Excel on Steroids 50

Tips and Tricks
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Tip 1

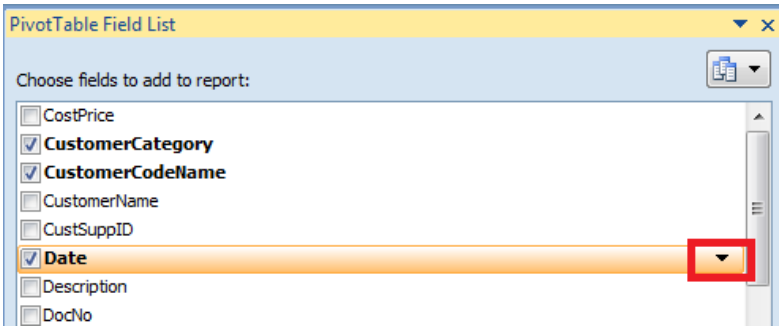
Using Filtering Options

Question: I am using Excel 2007 for my sales report. I know I can use the Report Filter in the PivotTable to filter all the sales data. Is there a way that you can just filter a specific Row field as I would like to filter my sales data by Date only?

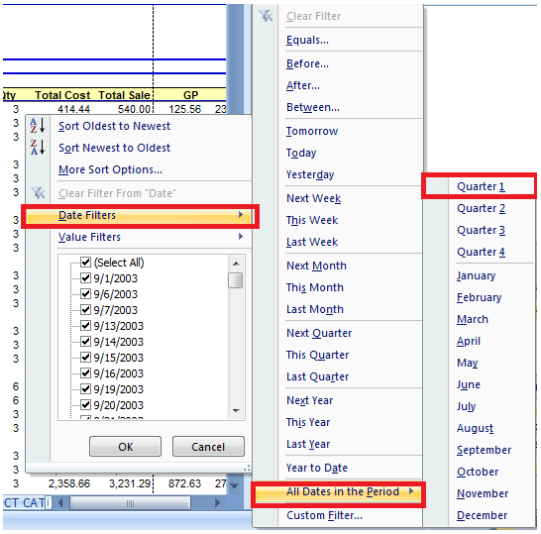
Answer: Yes, using the new filtering options for Row and Column fields in Excel 2007

How:

1. Open your sales report into Excel
2. Open the PivotTable field list
3. Hover over the words Date in the **top** of the PivotTable Field List and you will see a dropdown appear



4. Select the arrow and a drop down menu will open. You can then filter on your Date field, by selecting the Data filter option from the drop down menu. Open the dropdown. Choose Date Filters. The next flyout menu offers filters for This Week, Next Month, Last Quarter and others. If you want to filter to a specific month or quarter, choose All Dates in Period and select a month or quarter from the final flyout menu. See the example below.



Using the DATEIF function

Question: Is there a function in Excel that I can use to calculate the number of days between 2 dates. I would like to work out the number of days between an invoice date and invoice payment date.

Answer: Yes, using the DATEDIF function

DATEDIF is not listed with other functions under the formula tab in Excel 2007.

To use the function you must type it manually into a cell on the worksheet rather than using the dialog box method available for other functions.

The syntax for the DATEDIF function is:

= DATEDIF (start_date , end_date , unit)

The function has three arguments that need to be entered as part of the function:

- **start_date** - the first or starting date.
- **end_date** - the second or last date.
- **unit** - tells the function to find the number of days ("D"), complete months ("M"), or complete years ("Y") between the two dates.

The unit argument can also be a combination of days, months, and years:

- "YM" - excludes years - calculates the number of months between two dates as if the dates were in the same year.
- "YD" - excludes years - calculates the number of days between two dates as if the dates were in the same year.
- "MD" - excludes months - calculates the number of days between two dates as if the dates were in the same month and year.

