



**HILLSBOROUGH**  
Community College

Microsoft Access 2003  
Module 2

<http://pds.hccfl.edu/pds>



# Microsoft Access 2003: Module 2

January 2007

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# Objectives

At the end of this training session you will be able to:

1. Create a query;
2. Sort fields in a query;
3. Show fields in a query;
4. Run a query using wildcards;
5. Run a query for fields not in result;
6. Run a query for a number value;
7. Run a query using the comparison criteria "And";
8. Run a query using the comparison criteria "Or";
9. Create a form using the Wizard tool;
10. Understand the basics of the Toolbox: Controls;
11. Insert a graphic/image;
12. Insert and image;
13. Insert an unbound object frame;
14. Resize and image/graphic.



Using a number in a criteria is useful when information from a data field that consists of numbers is required. A dollar sign or decimal point is not required in the criterion.

## Create a Query

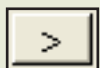
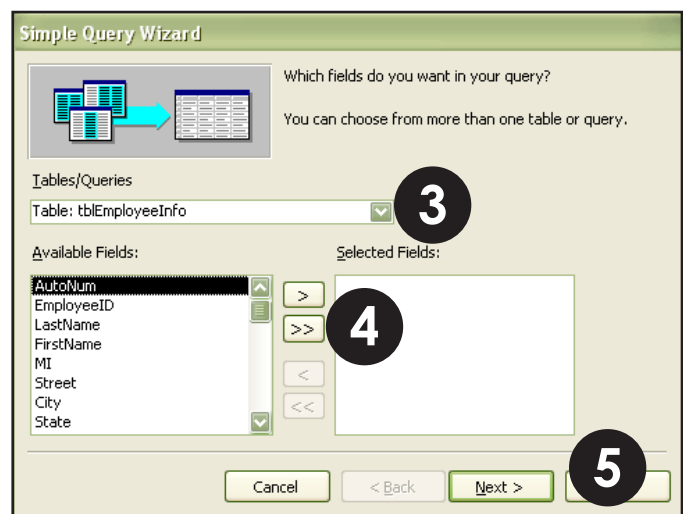
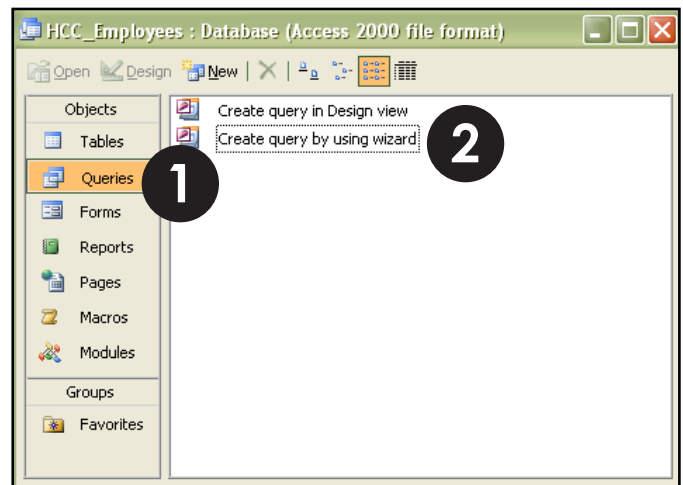
**A query allows for table inquiries. A query can change, delete, add, and arrange data in tables. Also aids gathering information for forms and reports. With a query you can ask questions and set parameters.**

Use the HCC\_Employees database.

1. Under the **Objects** bar, click on **Queries**.
2. Choose and double click on **Create query by using wizard**.
3. Under **Tables/Queries**, click on the down arrow and select the tables and/or queries to create and run a new query, for example, **tblEmpInfo**.
4. In the **Available Fields** list, select the table's field(s) to add to the query.

In this example, all the fields are used; therefore, click on the double-headed arrow icon to move all the items (fields) to the **Selected Fields** list.

5. Click on **Next**.



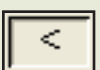
Clicks **one** item (field) to the **Selected Fields**.



Clicks **all** items (fields) to the **Selected Fields**.



Clicks **one** item (field) from the **Selected Fields**.



Clicks **all** items (fields) from the **Selected Fields**.

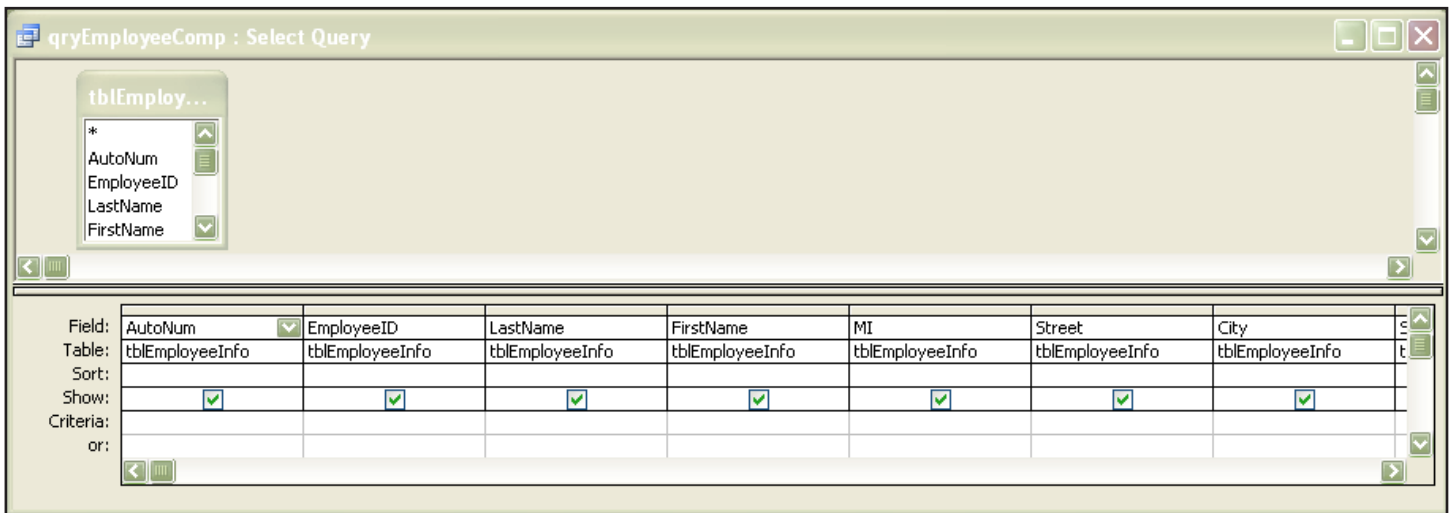
- Choose a **Detail** or **Summary Query**, for example,

**Detail.**

- Click on **Next**.
  - Type a title for the query, for example,
- qryEmployeeComp.**
- Click on either the **Open the query to view information** radio button or the **Modify the query design** radio button.

e.g. **Modify the query design**

- Point to and click on **Finish**.
- The **qryEmployeeComp** query is now displayed in **Design View**.



