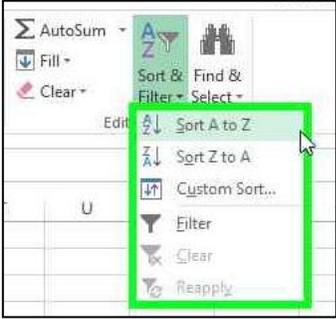
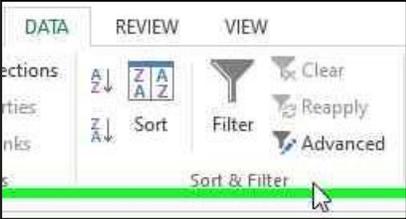
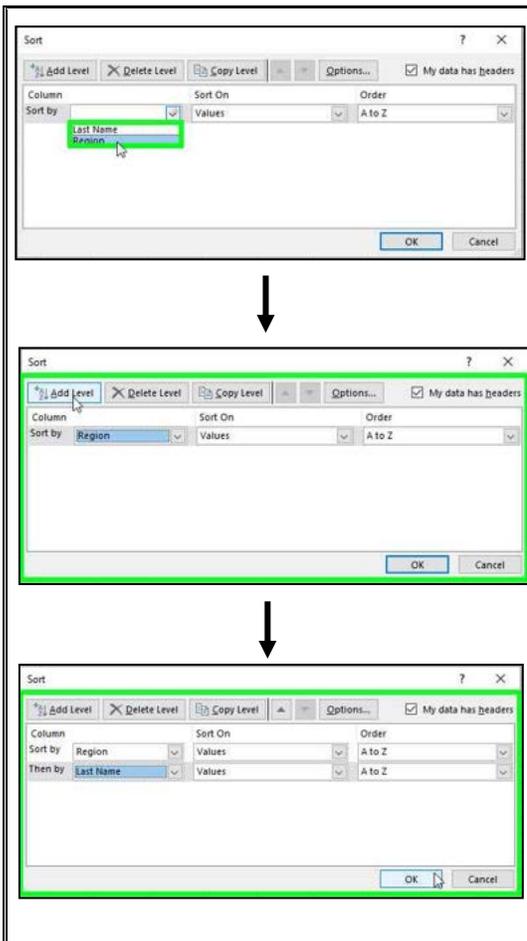


Action	Technique
<p><b>1. Sort Data in a Range or Table</b></p> <p style="text-align: center;"><u>Home Tab</u></p>  <p style="text-align: center;"><u>Data Tab</u></p> 	<p>Sorting data is an integral part of data analysis. You might want to arrange a list of names in alphabetical order, compile a list of product inventory levels from highest to lowest, or order rows by colors or icons. Sorting data helps you quickly visualize and understand your data better, organize and find the data that you want, and ultimately make more effective decisions.</p> <p>You can sort data by text (A to Z or Z to A), numbers (smallest to largest or largest to smallest), and dates and times (oldest to newest and newest to oldest) in one or more columns. You can also sort by a custom list you create (such as Large, Medium, and Small) or by format, including cell color, font color, or icon set.</p> <p><b>Quick Sort</b></p> <ol style="list-style-type: none"> <li>1. Select a cell in the column you want to sort.</li> <li>2. On the <b>Home</b> tab, in the <b>Editing</b> group, click <b>Sort &amp; Filter</b> (or <b>Data</b> tab→<b>Sort &amp; Filter</b> group) and do one of the following: <ul style="list-style-type: none"> <li>• To quick sort in ascending order, click  (Sort A to Z).</li> <li>• To quick sort in descending order, click  (Sort Z to A).</li> </ul> </li> </ol> <p><b>Sort by More Than One Column or Row</b></p> <p>You may want to sort by more than one column or row when you have data that you want to group by the same value in one column or row, and then sort another column or row within that group of equal values. For example, if you have a Department column and an Employee column, you can first sort by Department (to group all the employees in the same department together), and then sort by name (to put the names in alphabetical order within each department). You can sort by up to 64 columns.</p> <ol style="list-style-type: none"> <li>1. Select any cell in the data range.</li> <li>2. On the <b>Home</b> tab, in the <b>Editing</b> group, click <b>Sort &amp; Filter</b>, then <b>Custom Sort</b>. (Or, <b>Data</b> tab→<b>Sort &amp; Filter</b> group→<b>Sort</b>)</li> <li>3. In the <b>Sort</b> dialog box, under <b>Column</b>, in the <b>Sort by</b> box, select the first column that you want to sort.</li> <li>4. Under <b>Sort On</b>, select the type of sort. Do one of the following: <ul style="list-style-type: none"> <li>• To sort by text, number, or date and time, select <b>Values</b>.</li> <li>• To sort by format, select <b>Cell Color</b>, <b>Font Color</b>, or <b>Cell Icon</b>.</li> </ul> </li> </ol>