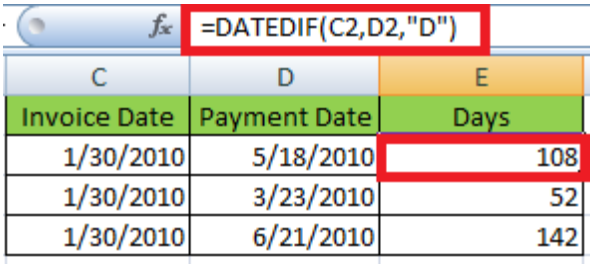
Calculate the Number of Days Between Dates Example

Note: Commas are used as separators between the function's three arguments. For help with this example, see the image below

C	D	E
Invoice Date	Payment Date	Days
1/30/2010	5/18/2010	108
1/30/2010	3/23/2010	52
1/30/2010	6/21/2010	142

1. Enter the following dates into cells C2 and D2: 1/30/2010 and 5/18/2010
2. Click on cell E1 in the spreadsheet - this is where the function will be located

3. Type " **= datedif** " in cell E1
4. Type an opening round bracket " **(** " after the function name in cell E1
5. Click on cell C2 in the spreadsheet to enter the cell reference of the start_date into the function
6. Type a comma (**,**) in cell E1 after C2 to act as a separator between the two cell references in the function
7. Click on cell D2 in the spreadsheet to enter the cell reference of the end_date into the function after the first comma
8. Type a second comma (**,**) in cell E1 following the second cell reference as a second separator
9. For the unit argument, type the letter D in quotes (**"D"**) in cell E1 after the second comma to tell the function we want to know the number of days between the two dates
10. Type the closing bracket " **)** "
11. Press the **ENTER** key on the keyboard
12. The answer 108 should appear in cell E1 as there are 108 days between January 30th and May 18



C	D	E
Invoice Date	Payment Date	Days
1/30/2010	5/18/2010	108
1/30/2010	3/23/2010	52
1/30/2010	6/21/2010	142

You can follow the same process for the remaining dates

If you get a **#NUM!** error in the cell where your function is located, it means that the start_date is larger (later in the year) than the end_date

The Right Function

Question: I usually import data from our accounts system into Excel for further analysis. The difficulty I face is that the names are combined with the initials. However I would like to analyze the data based on the initials. Is there a formula one can type so as to extract the initials quickly, given that the initials appear on the right side of the names?

Answer: Yes, by using the right function one can extract the specified number of characters from the right

Why: To quickly extract the initials in order to analyze the data properly.

Applies To: MS Excel 2010, 2007, 2003, Excel XP, Excel 2000

1. Enter data as given in the example below

	Product Name	Sales Person	Initial
3	Maxilaku	Anderson. P	
4	Gnocchi di nonna Alice	Johnson. A	
5	Tunnbröd	Peters. K	
6	Pavlova	Bonders. P	
7	Singaporean Hokkien Fried Mee	Newson. L	
8	Boston Crab Meat	Lavin. T	
9	Inlagd Sill	Perks. M	
10	Chai	Anderson. P	
11	Gudbrandsdalsost	Johnson. A	
12	Queso Cabrales	Peters. K	
13	Chai	Bonders. P	
14	Teatime Chocolate Biscuits	Newson. L	
15	Original Frankfurter grüne	Lavin. T	

2. To extract the initials from the right select D3 and type **=Right (C3,1)** and press enter

3. Copy the formula down and the screen below will be displayed.

	Product Name	Sales Person	Initial
3	Maxilaku	Anderson. P	P
4	Gnocchi di nonna Alice	Johnson. A	A
5	Tunnbröd	Peters. K	K
6	Pavlova	Bonders. P	P
7	Singaporean Hokkien Fried Mee	Newson. L	L
8	Boston Crab Meat	Lavin. T	T
9	Inlagd Sill	Perks. M	M
10	Chai	Anderson. P	P
11	Gudbrandsdalsost	Johnson. A	A
12	Queso Cabrales	Peters. K	K
13	Chai	Bonders. P	P
14	Teatime Chocolate Biscuits	Newson. L	L
15	Original Frankfurter grüne	Lavin. T	T

As can be seen above the initials have been extracted from the right hence one can analyze the data further based on the initials.

Publishing an Excel Workbook to an intranet/internet location

Question: We have adopted a policy in our company where the financial director is expected to publish quarterly financial results to the server/Intranet. This can then be read by all the concerned parties. However we only want to send a static copy of the statement/s. Is there an option in excel that we can use to achieve our desired result?

