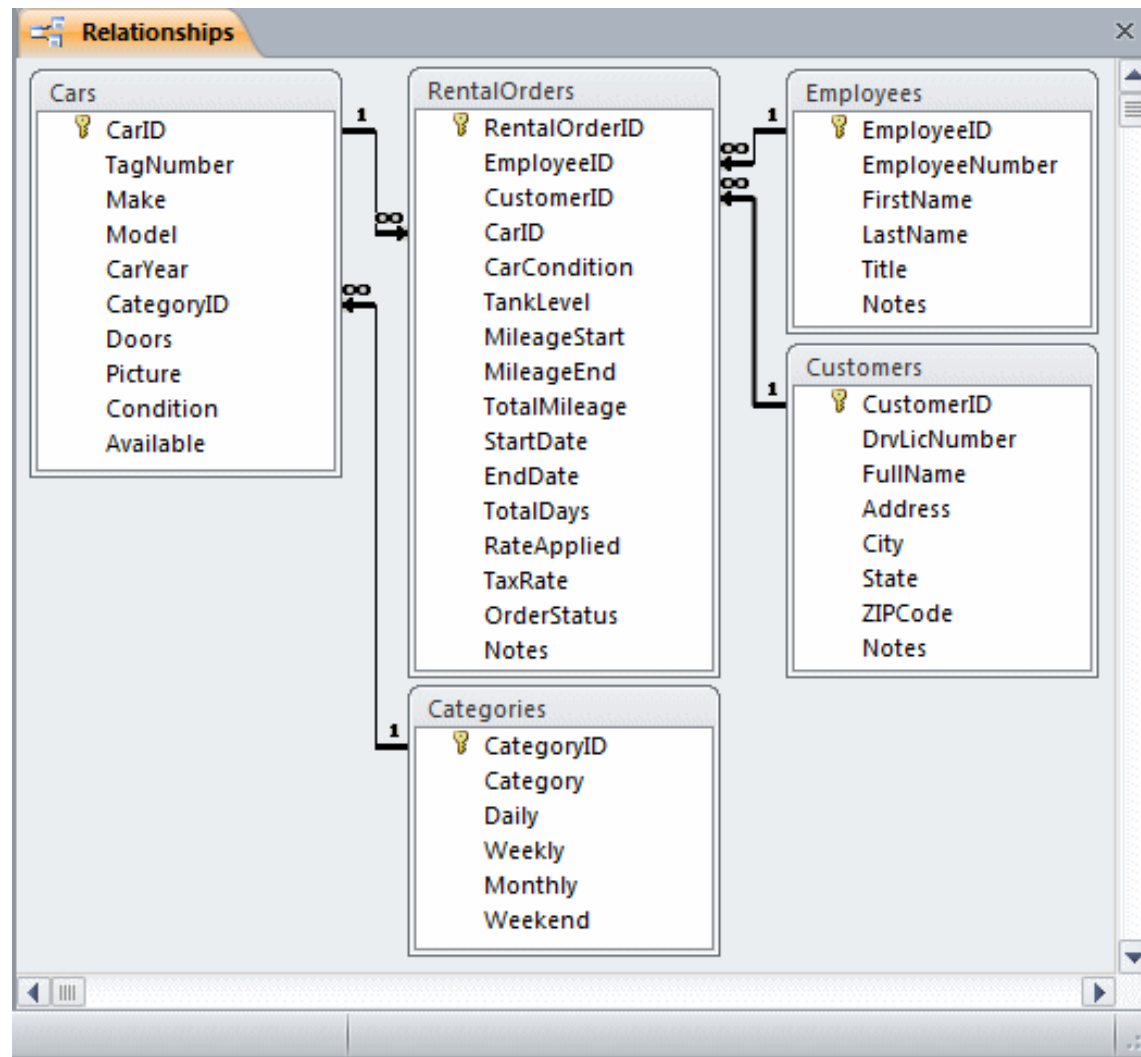
☐ 2: Include ALL records from 'Customers' and only those records from 'Orders Table' where the joined fields are equal.

☒ 3: Include ALL records from 'Orders Table' and only those records from 'Customers' where the joined fields are equal.