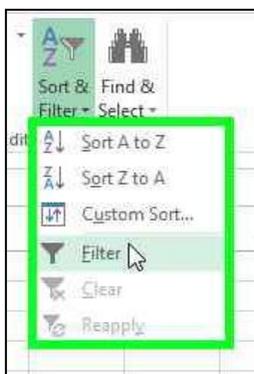


5. Under **Order**, select how you want to sort. Do one of the following:
  - For text values, select **A to Z** or **Z to A**.
  - For number values, select **Smallest to Largest** or **Largest to Smallest**.
  - For date or time values, select **Oldest to Newest** or **Newest to Oldest**.
  - To sort based on a custom list, select **Custom List**.
6. To add another column to sort by, click **Add Level**, and then repeat steps three through five.
7. To copy a column to sort by, select the entry and then click **Copy Level**.
8. To delete a column to sort by, select the entry and then click **Delete Level**.
9. To change the order in which the columns are sorted, select an entry and then click the **Up** or **Down** arrow next to the **Options** button to change the order.

Entries higher in the list are sorted before entries lower in the list.

## 2. Filter Data in a Range or Table

### Home Tab



### Data Tab



Use filters to temporarily hide some of the data in a table, so you can focus on the data you want to see. You can also use comparison operators like "greater than" and "top 10." Once you filter data in a range of cells or table, you can either reapply a filter to get up-to-date results, or clear a filter to redisplay all of the data.

### Filter Data in a Range or Table

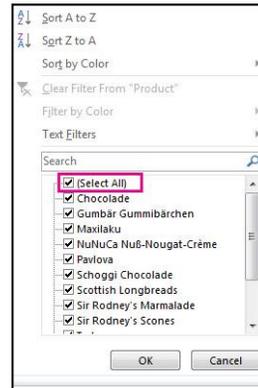
1. Select any cell within the range.
2. On **Home** tab, in the **Editing** group, click **Sort & Filter**, then **Filter**. (Or, **Data** tab → **Sort & Filter** group → **Filter**)
3. Select the column header arrow  for the column you want to filter.

*(Continued on next page)*

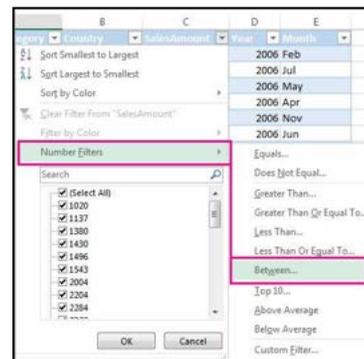
2. Filter Data in a Range or Table (continued)

4. You can:

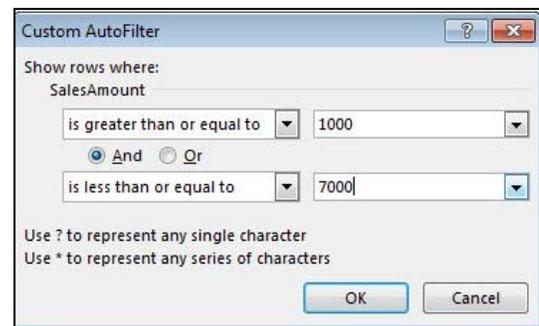
a. Uncheck **(Select All)** and select the boxes you want to show.



b. Select **Text Filters** or **Number Filters**, and then select a comparison, like **Between**.

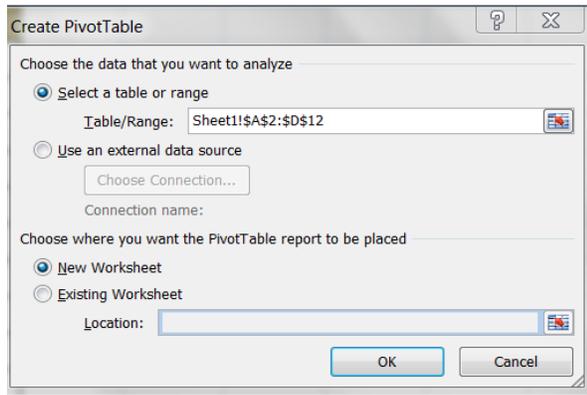


• Enter the filter criteria and select **OK**.



