

Lab Objectives

➤ Pivot Tables and Pivot Charts

- Introduce how pivots tables are used to summarize, analyze, explore and present data.
- Create, Customize and Format the pivot tables.
- Filtering, Sorting, and Creating Calculated Fields and Pivot Charts.
- Grouping, Slicing and Timelines.

Pivot Tables and Pivot Charts

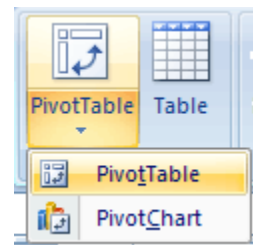
Part 1

- The main data (in the “sales” sheet) are presented in a big data file, and it is hard to get proper analysis from huge data.

- Create a **pivot table**

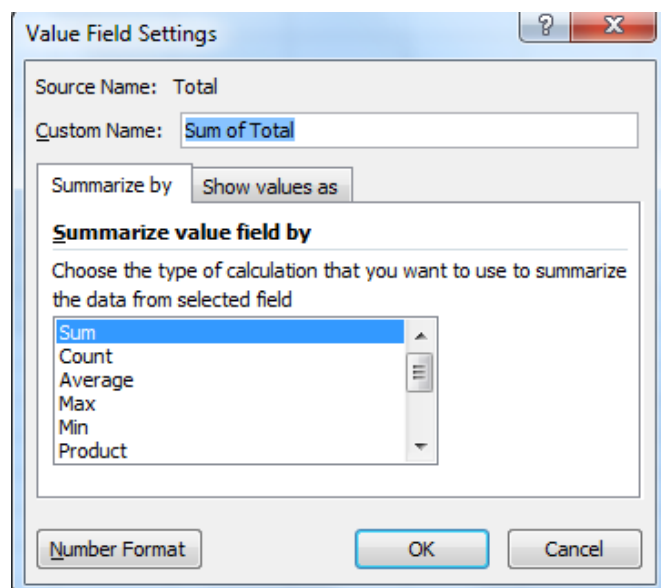
1. Select the data range from which you want to make the pivot table.
2. To insert a new pivot table into your spreadsheet, go to Insert ribbon and click pivot table icon and select pivot table option.
3. Select new worksheet as the target sheet where you want to place the pivot table.

Shortcut: Alt + D then P



- Format the table to show the following:

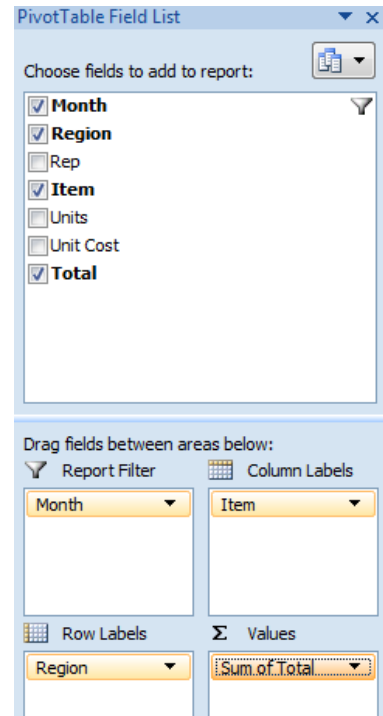
1. Show the grand total for each region across all the Items
 - By dragging the “*Region*” field to the row labels area
 - By dragging the “*Item*” field to the column labels area
2. Show sum of Total for each Item depending on the region.
 - By dragging the “*Total*” field to the values area
3. To change the function used to summarize the data; click on the field dragged in the



values area “Total”, and choose value field settings then choose sum. You can also find the same settings by right click on the pivot table.

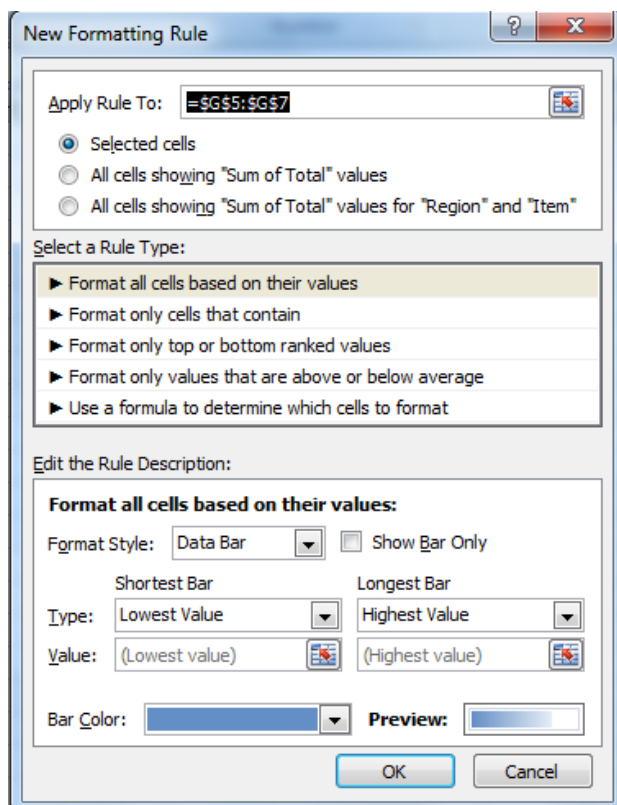
4. Explore how to change the grand total appearance (Design bar then grand total)