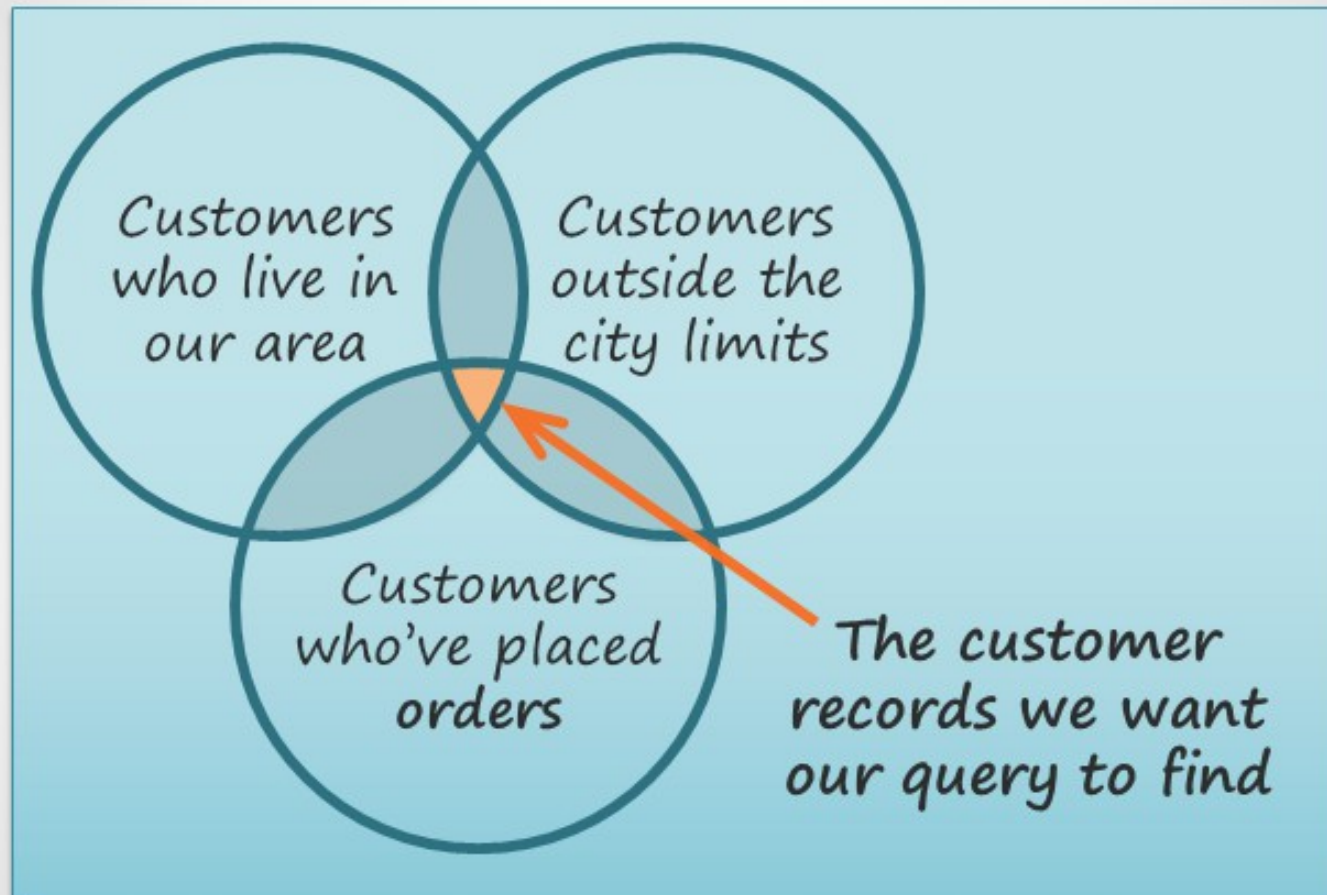
OK Cancel New



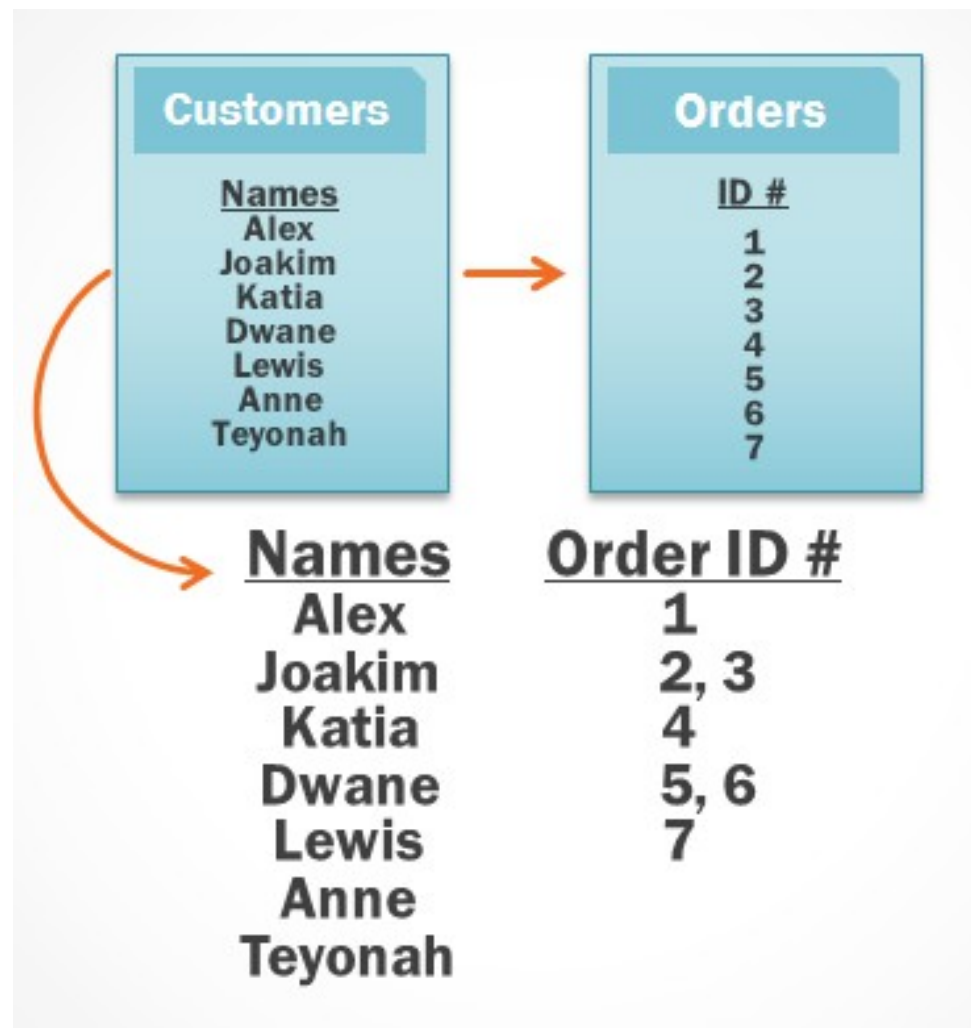
# The Final Relationships View Window



