EXCEL 2010: PIVOT TABLES

Objectives:

- Learn how to set up your data in Excel in a format that you can use for a pivot table.
- Create a pivot table with that data
- Filter pivot table reports
- Change the summary function used in the pivot table
- Format a pivot table and change pivot table options.
- Change the pivot table report to reflect different views on the same data.
- Create a PivotChart with your pivot table

ABOUT PIVOT TABLES

Analyze and summarize data without disturbing the original data set

Sort to look up data in chronological order

Filter to limit scope to certain values you specify.

Place the pivot table on its own worksheet.

Use pivot tables to produce pivot charts to present the information in a graphical way.

SETTING UP DATA FOR USE IN PIVOT TABLES

- 1. Organize data in **columns with headings**. These headings will be used when you create the pivot table, and things will get very confusing without headings. -
- 2. Make sure there are **no empty columns or rows** in your data. Excel is good at sensing the start and end of a data table by looking for empty rows and columns at which point it stops.
 - Empty cells are OK.
 - A whole row of column of empty cells is NOT OK.
- 3. Consistent data in all cells.
 - If you have a date column, make sure all values in that column are dates (or blank).
 - If you have a quantity column, make sure all values are numbers (or blank) and not words.

CREATE A PIVOT TABLE FROM EXCEL WORKSHEET DATA

- 1. Open Data.xlsx (find file at http://www.siumed.edu/lib/libclasses.html#excelpivot)and Save As Data Pivot.xlsx
- 2. On Sheet 1 click in any cell in the data table.
- 3. Click on the Insert menu, and then click the PivotTable Button



4. The entire data range selected will be listed

5. Choose to place the PivotTable in a new worksheet and click OK. (Figure 1)

6	ile F	lome Ins	ert Page La	yout Fo	rmulas Da	ta Review Vie	ew Acrobat					
1.1	1					🎒 🖄 🗢						
Pive	otTable Ta	ble Pictur	e Clip Shape	s SmartArt S	Screenshot C	olumn Line Pie	Bar Area Scatter Other Line Column Win/Loss Slicer H					
	Tables	L	Illusti	ations			Chyde Carabitana Charabitana Charabitana					
	A1		▼ (n	fx Order	ID		Create PivotTable					
1	Δ					Choose the data that you want to analyze						
1	Order ID	Product	Category	Amount	Date	Country	Select a table or range					
2		1 Carrots	Vegetables	\$4.270	1/6/2012	United States	Table/Range: Sheet1!\$A\$1:\$F\$214					
3		2 Broccoli	Vegetables	\$8,239	1/7/2012	United Kingdom	🗇 Use an external data source					
4		3 Banana	Fruit	\$617	1/8/2012	United States	Choose Connection					
5		4 Banana	Fruit	\$8,384	1/10/2012	Canada	Connection name:					
6	1	5 Beans	Vegetables	\$2,626	1/10/2012	Germany	Choose where you want the PivotTable report to be placed					
7		6 Orange	Fruit	\$3,610	1/11/2012	United States	New Worksheet					
8		7 Broccoli	Vegetables	\$9,062	1/11/2012	Australia	Existing Worksheet					
9		8 Banana	Fruit	\$6,906	1/16/2012	New Zealand	Location:					
10	0	9 Apple	Fruit	\$2,417	1/16/2012	France						
11	1	0 Apple	Fruit	\$7,431	1/16/2012	Canada	OK Cancel					
12	1	1 Banana	Fruit	\$8,250	1/16/2012	Germany	C					
13	1	2 Broccoli	Vegetables	\$7,012	1/18/2012	United States						
14	1	3 Carrots	Vegetables	\$1,903	1/20/2012	Germany						
15	1	4 Broccoli	Vegetables	\$2,824	1/22/2012	Canada						
16	1	5 Apple	Fruit	\$6,946	1/24/2012	France						
17	1	6 Banana	Fruit	\$2,320	1/27/2012	United Kingdom						
18	1	7 Banana	Fruit	\$2,116	1/28/2012	United States						
19	1	8 Banana	Fruit	\$1,135	1/30/2012	United Kingdom						
20	1	9 Broccoli	Vegetables	\$3,595	1/30/2012	United Kingdom						
21	2	0 Apple	Fruit	\$1,161	2/2/2012	United States						
22	2	1 Orange	Fruit	\$2,256	2/4/2012	France						
23	2	2 Banana	Fruit	\$1,004	2/11/2012	New Zealand						
24	2	3 Banana	Fruit	\$3,642	2/14/2012	Canada						
25	2	4 Banana	Fruit	\$4,582	2/17/2012	United States						
26	2	5 Beans	Vegetables	\$3,559	2/17/2012	United Kingdom						
27	2	6 Carrots	Vegetables	\$5,154	2/17/2012	Australia						
28	2	7 Mango	Fruit	\$7,388	2/18/2012	France						
29	2	8 Beans	Vegetables	\$7,163	2/18/2012	United States						

