

CS1100 Computer Science and its Applications

PIVOT TABLES AND CHARTS

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It's difficult to see the bottom line in a flat list like this, turning the list into a Pivot Table will help.

A	B	C	D	E	F	G
Month	Salesman	Region	Product	No. Customers	Net Sales	Profit / Loss
Jan-07	Joseph	North	FastCar	8	1,592	563
Jan-07	Joseph	North	RapidZoo	8	1,088	397
Jan-07	Joseph	West	SuperGlue	8	1,680	753
Jan-07	Joseph	West	FastCar	9	2,133	923
Jan-07	Joseph	West	RapidZoo	10	1,610	579
Jan-07	Joseph	Middle	SuperGlue	10	1,540	570
Jan-07	Joseph	Middle	FastCar	7	1,316	428
Jan-07	Joseph	Middle	RapidZoo	7	1,799	709
Jan-07	Lawrence	North	SuperGlue	8	1,624	621
Jan-07	Lawrence	North	FastCar	6	726	236
Jan-07	Lawrence	North	RapidZoo	9	2,277	966
Jan-07	Lawrence	West	SuperGlue	6	714	221
Jan-07	Lawrence	West	FastCar	9	2,682	1,023
Jan-07	Lawrence	West	RapidZoo	6	1,500	634
Jan-07	Lawrence	Middle	SuperGlue	7	917	403
Jan-07	Lawrence	Middle	FastCar	7	1,939	760
Jan-07	Lawrence	Middle	RapidZoo	6	984	314
Jan-07	Maria	North	SuperGlue	9	981	372
Jan-07	Maria	North	FastCar	10	1,520	476
Jan-07	Maria	North	RapidZoo	6	966	330
Jan-07	Maria	West	SuperGlue	10	2,800	903
Jan-07	Maria	West	FastCar	6	1,526	572

Pivot Tables

- So far we have been summarizing (filtering) data using IF statements.
- Pivot tables are a much more powerful, “interactive” way to produce summaries.
 - Can summarize information from selected fields of a data source.
 - Pivot: rows can easily become columns, columns can easily become rows.

Examples

- Summarizing data, i.e. finding average sales for each region for each product
- Filtering, sorting, summarizing data without writing any formulas
- Transposing data
- Linking data sources

Organize your Data

- Must be *raw* data, unprocessed and unsummarized
- Each column should have a header.
- The data should have no blank rows or columns



	Middle	North	West	Grand Total
Joseph	\$ 148,067.00	\$ 139,014.00	\$ 145,526.00	\$ 432,607.00
Lawrence	\$ 141,498.00	\$ 151,339.00		
	\$ 142,013.00	\$ 138,118.00		
Ma	\$ 141,224.00	\$ 139,249.00		
G	\$ 572,802.00	\$ 567,720.00		



A	B	C	D	E	F	G
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Jan-07	Joseph	North	FastCar	8	1,592	563
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Jan-07	Joseph	Middle	SuperGlue	8	1,540	570
Jan-07	Joseph	Middle	FastCar	7	1,316	428
Jan-07	Joseph	Middle	RapidZoo	7	1,799	709
Jan-07	Lawrence	North	SuperGlue	8	1,624	621
Jan-07	Lawrence	North	FastCar	6	726	236
Jan-07	Lawrence	North	RapidZoo	9	2,277	966

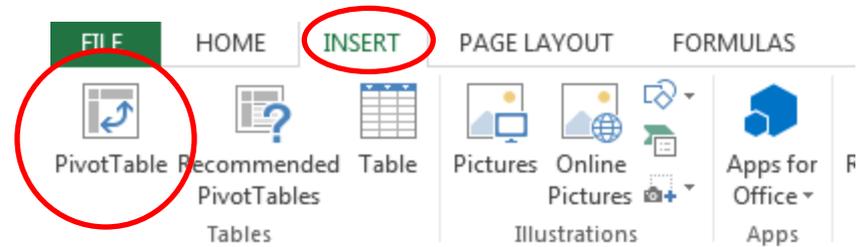
not raw data,
already summarized

Pivot Table Setup

- To create a pivot table, specify:
 - Which fields you're interested in
 - How you want the table organized
 - What kinds of calculations you want to perform
- You can:
 - Rearrange it to view from alternative perspectives
 - “pivot” the dimensions – i.e. transpose column headings to row positions