## Query in Design View: Sort

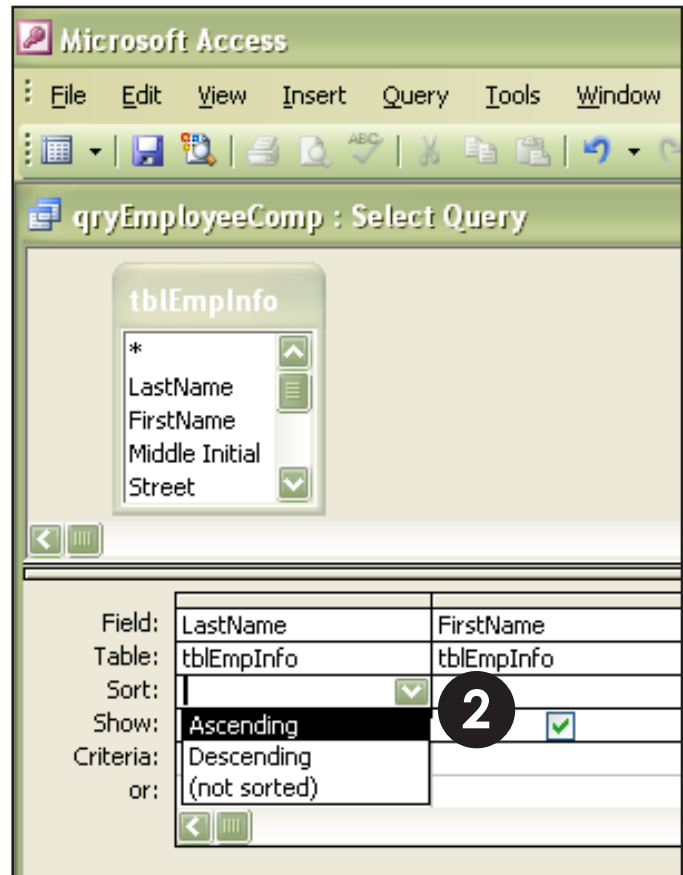
Sorting information can be a valuable tool when dealing with large amounts of information or when simply organizing information (fields). More than one field can be sorted; however, the field farthest to the left is given priority when sorting.

Fields can be sorted by:

- Ascending
- Descending
- Not Sorted

In this example, the **LastName** field is sorted in ascending order.

1. While in **Design View**, click in the blank box next to **Sort**; a down arrow appears.
2. Select the sort option.  
e.g. **Ascending**.



## Query in Design View: Show

The Show option displays or hides fields in a query or form.

In this example, the **Exempt** field is hidden.

1. While in **Design View**, uncheck the show box for **Exempt**.



To show fields in a query's results, add a check to each field name's **Show** checkbox. To hide fields in a query's results, remove the check in the field name's **Show** checkbox.

The screenshot shows the Microsoft Access interface. At the top, the title bar reads 'Microsoft Access'. Below it is a menu bar with 'File', 'Edit', 'View', 'Insert', 'Query', 'Tools', and 'Window'. A toolbar contains various icons. The main window title is 'qryEmployeeComp : Select Query'. Below the title, there is a list of fields from the 'tblEmpInfo' table: '\*', 'LastName', 'FirstName', 'Middle Initial', and 'Street'. Below this list is a design grid with two columns: 'ZipCode' and 'Exempt'. The grid has rows for 'Field:', 'Table:', 'Sort:', 'Show:', 'Criteria:', and 'or:'. The 'Show' row shows a checked checkbox for 'ZipCode' and an unchecked checkbox for 'Exempt'. A red circle with the number '1' is placed over the unchecked checkbox for 'Exempt'.

Field:	ZipCode	Exempt
Table:	tblEmpInfo	tblEmpInfo
Sort:		
Show:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Criteria:		
or:		

## Query: Text Data Criteria

**Text Data** is data in fields that are in text format. Such examples include but are not limited to names, number of employees, employee number, balance.


In this example, employees that are exempt are queried.

1. In the **Criteria** section under **Exempt**, type the text data criteria.

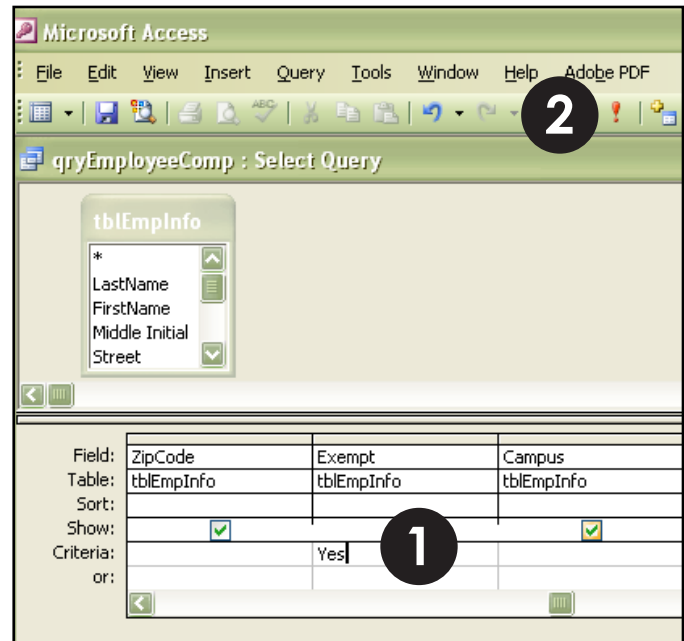
e.g. **Yes**

2. Click on the **Run** button.
3. The results of the query now display all employees that are **Exempt**.

To modify a query, click on the **Design View**

button . To view query results, select the

**Datasheet View** button .



	Last Name	First Name	Exempt
	Abel	Elizabeth	<input checked="" type="checkbox"/>
	Marcus	Margo	<input checked="" type="checkbox"/>
	Stevens	Elise	<input checked="" type="checkbox"/>
	Chapin	Dianne	<input checked="" type="checkbox"/>
	Bunker	Ethel	<input checked="" type="checkbox"/>
	Stein	Albert	<input checked="" type="checkbox"/>
	Santos	Carlos	<input checked="" type="checkbox"/>
	Hanz	Ernie	<input checked="" type="checkbox"/>
	Jones	Bridgett	<input checked="" type="checkbox"/>
	Miller	Theodore	<input checked="" type="checkbox"/>
	Hays	Chuck	<input checked="" type="checkbox"/>
	Pricey	Elvis	<input checked="" type="checkbox"/>
	Prost	Peter	<input checked="" type="checkbox"/>
*			<input type="checkbox"/>

Record: 13 of 13

### Activity

Run a query looking for employees who live in Temple Terrace. How many HCC employees live in Temple Terrace?

