

Microsoft Access 2007 Using Tables And Forms

University of California

Berkeley

Haas School of Business



DASH DESIGNS CONSULTING

Technology Training and Consulting Services

**Microsoft Access 2007
Using Tables And Forms
For
The Haas School of Business,
University of California**

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USING TABLES AND FORMS WITH MICROSOFT ACCESS 2007

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Daily Data Entry Techniques

Reference Database: *My Project Database.accdb*

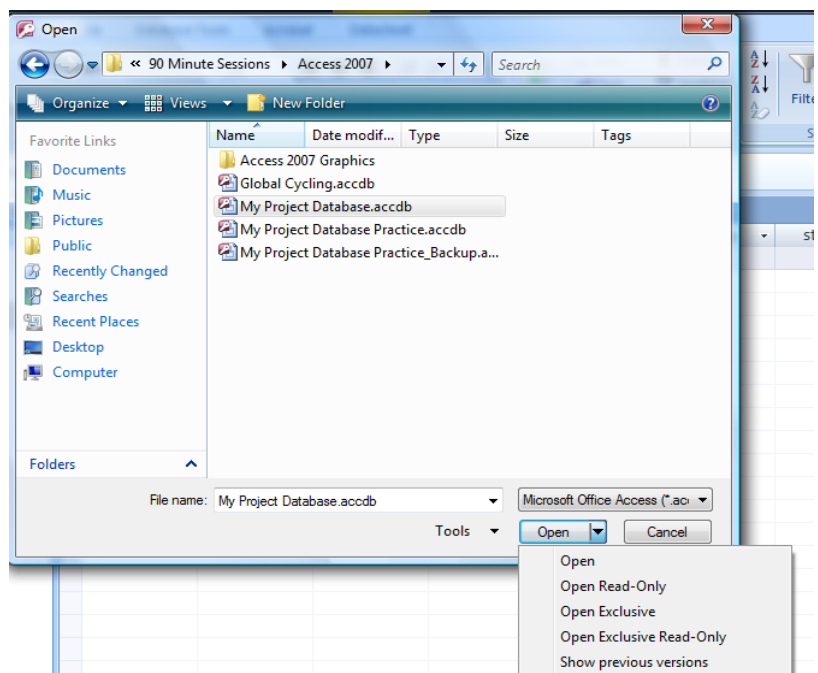
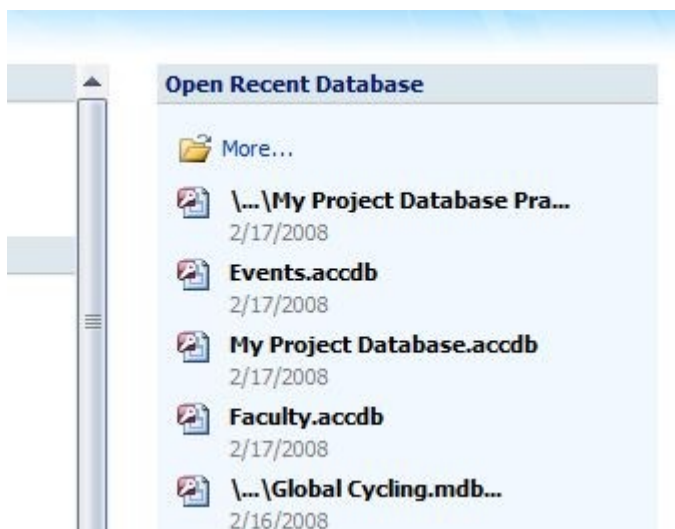
OPENING AN ACCESS DATABASE

When starting up Access, the user can specify a previously started database in the **Open Recent Database** area of the **Getting Started** Screen. Once in the Access program, the **Office Button: Open** dialog box can locate the database you wish to open by going to the drive and folder that contains that database and selecting the file, then clicking the **Open** button. You can also **double-click** the file to open it. If it is a database that you recently have worked with, you may open it by clicking on it directly in the **Office Button Recent Documents** listing.

Historically, databases can be opened by more than one user in a network environment. In this **multi-user** environment, all users can work on the database at the same time. Changes to the database can happen simultaneously. If more than one person changes the same record, the last changes to that record become the saved information.

You can open a database so that other users of that database are excluded from opening that database while you have it open. When you open an Access database you have several options (under the **Open button**) including the "**Open Exclusive**" option. For example, you might need to make some key changes to the database that might effect how the other users manage the information. When this option is in use, no other users can open that database until the person who is using that database closes it.

Open Recent Database List from Getting Started Screen



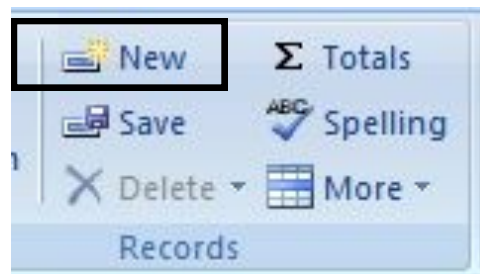
ADDING RECORDS IN A TABLE

Access **only** allows new data to be entered into the **New Record Row** of a table. To enter a new record just click the New Record button. You will find it in the Navigation buttons at the bottom of the table as well as on the **Home Tab**.

Steps:

- ⇒ Open the preferred table (if necessary)
- ⇒ Click the **New** button in the **Record** group of the **Home** tab
 - Or —
- ⇒ Click **New Record** button on the navigation bar at bottom of table window
- ⇒ Enter the appropriate data in the record
- ⇒ Repeat for each new record

New Record Button in Records Group of Home Tab



New Record Button on Navigation Bar at bottom of Table Window



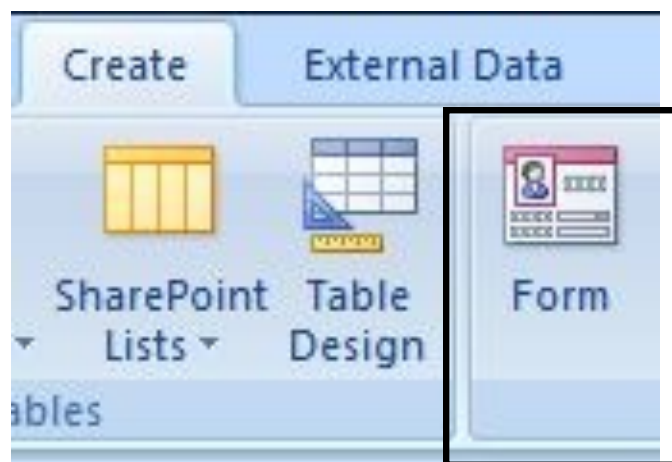
You can use the Keyboard combination of **Control and +** (plus sign) to move directly to the new record row. **<Ctrl+ +>** ↗

ADDING RECORDS IN A FORM

A form provides a “graphic” view of the records in the table. Access provides methods to create custom forms or basic forms using the Create ribbon. Data entry in a form is exactly the same as in a table. When a user works in a form they are actually working on the original records in the table. Think of a form as a graphic “conduit” to the records in the underlying table.