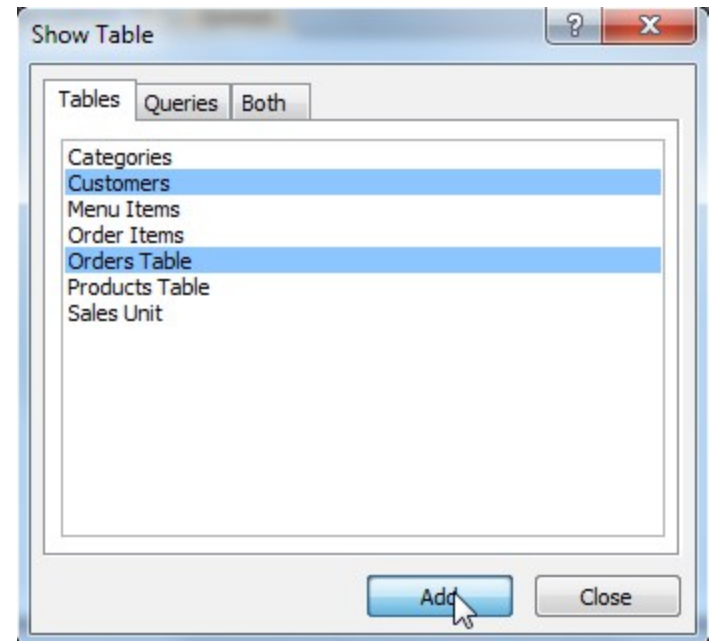
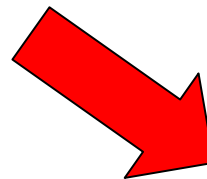
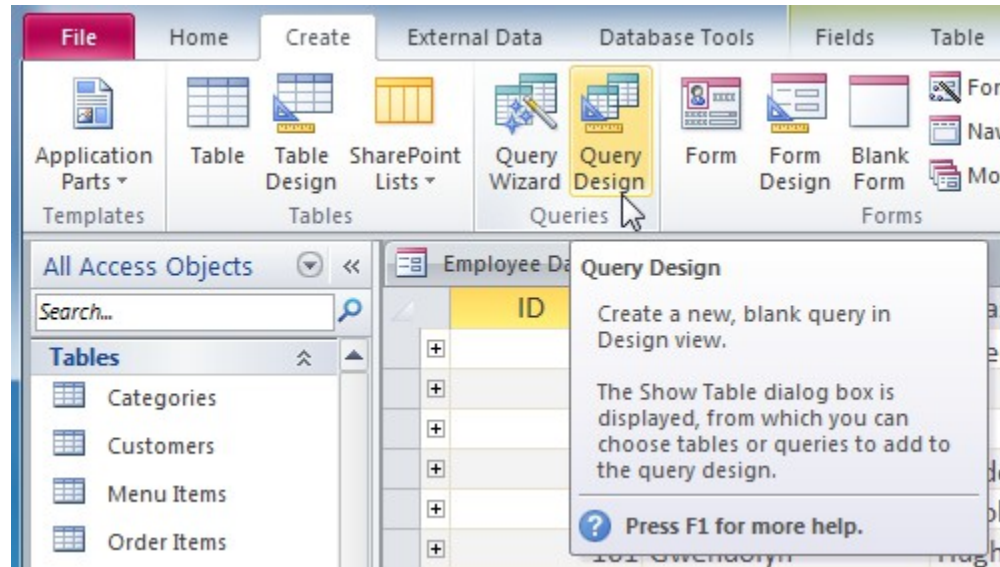
# Creating Queries