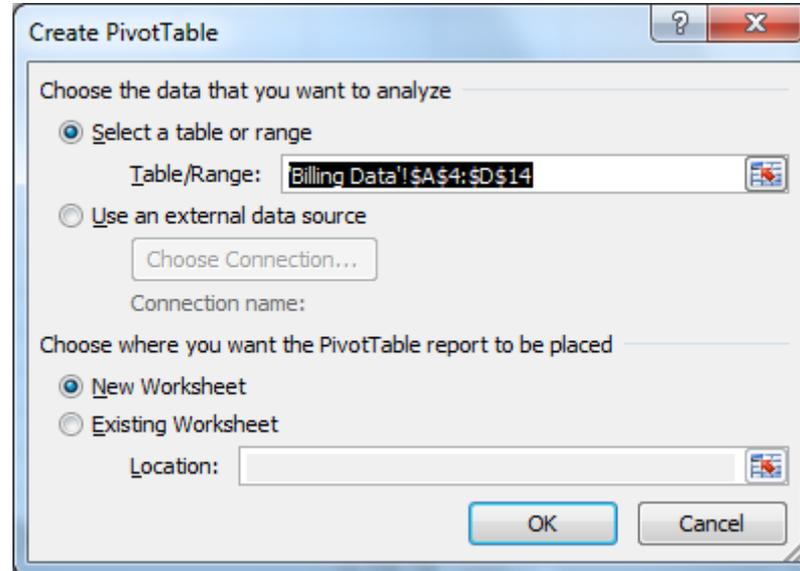
Creating Pivot Tables

- Click on a cell from the table you want to summarize.
- From the **Insert** tab, click the **PivotTable** icon



Creating Pivot Tables

- Select the range you want to summarize and where you would like the pivot table to appear.



Creating a Pivot table

- The PivotTable Field list is divided into sections.
- You can drag and drop the fields you want in each area.
- The body of the table will contain three parts: Rows, Columns and Cells. You can use any fields in these areas.

The screenshot shows the 'PivotTable Fields' task pane. At the top, it says 'PivotTable Fields' with a close button. Below that, it says 'Choose fields to add to report:' followed by a settings icon. A list of fields is shown with checkboxes: Month, Salesman, Region, Product, No. Customers, Net Sales, and Profit / Loss. Below the list is a link for 'MORE TABLES...'. A horizontal dotted line separates this from the next section, 'Drag fields between areas below:'. This section contains four areas: 'FILTERS' (with a funnel icon), 'COLUMNS' (with a vertical bar icon), 'ROWS' (with a horizontal bar icon), and 'VALUES' (with a sigma icon). At the bottom, there is a checkbox for 'Defer Layout Update' and an 'UPDATE' button.

PivotTable Fields

Choose fields to add to report:

- Month
- Salesman
- Region**
- Product**
- No. Customers
- Net Sales**
- Profit / Loss

MORE TABLES...

Drag fields between areas below:

FILTERS

COLUMNS

Region

ROWS

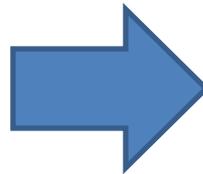
VALUES

Product

Average of Ne...

Defer Layout Update

UPDATE



Average of Net Sales	Column Labels	Middle	North	West	Grand Total
Row Labels					
FastCar	\$	1,582.69	\$ 1,651.58	\$ 1,621.86	\$ 1,618.71
RapidZoo	\$	1,570.33	\$ 1,541.56	\$ 1,571.69	\$ 1,561.19
SuperGlue	\$	1,620.33	\$ 1,550.78	\$ 1,588.04	\$ 1,586.48
Grand Total	\$	1,591.12	\$ 1,581.39	\$ 1,593.86	\$ 1,588.80

PivotTable Fields

Choose fields to add to report:

- Month
- Salesman
- Region
- Product
- No. Customers
- Net Sales
- Profit / Loss

MORE TABLES...

Drag fields between areas below:

COLUMNS

Product

ROWS

Region

Salesman

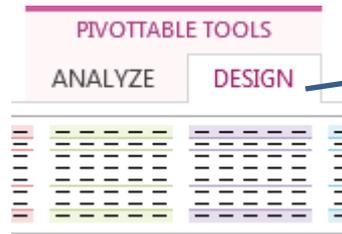
VALUES

Sum of Net Sa...

Defer Layout Update

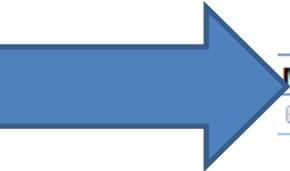
UPDATE

Order Matters!



You can add subtotals, from the Design Tab under PivotTable Tools.

Sum of Net Sales	Column Labels	FastCar	RapidZoo	SuperGlue	Grand Total
Middle					
Joseph	\$	48,180.00	\$ 49,989.00	\$ 49,898.00	\$ 148,067.00
Lawrence	\$	49,858.00	\$ 45,703.00	\$ 45,937.00	\$ 141,498.00
Maria	\$	50,023.00	\$ 43,175.00	\$ 48,855.00	\$ 142,013.00
Matt	\$	41,862.00	\$ 49,112.00	\$ 49,750.00	\$ 141,224.00
Middle Total	\$	189,923.00	\$188,439.00	\$194,440.00	\$ 572,802.00
North					
Joseph	\$	48,185.00	\$ 46,494.00	\$ 44,335.00	\$ 139,014.00
Lawrence	\$	47,796.00	\$ 52,030.00	\$ 51,513.00	\$ 151,339.00
Maria	\$	51,545.00	\$ 43,497.00	\$ 43,076.00	\$ 138,118.00
Matt	\$	50,664.00	\$ 42,966.00	\$ 45,619.00	\$ 139,249.00
North Total	\$	198,190.00	\$184,987.00	\$184,543.00	\$ 567,720.00
West					
Joseph	\$	52,467.00	\$ 47,118.00	\$ 45,941.00	\$ 145,526.00
Lawrence	\$	44,870.00	\$ 48,738.00	\$ 44,046.00	\$ 137,654.00
Maria	\$	46,676.00	\$ 43,636.00	\$ 49,111.00	\$ 139,423.00
Matt	\$	50,610.00	\$ 49,111.00	\$ 51,467.00	\$ 151,188.00
West Total	\$	194,623.00	\$188,603.00	\$190,565.00	\$ 573,791.00
Grand Total	\$	582,736.00	\$562,029.00	\$569,548.00	\$ 1,714,313.00