## Text Data Criteria: Wildcards

In this example, the last name of an employee with the letter M is queried.

1. In the **Criteria** section under **LastName**, type the text data criteria.  
e.g. **M\***
2. Click on the **Run** button.
3. The results of a query now display all employees with the last name that begins with the letter M.



**Text Data Criteria: Wildcards** Wildcards are useful in Access to serve as a character or blending of characters.

There are two types of wildcards in Access  
 \* (asterisk)  
 ? (question mark)

The \* wildcard symbolizes any compilation of characters. Therefore, mi\* stands for the letters mi, preceded by a letter combination.

The ? wildcard is defined by any defined letter. As a result, B?rt operates as the letter, B, followed by any single letter, r, and t. Appropriately, B?rt can mean Bert or Burt.

Microsoft Access  
 File Edit View Insert Query Tools Window Help Adobe PDF  
 qryEmployeeComp : Select Query  
 tblEmpInfo  
 \*  
 LastName  
 FirstName  
 Middle Initial  
 Street  
 Field: LastName    FirstName    Middle Initial    Street  
 Table: tblEmpInfo    tblEmpInfo    tblEmpInfo    tblEmpInfo  
 Sort:  
 Show:    
 Criteria: M\*  
 or:

qryEmployeeComp : Select Query

	Last Name	First Name	Middle Initial
▶	Marcus	Margo	M
	Mitchell	Bert	
	Miller	Theodore	H
	Martin	Melvin	
*			

Record: 1 of 4

### Activity

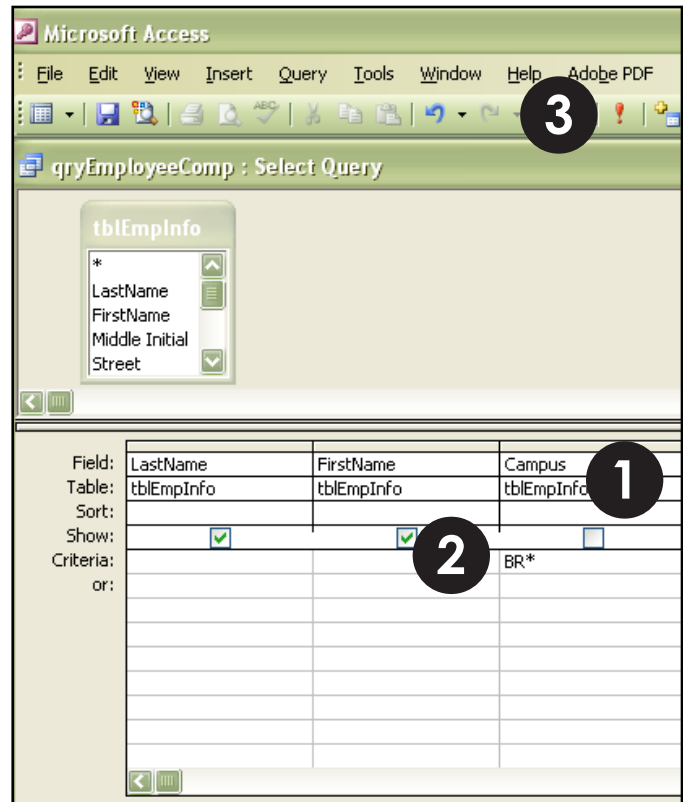
Run a query looking for employees working at a campus with the letter D. How many employees work at a campus with the letter D?

How would you run a query for employees working at District? How many employees work at District?

## Text Data Criteria: Field Not in Result

**Field Not in Result** is a query where criteria for a specific field do not need to appear in the outcome of the final query. In this example, the last name, first name, and middle initial are necessary. However, the campus does not need to appear. Therefore, a query with only the names of the employees working at the Brandon campus is required.

1. Uncheck the items to be hidden.  
e.g. **Campus**
2. Type criterion in the **Criteria** section. Under **Campus**.  
e.g. **BR\***
3. Click on the **Run** button.
4. The results of the query now display all employees at the Brandon campus.



	Last Name	First Name	Middle Initial
▶	Abel	Elizabeth	T
	Bunker	Ethel	E
	Mitchell	Bert	
*			

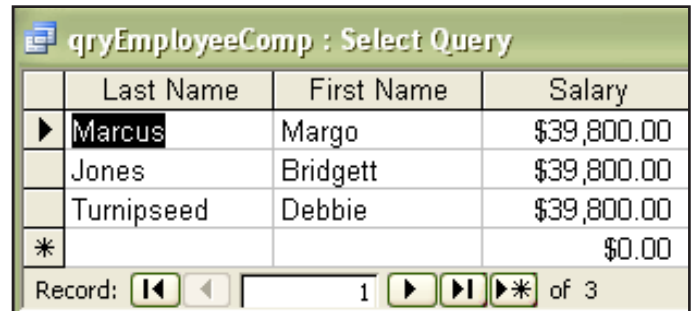
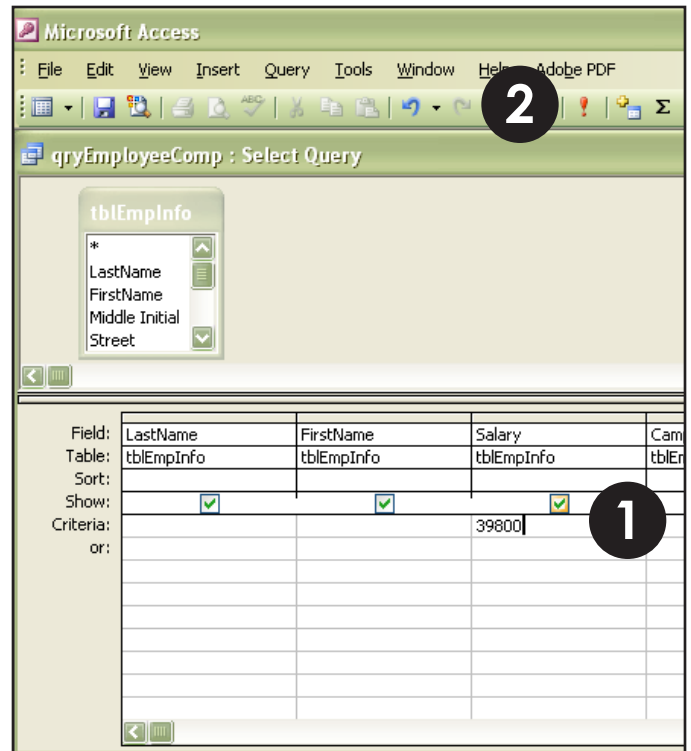
Record: 1 of 3

## Text Data Criteria: Number

Using a number in a criteria is useful when information from a data field that consists of numbers is required. A dollar sign or decimal point is not required in the criterion.