Figure 1

🗶 🛃 🤊 • 🖓 - 🍏 🗋 🧕 = 🛛 Data Pivot.xisx - Microso	t Excel	PivotTa	ble Tools	A State of the	Aste	
Hile Home Insert Page Layout Formulas Data Review	View Acr	robat Options	Design			a 🕜 🗆 🗗 🖾
PivotTable Name: Active Field:	A		(RT2) (RT2)	Summarize Values By =	_la 17 1876	Field List
PivotTable1	3		ान्दी तुद्धी	Show Values As -		t +/- Buttons
Contions - On Field Settings = 3 Ref Group Field	ert Refresh Cha	ange Data Clear	Select Move	Z Fields Items & Sets +	PivotChart OLAP What-If	Field Headers
PivotTable Active Field Group Sort & Filter	er* * S(Date	a a	Actions	Calculations	Tools * Analysis *	Show
A3 . 6 £	27010				10000	
						<u></u>
	G M	1 3	PrvotTable Frei	ld List		* X
2			Choose fields t	o add to report:		· ·
2			Product		Report Filter	
4			Price			
5 PivotTable1			Qty Sold			
6 To build a report choose			Total			
7 fields from the PivotTable			Date			
8 Field List			Λ			
9						
10					THE Coloradate	
11 M M M M M M M M M M M M M M M M M M					Column Labels	
12						
Pivot lable placeholder						
17			PivotTab	ole Field List		
18						
19			task pan	e	Row Labels	
20]	
21						
=: 0						
Figure 2						
The column has dings from your data to						
The collimn nearings from volir data tai	le should	he listed.				
The column headings from your data tai	ole should	be listed:				
The column headings from your data tai	le should	be listed:				
PirotTable Field List	le should	be listed:		- X		
PivotTable Field List	ole should	be listed:		▼ X		
PivotTable Field List	ole should	be listed:		▼ X		
PivotTable Field List	ole should	be listed:		• ×		
PivotTable Field List Choose fields to add to report:	ole should	be listed:		▼ ×		
PivotTable Field List Choose fields to add to report:	ole should	be listed: ort Filter		• ×		
PivotTable Field List Choose fields to add to report:	V Rep	be listed: ort Filter		• ×		
PivotTable Field List Choose fields to add to report: Product Price	V Rep	be listed:		• ×		
PivotTable Field List Choose fields to add to report: Product Price Qty Sold	V Rep	be listed: ort Filter		• ×		
PivotTable Field List Choose fields to add to report: Product Qty Sold Total	V Rep	be listed: ort Filter		• ×		
PivotTable Field List Choose fields to add to report: Product Qty Sold Total Date	V Rep	be listed:		• ×		
PivotTable Field List Choose fields to add to report: Product Qty Sold Total Date	V Rep	be listed: ort Filter		• ×		
PivotTable Field List Choose fields to add to report: Product Qty Sold Total Date	Repu	be listed:		• ×		
PivotTable Field List Choose fields to add to report: Product Qty Sold Total Date	Repu	be listed:		• ×		
PivotTable Field List Choose fields to add to report: Product Qty Sold Total Date	Rep	be listed:		• ×		
PivotTable Field List Choose fields to add to report: Product Qty Sold Total Date	Repu	ort Filter		• ×		
PivotTable Field List Choose fields to add to report: Product Qty Sold Total Date	Repu	be listed:		• ×		
PivotTable Field List Choose fields to add to report: Product Qty Sold Total Date	Ple should	ort Filter		• ×		
PivotTable Field List Choose fields to add to report: Product Qty Sold Total Date	Repu	ort Filter		• ×		
PivotTable Field List Choose fields to add to report: Product Qty Sold Total Date	Repu	ort Filter		• ×		
PivotTable Field List Choose fields to add to report: Product Qty Sold Total Date	Repu	ort Filter		• ×		
PivotTable Field List Choose fields to add to report: Product Qty Sold Total Date	Repu	ort Filter				
PivotTable Field List Choose fields to add to report: Product Qty Sold Total Date	Rep Colu	ort Filter				
PivotTable Field List Choose fields to add to report: Product Qty Sold Total Date	Repu	ort Filter				
PivotTable Field List Choose fields to add to report: Product Qty Sold Total Date	Repu	ort Filter				
PivotTable Field List Choose fields to add to report: Product Qty Sold Total Date	Rep Colu	ort Filter				
PivotTable Field List Choose fields to add to report: Product Qty Sold Total Date	Repu	ort Filter				
PivotTable Field List Choose fields to add to report: Product Qty Sold Total Date	Rep Colu	ort Filter				
PivotTable Field List Choose fields to add to report: Product Qty Sold Total Date	Colu	ort Filter				
PivotTable Field List Choose fields to add to report: Product Qty Sold Total Date	Colu	ort Filter				
PivotTable Field List Choose fields to add to report: Product Qty Sold Total Date	Colu	ort Filter				