Answer: Yes, using the Save as from the office icon/File menu

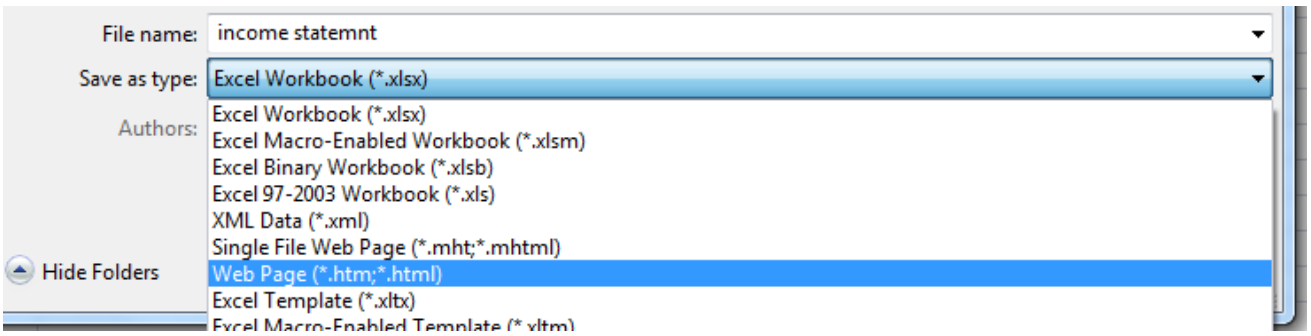
Why: To save all or part of a workbook to a static web page which can then be auto republished once changes are made to the source workbook.

Applies To: Excel 2010, Excel 2007, Excel 2003, Excel XP, Excel 2000

1. Enter data as given in the example below

	A	B	C	D	E
1					
2		R.K.L Coastal Trading CC.			
3		Income Statement For Period Ending April 2010			
4					
5			Apr-10		
6			Actual	Budget	
7					
8					
9		**Revenue**	**296 516.05**	**350 500.00**	
10		Sales	296 516.05	350 500.00	
11					
12		**Cost of Sales**	**177 390.92**	**180 000.00**	
13		Cost variance	-	-	
14		Cost Of Sales	168 022.43	180 000.00	
15		Inventory Adjustment	9 368.49	-	
16					
17		**GROSS PROFIT / (LOSS)**	**119 125.13**	**170 500.00**	
18					

2. To save click on the office icon/File menu
3. Select Save As, and enter income statement as the file name
4. Under the file extension select web page. Refer to the screen shot below



5. Select entire workbook and click on the publish button

6. Select the auto –republish every time this workbook is saved option
7. Select the open published workbook in browser option
8. Click the publish button
9. Due to some security restrictions on some browsers, the option to allow the content to be displayed should be selected.

The financial statement will then be displayed on the website in a static format. Hence no changes can be made to the Data. Furthermore when the source workbook is saved the data will be republished to the intranet/server.

Splitting of Windows

Question: Is it possible to view different parts of the data worksheet at the same time? For instance when I import the payroll summary report from the payroll system, I would like to see the top ten & bottom ten earners. We have over five hundred employees on our payroll and this analysis is crucial in identifying the trends in our payroll.

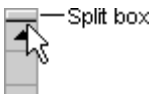
Answer: Yes, with split panes option. A very handy feature of Excel is its ability to allow you view more than one copy of your worksheet, and for you to be able to scroll through each pane of your worksheet independently. You can do this by using a feature called Split Panes, which will allow you to split your worksheet both horizontally and vertically.

When you split panes, the panes of your worksheet work simultaneously. If you make a change in one, it will simultaneously appear in the other. If you wish to move the split, just place your mouse over it, hold down your left mouse button and drag to where you want it. To get rid of the split, just double click it, or go to Window>Remove Split

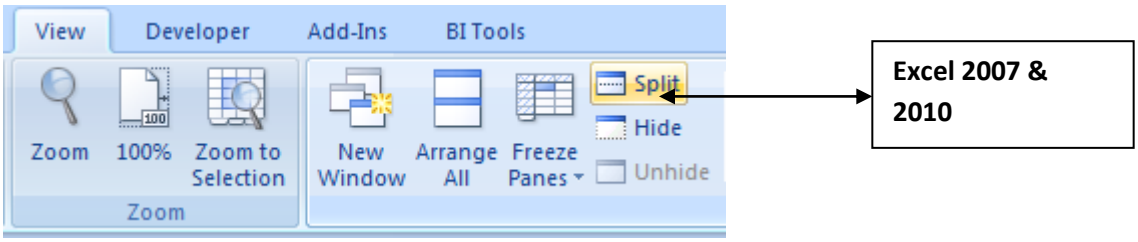
Why: In order to effectively analyze a huge list of data by viewing different parts of the worksheet simultaneously