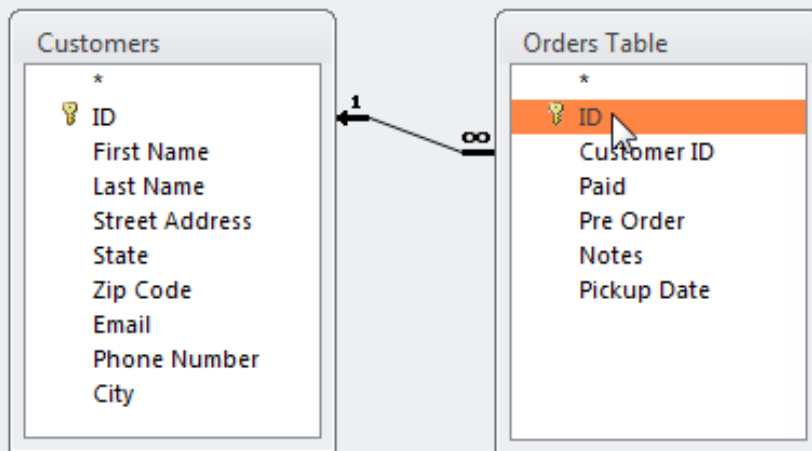


# Create Query

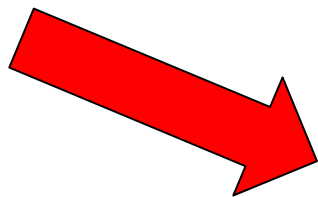


# Create Query

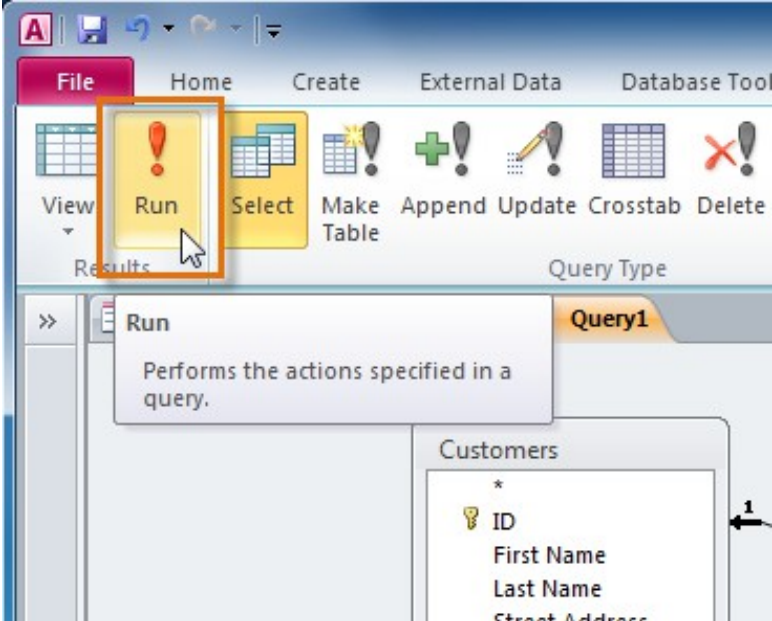




Field:	First Name	Last Name	Street Address	City	State	Zip Code	Phone Number	ID
Table:	Customers	Customers	Customers	Customers	Customers	Customers	Customers	Orders Table
Sort:								
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:								
or:								



Field:	First Name	Last Name	Street Address	City	State	Zip Code	Phone Number	ID
Table:	Customers	Customers	Customers	Customers	Customers	Customers	Customers	Orders Table
Sort:								
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:				Not In ("Raleigh")			Like ("919*")	
or:								



Sort & Filter		Records		Find		Text Formatting	
Employee Database Navigation		Query1					
First Name	Last Name	Street Address	City	State	Zip Code	Phone	
	Sigrudsdatter	55 Cameron Ct.	Cary	NC	27513	919-555-	
	Yuen			NC	27513	919-555-	
	MacDonald			NC	27514	919-555-	
	Slobodowski			NC	27513	919-555-	
	Oglesby			NC	27714	919-555-	
	Kellerman			NC	27513	919-555-	
	Olivera			NC	27714	919-555-	
	Storey			NC	27714	919-555-	
	Tempie	12 Spencer Ave.	Chapel Hill	NC	27514	919-555-	
	Emory	99 Hillsborough St.	Garner	NC	27529	919-555-	
	Parthasarathy	1009 Raleigh Street	Hillsborough	NC	27278	919-555-	
	Williams	9014 Miller Ln.	Durham	NC	27714	919-555-	
	Daugherty	105 Aycock St.	Chapel Hill	NC	27514	919-555-	
	Olsen	4325 W. King St.	Garner	NC	27529	919-555-	

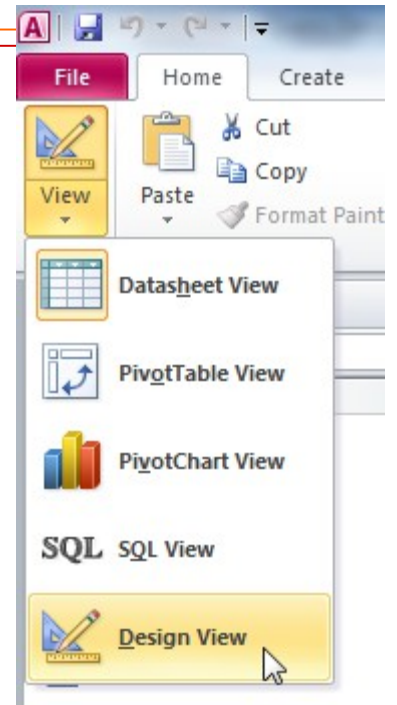
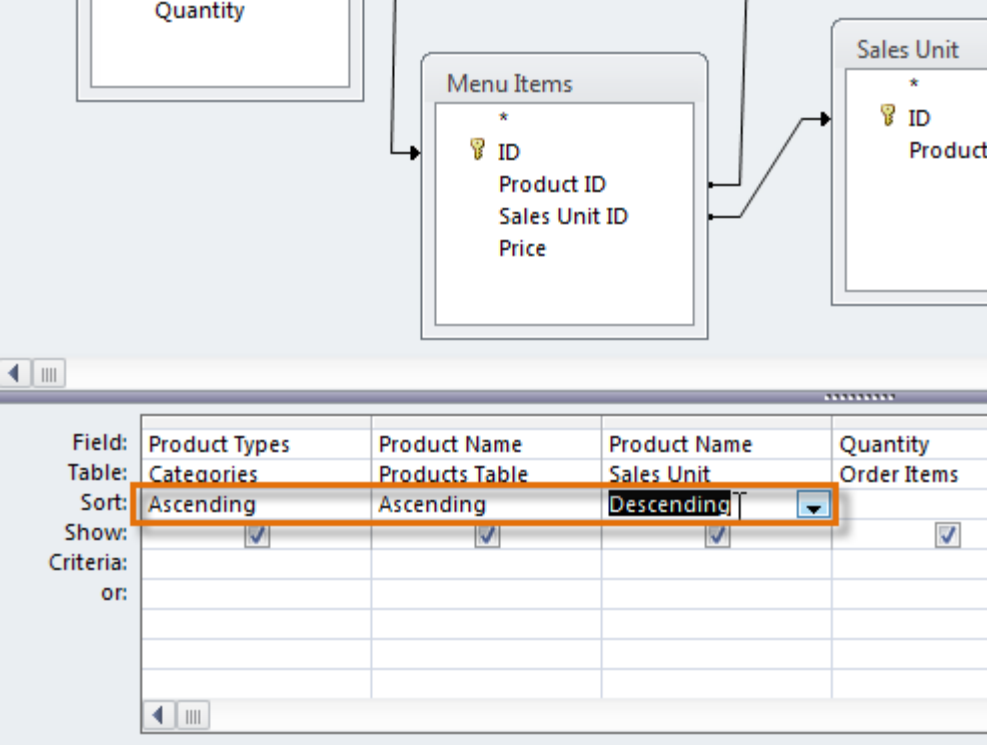
Save As