In this example, the names, addresses, campuses, and the salary of employees earning \$39,800.00 are needed.

1. Type criterion in the **Criteria** section. For example, under **Salary**, type **39800**. Do not type in the dollar sign or the decimal point.
2. Click on the **Run** button.
3. The results of the query now display all employees whose salary is \$39,800.00.



### Activity

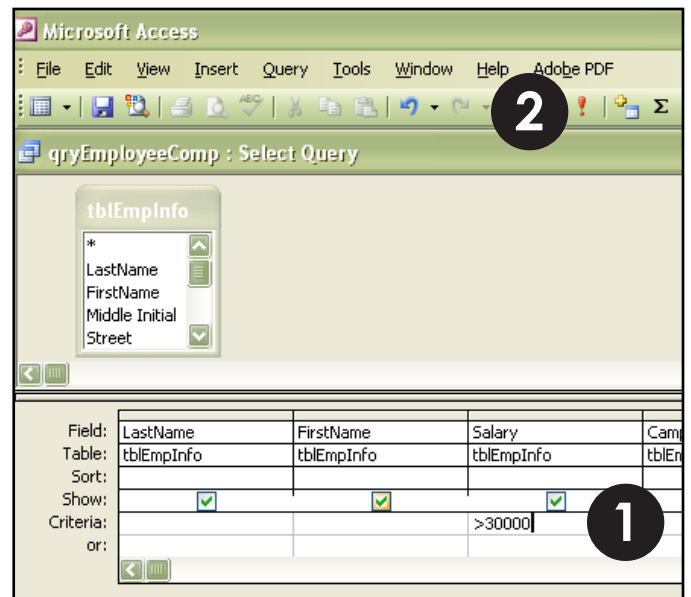
Run a query looking for employees earning \$60,000. How many employees are earning \$60,000?

## Text Data Criteria: Comparison

Using a number in a criteria is useful when information from a data field that consists of numbers is required. A dollar sign or decimal point is not required in the criterion.

In this example, the names, addresses, and campuses, and the salary of employees earning more than \$30,000.00 is needed.

1. Type criterion in the **Criteria** section.  
e.g. Under **Salary**, type **>30000**. Do not type in the dollar sign or the decimal point.
2. Click on the **Run** button.
3. The results of the query now display all employees earning more than \$30,000.



The screenshot shows the Microsoft Access interface displaying the results of the query. The title bar reads 'Microsoft Access'. The menu bar includes File, Edit, View, Insert, Query, Tools, Window, Help, and Adobe PDF. The toolbar contains various icons. The main window title is 'qryEmployeeComp : Select Query'. Below this, there is a table with columns: Last Name, First Name, and Salary. The results include: Abel, Elizabeth, \$37,500.00; Marcus, Margo, \$39,800.00; Stevens, Elise, \$39,200.00; Garcia, Rosa, \$60,000.00; Stein, Albert, \$42,300.00; Mitchell, Bert, \$40,900.00; Santos, Carlos, \$42,000.00; Hanz, Ernie, \$52,000.00; Jones, Bridgett, \$39,800.00; Turnipseed, Debbie, \$39,800.00; Pricey, Elvis, \$42,800.00. A red circle with the number '1' highlights the first row of results.

	Last Name	First Name	Salary
▶	Abel	Elizabeth	\$37,500.00
	Marcus	Margo	\$39,800.00
	Stevens	Elise	\$39,200.00
	Garcia	Rosa	\$60,000.00
	Stein	Albert	\$42,300.00
	Mitchell	Bert	\$40,900.00
	Santos	Carlos	\$42,000.00
	Hanz	Ernie	\$52,000.00
	Jones	Bridgett	\$39,800.00
	Turnipseed	Debbie	\$39,800.00
	Pricey	Elvis	\$42,800.00
*			\$0.00

Record: 1 of 11

### Activity

Run a query looking for employees earning less than \$30000. How many employees are earning less than \$30,000?

## Text Data Criteria: Comparison AND

Using the AND criteria is appropriate when information is needed from multiple fields.

AND conditions must appear on the same criteria line, for example, the names of employees earning more than \$30, 000.00 at the Dale Mabry campus.

1. Type criterion in the **Criteria** section.  
Under **Salary**, type **>30000**. Do not type in the dollar sign or the decimal point.
2. Type the AND criterion.  
Under **Campus**, type **DM\***.
3. Click on the **Run** button.
4. The results of the query now display all employees earning more than \$30,000 at the Dale Mabry campus.



Since the two conditions are on the same line, each one must be true.

**Microsoft Access**  
File Edit View Insert Query Tools Window Help Adobe PDF

qryEmployeeComp : Select Query

tblEmpInfo

Field:	LastName	FirstName	Salary	Campus	Middle In
Table:	tblEmpInfo	tblEmpInfo	tblEmpInfo	tblEmpInfo	tblEmpInfo
Sort:					
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:			>30000	DM*	
or:					

qryEmployeeComp : Select Query

	Last Name	First Name	Salary	Campus
▶	Santos	Carlos	\$42,000.00	DM-Dale Mabry
	Jones	Bridgett	\$39,800.00	DM-Dale Mabry
	Turnipseed	Debbie	\$39,800.00	DM-Dale Mabry
*			\$0.00	

Record: 1 of 3

### Activity

Run a query looking for employees working at the Ybor campus and who are exempt. How many employees are working at the Ybor campus and are exempt?

## Text Data Criteria: Comparison OR

Using the OR criteria is applicable when information is needed from multiple fields.