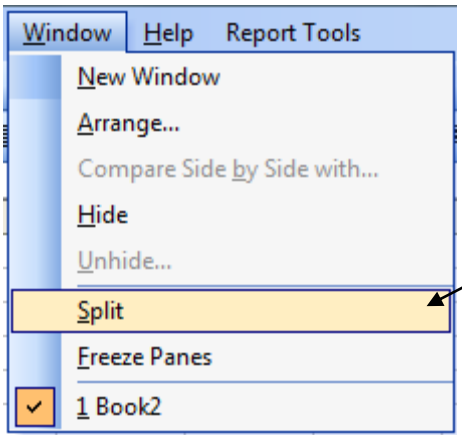
Applies To: Excel 2010, Excel 2007, Excel 2003, Excel XP, Excel 2000

1. Open or create the desired spreadsheet, for instance payroll summary report
2. To split panes, point to the split box at the top of the vertical scroll bar or at the right end of the horizontal scroll bar for a vertical split



3. When the pointer changes to a split pointer or , drag the split box down or to the left to the position that you want
4. To remove the split, double-click any part of the split bar that divides the panes
5. Alternatively select the view tab under the windows group then click on split - (Excel 2007 & 2010). For Excel 2003, XP and 2000 click on the windows menu and select split. Refer to the screen shots below





Excel 2003, XP, 2000

One is therefore able to view different parts of the worksheets simultaneously and make informed decisions

Tip 6

Multiple Data Consolidations for Pivot Tables

Question: As an effective tool for working with large volumes of data, I usually use PivotTables to summarize, organize and view the same data in many different ways quickly and easily. However the data is usually in one data source/range. Is it possible to create a PivotTable based on multiple data consolidation ranges?
Answer: Yes, with the PivotTable multiple consolidation ranges option.

Why: To analyze data from multiple data consolidation ranges

Applies To: Excel 2010, 2007, 2003, XP, 2000, 97

1. Enter the data given below in the three worksheets; sheet 1, sheet 2 and sheet 3 respectively.

Sheet 1

	A	B
1	**Product**	**Sales 2010**
2	Annatto Seed	$22 000
3	Anise Seeds	$95 000
4	Asafoetida Powder	$70 000
5	Basil Leaf	$60 000
6	Bay Leaf	$98 000
7	Caraway Seed	$30 000
8	Cardamom Seed	$25 000
9	Garlic	$20 000

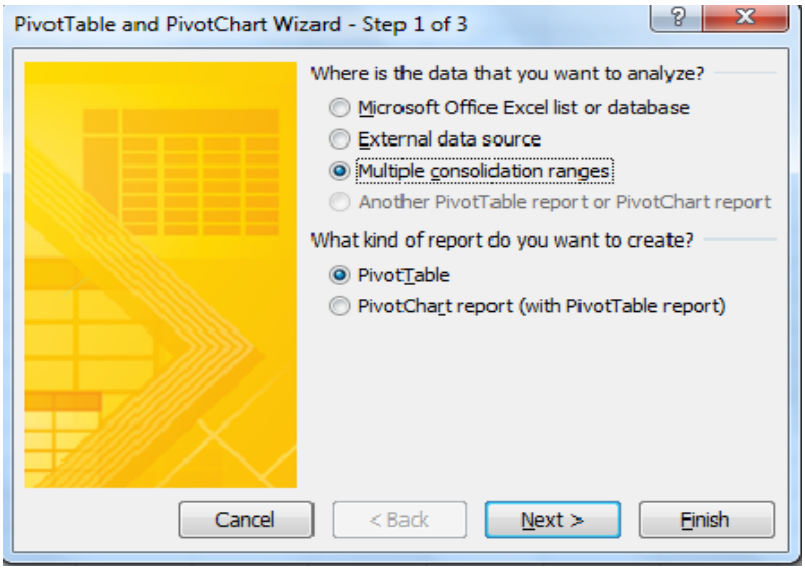
Sheet 2

	A	B
1	**Product**	**Sales 2010**
2	Annatto Seed	$11 771
3	Anise Seeds	$87 970
4	Asafoetida Powder	$11 312
5	Basil Leaf	$58 842
6	Bay Leaf	$99 665
7	Caraway Seed	$19 426
8	Cardamom Seed	$22 772
9	Garlic	$17 990