Query Name:

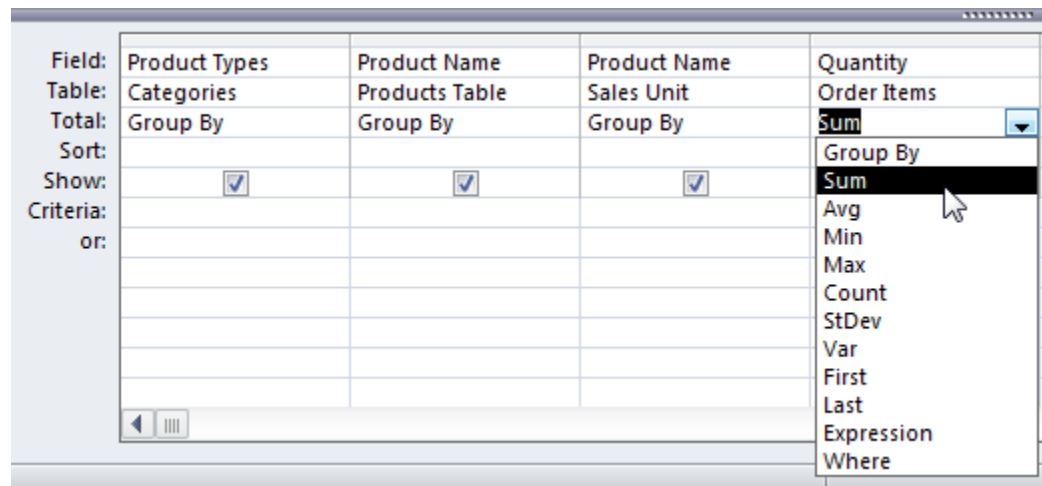
Customers Who've Ordered From Nearby Towns

