

Access 2007/2010 Topic Summary Notes

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Presented by ExecuTrain of Utah

Queries, Forms, Reports

The following pages are quick reference notes for dealing with basic tasks in Queries, Forms and Reports in Access 2007 and Access 2010.

It will help to remember the purpose of each component in Access:

Table	Stores data
Query	Searches and Manipulates large amounts of data
Form	Works with data through a graphical interface
Report	High Quality Printouts of data, Read Only
Macro	Performs many preprogrammed tasks quickly. For non-programmers.
Module	Holds programming VBA code for performing more complex tasks

Note that in 2010, you can create formulas in your tables. This was unavailable in previous versions.

The 2007 and 2010 versions are basically 98% the same. Both have a Ribbon and the same features. However, the 2010 version allows a database to be accessed via the Web by creating a Web Database. Web accessibility is greatly improved.

Access 2010 allows easier customization of the Ribbon, plus Microsoft has added the File menu back into the program. In Access 2007, the File menu was removed and a Circular Button called the Office Button was put in its place.

File formats are in the XML format with an extension of **accdb** whereas the old extensions were **mdb**. XML format means more efficient memory use and better recovery of corrupted or improperly closed files.

AGA Access 2007/2010 Queries, Forms, Reports

Create a Query

Create, Query Design

Select your table(s) by double clicking each one

Make sure they are linked

Bring down fields from each table by dragging down to the grid, or double clicking each field

Type in any Criteria to narrow down the results, if wanted

Run the query by clicking the View button on the ribbon

Add a Missed Table

Click the Show Table button on the Ribbon

Delete a Table from the Query

Click on the table and press the Delete keyboard button

Create a Link between two unlinked tables

Determine the field they have in common

Drag from the common field in table 1 to the common field in table 2

Access Query CRITERIA Language Examples

Find Blanks in a Field

IS NULL

Find Non-Blanks in a Field

IS NOT NULL

Find entries that start with a C, like Canada

Like C*

Find entries that contain a C within the string, like Unicare

Like *C*

Find entries that end with a C, like Zodiac

Like *C

Find entries that do not start with a C

Not Like C*

Find strings that start with a D but have 3 characters, like Dog or D44

Like D??

Use several wildcards to find a string, like LONDON in this example

Like *D??

Find any entry with the words Travel and Imports somewhere in the text
Travel and *Imports*

Find any entry with either Travel or Imports somewhere in the text
Travel or *Imports*

Find any number except for 10
<>10

Find entries over 10
>10

Find entries equal to or greater than 10
>=10

Find entries equal to or less than 10
<=10

Find entries less than 10
<10

Find entries between 5 and 10 INCLUSIVE
Between 5 and 10

Find words between Atlanta and Dallas, INCLUSIVE
Between Atlanta and Dallas

Find every date between two dates, INCLUSIVE
Between 1/1/99 and 5/12/99

Find all date entries in the last six months, INCLUSIVE
Between Date()-180 and Date()

Find all entries for the current date only
Date()

Find all entries later than today
>Date()

Find all entries before today
<Date()

Find an entry that happened 200 days ago
Date()-200

Find all dates that took place after 4/20/99
>4/20/1999

Find the states Oklahoma, Texas, Nevada and Utah
OK or TX or NV or UT

Another way: IN(OK,UX,NV,UT)

Find the states OTHER THAN THESE STATES: Oklahoma, Texas, Nevada and Utah
NOT IN(OK,UX,NV,UT)

Add a Calculated Field

This example shows two calculations that create additional fields.

The first calculation gives a 10% bonus to all employees who earn over \$50,000.

The second calculation adds the Bonus to the Salary field for a Grand Total for each employee listed.

The screenshot displays the Microsoft Access interface. On the left, a list of fields from the 'Employees' table is shown, including EmployeeID, LastName, FirstName, Title, Department, FullTime?, BirthDate, HireDate, City, Region/State, Country, Extension, ReportsTo, Salary, and E-mail. Below this, a table grid is visible with the following structure:

Field:	LastName	FirstName	Salary	Bonus: [Salary]*0.1	Total: [Bonus]+[Salary]	
Table:	Employees	Employees	Employees			
Sort:						
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Criteria:			> 50000			
or:						

A label 'Calculations' with two arrows points to the 'Bonus' and 'Total' columns in the table grid.