Sheet 3

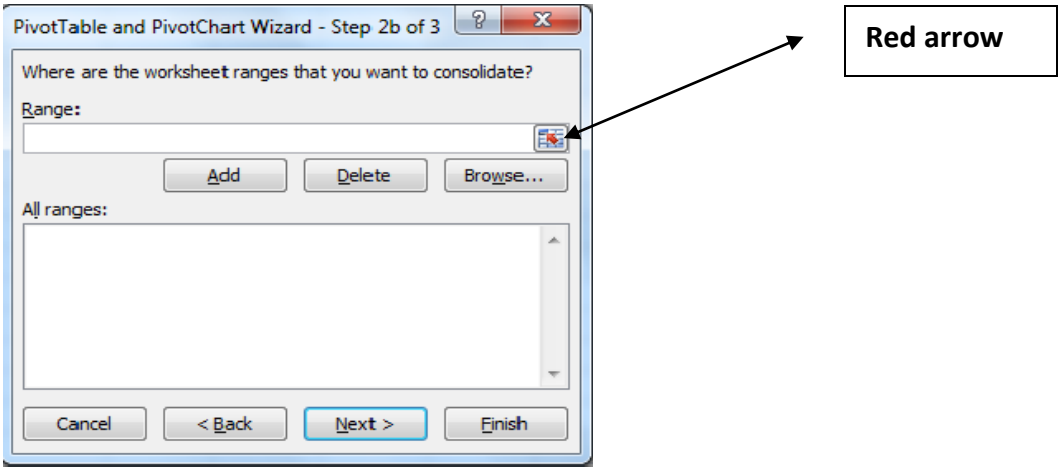
	A	B
1	**Product**	**Sales 2010**
2	Annatto Seed	$18 000
3	Anise Seeds	$45 000
4	Asafoetida Powder	$13 000
5	Basil Leaf	$66 000
6	Bay Leaf	$80 000
7	Caraway Seed	$25 000
8	Cardamom Seed	$25 000
9	Garlic	$20 000

2. Insert/Select sheet 4
3. For Excel 2007 and 2010 press ALT + D and then press/type P
4. For Excel 2003, XP, 2000 and 97; click the Data menu and then PivotTable & PivotChart Report
5. The screen shot below will be displayed



6. Select Multiple consolidation ranges and PivotTable then click Next

7. Select create a single page field for me and then click next. The screen shot below will be displayed.



8. Click on the red arrow under Range and select the data range A1:B9 on sheet 1

9. Press Enter and click the add button

10. Repeat steps 8 & 9 for data on sheet 2 and sheet 3

11. Click on the next button and select Existing Worksheet then click Finish

As you can see a PivotTable with a multiple data consolidation range has been created. One can easily select the data to be displayed by selecting the appropriate option. The page option allows a user to select data for the respective worksheet. The worksheets are given as item 1, Item 2 and Item 3.

Tip 7

Text Conversions

Question: I usually export my inventory data into Excel for further analysis. However the products names appear in upper case when I do this. Is there a way of converting the product names to lowercase and then capitalizing each word – how do I do this in Excel?

Answer: By using the proper function

Why: To convert the text of data into proper case (Capitalize each word)

Applies To: Excel 2010, 2007, 2003, XP, 2000, 97

1. Given that you have the data below

	B	D	E	F
1		**Stock List**		
2				
3	***Product ID***	***Product Name***	***Product Name(New Format)***	**Quantity**
4	M01	MAXILAKU		30
5	G01	GNOCCHI DI NONNA ALICE		70
6	T01	TUNNBRÖD		60
7	P01	PAVLOVA		21
8	S01	SINGAPOREAN HOKKIEN FRIED MEE		40
9	B01	BOSTON CRAB MEAT		2
10	I01	INLAGD SILL		5
11	C01	CHAI		10
12	G001	GUDBRANDSDALSOST		15
13	Q01	QUESO CABRALES		30
14	C01	CHAI		24
15	T001	TEATIME CHOCOLATE BISCUITS		20
16	O01	ORIGINAL FRANKFURTER GRÜNE SOßE		35
17	C001	CÔTE DE BLAYE		50
18	T0001	TEATIME CHOCOLATE BISCUITS		4
19	R 1	RÖD KAVIAR		20
20	G0001	GUMBÄR GUMMIBÄRCHEN		2
21	G00001	GORGONZOLA TELINO		14
22	**Total**			**452**