OK Cancel

# Query Options



## Action Queries



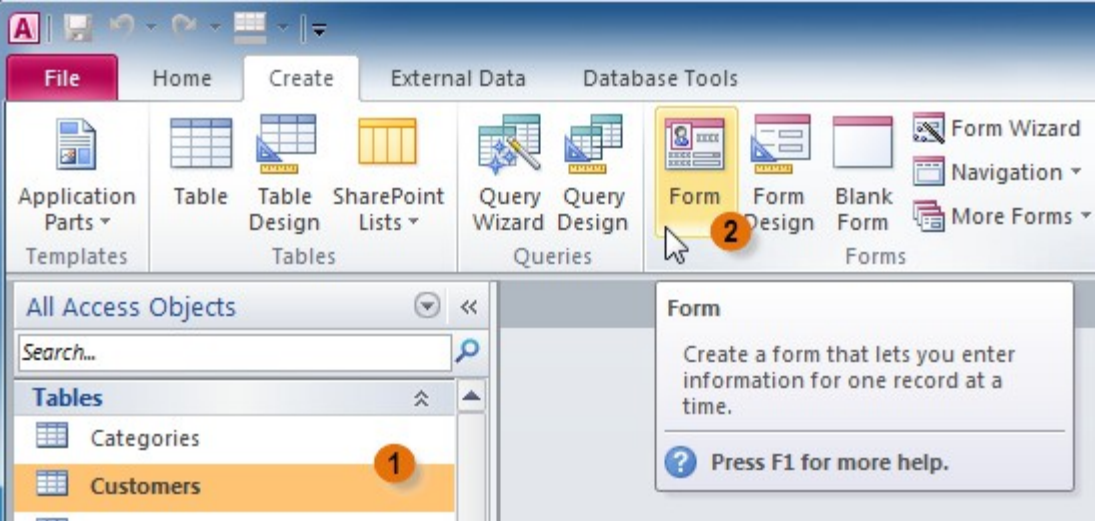
## Group By Options

## Enter Criteria

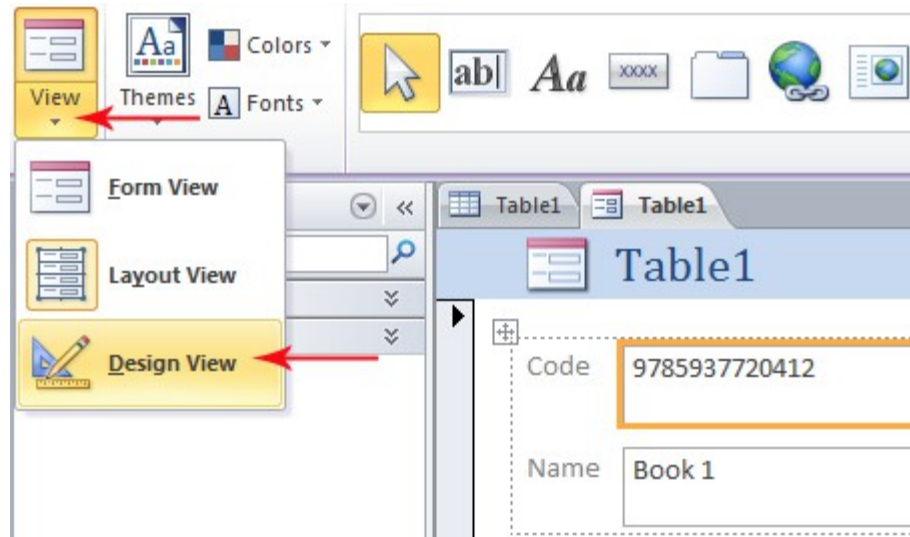
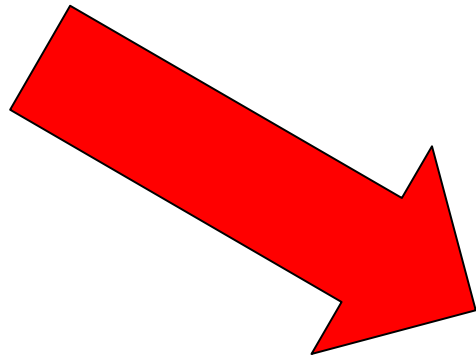
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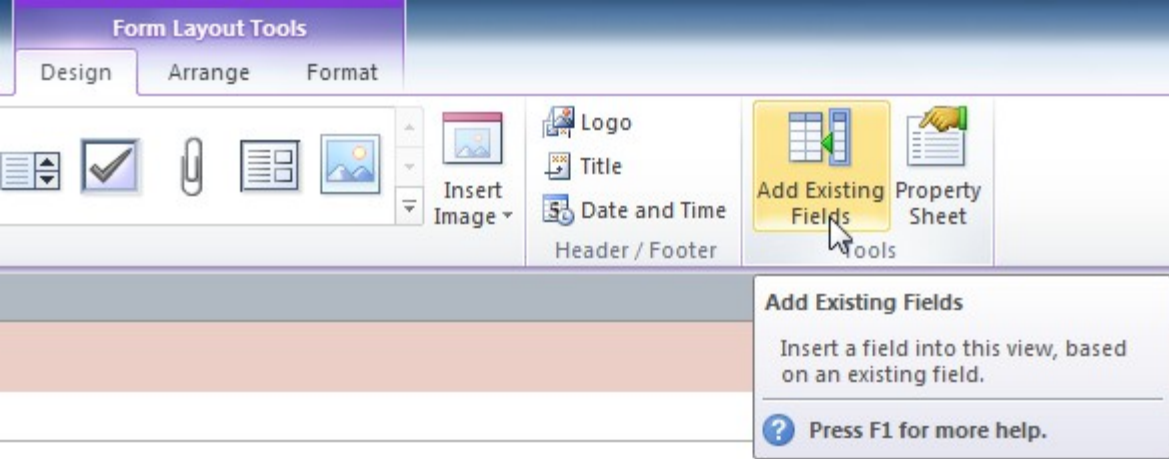
- For portions of the assignment that ask for user input, you can define this in the “criteria” portion of a query in “design view”.
- For example in the criteria area, put the following text:
  - [ENTER MONTH]
- This will prompt the query to ask the user for specified criteria under a specific attribute



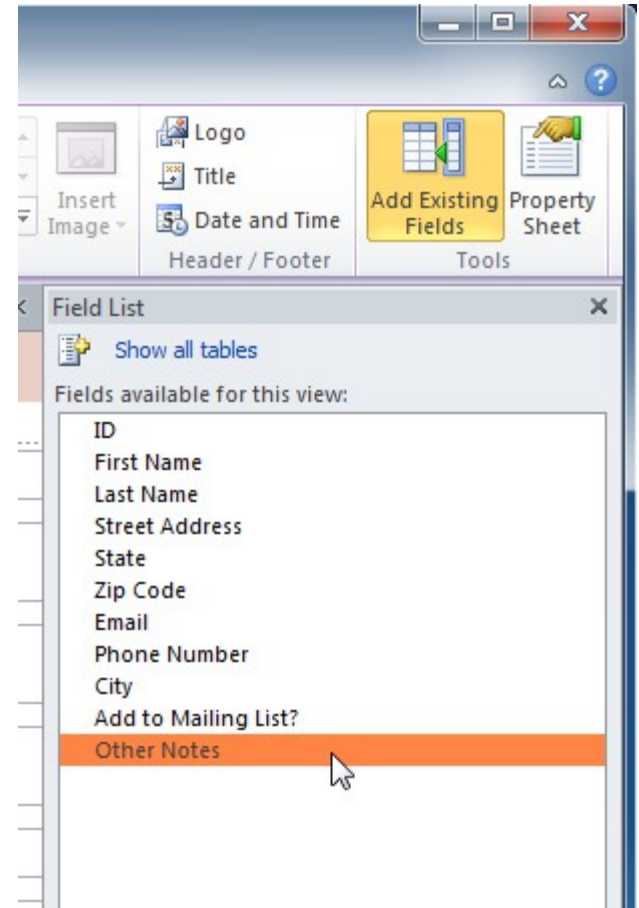
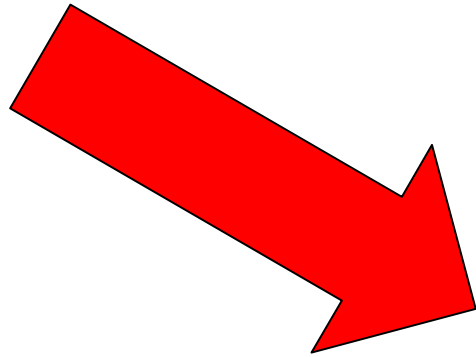