Click the down arrow to change field settings and formatting

Same data, different story

- The data is the same, only the perspective is different

Average of Net Sales		Column Labels			
Row Labels	Middle	North	West	Grand Total	
FastCar	\$ 1,582.69	\$ 1,651.58	\$ 1,621.86	\$ 1,618.71	
RapidZoo	\$ 1,570.33	\$ 1,541.56	\$ 1,571.69	\$ 1,561.19	
SuperGlue	\$ 1,620.33	\$ 1,550.78	\$ 1,588.04	\$ 1,586.48	
Grand Total	\$ 1,591.12	\$ 1,581.39	\$ 1,593.86	\$ 1,588.80	

Sum of Net Sales		Column Labels			
Row Labels	FastCar	RapidZoo	SuperGlue	Grand Total	
Middle					
Joseph	\$ 48,180.00	\$ 49,989.00	\$ 49,898.00	\$ 148,067.00	
Lawrence	\$ 49,858.00	\$ 45,703.00	\$ 45,937.00	\$ 141,498.00	
Maria	\$ 50,023.00	\$ 43,135.00	\$ 48,855.00	\$ 142,013.00	
Matt	\$ 41,862.00	\$ 49,612.00	\$ 49,750.00	\$ 141,224.00	
Middle Total	\$ 189,923.00	\$ 188,439.00	\$ 194,440.00	\$ 572,802.00	
North					
Joseph	\$ 48,185.00	\$ 46,494.00	\$ 44,335.00	\$ 139,014.00	
Lawrence	\$ 47,796.00	\$ 52,030.00	\$ 51,513.00	\$ 151,339.00	
Maria	\$ 51,545.00	\$ 43,497.00	\$ 43,076.00	\$ 138,118.00	
Matt	\$ 50,664.00	\$ 42,966.00	\$ 45,619.00	\$ 139,249.00	
North Total	\$ 198,190.00	\$ 184,987.00	\$ 184,543.00	\$ 567,720.00	
West					
Joseph	\$ 52,467.00	\$ 47,118.00	\$ 45,941.00	\$ 145,526.00	
Lawrence	\$ 44,870.00	\$ 48,738.00	\$ 44,046.00	\$ 137,654.00	
Maria	\$ 46,676.00	\$ 43,636.00	\$ 49,111.00	\$ 139,423.00	
Matt	\$ 50,610.00	\$ 49,111.00	\$ 51,467.00	\$ 151,188.00	
West Total	\$ 194,623.00	\$ 188,603.00	\$ 190,565.00	\$ 573,791.00	
Grand Total	\$ 582,736.00	\$ 562,029.00	\$ 569,548.00	\$ 1,714,313.00	

Add a Filter

Month	(All)				
Sum of Net Sales	Column Labels				
Row Labels	FastCar	RapidZoo	SuperGlue	Grand Total	
Middle					
Joseph	\$ 48,180.00	\$ 49,989.00	\$ 49,898.00	\$ 148,067.00	
Lawrence	\$ 49,858.00	\$ 45,703.00	\$ 45,937.00	\$ 141,498.00	
Maria	\$ 50,023.00	\$ 43,135.00	\$ 48,855.00	\$ 142,013.00	
Matt	\$ 41,862.00	\$ 49,612.00	\$ 49,750.00	\$ 141,224.00	
Middle Total	\$ 189,923.00	\$ 188,439.00	\$ 194,440.00	\$ 572,802.00	
North					
Joseph	\$ 48,185.00	\$ 46,494.00	\$ 44,335.00	\$ 139,014.00	
Lawrence	\$ 47,796.00	\$ 52,030.00	\$ 51,513.00	\$ 151,339.00	
Maria	\$ 51,545.00	\$ 43,497.00	\$ 43,076.00	\$ 138,118.00	
Matt	\$ 50,664.00	\$ 42,966.00	\$ 45,619.00	\$ 139,249.00	
North Total	\$ 198,190.00	\$ 184,987.00	\$ 184,543.00	\$ 567,720.00	
West					
Joseph	\$ 52,467.00	\$ 47,118.00	\$ 45,941.00	\$ 145,526.00	
Lawrence	\$ 44,870.00	\$ 48,738.00	\$ 44,046.00	\$ 137,654.00	
Maria	\$ 46,676.00	\$ 43,636.00	\$ 49,111.00	\$ 139,423.00	
Matt	\$ 50,610.00	\$ 49,111.00	\$ 51,467.00	\$ 151,188.00	
West Total	\$ 194,623.00	\$ 188,603.00	\$ 190,565.00	\$ 573,791.00	
Grand Total	\$ 582,736.00	\$ 562,029.00	\$ 569,548.00	\$ 1,714,313.00	