Steps:

- ⇒ Open the preferred table (if necessary)
- ⇒ Click the **Form** button in the **Forms** group of the **Create** tab
- ⇒ As in a table, click the **New Record** button (Home Tab, Records Group)
- ⇒ Enter the appropriate data in the record
- ⇒ Repeat for each new record



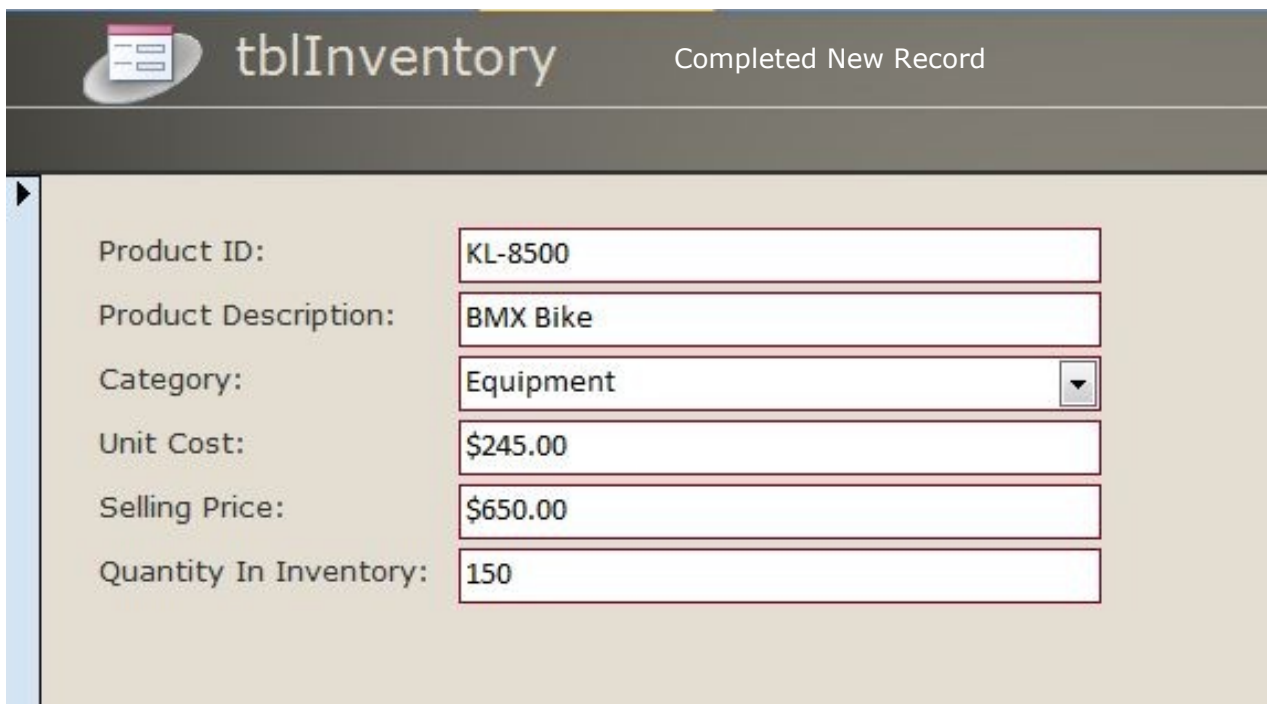
ADDING RECORDS IN A FORM

The screenshot shows the 'tblInventory' form in 'New Record' mode. The form contains the following fields:

Product ID:	<input type="text"/>
Product Description:	<input type="text"/>
Category:	<input type="text" value="Equipment"/>
Unit Cost:	<input type="text"/>
Selling Price:	<input type="text"/>
Quantity In Inventory:	<input type="text"/>

Note: Press the <Enter> key to move to the next field

Record: 19 of 19 No Filter Search



The screenshot shows the 'tblInventory' form in 'Completed New Record' mode. The form contains the following fields:

Product ID:	KL-8500
Product Description:	BMX Bike
Category:	Equipment
Unit Cost:	\$245.00
Selling Price:	\$650.00
Quantity In Inventory:	150

EDITING RECORDS IN A TABLE

Access allows you to edit data in the Datasheet at any time. The only field type you cannot edit is an **Autonumber field** since that data is automatically generated by Access.

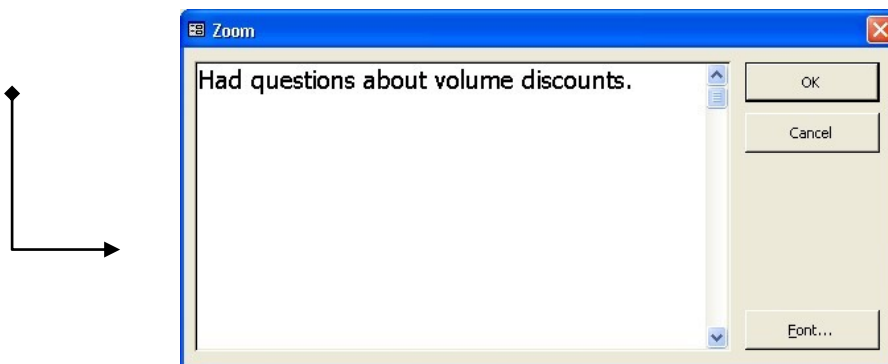
Whenever you add or edit records in Access an icon of a **Pencil** appears in the record selector button of that record. It indicates that the data being entered has not yet been saved.



Access (as well as most database programs) **saves the data that you enter automatically as soon as you leave that row** (record). This process is called **Posting**. Access will also automatically save your data when you close the table or form. Unlike other types of programs such as Word Processing or Spreadsheets, you will never be prompted to save your data. This will happen as you work.