# Create a Form

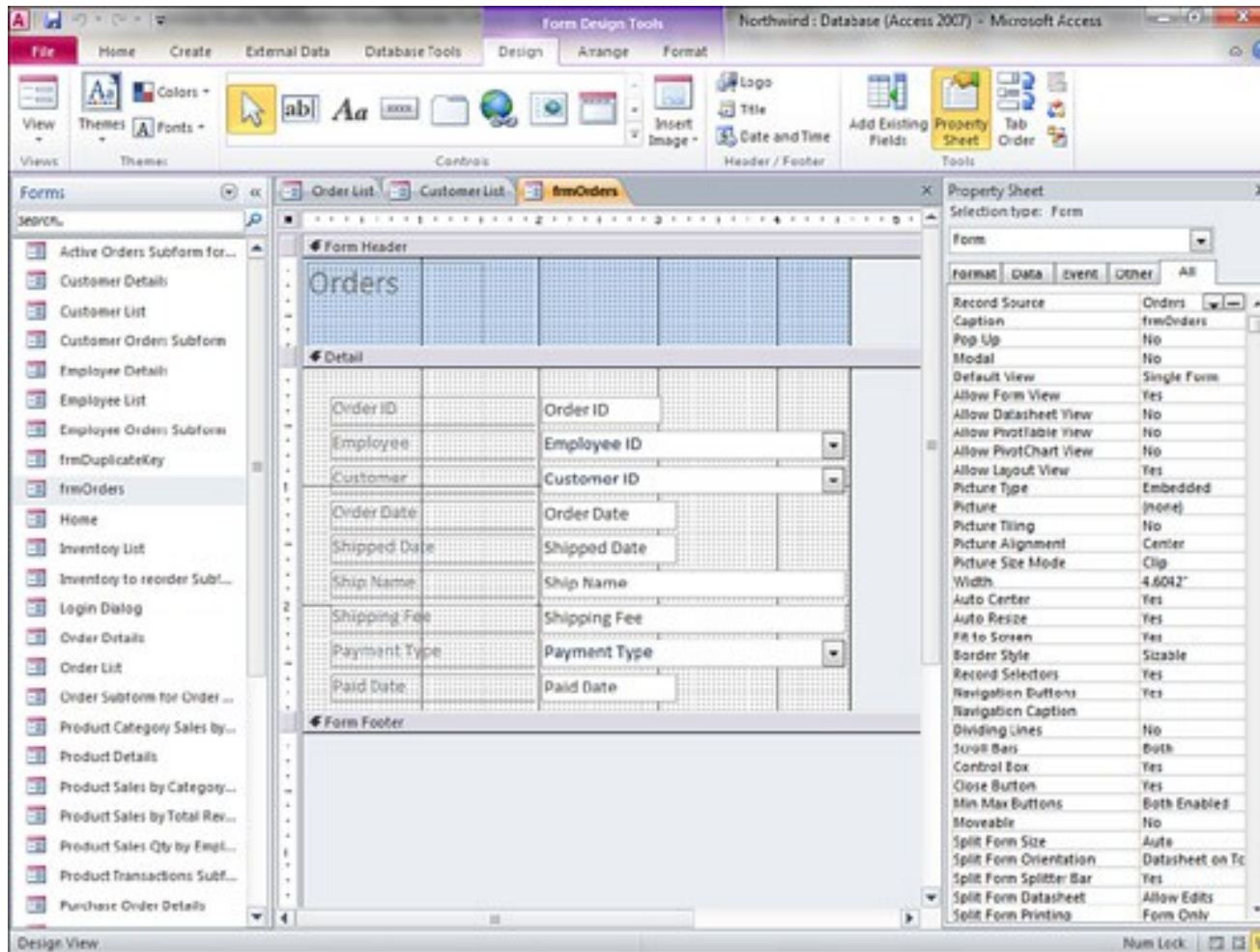




# Add Form Fields



# Form in Design View



# Completed Form

Employee Database Navigation
Order Items
**Orders**
Orders Table

## Orders

New Order

Customer
Tappen
Order #
13
Pickup Date
12/16/2011

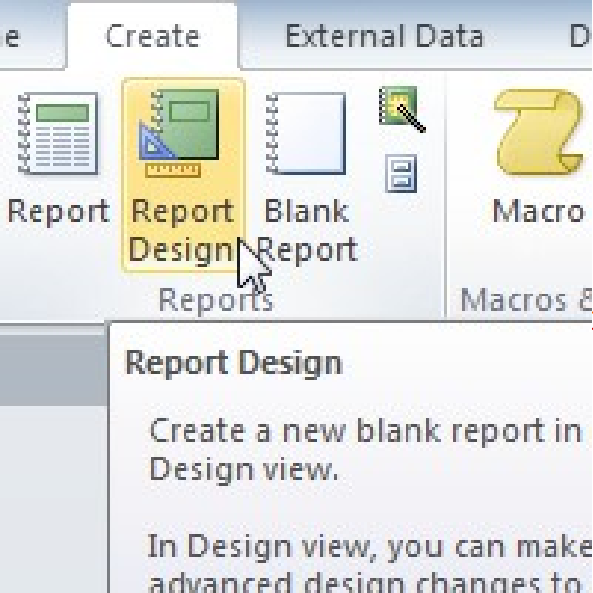
Notes
For a kindergarten party. Write, "Happy 6th Birthday, Matthew!" on the cake and draw a rabbit in icing next to the text.

