

Intermediate Excel - Seattle Public Library

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Document to use during class: **Sort & Filter Library**

Handout Objectives



Participants will be able to perform the following tasks:

- ✓ Sort worksheets in a number of ways
- ✓ Apply filters to data and subsets of data

Sorting

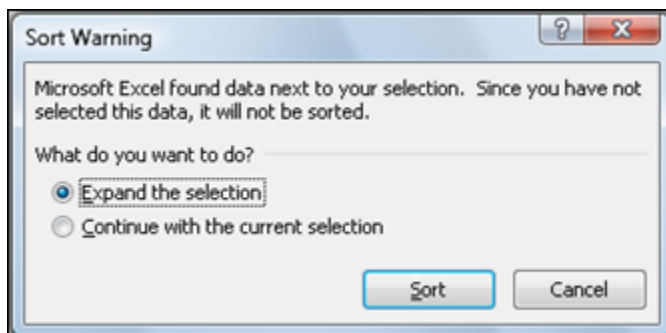
How to do a quick sort

Sorting is the process of organizing data by the values in one or more columns. The results of the sort are dependent upon the quality of the data entry and the formatting type assigned to cell content. For example, when sorting a list of dates, valid dates are sorted chronologically and unrecognized or partial dates are treated as text.

To sort data using the Quick Sort method, click on any cell within a column to identify the sort basis and click the **Sort A-Z**  or the **Sort Z-A**  button from **DATA|SORT & FILTER**.

Be a ware!

If you do not do the Ctrl + A to select your table first you may see this “Sort Warning”.



Practice One:

Doing a quick sort:

1. Open **Sort & Filter Library** and save the file as **MyHandout**.
 2. Click cell **A6** to define the **LAST** column as the sort basis.
 3. From **DATA|SORT & FILTER**, click the **SORT A TO Z** button.
- OR-
4. **Right-click** and select **SORT**, and choose **SORT A TO Z**.

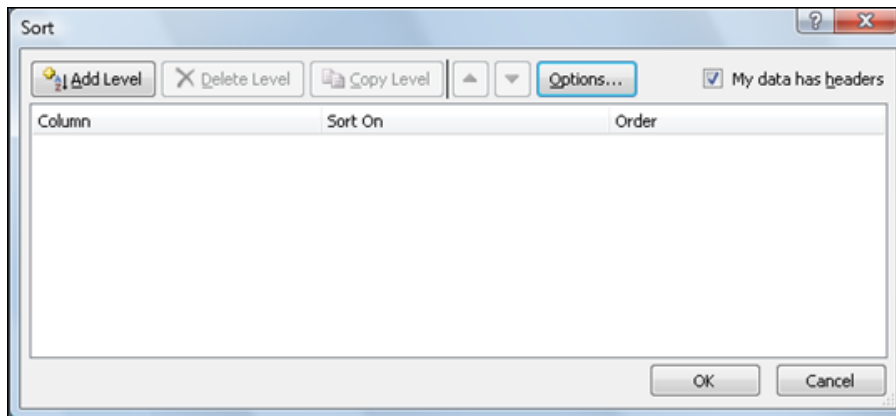
The worksheet is sorted in ascending order by last name.

5. Click cell **D4** to define the **DOB** as the sort basis.
6. From **DATA|SORT & FILTER**, click the **SORT Z TO A** button.

Your worksheet is sorted in - descending order - by date of birth.

Sorting using Multiple Levels:

Use the Sort dialog box to define up to sixty-four sort levels. To access the Sort dialog box, from **DATA|SORT & FILTER**, click the **SORT** button.

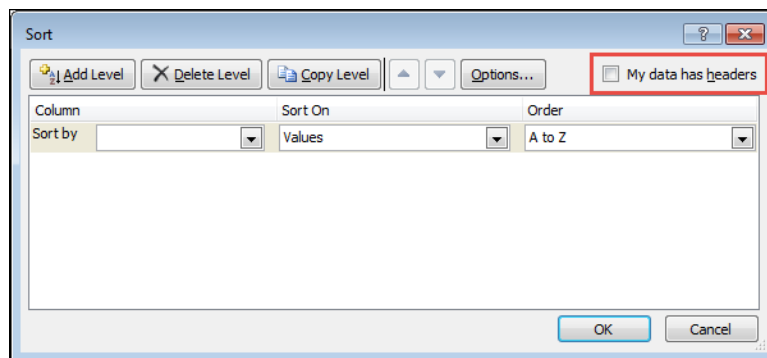


Once sort levels are defined, they remain active in the current worksheet to make it easy to apply the same sort order in the future. To select different sort criteria, use the Sort dialog box to delete, add or modify the existing levels.