A PivotTable empty placeholder will appear on the left. On the right is the PivotTable Field List task pane. (Figure 2)

DESIGN YOUR PIVOT TABLE LAYOUT

To create the layout, you need to first select the fields you want in your table, and then place them in the correct location.

Drag and drop each field to the area you want. Although you can check the boxes for the fields you want to include, Excel will guess where each field should be placed, and not always correctly.

 In the PivotTable Field List task pane, drag the **Product** field from the top section to the **Row** Labels area at the bottom. (Figure 3)





 Drag the Country field to the Column Labels area. The countries will appear across the top of the PivotTable, in a single row. (Figure 4)

- 24	А	В	С	D	E	F	G	Н	1	PivotTable Field List 🔹 🗙
1										
2										Choose fields to add to report:
3	l	Column Labels 💌								Order ID Report Filter
4	Row Labels 🖃	Australia	Canada	France	Germany	New Zealand	United Kingdom	United States	Grand Total	Product
5	Apple									Category
6	Banana									Amount
7	Beans									
8	Broccoli									
9	Carrots									
10	Mango									
11	Orange									Column Labels
12	Grand Total									Country 🔻
13										
14										
15										
16										
17										<u> </u>
18										
19										Row Labels
20										Product 🔻
21										
22										
23										
24										

Figure 4

3. Drag the **Amount** field to the **Values** area at the bottom.

• The totals appear at the intersection of the row and column labels on the PivotTable. (Figure 5)

1	А	В	С	D	E	F	G	Н	L F	PivotTable Field List 👻 🗙
1										
2										Choose fields to add to report:
3	Sum of Amo	unt Column Labels 💌								Order ID Y Report Filter
4	Row Labels	Australia	Canada	France	Germany	New Zealand	United Kingdom	United States	Grand Total	Product
5	Apple	20634	24867	80193	9082	10332	17534	28615	191257	
6	Banana	52721	33775	36094	39686	40050	42908	95061	340295	
7	Beans	14433		680	29905		5100	7163	57281	Country
8	Broccoli	17953	12407	5341	37197	4390	38436	26715	142439	
9	Carrots	8106		9104	21636		41815	56284	136945	
10	Mango	9186	3767	7388	8775		5600	22363	57079	
11	Orange	8680	19929	2256	8887	12010	21744	30932	104438	Column Labels
12	Grand Total	131713	94745	141056	155168	66782	173137	267133	1029734	Country
13										
14										
15										
16										
17										=
18										
19										Row Labels
20										Product
21										
22										
23										
24									-	
25										
26										
27										Values
28										Sum of Amount
29										Sum of Amount
30										



Click here to download full PDF material