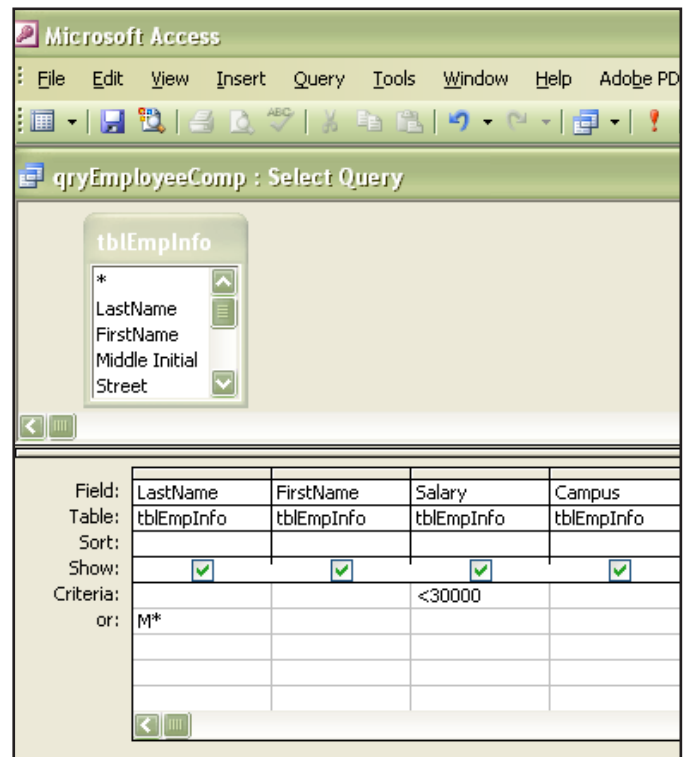
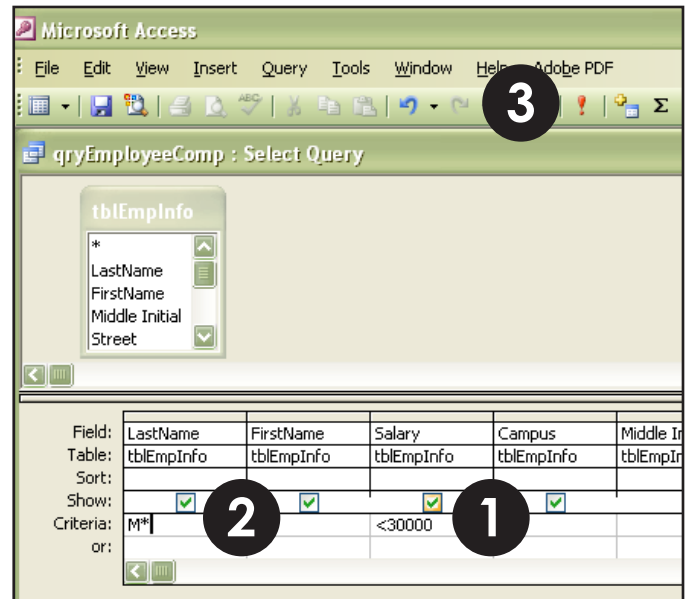
OR conditions must appear on the separate lines.

In this example, the names of employees earning less than \$30,000.00 or with the last name beginning with the letter M are required.

1. Type criterion in the **Criteria** section. Under **Salary**, type **<30000**. Do not type in the dollar sign or the decimal point.
2. Type the OR criterion. Under **Last Name**, type **m\*** on a separate line.
3. Click on the **Run** button.
4. The results of the query now display all employees earning less than \$30,000 or employees with the last name beginning with the letter M.



Since the two conditions are on separate lines, one must be true.



## Create a Form: Form Wizard

Using the Form Wizard is simple and easy to use. The form is used to simply display and enter data in a fitted format. Forms in Access are created from tables and/or queries. Forms can also contain subforms (nested tables).

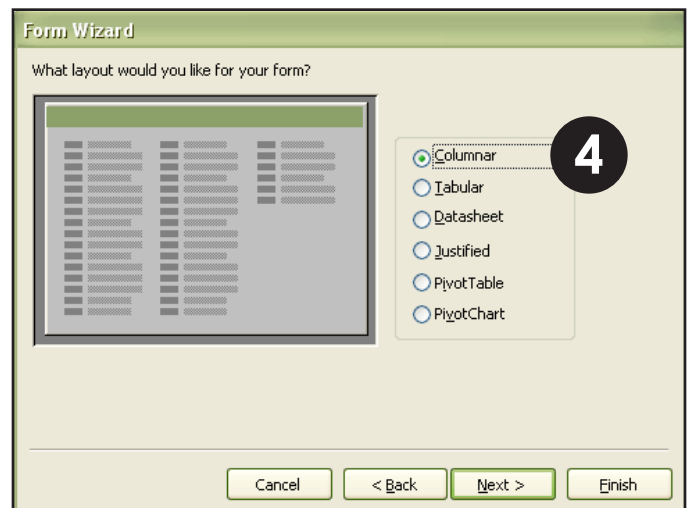
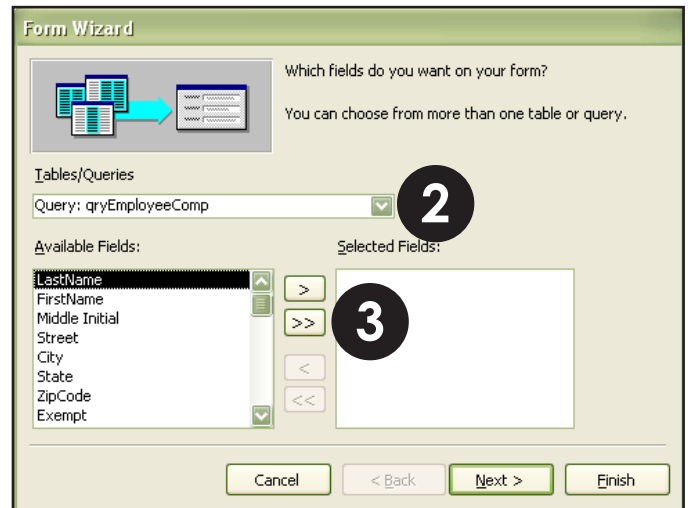
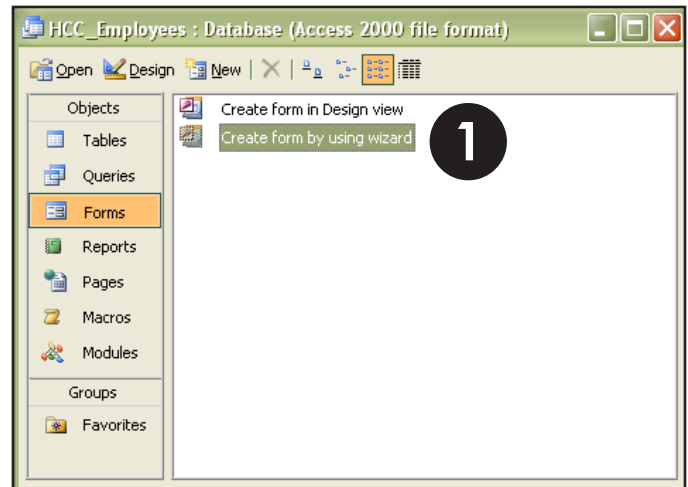
Personalize forms in **Design View** by adding a logo or picture, organizing headers, details, footers, and sort columns.

1. Under **Objects**, click on **Forms>Create form by using wizard**.
2. Select the table or query for report, for example, **qryEmployeeComp**.

3. Add **Available Fields** to **Selected Fields** and click on **Next**.

In this example, add all available fields.