Month	Jun-09				
Sum of Net Sales	Column Labels				
Row Labels	FastCar	RapidZoo	SuperGlue	Grand Total	
Middle					
Joseph	\$ 1,316.00	\$ 2,079.00	\$ 1,434.00	\$ 4,829.00	
Lawrence	\$ 714.00	\$ 1,660.00	\$ 1,296.00	\$ 3,670.00	
Maria	\$ 1,666.00	\$ 1,611.00	\$ 1,575.00	\$ 4,852.00	
Matt	\$ 1,015.00	\$ 945.00	\$ 2,097.00	\$ 4,057.00	
Middle Total	\$ 4,711.00	\$ 6,295.00	\$ 6,402.00	\$ 17,408.00	
North					
Joseph	\$ 960.00	\$ 1,125.00	\$ 1,968.00	\$ 4,053.00	
Lawrence	\$ 2,930.00	\$ 1,890.00	\$ 1,490.00	\$ 6,310.00	
Maria	\$ 1,510.00	\$ 1,656.00	\$ 1,672.00	\$ 4,838.00	
Matt	\$ 2,628.00	\$ 1,600.00	\$ 1,584.00	\$ 5,812.00	
North Total	\$ 8,028.00	\$ 6,271.00	\$ 6,714.00	\$ 21,013.00	
West					
Joseph	\$ 2,088.00	\$ 1,020.00	\$ 1,602.00	\$ 4,710.00	
Lawrence	\$ 1,071.00	\$ 861.00	\$ 2,080.00	\$ 4,012.00	
Maria	\$ 928.00	\$ 1,698.00	\$ 1,656.00	\$ 4,282.00	
Matt	\$ 1,590.00	\$ 2,660.00	\$ 1,512.00	\$ 5,762.00	
West Total	\$ 5,677.00	\$ 6,239.00	\$ 6,850.00	\$ 18,766.00	
Grand Total	\$ 18,416.00	\$ 18,805.00	\$ 19,966.00	\$ 57,187.00	

Working with Dates

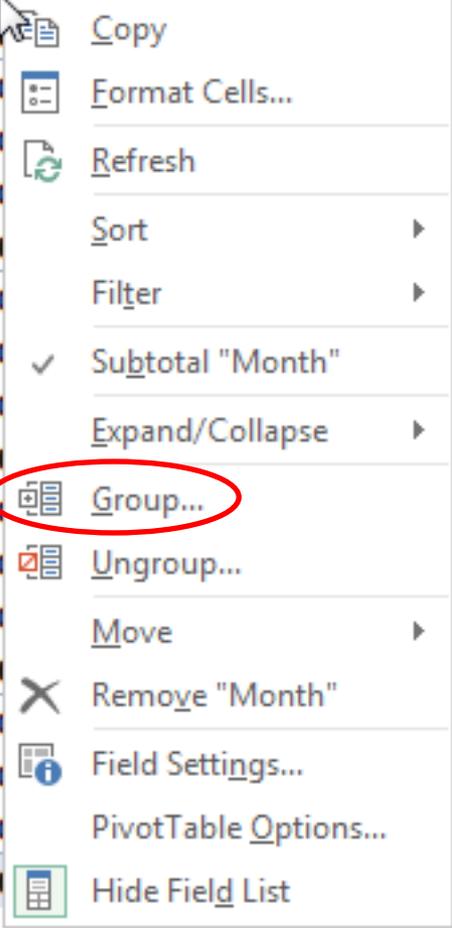
- Often, there are many dates in a data set
- Excel lets us group data items together by day, week, month, year...