Practice Two:

Sorting more than one level:

1. Using the worksheet from the previous exercise, click any cell within the main data range.
2. From **DATA|SORT & FILTER** , click the **SORT** button.

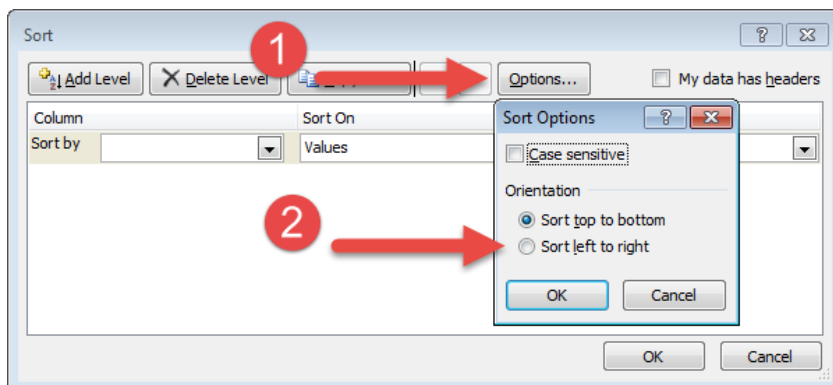


Be aware - the check box needs to be checked when you have heading at the top of your columns.

3. Verify that the **MY DATA HAS HEADERS** checkbox is selected.
4. From the **COLUMN SORT BY** options list choose **OFFICE** .
5. Verify the **SORT ON** option is set to **VALUE** .
6. From the **ORDER** options list select **A TO Z**.
7. Click the **ADD LEVEL** button to select an additional field.
8. From the **COLUMN THEN BY** options list choose **DEPARTMENT** .
9. From the **ORDER** options list select **A TO Z** .
10. Click the **ADD LEVEL** button to add an additional level.
11. From the **COLUMN THEN BY** options list choose **DATE HIRED** .
12. From the **ORDER** options list select **NEWEST TO OLDEST** .
13. Click the **OK** button to finish.
14. Save your file and leave the workbook open.

Sorting by rows:

By default your Excel sorts by column from top to bottom. When sorting your data by row you will need to change the option setting. Using the Sort dialog box click the **OPTIONS** button and select **LEFT TO RIGHT**. Once selected, this setting remains active in the active worksheet.

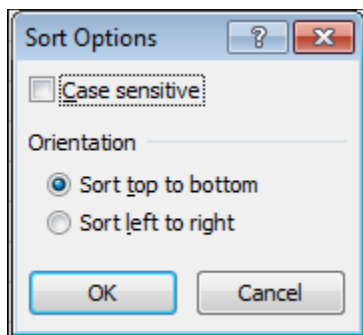


Practice Three:

Sorting by row:

1. Using the worksheet from the previous exercise, display the **SORT BY ROW** worksheet.
2. Click cell **A5** to identify the data range.
3. From **DATA|SORT & FILTER** click the **SORT** button.
4. -OR-
5. Right-click to display the shortcut menu and select **SORT, CUSTOM SORT** to display the Sort dialog box.
6. Click the **OPTIONS** button.

The Sort Options dialog box is displayed.



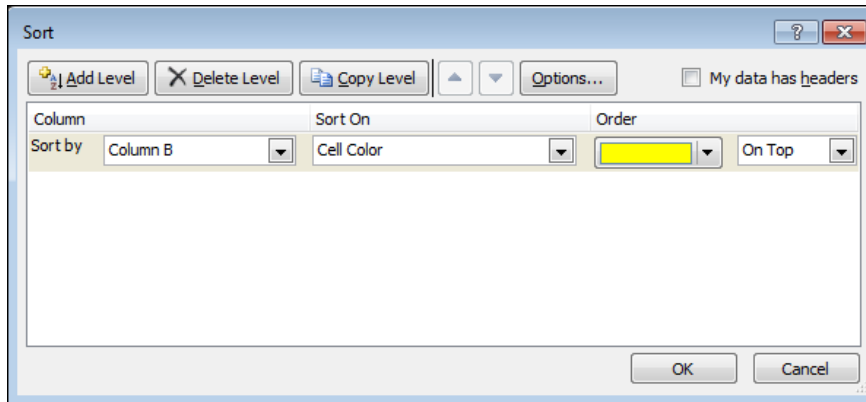
7. Select the **SORT LEFT TO RIGHT** radio button and click the **OK** button.
8. From the **SORT BY** options list choose **ROW 5** and click the **OK** button to finish.