Shortcut Keys for Editing Data:

Shift+Enter	Save your data without leaving that record
Esc	Undoes the entry you just made
Ctrl+' (apostrophe)	Duplicates data in field from the previous record.
Ctrl+; (semi-colon)	Enters the current date
Ctrl+Shift+; (semi-colon)	Enters the current time
Ctrl+Enter	Manual line break
Ctrl+Alt+Spacebar	Returns the data in that field to the default
Shift+<F2>	Displays the Zoom Box (for long entries)



NAVIGATING RECORDS IN THE DATASHEET

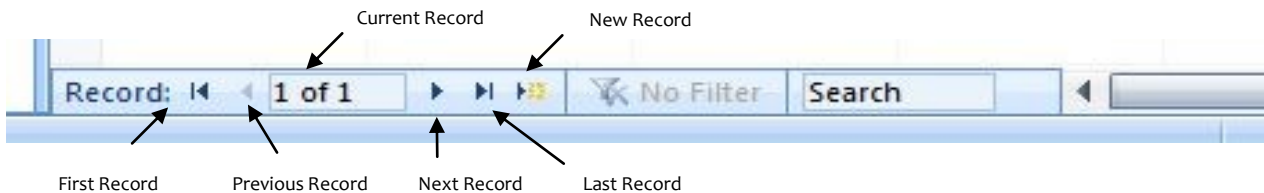
Access refers to a table as a **Datasheet**. **You can enter, edit, and delete** records in this view. Table data is arranged in a column and row format, much like a spreadsheet, allowing you to view multiple records at a time.

At the far left of each row is a small gray box. This is referred to as the **record selector** button. A small black triangle appears in the box of the active record.

You can use either the mouse or the keyboard to navigate field to field or to another record. You can also use the **navigation buttons** at the bottom of the **Datasheet** window to navigate records.

Navigating with the Mouse:

- * Click into any field or record —————> Moves to that field or record
- * Select an entire record —————> Click the **record selector button**
- * Select an entire field (column) —————> Click the **field name header**
- * Use the Navigator Buttons (see below)



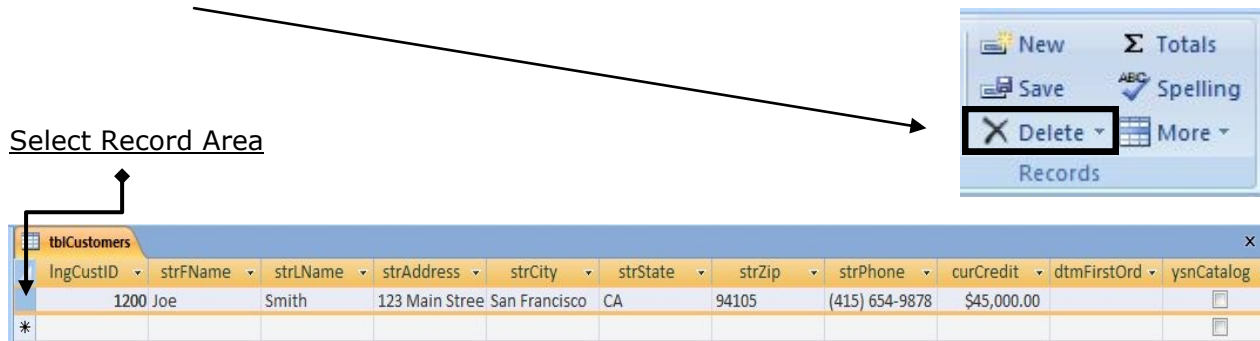
Navigating with the Keyboard:

- | | |
|----------------------------|--|
| Enter, Tab, or Right Arrow | Moves 1 field to the right |
| Shift+Tab, or Left Arrow | Moves 1 field to the left |
| Home | Moves to the first field in that record |
| End | Moves to the last field in that record |
| Ctrl+Home | Moves to the first field in the first record |
| Ctrl+End | Moves to the last field in the last record |
| Page Down | Moves down a screen full of records |
| Page Up | Moves up a screen full of records |
| <F5> Function Key | Navigates to a specific record number |
| Up or Down Arrow | Moves 1 record at a time |

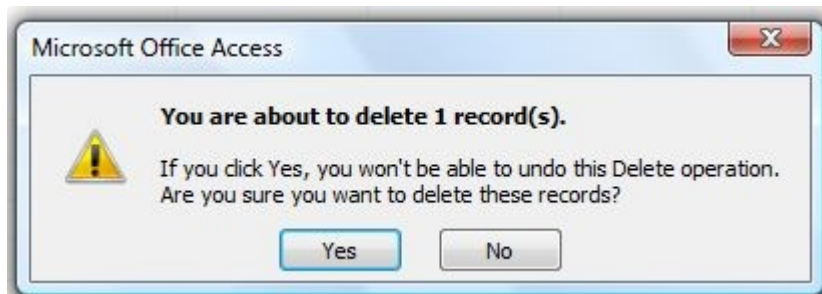
DELETING RECORDS IN A TABLE

You can delete records in a table by selecting the record and selecting **Delete** command in the **Records Group** of the **Home Tab**.

Select Record Area



tblCustomers	lngCustID	strFName	strLName	strAddress	strCity	strState	strZip	strPhone	curCredit	dtmFirstOrd	ysnCatalog
	1200	Joe	Smith	123 Main Stree	San Francisco	CA	94105	(415) 654-9878	\$45,000.00		<input type="checkbox"/>
	*										<input type="checkbox"/>