Working with Dates

Sum of Net Sales		Column Labels					
Row Labels		Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07
Joseph	\$	12,758.00	\$14,098.00	\$12,692.00	\$13,847.00	\$17,063.00	\$16,188.00
FastCar	\$	5,041.00	\$ 4,347.00	\$ 4,376.00	\$ 4,044.00	\$ 3,143.00	\$ 5,586.00
RapidZoo	\$	4,497.00	\$ 4,233.00	\$ 4,193.00	\$ 3,848.00	\$ 6,488.00	\$ 5,478.00
SuperGlue	\$	3,220.00	\$ 5,518.00	\$ 4,123.00	\$ 5,955.00	\$ 7,432.00	\$ 5,124.00
Lawrence	\$	13,363.00	\$13,384.00	\$14,649.00	\$17,050.00	\$16,401.00	\$15,969.00
FastCar	\$	5,347.00	\$ 6,124.00	\$ 3,999.00	\$ 5,332.00	\$ 5,340.00	\$ 3,774.00
RapidZoo	\$	4,761.00	\$ 3,147.00	\$ 6,540.00	\$ 6,994.00	\$ 4,408.00	\$ 5,170.00
SuperGlue	\$	3,255.00	\$ 4,113.00	\$ 4,110.00	\$ 4,724.00	\$ 6,653.00	\$ 7,025.00
Maria	\$	15,199.00	\$13,909.00	\$12,733.00	\$15,288.00	\$14,182.00	\$16,725.00
FastCar	\$	4,866.00	\$ 5,109.00	\$ 4,410.00	\$ 4,990.00	\$ 6,007.00	\$ 7,260.00
RapidZoo	\$	4,005.00	\$ 3,668.00	\$ 3,585.00	\$ 5,282.00	\$ 3,447.00	\$ 5,317.00
SuperGlue	\$	6,328.00	\$ 5,132.00	\$ 4,738.00	\$ 5,016.00	\$ 4,728.00	\$ 4,148.00
Matt	\$	15,566.00	\$16,493.00	\$11,547.00	\$13,596.00	\$14,847.00	\$13,475.00
FastCar	\$	4,093.00	\$ 6,087.00	\$ 3,414.00	\$ 5,185.00	\$ 4,592.00	\$ 4,998.00
RapidZoo	\$	5,714.00	\$ 4,959.00	\$ 4,060.00	\$ 4,006.00	\$ 5,822.00	\$ 4,789.00
SuperGlue	\$	5,759.00	\$ 5,447.00	\$ 4,073.00	\$ 4,405.00	\$ 4,433.00	\$ 3,688.00
Grand Total	\$	56,886.00	\$57,884.00	\$51,621.00	\$59,781.00	\$62,493.00	\$62,357.00

Working with Dates

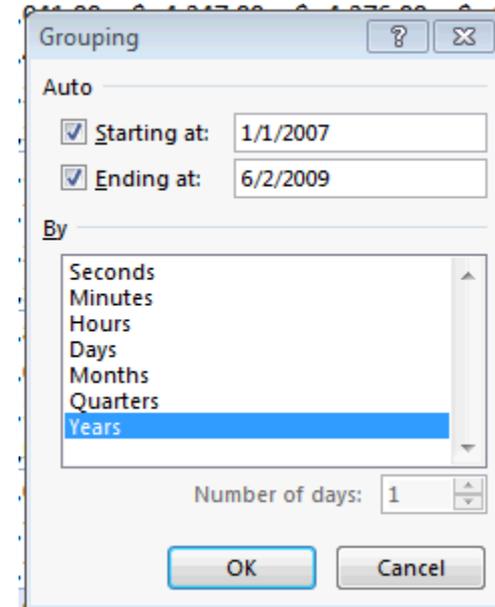
Row Labels		Jan-07	Feb-07	Mar-07
Joseph	\$	12,758.00		
FastCar	\$	5,041.00		
RapidZoo	\$	4,497.00		
SuperGlue	\$	3,220.00		
Lawrence	\$	13,363.00		
FastCar	\$	5,347.00		
RapidZoo	\$	4,761.00		
SuperGlue	\$	3,255.00		
Maria	\$	15,199.00		
FastCar	\$	4,866.00		
RapidZoo	\$	4,005.00		
SuperGlue	\$	6,328.00		
Matt	\$	15,566.00		
FastCar	\$	4,093.00		
RapidZoo	\$	5,714.00		
SuperGlue	\$	5,759.00		
Grand Total	\$	56,886.00		



Working with Dates

Row Labels		Jan-07	Feb-07	Mar-07
Joseph	\$	12,758.00		
FastCar	\$	5,041.00		
RapidZoo	\$	4,497.00		
SuperGlue	\$	3,220.00		
Lawrence	\$	13,363.00		
FastCar	\$	5,347.00		
RapidZoo	\$	4,761.00		
SuperGlue	\$	3,255.00		
Maria	\$	15,199.00		
FastCar	\$	4,866.00		
RapidZoo	\$	4,005.00		
SuperGlue	\$	6,328.00		
Matt	\$	15,566.00		
FastCar	\$	4,093.00		
RapidZoo	\$	5,714.00		
SuperGlue	\$	5,759.00		
Grand Total	\$	56,886.00		