4. Choose **report layout** and orientation and click on **Next**. In this example, the **Columnar** layout is chosen.



5. Select the form style and click on **Next**, for example, **Standard**.
6. Give the form a title, for example, **frmEmployeeComp**.
7. Choose whether to **Open the form to view or enter information** or **Modify the form's design**, for example, **Open the form to view or enter information**.
8. Click on **Finish**.
9. Employee Information form now appears.

In this example, a form was created using the query **qryEmployeeComp**. When more information is added to the form, it adds any new information to the table(s) **tblEmployeeInfo**.

### Form Navigation Buttons

-  Returns to the first record in the table.
-  Advances to next record.
-  Number in record
-  Advances to last record in the table.
-  Creates a new record.

# Create a Report: Report Wizard

Report Wizard is easy to use and allows for the design, development, printing, and print preview of information such as labels, lists, form letters, invoices, summaries, display charts, etc. With reports the user can personalize reports by adding a logo or picture, organizing headers, details, footers, and sorting columns.

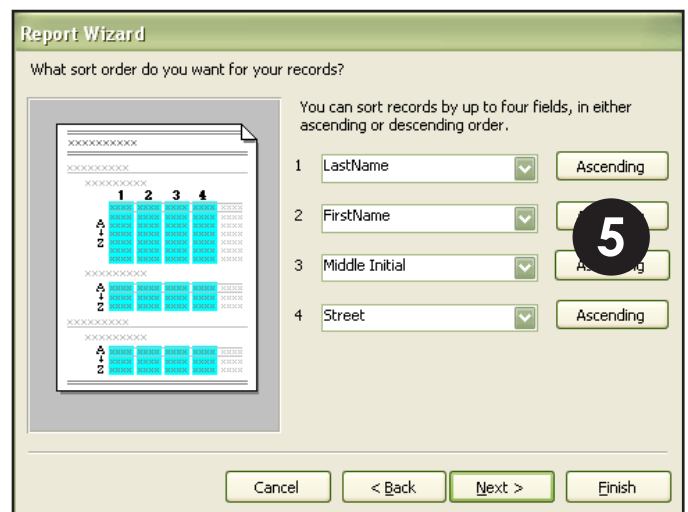
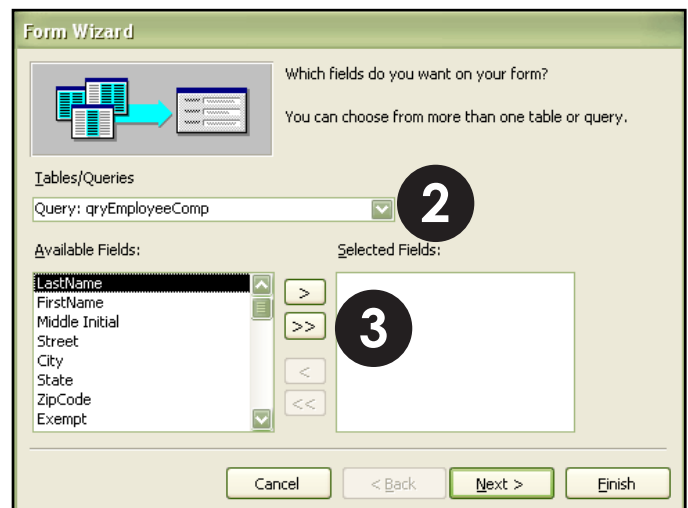
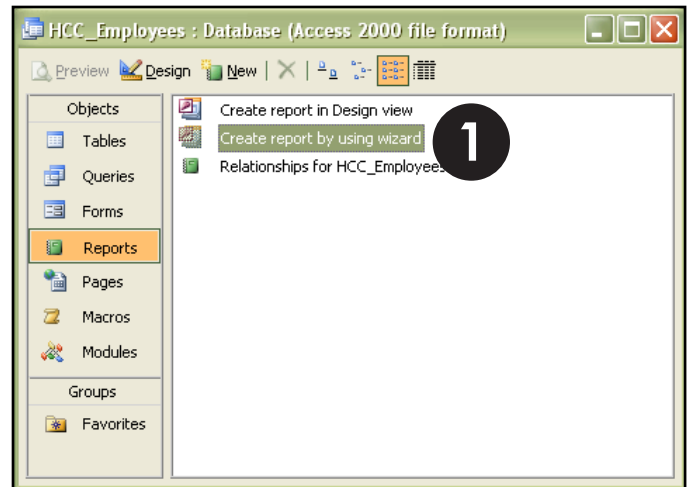
In this example, the names of employees earning more than \$30,000.00 or with the last name beginning with the letter M are required.

1. Under **Objects**, click on **Reports>Create report by using wizard**.
2. Select the table or query for report.  
e.g. **QryEmployeeComp**
3. Add **Available Fields** to **Selected Fields** and click on **Next**.

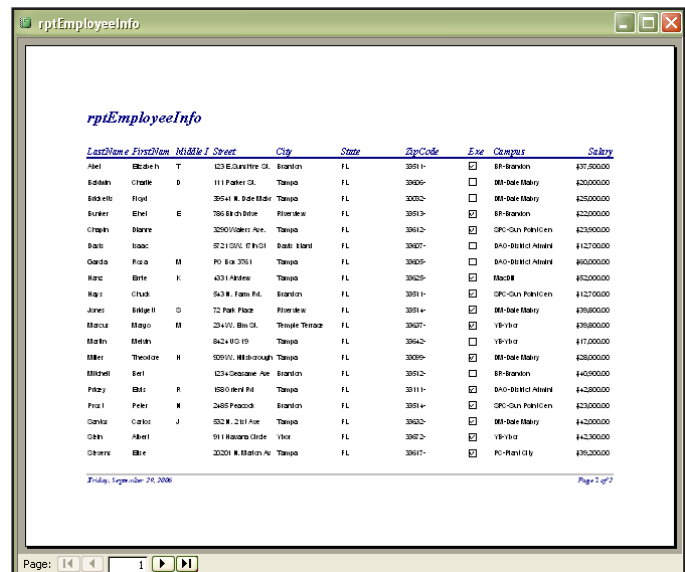
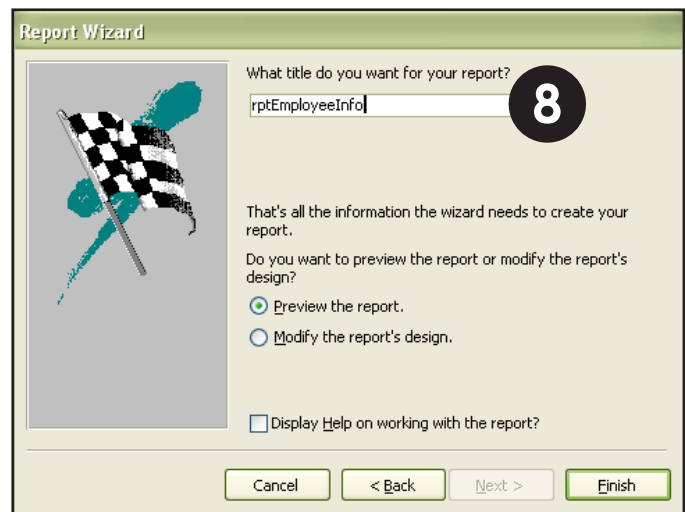
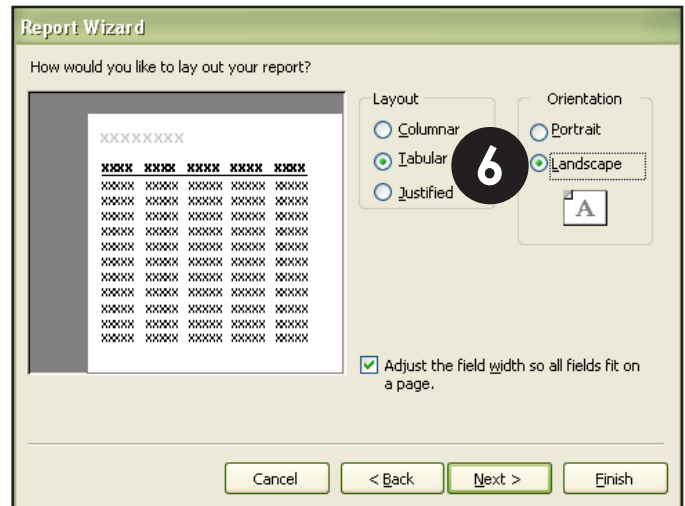
In this example, add all available fields.

