

# Access Queries, Forms & Reports

Computer Training Solutions





## 1. Overview of Access

- ⊕ Introduction to Database Concepts and Terminology
- ⊕ Examine the Access Environment
- ⊕ Examine the Access Objects

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## 2. Working With Table Data

- ⊕ Examine a Table
- ⊕ Find and Edit Records
- ⊕ Add and Delete Records
- ⊕ Filter and Sort Records

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## 3. Working with Queries

- ⊕ Create Queries
- ⊕ Multi-Table Queries
- ⊕ Query Calculations
- ⊕ Action Queries
- ⊕ Parameter Queries

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## 4. Working with Forms

- ⊕ Create a New Form
- ⊕ Open a Form
- ⊕ Change a Form Design

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## 5. Working with Reports

- ⊕ Create a Report
- ⊕ Preview a Report
- ⊕ Change a Report Design
- ⊕ Sort and Group Data
- ⊕ Work with Report Calculations
- ⊕ Format a Report

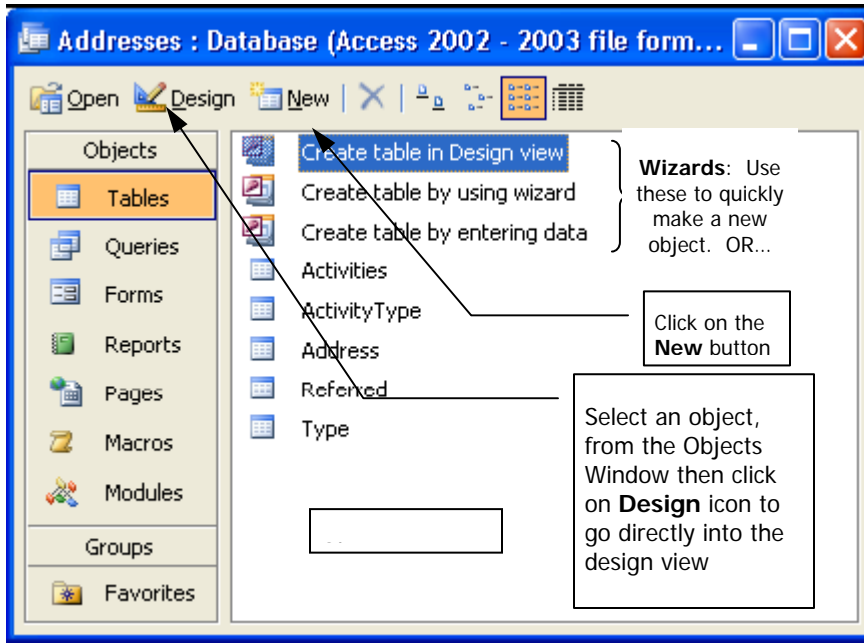
### **IMPORTANT NOTE:**

Individuals may develop Access databases ONLY if they are on a stand-alone computer, will not be shared with other individuals, used for statistical purposes only and do NOT contain patient information. Access databases developed internally by individuals other than by Manitoba eHealth Application Developers will NOT be supported.

Manitoba eHealth Computer Training Solutions can offer training in Access only, not support.

For more information on having a database developed for your needs, please contact the Service Desk at 940-8500.

### The Database Window



**Objects Bar:** Select the type of object you want to view.

### Database Objects

- Tables** Tables store related data in rows (records) and columns (fields).
- Queries** Queries view, filter, calculate, change, sort and examine the data stored in tables.
- Forms** Forms are custom screens that provide an easy way to enter and maintain data in a table or query.
- Reports** Reports present data from a table or query in a printed format – no data entry can be done in this view.
- Pages** Pages are forms saved as Web pages so that the database can be accessed over the Internet.
- Macros** Macros automate common tasks and can be invoked by clicking a button or pressing a shortcut key.

### Query Criteria Examples

Type This Criteria	Records Displayed If The Value In The Field
Canada	Is equal to Canada
Between 1/1/2006 and 3/31/2006	Is between (and including) the dates of January 1, 2006 and March 31, 2006
S*	Starts with the letter "S"
*S	Ends with the letter "S"
*S*	Contains the letter "S"
>20000	Is greater than 20,000
<=2/15/2006	Is less than or equal to the date of February 15, 2006
Not Canada	Does not equal Canada
Is Null	Is blank
Is Not Null	Is not blank
>=now()	Is greater than or equal to the current date
<>MB	Is equal to all other provinces except not Manitoba
Not a*	Does not begin with the letter "A"
>=[AmountOwed]	Is greater than or equal to the entry you type for the AmountOwed field when prompted by Access

**Modules** Modules are groups of procedures that are written in Visual Basic programming language and used to automate tasks.

### Keyboard Shortcuts

Open a Database	CTRL + O
Close a Database	CTRL + W
Print Current View	CTRL + P
New Record	CTRL + +
Delete Record	CTRL + -
Cancel Changes	ESC
Insert Date	CTRL + ;
Help	F1
Copy Value From Same Field In Previous Record	CTRL + "
Switch between design window panes	F6



**NOTE:** Criteria is NOT case-sensitive

### Table Field Data Types

<b>Text (Default)</b>	Stores text or numbers. Maximum 255. Default 50	<b>Memo</b>	Stores up to 64,000 characters (text or numbers)
<b>Number</b>	Stores numbers that can be used in calculations	<b>Date/Time</b>	Stores dates, times, or both
<b>Currency</b>	Stores numbers that represent money	<b>AutoNumber</b>	Automatically fills in a unique number for each record
<b>Yes/No</b>	Stores only one of two values – yes or no	<b>OLE Object</b>	Stores objects such as graphics, charts, documents
<b>Hyperlink</b>	Stores clickable links to Web pages on the Internet or files on a network.	<b>Lookup Wizard</b>	Helps you create a field whose values are selected from another table, query, or list of values

## What is a Relational Database?

It is a type of database in which you group data into one or more distinct tables that can be related to one another by using fields common to each related table.