The list of names is sorted alphabetically across Row 5.

9. **Save** the changes and keep the workbook open.

SORTING BY COLOR

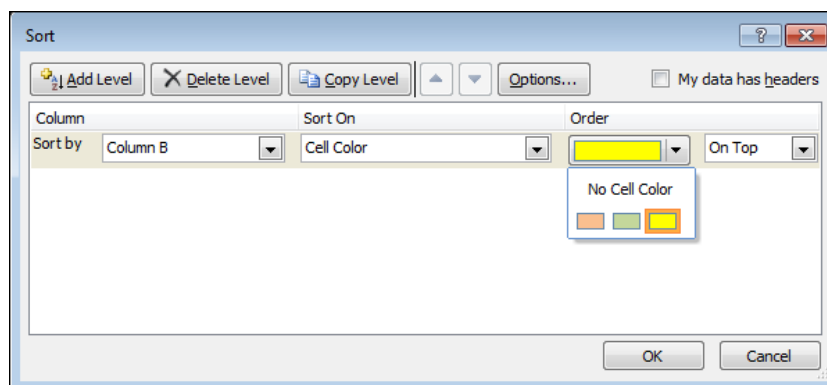
When color is used to identify related content, sort by cell color or font color to group related cells. Perform single-color sorts by selecting **SORT** from the shortcut menu or from the Sort dialog box. To perform multi-level color sorts, define a separate level for each color on the Sort dialog box. To change the sort order, change the assigned color level.



Practice Four:

Sorting by cell color:

1. Using your workbook, display the **FILL COLOR** worksheet.
2. Click any cell in the table and from **DATA|SORT & FILTER** click the **SORT** button.
3. From the **COLUMN SORT BY** field, select **LAST**.
4. From the **SORT ON** field, select **CELL COLOR**.



Notice the colors in the drop down.

5. From the **ORDER** field, select **YELLOW** and then select **ON TOP**.
6. Click the **COPY LEVEL** button to duplicate and create a second sort level.
7. From the **ORDER** field, select **ORANGE**.

8. Click the **COPY LEVEL** button to duplicate and create a third sort level.
9. From the **ORDER** field, select **GREEN**.
10. Click the **ADD LEVEL** button to add a fourth level.
11. Set the following sort options for the fourth level:
12. Click the **OK** button to finish.
13. **Save** the changes and keep the workbook open.

FILTERS

How to filter using column values

Filter data to display the rows that match a specific condition and hide rows that do not meet the condition (e.g., employees in the Dallas office). To activate filtering, from **DATA|SORT & FILTER** click the **FILTER** button. Filter arrows appear to the right of each column heading.

Click the filter arrow to view a list of values in the selected column and select one or more values as a filter basis. Repeat for additional columns to further narrow the results. Filtering data by more than one column creates an **AND** search condition—meaning that one row must meet both conditions (e.g., employees in the Dallas office who are female).

To clear a selective filter, click the filter arrow for the column and select **CLEAR FILTER FROM <COLUMN NAME>**. To clear all filters, from **DATA|SORT & FILTER** click the **CLEAR** button or click the **FILTER** button to turn off the filtering feature and remove the filter arrows.

Practice Five:

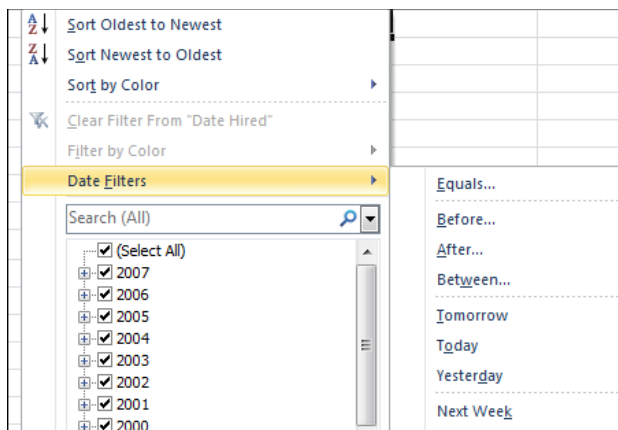
Filtering by column values:

1. Using your workbook, display the **COMPANY EMPLOYEE LIST** worksheet.
2. From **DATA|SORT & FILTER** click the **FILTER** button.
3. Click the **OFFICE** filter arrow .
4. From the list of column values, deselect the **(SELECT ALL)** checkbox and then select the **SEATTLE** checkbox.
5. Click the **OK** button to finish.