5. Filter the data in the report by month.
- By dragging the “Month” field to the report filter area (select 1 march)



Part 2 (Formatting)

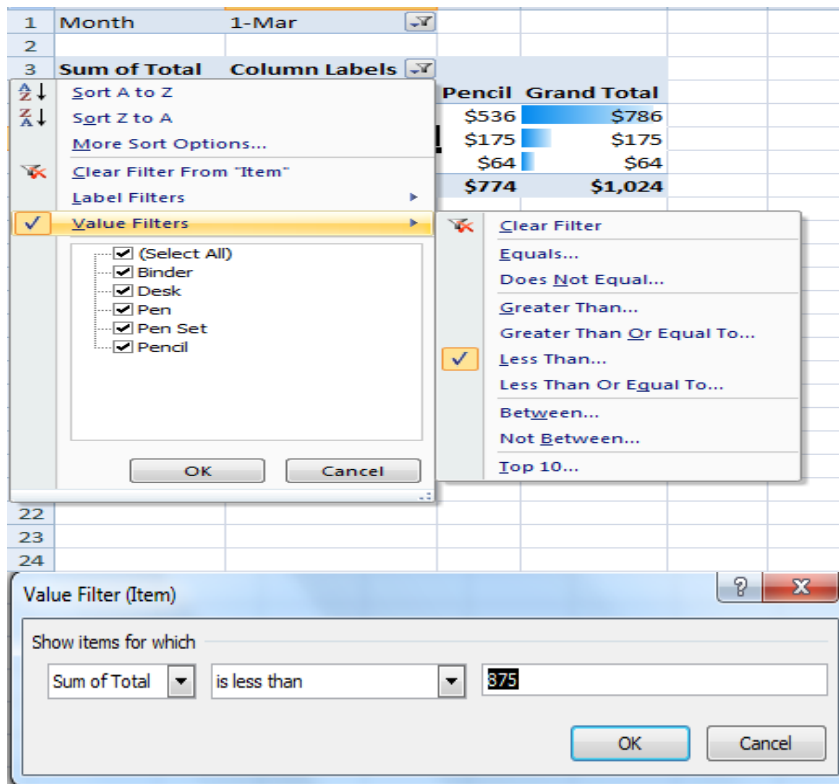
- Change the cells **format** to currency with zero decimal places.
- Use Blue bars for the grand total of each region.
- Show only the bars using new formatting rule



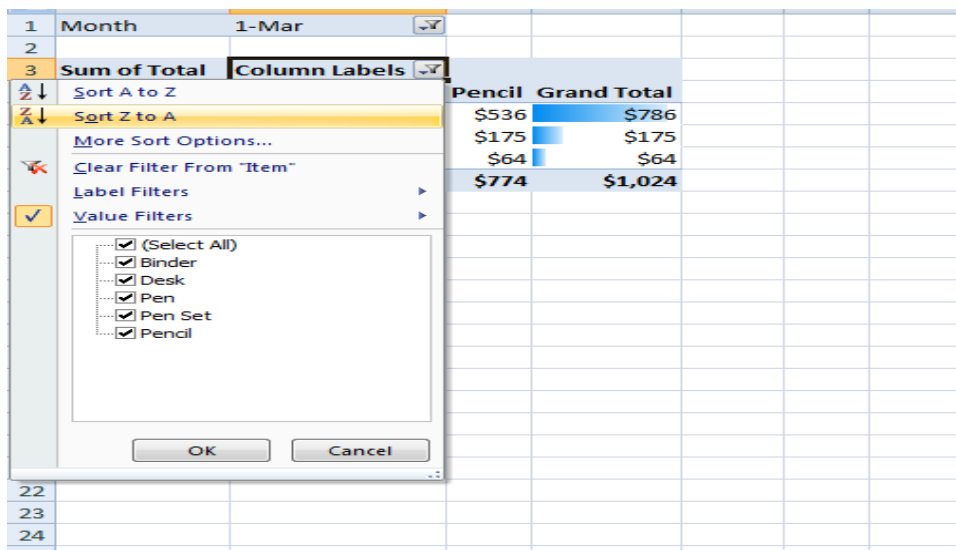
- Explain in details why the sum of “Total” where the region is “*East*” and the Item is “*Pen*” is \$875
(**Hint:** Double click on the cell for drill down)

Part 3 (Sort & Filter)

- **Filter** the data in the table to only show Items where the Total Values is Less than \$875
 - You can do the previous step by right click on the table and then filter values.