## Object Naming Conventions

For ease of identifying objects, the following “tags” can be used to precede the object names:

Tag	Object	Example
tbl	Tables	tblSuppliers
qsel	Select Queries	qselLocalSuppliers
frm	Forms	frmSuppliers
rpt	Reports	rptSupplierInformation
mcr	Macros	mcrOpenSuppliersForm
pge	Pages	pgeSupplierInformation

## Copying an Object

1. Select the object.
2. Right-Click and choose **Copy**.
3. Right-Click an open white spot in the Object window.
4. Select **Paste**.
5. Give the Object a name.
6. Click on **OK**.

## Filtering by Selection

To filter out specific data in either a Table or a Query:

1. Click in the cell containing data to use for the filter criteria.
2. Click the **Filter By Selection** button.



## Removing a Filter

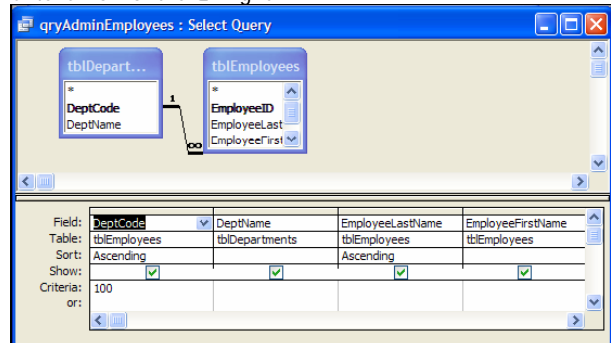
Click the **Remove Filter** button.



## Creating a Select Query

1. Click the **Queries** icon in the Objects bar and double-click the **Create query in Design view** icon.
2. Select the table you want to query and click the **Add** icon. Repeat for all the tables you want to add to the query.
3. Click the **Close** icon when finished selecting all the tables you want.
4. Select the field you want to include in the query then either drag it down or double-click on it to get it into the **Query By Example (QBE)** grid. Repeat until you have added all the fields you want in your query results.

5. If you want to filter for specific records, enter the criteria in the Criteria Row of the QBE grid.



6. Save the query by clicking on the **Save** icon.
7. Give the query a name, and then click on **OK**.

**REMEMBER:** Do not use space in Object names.

## Running a Query

- In the **Query Design** view, click the **Run** button.
- In the Main Database Window, select the Queries object, then double-click on the query you want to run.

## Switching Views



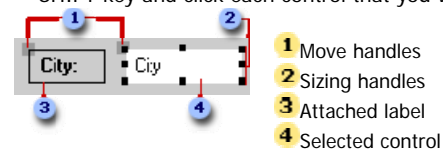
Click the View button (the first icon) on the toolbar. This will toggle the view between Design View and the Object View (Datasheet View, Query Dynaset View, Form View, Report Preview)

## Creating a Form or a Report

Click the **Forms** or **Reports** icon in the Objects Bar and double-click the **Create form by using wizard** or the **Create report by using wizard** and follow the onscreen instructions.

## Selecting Controls on a Form or Report

1. Open a Form or Report in **Design** view.
2. Do one of the following:
  - To select one control, click anywhere in the control.
  - To select adjacent controls, click at any point outside a control, and drag a rectangle over the controls that you want to select.
  - To select nonadjacent or overlapping controls, hold down the SHIFT key and click each control that you want to select.



If you want to remove one or more controls from the selected group, hold down the SHIFT key, and then click the controls that you want to remove.

### Exercise 1

1. Open the database named **JMC Customers**.
2. Open the table named **Customer Data Table**.
3. Filter the table to find only those customers who live in "NY". You found \_\_\_\_\_ records. Clear the filter.
4. Filter the table to find only those customers who joined in 1997. You found \_\_\_\_\_ records. Clear the filter.
5. Filter the table to find any customers' phone numbers that start with the area code of "704". You found \_\_\_\_\_ records. Clear the filter.
6. Close the table, and then close the database.

### Exercise 2

1. Open the database named **Calcprac**.
2. Take a minute to familiarize yourself with the data in each of the following 3 tables:  
tblBookOrders  
tblBooks  
tblCustomers
3. Create a query that will provide us information on the Customer's Name, the number of books they have ordered and the title of those books.
4. Based on the number of books that the Customer has ordered, calculate how much they owe for each book.
5. Run the query. How much does the Customer, Barney's Books, owe for the book with the title of "The Art of Living" owe? \_\_\_\_\_
6. Save the query as qryMyBooks.
7. Close the query. Close the database

### Exercise 3

1. Open the database named **JMC Lists**.
2. Create a query to list all customers in Virginia. Please include the field to show when these customers joined JMC.  
How many records did you find? \_\_\_\_\_
3. Save this query (with the proper naming conventions) as Customers From Virginia
4. Close the query.
5. Create another query called Inexpensive Products to list all products that JMC sells for less than \$30 each. Be sure to include the Product Name, Cost Price and Sell Price in the query grid. Sort this list in descending order.

The least expensive product that JMC sells is \_\_\_\_\_

6. Save the query as Products Under \$30 (be sure to use the proper naming convention).
7. Close the query.
8. Open the query named **Customers From NY** in design view.
9. Remove the criteria currently under the "State" field.
10. Add new criteria to find all customers who joined JMC in the year 1997.

How many records did you find? \_\_\_\_\_

11. Save the query as Customers Joining In 1997 (using the proper naming convention).
12. Close the query.
13. Close the database.