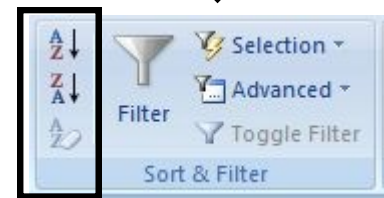
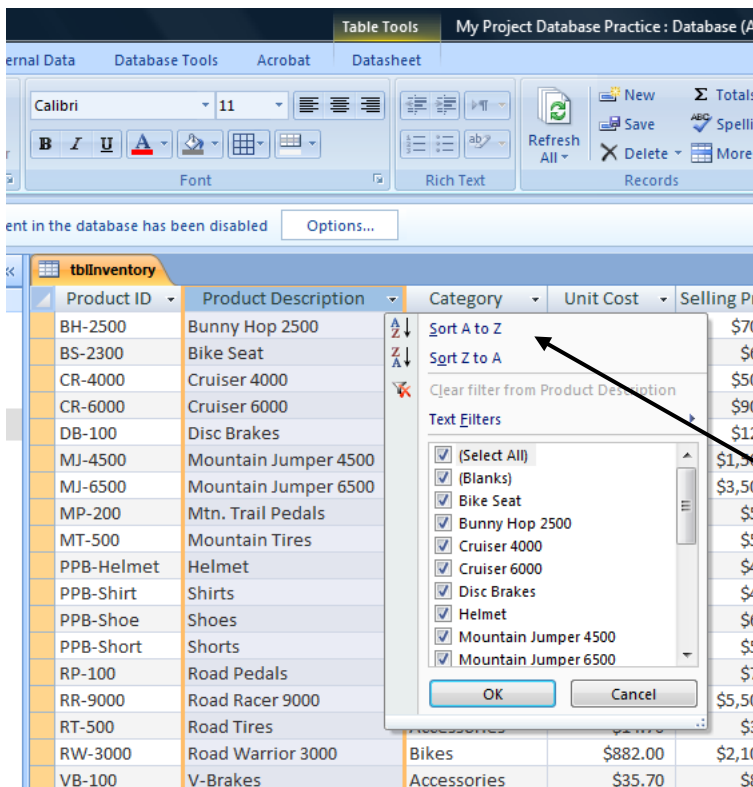
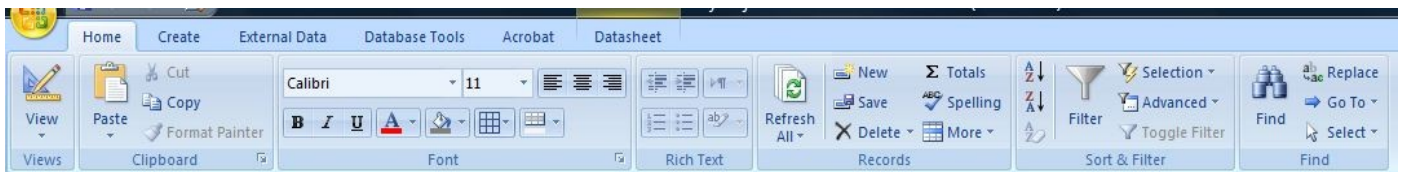


Once you confirm the deletion of a record you cannot undo this command.

Be aware that the **Undo** command does not operate as it does in other programs. In Access, the Undo command is not always available.

SORTING RECORDS IN A TABLE

By default, records in a table are sorted by the **Primary Key Field**. However, you can sort records by any other field to give the table a different appearance. Sorting can be performed by clicking into the particular field and selecting the **Sort Ascending or Sort Descending commands in the Sort & Filter Group of the Home Tab**.



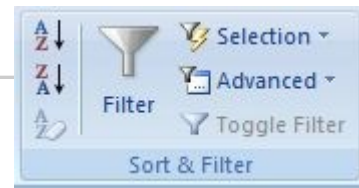
Note:
Records can also be sorted by opening the field header list and selecting **Sort A to Z** or **Sort Z to A**

SORTING RECORDS FOR TWO OR MORE FIELDS

Access allows the sorting of two or more fields in a table as long as they are positioned consecutively. Sorting on multiple fields can be performed by selecting those field headers and selecting the **Sort Ascending or Sort Descending commands in the Sort & Filter Group of the Home Tab**.

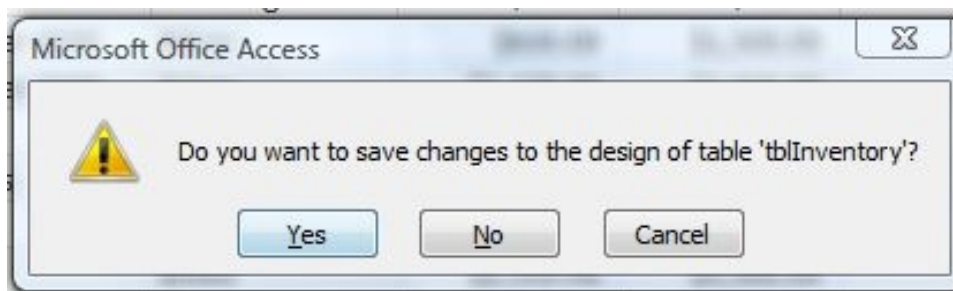
Steps:

- ⇒ Re-arrange (if necessary) preferred fields to sort
- ⇒ Click the **Home** tab (if necessary)
- ⇒ Under the **Sort & Filter Group**, Click the **Sort Ascending** command or the **Sort Descending** command



Saving Sorting Options

When you close a table (Datasheet) after sorting, Access will prompt you to **“Save the Changes to the Design...”** of that table. This is because Access assumes you may want to keep the table sorted on that particular field in the future. You do not have to save these changes and if you do, you can always re-sort the table on its Primary Key field later.



SORTING RECORDS FOR TWO OR MORE FIELDS

Sorting Multiple Fields—Before

Product ID	Category	Product Description	Unit Cost	Selling Price	Quantity In Inventory
BH-2500	Bikes	Bunny Hop 2500	\$294.00	\$700.00	350
BS-2300	Accessories	Bike Seat	\$27.30	\$65.00	250
CR-4000	Bikes	Cruiser 4000	\$210.00	\$500.00	1000
CR-6000	Bikes	Cruiser 6000	\$378.00	\$900.00	800
DB-100	Accessories	Disc Brakes	\$52.50	\$125.00	300
MJ-4500	Bikes	Mountain Jumper 4500	\$630.00	\$1,500.00	2500
MJ-6500	Bikes	Mountain Jumper 6500	\$1,470.00	\$3,500.00	1500
MP-200	Accessories	Mtn. Trail Pedals	\$23.10	\$55.00	4000
MT-500	Accessories	Mountain Tires	\$21.00	\$50.00	600
PPB-Helmet	Clothing	Helmet	\$18.90	\$45.00	250
PPB-Shirt	Clothing	Shirts	\$18.90	\$45.00	500
PPB-Shoe	Clothing	Shoes	\$27.30	\$65.00	350
PPB-Short	Clothing	Shorts	\$23.10	\$55.00	500
RP-100	Accessories	Road Pedals	\$31.50	\$75.00	3000