4. Add any grouping levels; however, in this example do not add any. Therefore, click on **Next**.
5. Sort records, up to four fields in ascending or descending order, and click on **Next**.

In this example, the fields, **LastName**, **FirstName**, **Middle Initial**, and **Street** are sorted in ascending order.



6. Choose report layout and orientation and click on **Next**.  
e.g. **Tabular** layout and **Landscape** orientation
7. Choose a report style and click on **Next**.  
e.g. **Formal**
8. Type in a report title, preview the report, or modify the report's design and click on **Finish**.  
e.g. **rptEmployeeInfo**
9. The Employee Information report now appears.



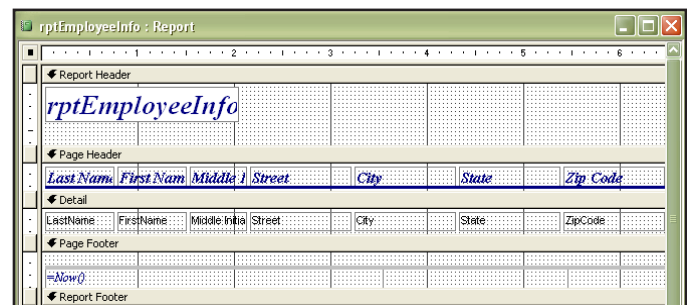
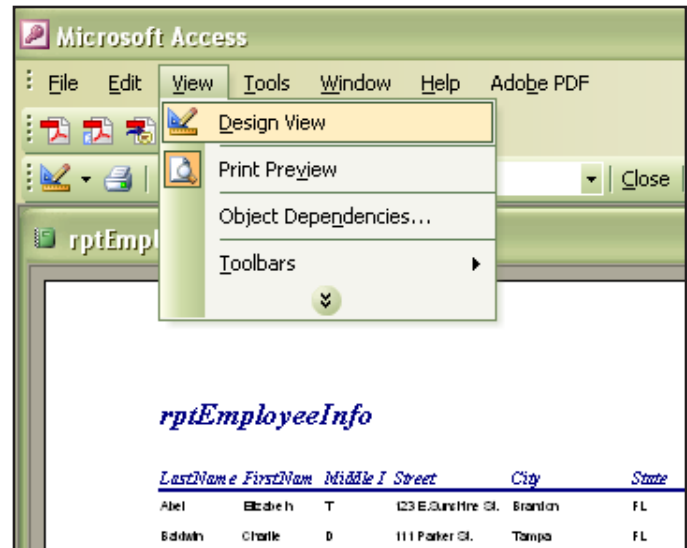
## Modify a Report

Design View allows for the modification and customizing of reports by adding a logo or picture, organizing headers, details, footers, and sorting columns.

**Print View** allows for a print preview of the report.

In this example, the Employee Information report is modified.

1. To change **Print Preview** to **Design View**, click on **View>Design View** from the toolbar.
2. The report now appears in **Design View**.



### Activity

Modify rptEmployeeInfo by changing the font, size and color. Change the report header title to HCC Employee Information. Set the report to show all the information in each of the columns.





**Command Button-** Creates and activates a macro or Visual Basic command.



**Image-** Shows static images that cannot be edited.



**Unbound Object Frame** - Shows static objects in a form that are saved or stored in another table, e.g. images, charts, sounds.



**Bound Object Frame** - Shows bound objects, e.g. image. Displays an ActiveX object and is saved or stored in a table.



**Page Break-** Denotes a new report page.



**Tab Control-**Creates tab pages on a form.



**Subform/Subreport-** Shows information from a table, form, report, or query.



**Line-** Draws a line.



**Rectangle-** Draws a rectangle.



**More Controls-** Contains ActiveX controls



## Toolbox: Insert a Graphic/Image

Personalize forms and graphics by adding a company logo or another graphic.

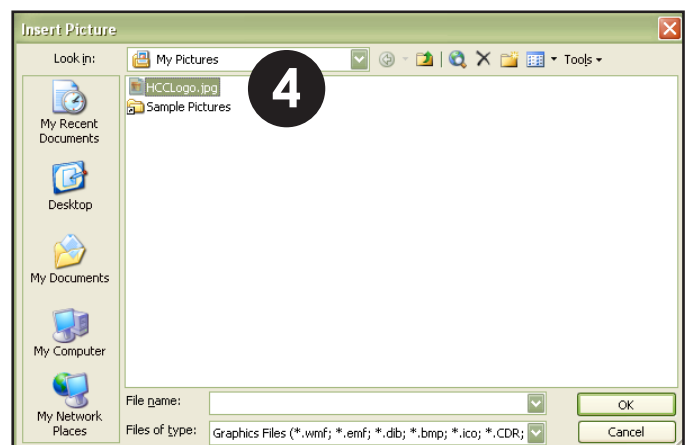
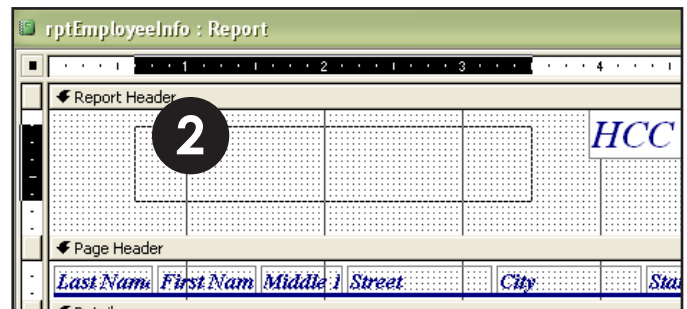
To insert a graphic in the form or report, you must be in **Design View**.