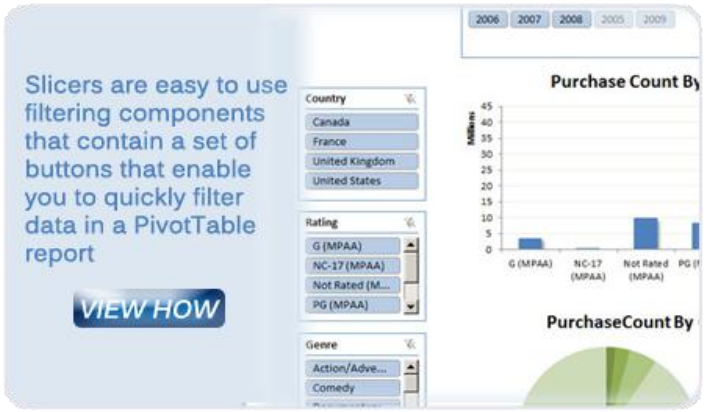
2. Select cell E4 and type; =proper (D4)

3. Press Enter and copy the formula down

4. The result will be the screen shot below

	A	B	D	E	F
1		Stock List			
2					
3		*Product ID*	*Product Name*	*Product Name(New Format)*	Quantity
4		M01	MAXILAKU	Maxilaku	30
5		G01	GNOCCHI DI NONNA ALICE	Gnocchi Di Nonna Alice	70
6		T01	TUNNBRÖD	Tunnbröd	60
7		P01	PAVLOVA	Pavlova	21
8		S01	SINGAPOREAN HOKKIEN FRIED MEE	Singaporean Hokkien Fried Mee	40
9		B01	BOSTON CRAB MEAT	Boston Crab Meat	2
10		I01	INLAGD SILL	Inlagd Sill	5
11		C01	CHAI	Chai	10
12		G001	GUDBRANDSDALSOST	Gudbrandsdalsost	15
13		Q01	QUESO CABRALES	Queso Cabrales	30
14		C01	CHAI	Chai	24
15		T001	TEATIME CHOCOLATE BISCUITS	Teatime Chocolate Biscuits	20
16		O01	ORIGINAL FRANKFURTER GRÜNE SOßE	Original Frankfurter Grüne Soße	35
17		C001	CÔTE DE BLAYE	Côte De Blaye	50
18		T0001	TEATIME CHOCOLATE BISCUITS	Teatime Chocolate Biscuits	4
19		R 1	RÖD KAVIAR	Röd Kaviar	20
20		G0001	GUMBÄR GUMMIBÄRCHEN	Gumbär Gummibärchen	2
21		G00001	GORGONZOLA TELINO	Gorgonzola Telino	14
22		**Total**			**452**

The products names are now in proper case. This has been achieved by using one function and the products names are now formatted correctly.



Tip 8

Text Lengths in Excel

Question: I need to export the stock list to our database program for further analysis. Last time I tried the routine, the names of the products were truncated because the wrong field size was used in the table. How can I return the number of characters in a text string? This will enable me to identify the maximum number as the field size when designing the table in the database.

Answer: By using the Len and Max functions.

Why: To identify the maximum number after counting the length of the text

Applies To: Excel (2010, 2007, 2003, XP, 2000, 97):

1. Assuming that you want to count the text length for the products given below

	A	B	C	D	E
1		Stock List			
2					
3		*Product ID*	Product Name	*Text Length*	Quantity
4		M01	Maxilaku		30
5		G01	Gnocchi di nonna Alice		70
6		T01	Tunnbröd		60
7		P01	Pavlova		21
8		S01	Singaporean Hokkien Fried Mee		40
9		B01	Boston Crab Meat		2
10		I01	Inlagd Sill		5
11		C01	Chai		10
12		G001	Gudbrandsdalsost		15
13		Q01	Queso Cabrales		30
14		C01	Chai		24
15		T001	Teatime Chocolate Biscuits		20
16		O01	Original Frankfurter grüne Soße		35
17		C001	Côte de Blaye		50
18		T0001	Teatime Chocolate Biscuits		4
19		R 1	Röd Kaviar		20
20		G0001	Gumbär Gummibärchen		2
21		G00001	Gorgonzola Telino		14
22		**Max**			