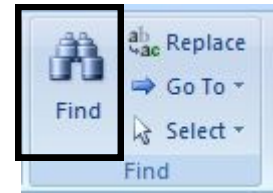
Sorting Multiple Fields—After

Product ID	Category	Product Description	Unit Cost	Selling Price	Quantity In Inventory
BS-2300	Accessories	Bike Seat	\$27.30	\$65.00	250
DB-100	Accessories	Disc Brakes	\$52.50	\$125.00	300
MT-500	Accessories	Mountain Tires	\$21.00	\$50.00	600
MP-200	Accessories	Mtn. Trail Pedals	\$23.10	\$55.00	4000
RP-100	Accessories	Road Pedals	\$31.50	\$75.00	3000
RT-500	Accessories	Road Tires	\$14.70	\$35.00	500
VB-100	Accessories	V-Brakes	\$35.70	\$85.00	450
BH-2500	Bikes	Bunny Hop 2500	\$294.00	\$700.00	350
CR-4000	Bikes	Cruiser 4000	\$210.00	\$500.00	1000
CR-6000	Bikes	Cruiser 6000	\$378.00	\$900.00	800
MJ-4500	Bikes	Mountain Jumper 4500	\$630.00	\$1,500.00	2500
MJ-6500	Bikes	Mountain Jumper 6500	\$1,470.00	\$3,500.00	1500
RR-9000	Bikes	Road Racer 9000	\$2,310.00	\$5,500.00	575
RW-3000	Bikes	Road Warrior 3000	\$882.00	\$2,100.00	600
PPB-Helmet	Clothing	Helmet	\$18.90	\$45.00	250
PPB-Shirt	Clothing	Shirts	\$18.90	\$45.00	500
PPB-Shoe	Clothing	Shoes	\$27.30	\$65.00	350
PPB-Short	Clothing	Shorts	\$23.10	\$55.00	500
*					

FINDING RECORDS

The **Find** command in Access lets you locate records in a table, query, or a form. You can search for records that contain a specific value or a partial value in a field. Using the Find command is an efficient method of navigation.

You can activate the find command by using *clicking the Find command in the Find Group of the Home Tab.*



tblInventory	Product ID	Category	Product Description	Unit Cost	Selling Price	Quantity In Inventory	Add
	BH-2500	Bikes					
	BS-2300	Accessories					
	CR-4000	Bikes					
	CR-6000	Bikes					
	DB-100	Accessories					
	MJ-4500	Bikes					
	MJ-6500	Bikes					
	MP-200	Accessories					
	MT-500	Accessories					
	PPB-Helmet	Clothing					
	PPB-Shirt	Clothing					
	PPB-Shoe	Clothing	Shoes	\$27.50	\$65.00	500	
	PPB-Short	Clothing	Shorts	\$23.10	\$55.00	500	
	RP-100	Accessories	Road Pedals	\$31.50	\$75.00	3000	
	RR-9000	Bikes	Road Racer 9000	\$2,310.00	\$5,500.00	575	
	RT-500	Accessories	Road Tires	\$14.70	\$35.00	500	
	RW-3000	Bikes	Road Warrior 3000	\$882.00	\$2,100.00	600	
	VB-100	Accessories	V-Brakes	\$35.70	\$85.00	450	

Tips for using the Find command:

Always click into the field you want to search before activating the find command. As noted in the picture above, the Find dialog box is **set by default to only search the field you were in** when you activated the command. Although you can set the **Look In** box to search the entire table, this may take a long time. It is more efficient to just search the field you are in.

Click the **Find Next** button to move to the next record. **To be sure that Access locates all records you should start from the first record in the field you want to search.**

The Find box will remain open during the search until you close it. You can move it out of the way by dragging the Title Bar of the box.

OPTIONS FOR THE FIND DIALOG BOX

Option	Result
Find What	Enter the criteria for the record you want to locate.
Look In	Select the current field or the whole table that matches the criteria you typed in the Find What box .
Match	Specify how the criteria you entered should be considered to match a field entry. The options are: Whole Field, Start of Field, or Any Part of Field.
Search	Set the direction for the search. The options are: All, Up, or Down.
Match Case	Specify whether the criteria you entered should match a field entry exactly (Upper or Lower case) or any way it's found.
Search Fields As Formatted	Allows you to type the criteria in the same display format as the data appears. An example would be a date field in which you type the date as 12-Aug-99. Without this option on you could type the criteria as 8/12/99.

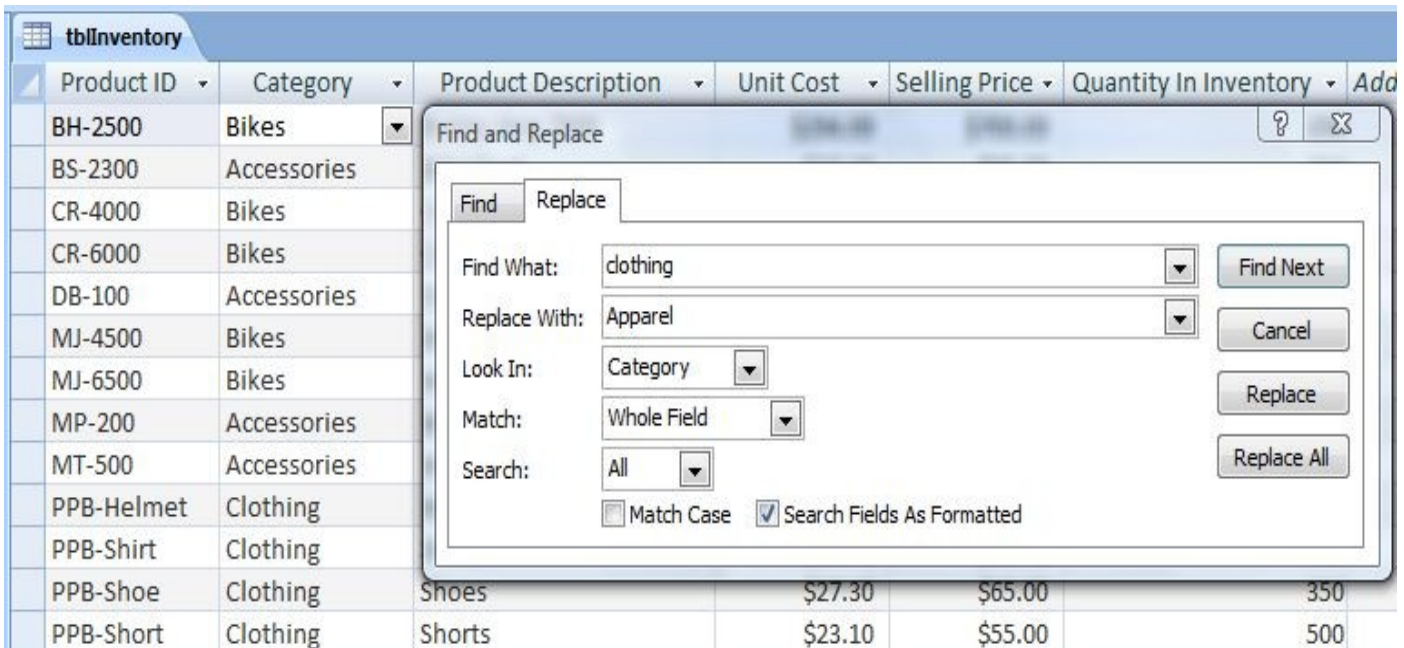
Practice Exercise:

- ⇒ Open the **tblInventory** table.
- ⇒ Click in the **Category** field.
- ⇒ Click **Find** command in the **Find Group** of the **Home Tab**
- ⇒ In the **Find What** box type **clothing**.
- ⇒ Click **Find First**.
- ⇒ Click **Find Next** until Access prompts you that it has **"Finished Searching the Records..."**
- ⇒ Click **Close**.

REPLACING RECORDS

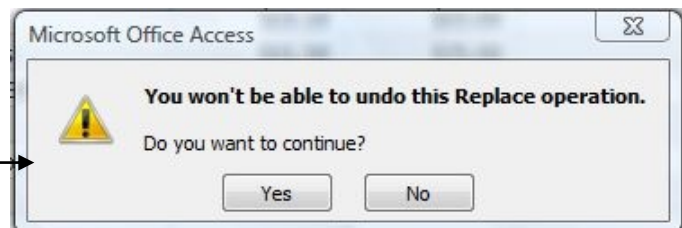
The **Replace** command in Access lets you locate records in a table, query, or a form and replace them with another entry. As with the Find command, you can search for records that contain a specific value or a partial value in a field and then replace them with the value you prefer.

The options in the Replace command box are similar to the Find command dialog box.



Practice Exercise:

1. Open the **tblInventory** table
2. Click in the **Category** field
3. Click **Replace** command
4. In the **Find What** box type **clothing**
5. In the **Replace With** box type **Apparel**
6. Click **Find Next**
7. Click **Replace**
8. Click **Replace All**
9. Click **Yes** to Confirm the Action
10. Click **Close**



REPLACING RECORDS

Replacing Data in Fields—Before

Product ID	Category	Product Description	Unit Cost	Selling Price	Quantity In Inventory
BH-2500	Bikes	Bunny Hop 2500	\$294.00	\$700.00	350
BS-2300	Accessories	Bike Seat	\$27.30	\$65.00	250
CR-4000	Bikes	Cruiser 4000	\$210.00	\$500.00	1000
CR-6000	Bikes	Cruiser 6000	\$378.00	\$900.00	800
DB-100	Accessories	Disc Brakes	\$52.50	\$125.00	300
MJ-4500	Bikes	Mountain Jumper 4500	\$630.00	\$1,500.00	2500
MJ-6500	Bikes	Mountain Jumper 6500	\$1,470.00	\$3,500.00	1500
MP-200	Accessories	Mtn. Trail Pedals	\$23.10	\$55.00	4000
MT-500	Accessories	Mountain Tires	\$21.00	\$50.00	600
PPB-Helmet	Clothing	Helmet	\$18.90	\$45.00	250
PPB-Shirt	Clothing	Shirts	\$18.90	\$45.00	500
PPB-Shoe	Clothing	Shoes	\$27.30	\$65.00	350
PPB-Short	Clothing	Shorts	\$23.10	\$55.00	500

Replacing Data in Fields—After

Product ID	Category	Product Description	Unit Cost	Selling Price	Quantity In Inventory
BH-2500	Bikes				
BS-2300	Accessories				
CR-4000	Bikes				
CR-6000	Bikes				
DB-100	Accessories				
MJ-4500	Bikes				
MJ-6500	Bikes				
MP-200	Accessories				
MT-500	Accessories				
PPB-Helmet	Apparel				
PPB-Shirt	Apparel				
PPB-Shoe	Apparel	Shoes	\$27.30	\$65.00	350
PPB-Short	Apparel	Shorts	\$23.10	\$55.00	500
RP-100	Accessories	Road Pedals	\$31.50	\$75.00	3000
RR-9000	Bikes	Road Racer 9000	\$2,310.00	\$5,500.00	575
RT-500	Accessories	Road Tires	\$14.70	\$35.00	500
RW-3000	Bikes	Road Warrior 3000	\$882.00	\$2,100.00	600
VB-100	Accessories	V-Brakes	\$35.70	\$85.00	450

Find and Replace

Find Replace

Find What:

Replace With:

Look In:

Match:

Search:

Match Case Search Fields As Formatted

Filtering Records

FILTERING RECORDS

The **Filter** command in Access lets you display only records in a table, query, or a form that you specify. Access will hide all other records that do not meet the criteria specified. This is a quick and efficient method for viewing, editing, and printing specific groups of records.

Access will indicate that a filter is in place at the bottom of the window. There will be a designation of how many records are displayed and that a filter is on.