5. After applying one or more filters, the column header arrow  changes to a  **Filter** icon. Select this icon to change or clear the filter.

### 3. Create a Pivot Table



A pivot table is a reporting tool that allows you to dynamically sort, sum, and filter data. Pivot tables don't change the actual spreadsheet itself; they pivot or turn the data so that you can see it from different perspectives.

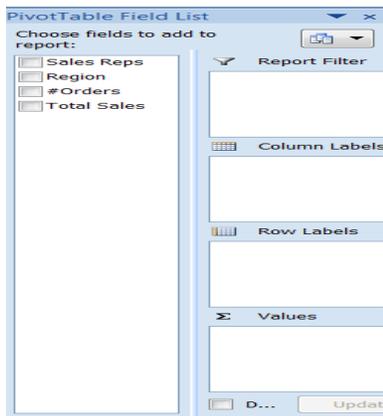
In order to create a pivot table, you must create data. The data should be in the form of a table without any blank rows or columns.

After you've created the data, select the rows and columns that contain the data that you want to use in the pivot table.

Select the insert tab. In the tables group, click on the arrow under the PivotTable command and choose pivot table.

This will bring up the create PivotTable dialogue box. Under select a table or range, the rows and columns you've highlighted will be displayed. You must then "Choose where you want the PivotTable to be placed." If you click the radio button "New Worksheet," then the PivotTable will be placed in a new worksheet. If you choose "Existing Worksheet," the pivot table will be placed in the same worksheet as your table, and you must type the cell location in the "Location" box. When you click OK, then Excel will place a blank pivot table in the location you chose.

### 4. Adding Data to the Pivot Table



At the top of the pivot table field list are the field names (column headings) from your data table. The data areas at the bottom of the panel are linked to the pivot table.

There are two ways to add data to a pivot table. You can place check marks in the boxes next to the fields list. That will place any field with labels or words in rows, and any field with numerical data in columns.

You can also manually drag fields to data areas. Drag columns from the PivotTable Field List pane and drop them into one of the four boxes. As you work, Excel generates the pivot table, updating it dynamically as you add, rearrange, or remove columns.

(See previous page for example.)

In the example to the left, if you drag sales rep to the row labels field, then sales rep will appear as a row in your pivot table. If you drag region to the column labels data area, then region will appear as a column in your pivot table. If you drag orders into the values data area, then orders will appear as a total in your pivot table. Finally, if you drag total sales into the report filter area, then total sales will appear in your pivot table as a filtered report.

## 5. Filtering the Pivot Table

Total Sales (All)					
Sum of #Orders					
Column Labels	East	North	South	West	Grand Total
Row Labels	East				
Bill				217	217
Frank				268	268
Harry		224			224
Janet		286			286
Joe			226		226
Martha	228				228
Mary			234		234
Ralph	267				267
Sam	279				279
Tom			261		261
<b>Grand Total</b>	<b>774</b>	<b>510</b>	<b>487</b>	<b>719</b>	<b>2490</b>

Once your pivot table has data, you can filter and reorder the pivot table.

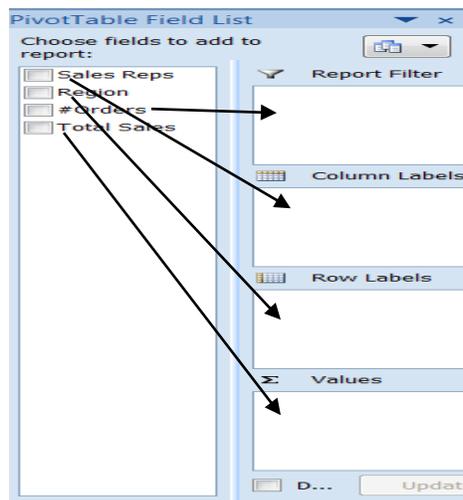
For example, if you wish to change the pivot table on the left and have it display the order totals for just the east & north regions: You click the pull down arrow next to the column labels for regions. You uncheck select all. Then you check east & north. Click OK and the pivot table will only show order totals for the east & north regions.

To reset the pivot table to show all regions, click on the pull-down arrow next to column labels & reselect "select all" to show sales for all the regions.

You can also filter your pivot table by person or multiple persons by clicking the pulldown arrow next to row labels.