Group sales by year



Working with Dates

Sum of Net Sales		Column Labels			
Row Labels	2007	2008	2009	Grand Total	
Joseph	\$ 174,229.00	\$ 175,739.00	\$ 82,639.00	\$ 432,607.00	
FastCar	\$ 56,001.00	\$ 62,652.00	\$ 30,179.00	\$ 148,832.00	
RapidZoo	\$ 60,766.00	\$ 57,395.00	\$ 25,440.00	\$ 143,601.00	
SuperGlue	\$ 57,462.00	\$ 55,692.00	\$ 27,020.00	\$ 140,174.00	
Lawrence	\$ 179,911.00	\$ 165,670.00	\$ 84,910.00	\$ 430,491.00	
FastCar	\$ 57,629.00	\$ 55,463.00	\$ 29,432.00	\$ 142,524.00	
RapidZoo	\$ 60,734.00	\$ 56,766.00	\$ 28,971.00	\$ 146,471.00	
SuperGlue	\$ 61,548.00	\$ 53,441.00	\$ 26,507.00	\$ 141,496.00	
Maria	\$ 172,488.00	\$ 162,000.00	\$ 85,066.00	\$ 419,554.00	
FastCar	\$ 61,752.00	\$ 58,400.00	\$ 28,092.00	\$ 148,244.00	
RapidZoo	\$ 53,177.00	\$ 48,319.00	\$ 28,772.00	\$ 130,268.00	
SuperGlue	\$ 57,559.00	\$ 55,281.00	\$ 28,202.00	\$ 141,042.00	
Matt	\$ 173,361.00	\$ 168,290.00	\$ 90,010.00	\$ 431,661.00	
FastCar	\$ 56,698.00	\$ 56,668.00	\$ 29,770.00	\$ 143,136.00	
RapidZoo	\$ 56,738.00	\$ 56,119.00	\$ 28,832.00	\$ 141,689.00	
SuperGlue	\$ 59,925.00	\$ 55,503.00	\$ 31,408.00	\$ 146,836.00	
Grand Total	\$ 699,989.00	\$ 671,699.00	\$ 342,625.00	\$ 1,714,313.00	

Slicers

- It is not easy to see the current filtering state when you filter on multiple items
- Slicers are easy-to-use filtering components with buttons that enable you to quickly filter the data in a PivotTable, without opening drop-down lists to find the items that you want to filter.
- In addition to quick filtering, slicers also indicate the current filtering state, which makes it easy to understand what exactly is shown in a filtered PivotTable report.

Slicers

- Slicers allow us to quickly filter the table to show only the North region and the RapidZoo product for all Salesmen

Sum of Net Sales	Column Labels	
Row Labels	RapidZoo	Grand Total
North	\$ 184,987.00	\$ 184,987.00
Joseph	\$ 46,494.00	\$ 46,494.00
Lawrence	\$ 52,030.00	\$ 52,030.00
Maria	\$ 43,497.00	\$ 43,497.00
Matt	\$ 42,966.00	\$ 42,966.00
Grand Total	\$ 184,987.00	\$ 184,987.00

Salesman

- Joseph
- Lawrence
- Maria
- Matt

Region

- Middle
- North
- West

Product

- FastCar
- RapidZoo
- SuperGlue

Multiple Summary Functions to the Same Field

PivotTable Fields

Choose fields to add to report:

- Month
- Salesman
- Region
- Product
- No. Customers
- Net Sales
- Profit / Loss

MORE TABLES...

Drag fields between areas below:

FILTERS		COLUMNS	
		Product	
		Σ Values	
ROWS		VALUES	
Region		Average of Ne...	
Salesman		Sum of Net Sa...	

Defer Layout Update

UPDATE

Column Labels					
FastCar			RapidZoo		
Row Labels	Average of Net Sales	Sum of Net Sales	Average of Net Sales	Sum of Net Sales	
Middle	\$ 1,582.69	\$ 189,923.00	\$ 1,570.33	\$ 188,439.00	
Joseph	\$ 1,606.00	\$ 48,180.00	\$ 1,666.30	\$ 49,989.00	
Lawrence	\$ 1,661.93	\$ 49,858.00	\$ 1,523.43	\$ 45,703.00	
Maria	\$ 1,667.43	\$ 50,023.00	\$ 1,437.83	\$ 43,135.00	
Matt	\$ 1,395.40	\$ 41,862.00	\$ 1,653.73	\$ 49,612.00	
North	\$ 1,651.58	\$ 198,190.00	\$ 1,541.56	\$ 184,987.00	
Joseph	\$ 1,606.17	\$ 48,185.00	\$ 1,549.80	\$ 46,494.00	
Lawrence	\$ 1,593.20	\$ 47,796.00	\$ 1,734.33	\$ 52,030.00	
Maria	\$ 1,718.17	\$ 51,545.00	\$ 1,449.90	\$ 43,497.00	
Matt	\$ 1,688.80	\$ 50,664.00	\$ 1,432.20	\$ 42,966.00	
West	\$ 1,621.86	\$ 194,623.00	\$ 1,571.69	\$ 188,603.00	
Joseph	\$ 1,748.90	\$ 52,467.00	\$ 1,570.60	\$ 47,118.00	
Lawrence	\$ 1,495.67	\$ 44,870.00	\$ 1,624.60	\$ 48,738.00	
Maria	\$ 1,555.87	\$ 46,676.00	\$ 1,454.53	\$ 43,636.00	
Matt	\$ 1,687.00	\$ 50,610.00	\$ 1,637.03	\$ 49,111.00	
Grand Total	\$ 1,618.71	\$ 582,736.00	\$ 1,561.19	\$ 562,029.00	

Drag another copy of the field into the Values box.

Calculated Fields

In a pivot table, you can create a new field that performs a calculation on the sum of other pivot fields.