If Statements

In this example, an IF statement is used to create the Adjusted field which says "Over" if the employee earns \$50,000 or over, and it says "Under" if less than \$50,000. Notice the IF statement uses IIF instead of IF. This is due to programming conflicts.

Field:	LastName	FirstName	Salary	Adjusted: Iif([salary]>=50000,"Over","Under")
Table:	Employees	Employees	Employees	
Sort:				
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:				
or:				

Prompting (Parameter) Queries

This example shows a Prompt: [Enter Minimum Salary]

In this case, when the query is run it will ask the user to Enter Minimum Salary. If they type in 50000, it will give all salaries that are greater than \$50,000.

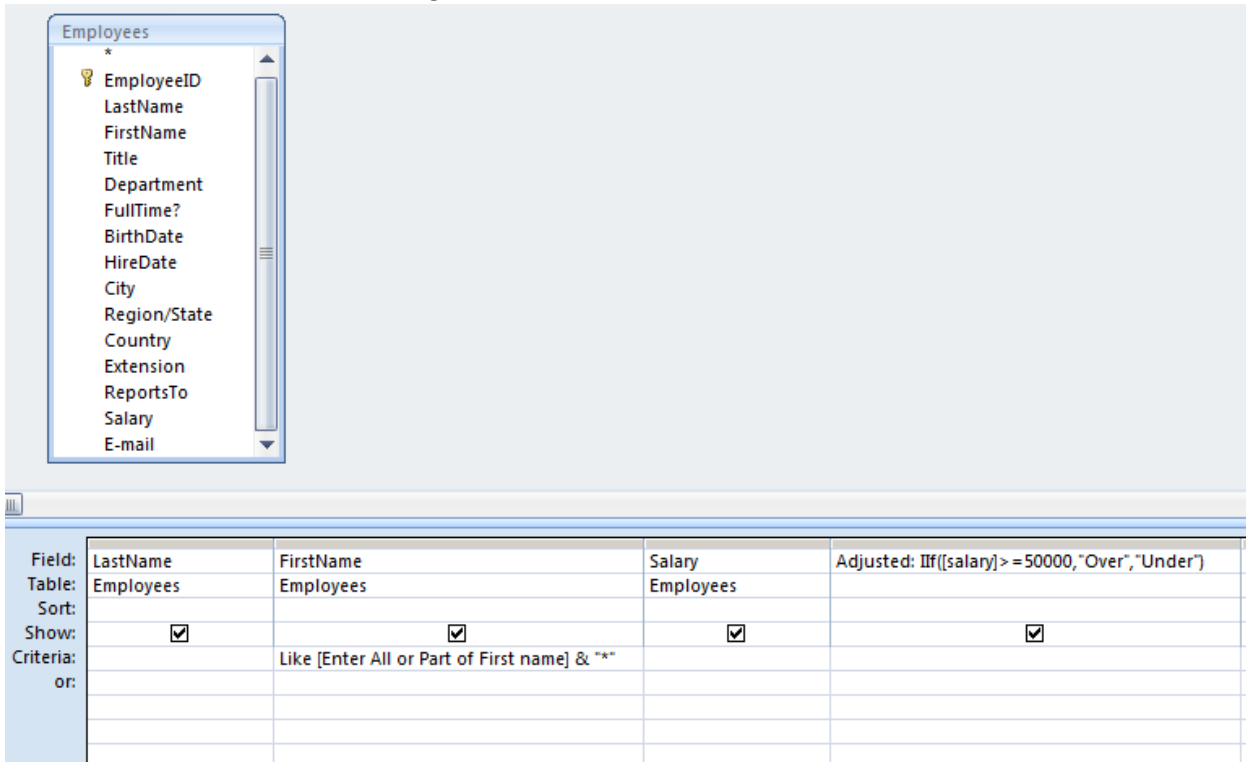
The screenshot shows the Microsoft Access query design grid for a query based on the Employees table. The design grid is as follows:

Field:	LastName	FirstName	Salary
Table:	Employees	Employees	Employees
Sort:			
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:			> [Enter Minimum Salary]
or:			

Prompting (Parameter) Queries

Another example uses Concatenation to widen the search possibilities.