☒ Pre Order
☒ Paid

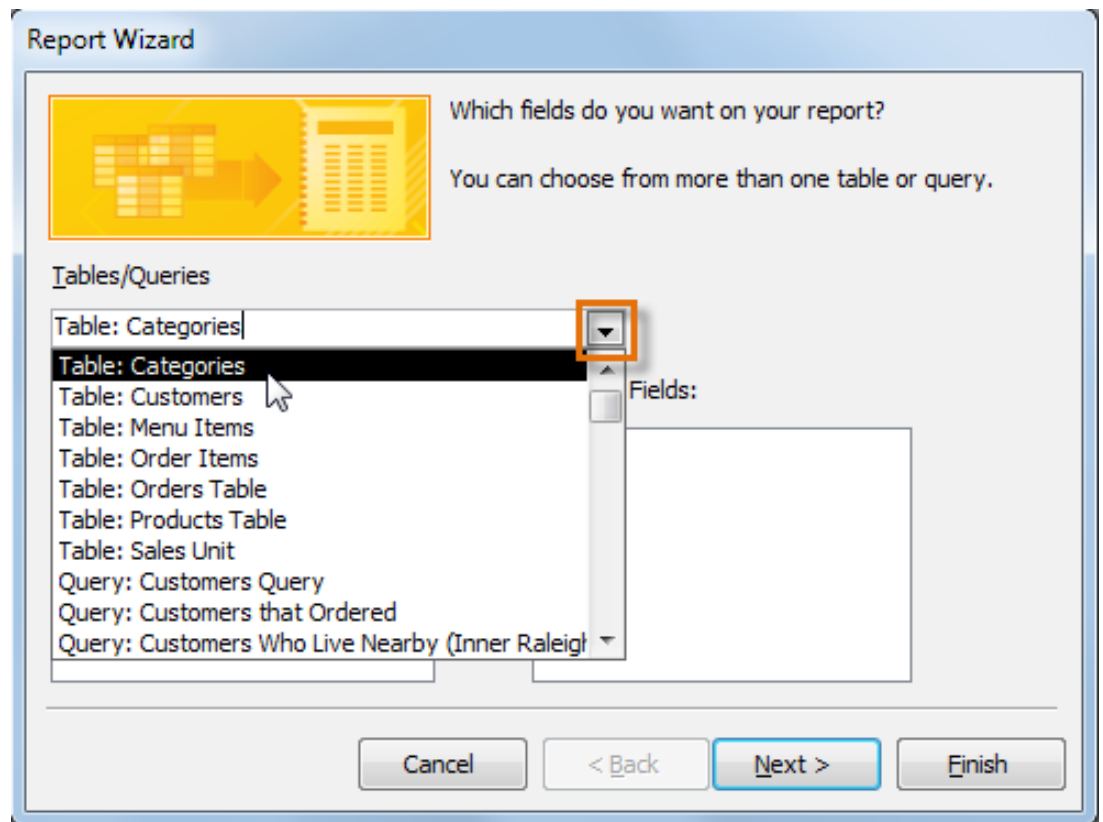
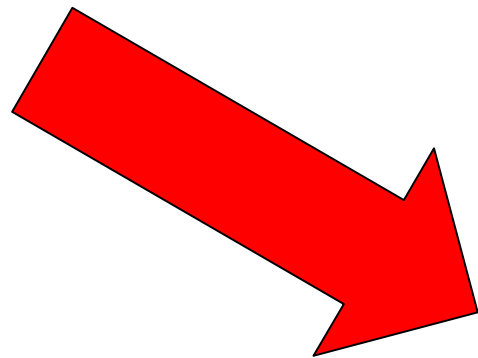
Add Item

Category	Product	Quantity	Unit	Price	Subtotal
Cookies	Oatmeal Raisin	1	One Dozen	\$14.00	\$14.00
Cookies	Butter Pecan	1	One Dozen	\$14.00	\$14.00
Cakes	Cookies n' Cream	1	Single	\$22.00	\$22.00
*					
	<b>Total</b>				<b>\$50.00</b>

Record: 1 of 3
No Filter
Search



# Create a Report



# Report Wizard

Report Wizard

Do you want to add any grouping levels?

Products Table.Product Name  
Description

**Sales Unit.Product Name**

Price

>

<

↑

↓

Priority

Product Types

**Sales Unit\_Product Name**

Products Table\_Product Name,  
Description

Price

Grouping Options ...

Cancel

< Back

Next >

Finish



### The page footer





# Completed Report

Navigation Pane

Bakery Menu Report



320 Glenwood Place, Raleigh, NC 27601 | songbirdbakery@email.com | 919-555-1624

<b>Cakes</b>	Fudge Chocolate	<i>So rich and heavy with chocolate, you'll need someone to help you carry it home. No, really.</i>	\$22.00
	Fudge Marble	<i>The cake that dares ask the question: what if marble were made of three types of chocolate? The answer... delicious.</i>	\$22.00
	French Vanilla	<i>Oo la la! Some people might say this cake has a certain je ne sais quoi... but we "sais quor"— lots of vanilla.</i>	\$22.00
	Strawberry Swirl	<i>A dizzying swirl of strawberries and crème. Hold on tight!</i>	\$22.00
	Cookies n' Cream	<i>Like dipping oreos and milk, but a cake, and not at all soggy.</i>	\$22.00

Page: 1 of 1

Ready


Num Lock

100%

# Command Buttons

**Command Button Wizard**

Sample:



What action do you want to happen when the button is pressed?

Different actions are available for each category.

Categories:	Actions:
Record Navigation	Apply Form Filter
Record Operations	Close Form
<b>Form Operations</b>	Edit Form Filter
Report Operations	<b>Open Form</b>
Application	Open Page
Miscellaneous	Print a Form
	Print Current Form
	Refresh Form Data

Cancel    < Back    Next >    Finish

# Resources

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■ <http://www.gcflearnfree.org/access2010>

■ <http://www.functionx.com/access/index.htm>

# **Automatically Opening your DB**

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- **In 2003:** Under the “Tools” menu, go to “Start Up” and specify the form you wish to initiate when the database is opened.
  
- **In 2007 and beyond:**
  1. Click the Microsoft Office Button (upper left corner)
  2. Click the Access Options button in the bottom right corner of the menu that appears
  3. Click the Current Database category on the left side of the Access Options dialog box
  4. Under Application Options section look for the option called "Display Form." Select your form name from the combo box
  5. Click Ok to close the Access Options
  6. The next time you open the database your form will load on Startup

## Main Interface

### MasterVisa Credit Card Company

Button #1

Button #4

Button #2

Button #5

Button #3

Button #6