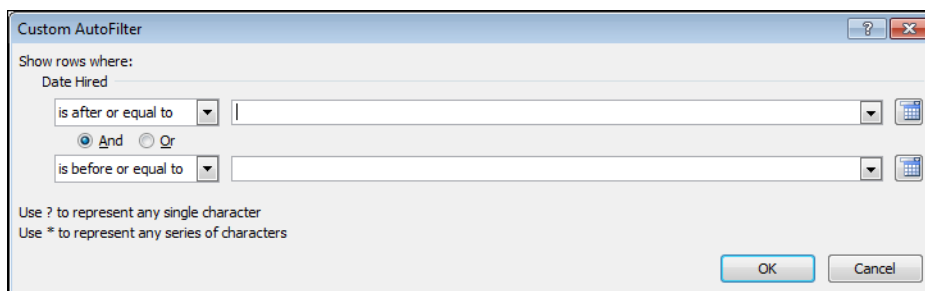
6. Click the **GENDER** filter arrow .
7. From the list of column values, deselect the **(SELECT ALL)** checkbox and then select the **M** checkbox.
8. Click the **OK** button to finish.
9. Click the **LAST** filter arrow and choose **SORT A-Z** to sort the list of names in alphabetical order.
10. From **DATA|SORT & FILTER** click the **CLEAR** button to clear all the filter conditions and display the entire worksheet.
11. **Save** the changes and keep the workbook open.

FILTERING BY DATE

Date filters work with valid dates only. Invalid dates, such as 9/31/2011, are treated as text. When filtering by date, select a specific date from the list or click **DATE FILTERS** to choose from a list of predefined search options. Certain options fill in the search criteria automatically. For example, select **THIS YEAR** to filter the list for dates that occur during the current year.



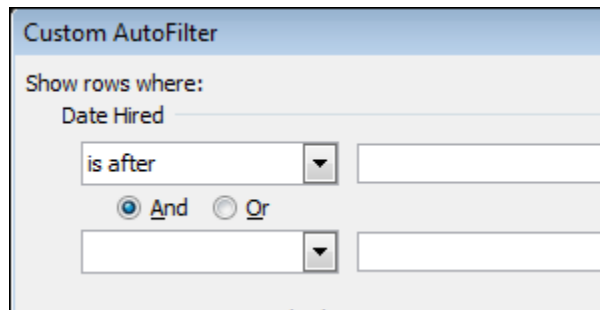
Other options, such as Equals, Before, After, Between and Custom Filter, display the Custom AutoFilter dialog box, which provides a way to define specific criteria.



Practice Six:

Filtering by date:

1. Click the **DATE HIRED** filter arrow .
2. Select **DATE FILTERS** to view a list of date search options.
3. Select **AFTER...** in dialog box with *DATE HIRED IS AFTER* selected.



4. In the entry box type: **6/15/2006** and click the **OK** button to finish.
5. From **DATA|SORT & FILTER** click the **CLEAR** button to clear all the filter conditions and display the entire worksheet.
6. **Save** the changes and keep the workbook open.

FILTERING BY TEXT

To filter a text column, click the **FILTER** button next to a column header and select an option from the list or click **TEXT FILTER** and choose from the following options:

EQUALS. Displays rows containing an exact match for the stated term.

DOES NOT EQUAL. Excludes rows with an exact match for the stated term. **BEGINS**

WITH. Displays rows where the first word matches the stated term.

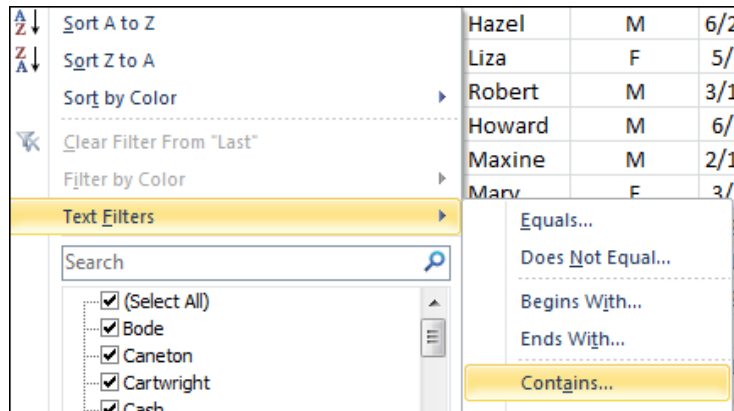
CONTAINS. Displays rows where the stated term is a partial match.