## Toolbox: Insert Image

1. Point to and click on **Image** from the toolbox.
2. Take the image pointer and click and hold, then draw a rectangle to the approximate size of the graphic in the location where the image will appear.

In this example, the HCC logo is added to the report header.

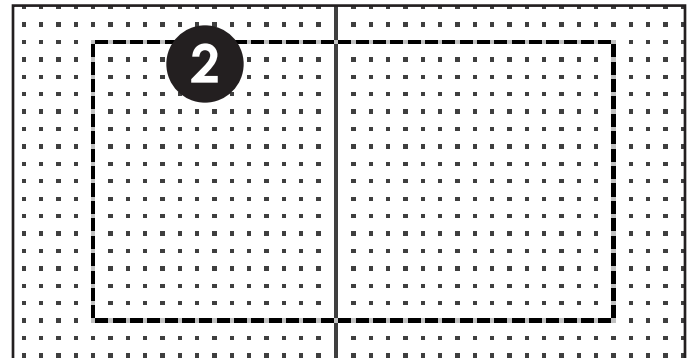
3. Release mouse button after the Image box is drawn.
4. After the **Insert Picture** dialog box appears, locate the file and click on **OK**.  
e.g. **My Pictures>HCCLogo**.
5. Resize graphic with sizing handles.





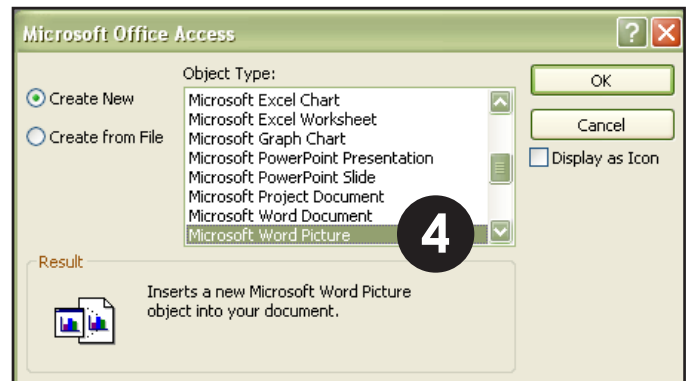
## Toolbox: Insert Unbound Object Frame

1. Point to and click on **Unbound Object Frame** from the toolbox.
2. Take the image pointer and click and hold, then draw a rectangle to the approximate size of the graphic in the location where the image will appear.



In this example, a graphic that represents employees is added to the report header.


3. Release the mouse button after the Image box is drawn.
4. Choose the object type and click on **OK**. (Where the object/image/graphic will be imported from.)



e.g. **Microsoft Word Picture**

5. In the **Insert>Picture>From Clip Art**, type a general title for what is needed and press the **Go** button.

e.g. **employees**.

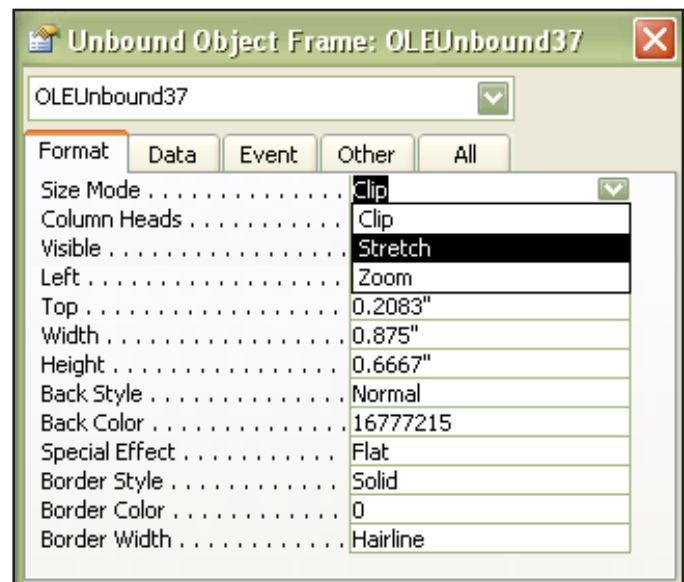
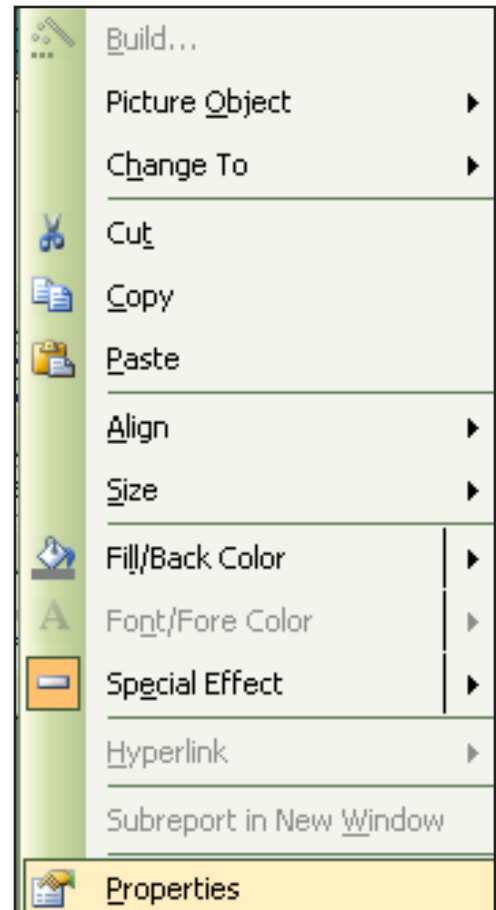
 Steps may vary for each application.

8. Select graphic to insert and click on the **Close picture** button from the **Edit Picture** toolbar.
9. Resize graphic with sizing handles.

## Resize Image/Graphic

Sometimes after an image is placed on a form or report, it does not fit properly in its box. Below are the steps to resize an image without resizing the box entirely.

1. Select the image.
2. Right click on the mouse and click on **Properties**.
3. Click on the **Format** tab.
4. Point to and click on **Size Mode** down arrow and choose **Stretch**.
5. The image now fits in the box.



### Activity

Insert an unbound image to the header of your report and resize the image using the Resize Image/Graphic steps.