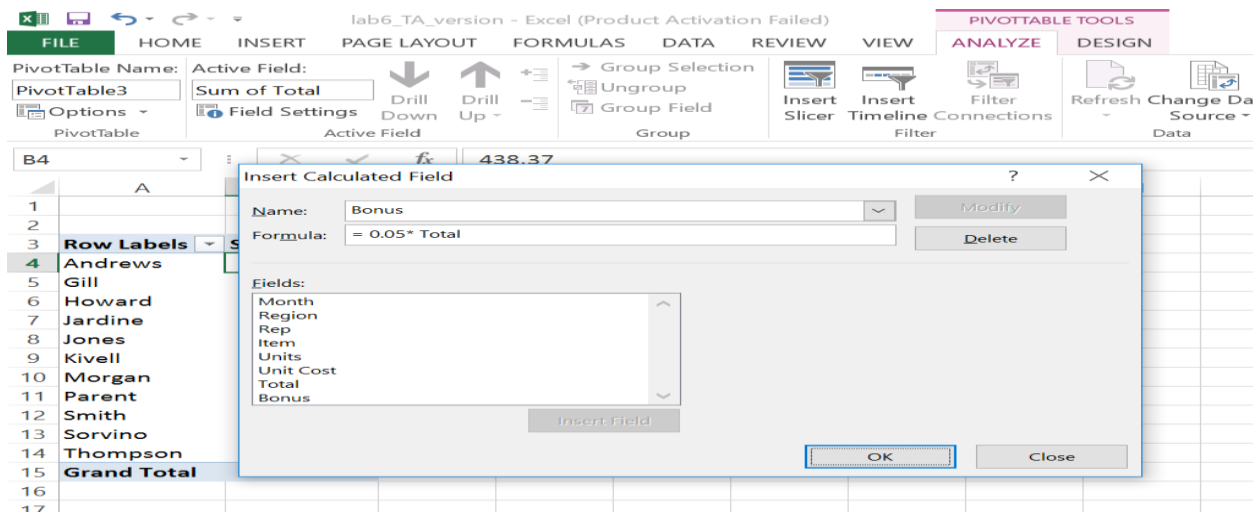


- **Sort** Items in descending order (Hint: Same as previous step, and choose sort Z to A)



Part 4 (Calculated Field)

- Show the bonus earned for each rep which is 5% of total sold items
 1. Create a new pivot table, name the sheet "bonus"
 2. Drag the “Rep” field to the Row Labels area
 3. Drag “Total” field to the Values area
 4. In the analyze tab select **fields items and sets**
 - Calculated field
 - Change the name to bonus
 - In the formula ($=0.05*\text{total}$)



Part 5 (Pivot Charts)

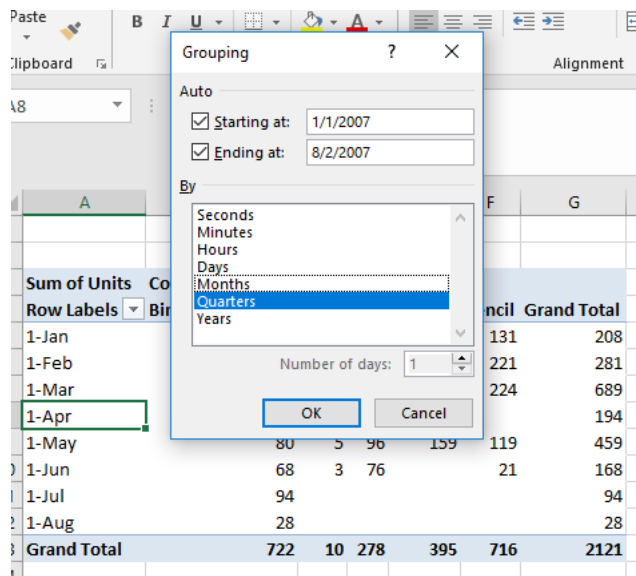
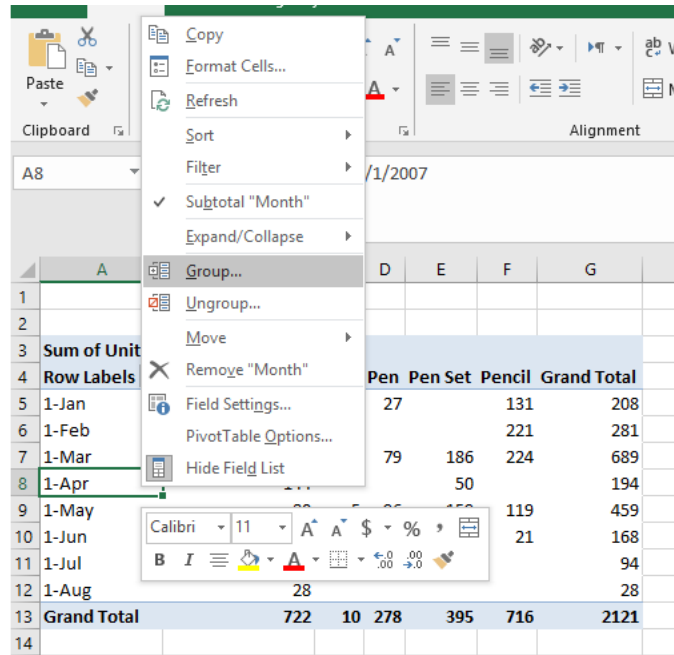
- Show the max units sold for each item grouped by their Rep (sales Person)
 1. Create a new **pivot Chart**, name the sheet "Chart"
 2. Drag the “Rep” field to the Row Labels area
 3. Drag the “Items” field to the Row Labels area
 4. Finally Drag “Units” field to the Values area