You can filter your pivot table to rank salesperson by sales.

## 6. Change the Pivot Table Data



The advantage to pivot tables is that they allow you to pivot and rearrange data. If you drag field names to different data areas that will rearrange how the data is displayed.

If you take as an example the pivot table to the left. You can drag the orders to the report filter, drag the sales rep to the column labels, and drag the total sales to the values area the data will display differently, as shown in the below graphic.

#Orders (All)											
Sum of Total Sales											
Column Labels	Bill	Frank	Harry	Janet	Joe	Martha	Mary	Ralph	Sam	Tom	Grand Total
Row Labels	East					49017		70702	77738		197457
	North		41676	87858							129534
	South				45606					69496	115102
	West	41107	72707				57967				171781
<b>Grand Total</b>	<b>41107</b>	<b>72707</b>	<b>41676</b>	<b>87858</b>	<b>45606</b>	<b>49017</b>	<b>57967</b>	<b>70702</b>	<b>77738</b>	<b>69496</b>	<b>613874</b>

## 7. Add a PivotChart

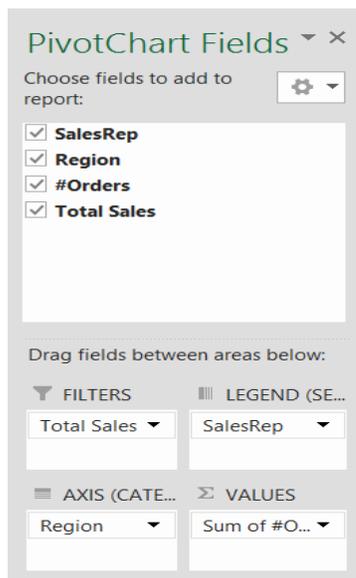


In order to create a pivot chart, you must create data. The data should be in the form of a table without any blank rows or columns. After you've created the data, select the rows and columns that contain the data that you want to use in the pivot chart.

Select the insert tab. In the Charts group, click on the arrow under the PivotChart command and choose PivotChart.

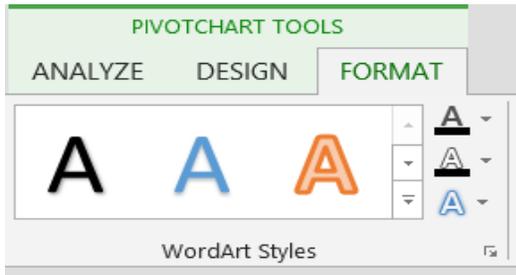
This will bring up the Create PivotChart dialogue box. Under "Select a table or range," the rows and columns you've highlighted will be displayed. You must then "Choose where you want the PivotTable to be placed." If you click the radio button "New Worksheet," then the PivotChart will be placed in a new worksheet. If you choose "Existing Worksheet," the PivotChart will be placed in the same worksheet as your table, and you must type the cell location in the "Location" box. When you click OK, then Excel will place a blank PivotChart in the location you chose.

## 8. Building a PivotChart



Building a PivotChart is similar to building a PivotTable. You drag fields into four areas: Filters, Legend, Axis, and Values. Excel changes the names of the sections of your PivotChart field list to help you understand how different parts of your PivotTable are used to create a chart. The "Legend" and "Axis" fields are generally used for labels to identify the numbers in your chart. "Values" is similar to the values section in a chart; it sums or totals the numerical data. "Filters" allows you to limit or filter the data.

## 9. Format the PivotChart



Formatting a PivotChart is similar to formatting a basic chart. You select the chart by clicking on it. Once you have clicked on the chart three contextual tabs will appear: **Analyze**, **Design**, & **Format** with all the tools you will need to format the chart's appearance.

From the **Design** tab you can:

- Add/change Chart Title and Axis Titles.
- Add/change a Legend.
- Add/change Data Labels.
- Move the Chart to another sheet.
- Change the Chart Type.
- Save the chart as a Template.
- Switch the Row/Column data.
- Add Quick Styles to change the appearance of the chart and apply a predefined chart style.

From the **Format** tab you can:

- Change the visual style of your chart.
- Fill the selected shape with a solid color, gradient, picture or texture.
- Change the outline of chart elements by changing the line styles and colors.
- Add Shape Effects such as 3-D rotation, Bevel, Shadow or a Glow.

From the **Analyze** tab you can:

- Move Chart
- Show/Hide the Field List and Field Buttons

## NOTES