For example, we can create a calculated field named Bonus to calculate 3% of the Total Net Sales as a bonus for each salesperson.

Calculate a Bonus for each Salesperson

Row Labels	Sum of Net Sales
Joseph	\$ 432,607.00
Lawrence	\$ 430,491.00
Maria	\$ 419,554.00
Matt	\$ 431,661.00
Grand Total	\$ 1,714,313.00

Insert Calculated Field

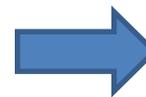
Name: Bonus

Formula: = 'Net Sales'*0.03

Fields:

- Month
- Salesman
- Region
- Product
- No. Customers
- Net Sales**
- Profit / Loss

Buttons: Add, Delete, Insert Field, OK, Close



Row Labels	Sum of Net Sales	Sum of Bonus
Joseph	\$ 432,607.00	\$ 12,978.21
Lawrence	\$ 430,491.00	\$ 12,914.73
Maria	\$ 419,554.00	\$ 12,586.62
Matt	\$ 431,661.00	\$ 12,949.83
Grand Total	\$ 1,714,313.00	\$ 51,429.39

About Calculated Fields

- For calculated fields, the individual amounts in the other fields are summed, and then the calculation is performed on the total amount.
- Calculated field formulas cannot refer to the Pivot table totals or subtotals
- Calculated field formulas cannot refer to worksheet cells by address or by name.
- **Sum** is the only function available for a calculated field.

To add a calculated field:

- Select a cell in the pivot table, and on the Excel Ribbon, under the PivotTable Tools tab, click the Analyze tab.
- In the Calculations group, click Fields, Items & Sets, and then click Calculated Field.
(Calculated fields can also be modified here.)



- Type a name for the calculated field, for example, Bonus.
- In the Formula box, type in the formula
- Click Add to save the calculated field, and click Close.
The Bonus field appears in the Values area of the pivot table, and in the field list in the PivotTable Field List.

Calculated Items

- A calculated item is a new item in an existing field
- Derived from calculations performed on other items already in the field.
- Example: the service plan for FastCar adds 5% to sales for the product. Create a new Calculated Item that calculates values for FastCar service plans.

Row Labels	Sum of Net Sales
Middle	\$582,298.15
FastCar	\$189,923.00
RapidZoo	\$188,439.00
SuperGlue	\$194,440.00
adjustedFastcar	\$9,496.15
North	\$577,629.50
FastCar	\$198,190.00
RapidZoo	\$184,987.00
SuperGlue	\$184,543.00
adjustedFastcar	\$9,909.50
West	\$583,522.15
FastCar	\$194,623.00
RapidZoo	\$188,603.00
SuperGlue	\$190,565.00
adjustedFastcar	\$9,731.15
Grand Total	\$1,743,449.80

Insert Calculated Item in "Product"

Name:

Formula:

Fields:

- Month
- Salesman
- Region
- Product**
- No. Customers
- Net Sales
- Profit / Loss

Items:

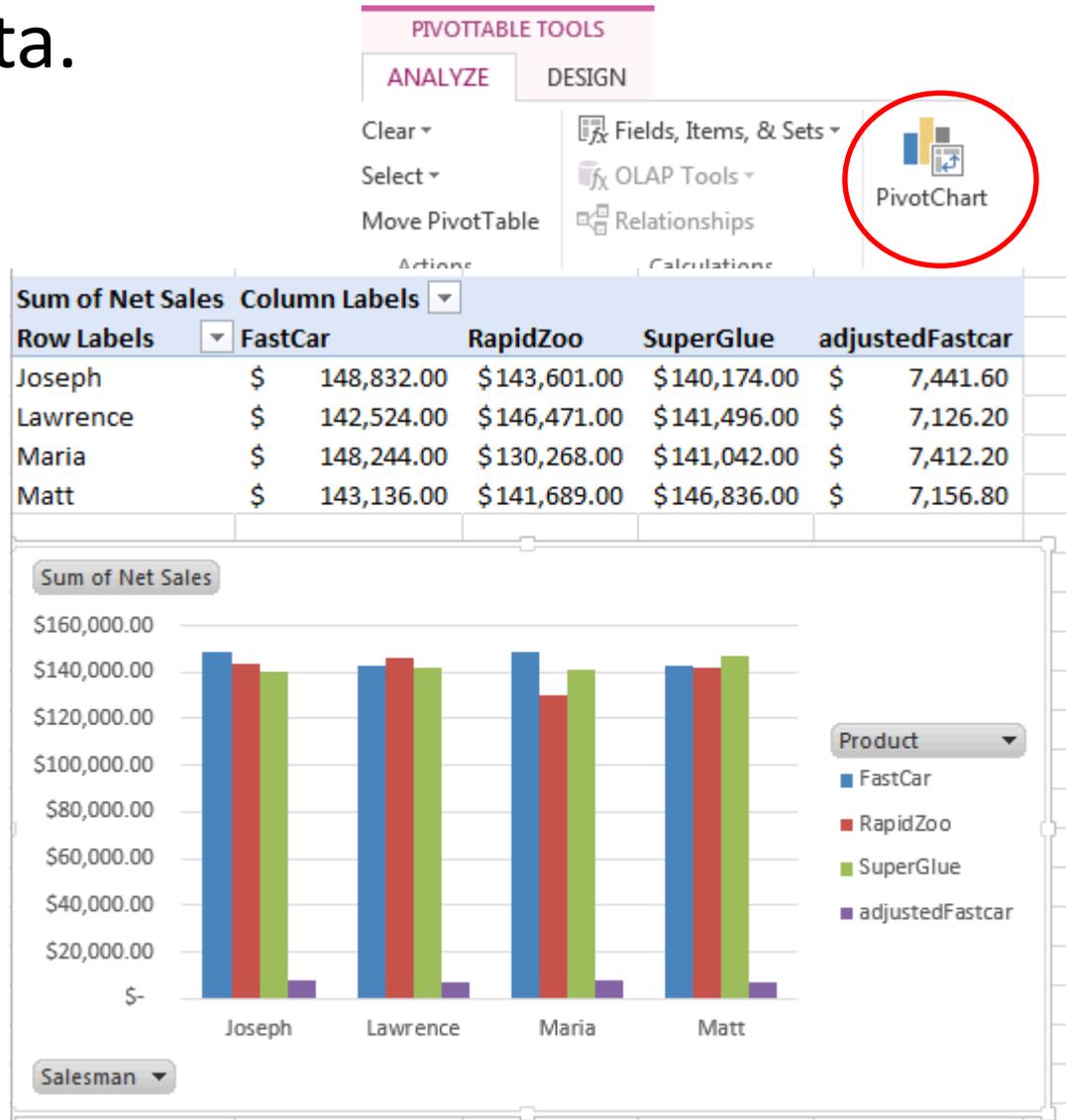
- FastCar
- RapidZoo
- SuperGlue
- adjustedFastcar