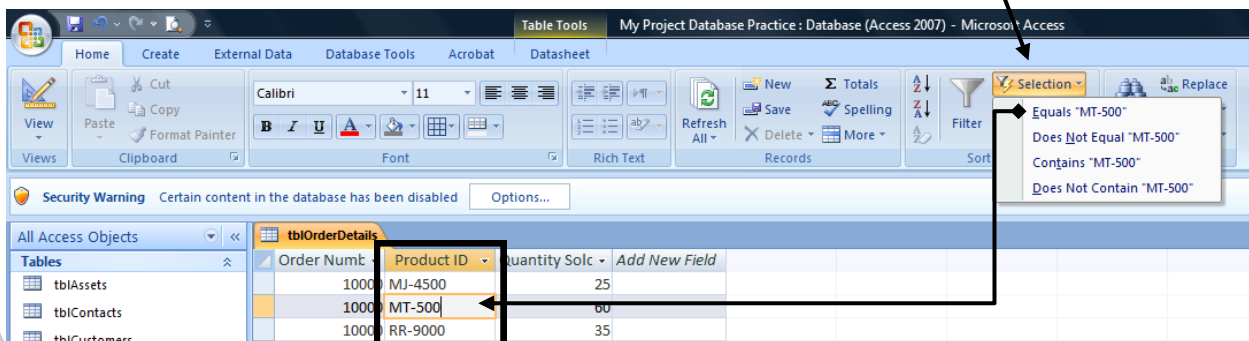
Upon closing the window, Access will ask you if you want to **save changes** to the **design** of your table. Saving changes will allow you to turn on this filter the next time you open the table. Otherwise the filter is temporary and you would have to re-create it again next time. There are several methods you can apply to filter data.

FILTERING BY SELECTION

The quickest way to filter records is by using the **Filter by Selection** command. Access will hide all other records that do not match the criteria you select.

Steps:

- ⇒ Open the table
- ⇒ Click into the field entry that contains the data for which you want to filter
- OR**
- ⇒ Select a partial entry that contains the data for which you want to filter
- ⇒ Click the **Filter command** in the **Sort & Filter Group** of the **Home Tab**
- ⇒ *Select the option that best fits the required filter*



FILTER EXCLUDING SELECTED ENTRY

The **Filter Excluding Selection** command is the opposite of the **Filter by Selection** command. When you apply this command, Access displays all records except for those that meet the criteria you selected.

Steps:

- ⇒ Open the table.
- ⇒ Click into the field that contains the data for which you want to filter.

OR

Select a partial entry that contains the data for which you want to filter

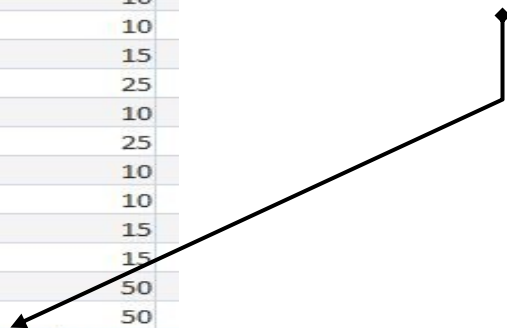
- ⇒ Click the **Filter command** in the **Sort & Filter Group** of the **Home Tab**
- ⇒ Select the option that starts with "**Does Not Equal**" or "**Does Not Contain**"

Order Numt	Product ID	Quantity Solc	A
10000	MJ-4500	25	
10000	RR-9000	35	
10000	RT-500	60	
10000	VB-100	40	
10001	BH-2500	25	
10001	BS-2300	15	
10001	CR-4000	15	
10001	MJ-4500	15	
10001	PPB-Helmet	25	
10001	PPB-Shirt	50	
10001	PPB-Shoe	25	
10001	PPB-Short	50	
10002	BH-2500	15	
10002	CR-4000	10	
10002	CR-6000	10	
10002	PPB-Helmet	15	
10002	PPB-Shirt	25	
10002	PPB-Shoe	10	
10002	PPB-Short	25	
10002	RT-500	10	
10002	RW-3000	10	
10003	MJ-4500	15	
10003	MJ-6500	15	
10004	DB-100	50	
10004	MJ-4500	50	

Record: 2 of 1180 Filtered Search



Records Filter Excluding Selected Entry

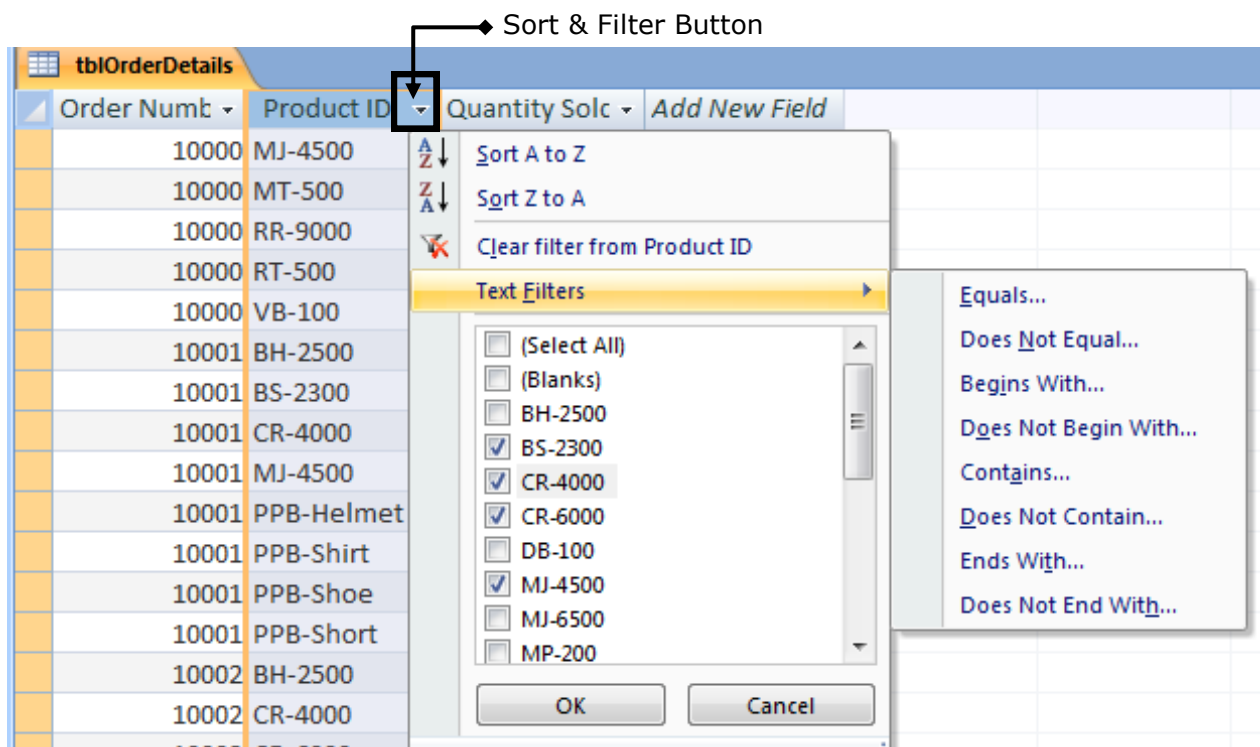


FILTERING ON MULTIPLE ENTRIES

Access 2007 has upgraded the filtering process to include options for selecting multiple entries to filter. In addition, Access allows for custom filtering using the Text or Number (depending on data type) filter in the field header sorting and filtering option.