In this example, if the user answers S to the prompt, it is like typing S* which would give everything starting with the letter "S". If the person types nothing but presses Enter instead, it would return all records. The word LIKE has to be used when using Wildcards.



The screenshot displays the Microsoft Access Query Design view for a query based on the Employees table. The design grid is configured as follows:

Field:	LastName	FirstName	Salary	Adjusted: IIf([salary]>=50000,"Over","Under")
Table:	Employees	Employees	Employees	
Sort:				
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:		Like [Enter All or Part of First name] & "*"		
or:				

Field List (Employees):

- EmployeeID
- LastName
- FirstName
- Title
- Department
- FullTime?
- BirthDate
- HireDate
- City
- Region/State
- Country
- Extension
- ReportsTo
- Salary
- E-mail

Grouping

When you group, you are summarizing records.

Example of Grouped

Company Name	SumOfQuan
Aztec Jewelry & Gifts	2
Brass Shop	6
Montgomery's Sales and Service	59
Mountain Treasures	95
Oriental Communicators	370
Peachtree Association	40
Peppermint Bay Service Div.	6
Reeds County Technical Schools	18
Remote Administration	150
Spellia and Associates	20
Spring Cleaning Services, Inc.	2
Whitefriars Central	9

Example of Ungrouped

Company Name	Quanti
Aztec Jewelry & Gifts	1
Aztec Jewelry & Gifts	1
Spring Cleaning Services, Inc.	1
Spring Cleaning Services, Inc.	1
Reeds County Technical Schools	10
Reeds County Technical Schools	2
Reeds County Technical Schools	5
Reeds County Technical Schools	1
Spellia and Associates	5
Spellia and Associates	1
Brass Shop	1
Brass Shop	1
Brass Shop	1
Brass Shop	1
Brass Shop	1
Brass Shop	1
Mountain Treasures	2

To begin the group process, you simply click the Totals button in the Ribbon and then fill in the Total row in the grid with the proper settings.

The screenshot shows the Microsoft Access interface. The ribbon is set to 'Design' view. The 'Totals' button, represented by a sigma symbol (Σ), is circled in red. Below the ribbon, a relationship diagram shows three tables: 'Customers', 'Orders', and 'Order Details'. 'Customers' is linked to 'Orders' with a 1:∞ relationship, and 'Orders' is linked to 'Order Details' with a 1:∞ relationship. At the bottom of the screen, a grid is visible with the following content:

Field:	CompanyName	Quantity				
Table:	Customers	Order Details				
Total:	Group By	Sum				
Sort:						
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Criteria:						

Form Design

A form is a graphical interface that allows your users to work with the data without having to do so through a table or query. A form gives you control over what your users can do to the data whereas a table or query does not give the same depth of control. Forms also look nicer and can have photos and buttons on them.

What you change in a form changes in the table, and vice versa.



The screenshot shows a form titled "Customers" with a light gray header. Below the header is a data entry form with the following fields and values:

Customer ID	Company Name	Contact Name		
AROUN	Around the Town	Maria Hardy		
Contact Title	Address			
Sales Representative	120 Hands Sq.			
City	Region/State	Postal Code	Code	Country
London	UK	WA1 1DP	EUR	UK
Phone	Fax			
(171) 555-7788	(171) 555-6750			

Create a Form

Pick the table or query the form will be based on
Create, More Forms, Form Wizard from the Ribbon
Follow the Prompts

Edit Data in the Form

Change the Data
Close the form, or press Shift+Enter, or go to another Record

Cancel the changes before leaving the Record

Press Escape Twice

Change the Form Design

Click the View Button (Home Tab) and Select Design View on the Ribbon
To get total control over objects, press Ctrl+A, click Arrange, Remove buttons in the Ribbon
Drag Fields where you want them