Calculated Items Warnings

- A field with a calculated item cannot be moved to the Report Filter area
- Multiple copies of a field are not supported when a PT has calculated items.
- A problem can occur when a calculated item or function defined in one pivot table is applied to other pivot tables in an Excel file causing a conflict.
- This can be solved by making pivot tables that are based on the same source data independent.
 - For instance, give the source data two different defined names and use one of the names for a PT with a calculated item and the other name for pivot tables without.

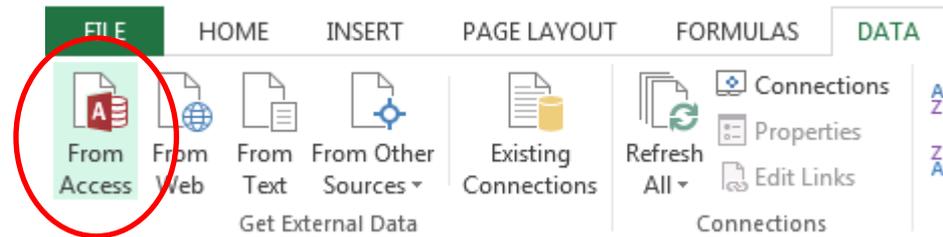
Pivot Charts

You can also make charts of summarized pivot table data.

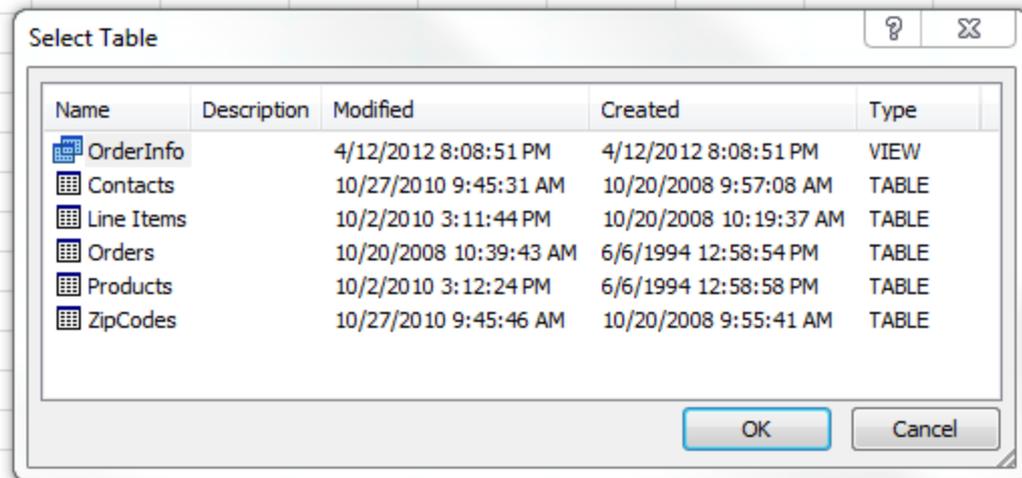


Create a Pivot Table from an Access Table

From the Data Menu, choose “From Access”



Find your Access file and choose the table or query to use in your pivot table.



Any Questions?