DOES NOT CONTAIN. Excludes rows with a partial match for the stated term.

Practice Seven:

Filtering by text:

1. Using the same worksheet, click the **LAST** name filter arrow.
2. Select **TEXT FILTERS** and choose **CONTAINS...** .



3. In the entry box type: **Wilson** and click the **OK** button.
4. From **DATA|SORT & FILTER** click the **CLEAR** button to clear all the filter conditions.
5. **Save** the changes and keep the workbook open.

FILTERING BY NUMBER

To filter a column with numeric values, click the **FILTER** arrow next to a column header and select a value from the list or click **NUMBER FILTER** and choose from the following options:

EQUALS. Displays rows with an exact match for the stated value.

DOES NOT EQUAL. Excludes rows with an exact match for the stated value.

GREATER THAN. Displays rows with values more than the stated value.

GREATER THAN OR EQUAL TO. Displays rows with values higher or matching the stated value.

LESS THAN. Displays rows with values lower than the stated value.

LESS THAN OR EQUAL TO. Displays rows with values lower or matching the stated value.

BETWEEN. Specifies a range of values and display rows with values that match the stated range.

TOP 10. Displays rows with the ten highest values.

ABOVE AVERAGE. Displays rows where the value is above the average of all the values in the column.

BELOW AVERAGE. Displays rows where the value is below the average of all the values.

Practice Eight:

Filtering by number:

1. Using the same worksheet, click the **CURRENT AGE** filter arrow, select **NUMBER FILTERS** and choose **TOP 10....**



2. Click the **OK** button to finish.
3. Click the **CURRENT AGE** filter arrow , select **NUMBER FILTERS** , and select **ABOVE AVERAGE** to display a list of employees above the average age.
4. From **DATA|SORT & FILTER** , click the **FILTER** button to remove the filter buttons from the column headers.
5. **Save** the changes and keep the workbook open.

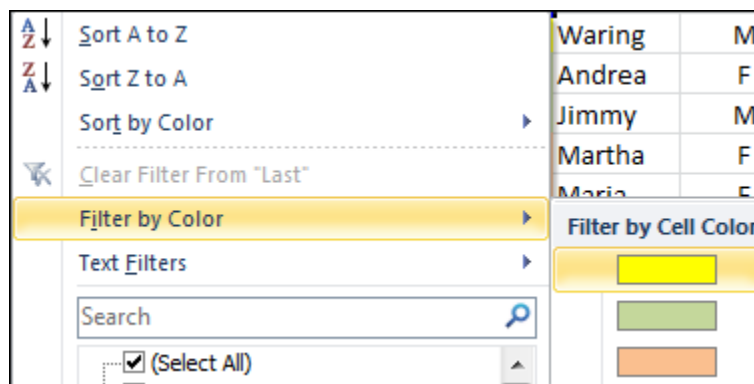
FILTERING BY COLOR

Filter a worksheet according to cell or font color to display specific cells identified by color. To select a cell or font color, click the **FILTER** arrow next to a column formatted using colors, and choose **FILTER BY COLOR** .

Practice Nine:

Filtering by color:

1. Using the same workbook, display the **FILL COLOR** worksheet.
2. Activate filtering.
3. Click the **LAST** filter arrow and select **FILTER BY COLOR** .
4. Choose **YELLOW** from the list of colors to display rows with yellow fill in the LAST column.



5. Click the **LAST** filter arrow and select **CLEAR FILTER FROM "LAST"** to remove the filter and display all the rows.

6. Display the **COLOR BY FONT** worksheet.
7. Activate filtering.
8. Click the **LAST** filter arrow , select **FILTER BY COLOR** , and choose **ORANGE** to display a list of names where the font color is orange.

Last	First	Gender
Sanger	Martha	F
Sullivan	Maria	F
Warhole	Ginger	F
Melville	Herbert	M
Brady	Annie	F
Kahlo	Maria	F
Clinton	George	M
Drieser	Teddy	M
Felini	Matthew	M
Montogo	Moesha	F
Wilson	Martin	M

9. Click the **LAST** filter arrow and select **CLEAR FILTER FROM "LAST"** to remove the filter and display all the rows.
10. **Save** the changes and close the workbook.