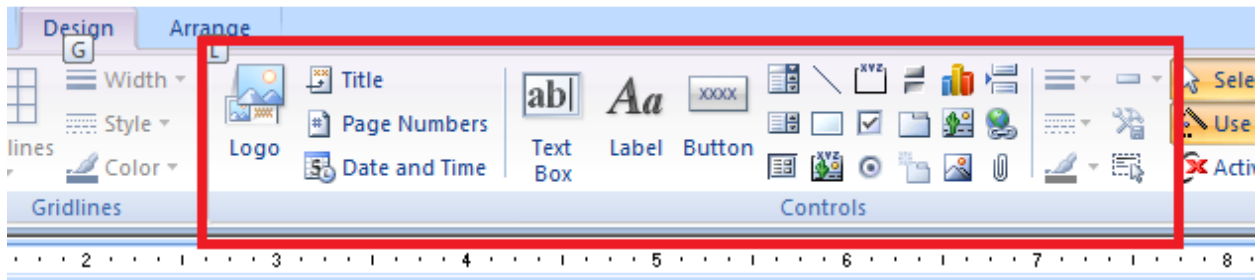
Delete Fields and Objects on the Form

Click the object and press the Delete button on the keyboard

Add Fields

Go to Design View (View, Design View)
Click on the Design Tab in the Ribbon
Click Add Existing Fields button in the Ribbon

Description of Most Used Control Tools on the Design Tab



Logo

Allows you to put a picture or logo in the Header of the form

Title

Places a Title in the Header of the form, fully editable

Page Numbers

Places Page Numbering in the Headers or Footers of the form

Date and Time

Places current Date/Time calculations in the Headers or Footers of the form

Text Box

Despite the name, this tool is mostly used for Calculations on Forms and Reports

Label

Allows you to put free text anywhere on the form

Button

Opens a wizard that creates buttons on the form that does various tasks for the user

Combo Box

Creates a Drop Down List on the form

List Box

Same a Combo Box except you see most or all of the choices in one window. There is no drop down arrow.

SubForm/SubReport

Allows you to put another Form (Sub Form) inside of this Form (Main Form). For example, the Main Form may be Customer Data and the Sub Form may be their Order Data.

Line Tool/Rectangle Tool

Draws Lines and Rectangles on the form

Tab Control

Puts tabs on the form so that different fields can be organized on different tabs.

Reports

Please note that creating Reports is basically the same as creating Forms, however Reports are “Read-Only” and the table data is not modified through them. Reports are for printing the data with graphics, designs, photos and graphs that are superior to just a standard printing of a list such as in tables and queries. While you can print Forms, we usually don’t because of all the buttons and drop downs that are usually placed on forms.

Another key difference between Forms and Reports is that you can Group Data in Reports, but you can’t do the same thing in Forms, at least as easily.

An example of grouping data would be placing all employees in groups by Departments, or grouping all Customers by their State. All the Customers in Utah would be in one group on the report, all of the Customers would be in Texas would be in another group.

Create a Report

Create Tab, Report Wizard

Add the fields

Select the field(s) you wish to Group, or just skip if no Grouping is wanted

Select the Style and Sorting on the next pages

Give the report a name and click Finish

Edit a Report

Click the Design View button at the bottom right of the screen

Move fields around and add fields using the Design Tab on the Ribbon

Print Reports

Click the Office Button, Print Menu, Print

Form and Report Extra Items

Moving Fields

In Forms and Reports, moving fields can be frustrating if in Control Layout mode. If you are unable to freely move fields around, go to Design View, press Ctrl+A on the keyboard, click Arrange Tab in the Ribbon, click the REMOVE button in the Control Layout section of the Ribbon. You may then arrange your fields without interference from the program.

Calculations

To make a calculation on a Form or Report...

Click the AB Text Box button on the Design Tab

Click where you want the calculation to go

Type the calculation in place of Unbound

Examples of calculations:

Take the Salary field and multiply it by 110%

=[Salary]*1.10

Multiply the Sub Total field by the Local Tax Field

=[Sub Total]*[Local Tax]

Add all of the Salary field entries now showing in the Form or Report

=Sum([Salary])