Hint: To change the function used to summarize the data; click on the field dragged in the values area “Units”, and choose value field settings then choose Max.

Part 6 (Grouping)

- Create a pivot table that **groups** the data by quarters showing the number of units sold from each item.
 1. Create a new pivot table, name the sheet "Grouping"
 2. Drag the “Month” field to the row labels area.
 3. Drag the “Item” field to the column labels area.

4. Drag “Units” field to the Values area.
5. Click on any cell of the row labels (1-Apr, for example), then right click and choose “Group”.
6. Choose which type of grouping you want. In our example let it by quarters.

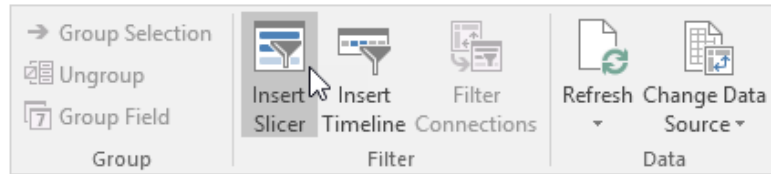


Part 7 (Slicers)

- You can insert **slicers** in Excel to quickly and easily filter pivot tables. However, using the report filter gives the exact same result (It's recommended when you are making a presentation or using dashboards).
- Show the number of items sold by each representative for each region.
 1. Create a new pivot table, name the sheet “Slicer”.
 2. Drag the “Rep” field to the row labels area.
 3. Drag the “Item” field to the column labels area.
 4. Drag the “Units” field to the value area.
 5. Drag the “Region” field to the filter area.

6. Using slicer:

- Click any cell inside the pivot table.
- On the Analyze tab, in the Filter group, click Insert Slicer.



- Check Category (Region) and click OK.

The 'Insert Slicers' dialog box is open, showing a list of available slicer categories. The 'Region' category is selected and highlighted in green. Other categories listed include Month, Rep, Item, Units, Unit Cost, and Total. The 'OK' button is visible at the bottom right of the dialog.

Region	(All)			
Sum of Units	Column Labels			
Row Labels	Binder	Desk	Pen	Pe
Andrews	28			
Gill	126		27	
Howard	29		96	
Jardine	105			
Jones	124		64	
Kivell	50	5		
Morgan	28			
Parent	81		15	
Smith	87	2		
Sorvino	7	3	76	
Thompson	57			
Grand Total	722	10	278	

- Click the region you want to show. (You can click multiple region by pressing ctrl and click)

The 'Region' slicer is displayed, showing a list of regions: Central, East, and West. The 'Central' region is selected and highlighted in blue. The background shows the pivot table filtered for the 'Central' region.

Region	Central					
Sum of Units	Column Labels					
Row Labels	Binder	Desk	Pen	Pen Set	Pencil	Grand Tot
Andrews	28				155	1
Gill	126		27		60	2
Jardine	105			50	126	2
Kivell	50	5		138		1
Morgan	28			55	90	1
Smith	87	2			67	1
Grand Total	424	7	27	243	498	11

Part 8 (Timeline)

- You can insert slicers in Excel to quickly and easily select time periods to filter pivot tables (It's recommended when you are making a presentation or using dashboards).
- Show the number of units sold in the West region in the second quarter. (Using slicers and **timeline**)
 1. Create a new pivot table, name the sheet "Timeline".
 2. Drag the "Item" field to the row labels area.
 3. Drag the "Units" field to the value area.
 4. Using Timeline:
 - Click any cell inside the pivot table.
 - On the Analyze tab, in the Filter group, click Insert Timeline.
 - The field that includes time will only appear. (Month in our example)
 - Change Month from the top right corner to Quarter.
 - Select the second quarter.
 - From the slicer, select West.