Steps:

- ⇒ Click into the preferred field
- ⇒ Open the **Sort and Filter list button** on the preferred field header
- ⇒ Select the values for which you want to filter
- ⇒ Add any additional filtering with the **Text (or Number) filter option**



FILTERING ON MULTIPLE ENTRIES

The screenshot shows a Microsoft Access table named 'tblOrderDetails' with columns 'Order Numbr', 'Product ID', and 'Quantity Solc'. The table is filtered to show only records where the Product ID is BH-2500, CR-4000, or CR-6000. A 'Text Filters' dialog box is open over the Product ID column, showing a list of product IDs with checkboxes. The checkboxes for BH-2500, CR-4000, and CR-6000 are checked, while others are not. The dialog box also has 'OK' and 'Cancel' buttons.

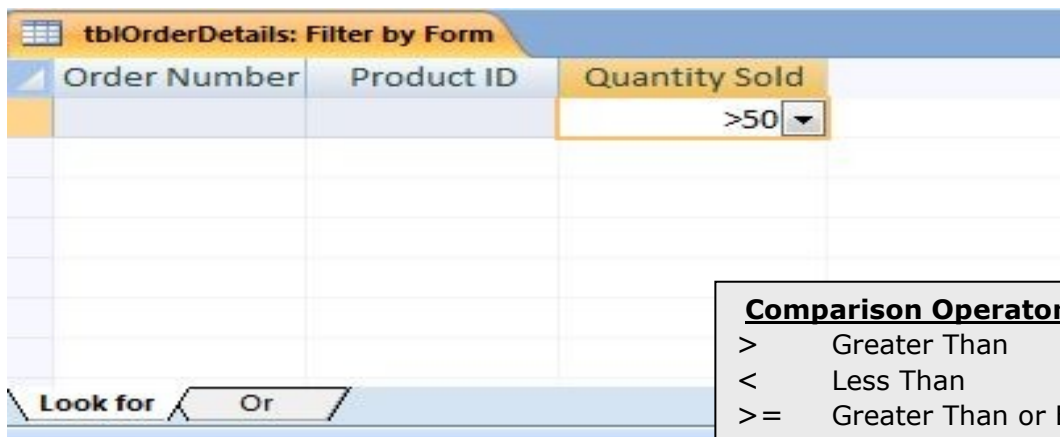
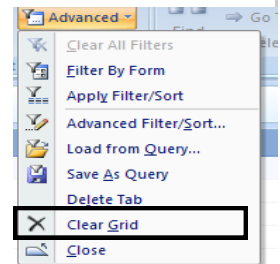
Order Numbr	Product ID	Quantity Solc
10001	BH-2500	
10001	CR-4000	
10002	BH-2500	
10002	CR-4000	
10002	CR-6000	
10003	MJ-6500	
10004	MJ-6500	
10005	BH-2500	
10005	CR-4000	
10006	CR-4000	
10007	BH-2500	
10007	CR-4000	
10008	BH-2500	
10008	CR-4000	
10008	MJ-6500	
10009	MJ-6500	
10010	BH-2500	75
10010	CR-4000	45
10010	CR-6000	35
10011	MJ-6500	10
10012	BH-2500	35
10012	CR-4000	25
10012	CR-6000	25
10013	BH-2500	25
10013	CR-4000	25

USING THE FILTER BY FORM COMMAND

The **Filter By Form** command allows you to enter multiple levels of criteria for your filter. This could include multiple criteria for the same field. An example would be when you want to filter for customers in NY or CA. You can also specify criteria for different fields. When you apply this command, Access displays all records for those that meet the criteria you entered.

Steps:

- ⇒ Click the **Advanced** button in the **Sort & Filter Group** on the **Home Tab**
- ⇒ Select **Filter By Form** command
- ⇒ Click **Clear Grid** command (**Advanced button**) to clear any previous filters
- ⇒ Enter the criteria in the field(s) for which you want to filter.
- ⇒ Click the **Or** tab (if necessary) and enter any additional criteria.
- ⇒ Repeat the above step until you are done
- ⇒ Click the **Toggle Filter** button



Comparison Operators

- > Greater Than
- < Less Than
- >= Greater Than or Equal To
- <= Less Than or Equal To
- <> Not Equal To
- Between ____ And ____

SAVING A FILTER AS A QUERY

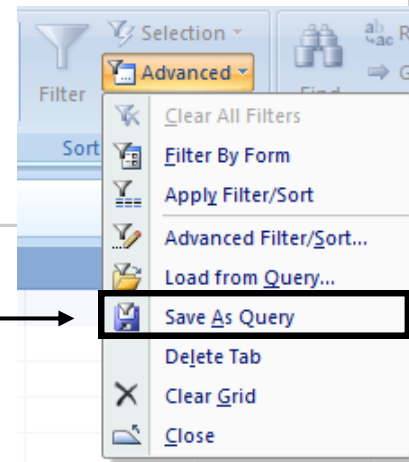
Filters are somewhat temporary, that is they don't retain the criteria for the filter you set when you close the object (table, query, or form) window. Access will prompt you to "**Save changes to the design...**" when you close the object **window**. If you do so, you can apply that same filter the next time you use that object by clicking the **Apply Filter** button.

However, if you want to make the filter a permanent query object, you can save the filter as a query. To do so, you **must be in the Filter by Form window**.

Steps:

- ⇒ Open the table
- ⇒ Set the filter by whatever means preferred
- ⇒ Switch to the **Filter by Form** window (**Advanced** Button)
- ⇒ Click the **Advanced** button again
- ⇒ Select **Save As Query** command

Sort & Filter Group on Home Tab



You must be in the **Filter By Form** window to see the "**Save As Query**" command.