2. Select cell D4 and type =Len(C4)

3. Press the Enter key and copy the formula down

4. Select cell D22 and type =Max(D4:D21)

5. The screen shot below will be displayed

	A	B	C	D	E
1		**Stock List**			
2					
3		***Product ID***	Product Name	***Text Length***	Quantity
4		M01	Maxilaku	8	30
5		G01	Gnocchi di nonna Alice	22	70
6		T01	Tunnbröd	8	60
7		P01	Pavlova	7	21
8		S01	Singaporean Hokkien Fried Mee	29	40
9		B01	Boston Crab Meat	16	2
10		I01	Inlagd Sill	11	5
11		C01	Chai	4	10
12		G001	Gudbrandsdalsost	16	15
13		Q01	Queso Cabrales	14	30
14		C01	Chai	4	24
15		T001	Teatime Chocolate Biscuits	26	20
16		O01	Original Frankfurter grüne Soße	31	35
17		C001	Côte de Blaye	13	50
18		T0001	Teatime Chocolate Biscuits	26	4
19		R 1	Röd Kaviar	10	20
20		G0001	Gumbär Gummibärchen	19	2
21		G00001	Gorgonzola Telino	17	14
22		**Max**		**31**	

One is able to specify the correct field size (31) for the product names when designing the table in the database. Thus there will be no incomplete data through truncations when the stock list is exported to the database program.

Tip 9

Excel Tip Error Trapping

Question: Excel is known for its excellent formulae & function capabilities. As such I extensively use Excel to calculate the variance between the target sales amount and the actual sales amount for our salesagents. However, sometimes the formulae returns errors/error messages such as #DIV/0! Is there a way of trapping error messages, so that a custom message is displayed instead of an error message?

Answer: Yes, with the IFError function

Why: In order to trap error messages so that a custom message is displayed as opposed to an error message

Applies To (Excel 2007 and 2010):

1. Create the spreadsheet as in the example below

	A	B	C	D	E	F	G
1				***XYZ Limited***			
2				***Variance Computation***			
3							
4		***Staff Code***	***Name***	***Surname***	***Target***	***Actual***	***Variance***
5		P1	M	Naidoo	0	R 2 500.00	
6		P2	M	Effort	0	R 3 000.00	
7		P3	B	Nixon	R 30 000.00	R 35 000.00	
8		P4	K	Swartz	R 50 000.00	R 45 000.00	
9		P5	L	Belford	R 60 000.00	R 61 000.00	
10		P6	K	Moxford	R 50 000.00	R 54 000.00	
11		P7	J	Brown	R 45 000.00	R 46 000.00	
12		P8	H	Marks	0	R 3 000.00	
13		P9	G	Fraser	R 35 000.00	R 30 000.00	
14		P10	F	Jackson	R 55 000.00	R 60 000.00	
15							

2. Select cell G5 and type =-(E5-F5)/E5. Press Enter and auto-fill the formula down

3. The screen shot below with #DIV/0! Error messages will be displayed. The variance figures have been converted to percentage

	A	B	C	D	E	F	G
1				***XYZ Limited***			
2				***Variance Computation***			
3							
4		***Staff Code***	***Name***	***Surname***	***Target***	***Actual***	***Variance***
5		P1	M	Naidoo	0	R 2 500.00	#DIV/0!
6		P2	M	Effort	0	R 3 000.00	#DIV/0!
7		P3	B	Nixon	R 30 000.00	R 35 000.00	17%
8		P4	K	Swartz	R 50 000.00	R 45 000.00	-10%
9		P5	L	Belford	R 60 000.00	R 61 000.00	2%
10		P6	K	Moxford	R 50 000.00	R 54 000.00	8%
11		P7	J	Brown	R 45 000.00	R 46 000.00	2%
12		P8	H	Marks	0	R 3 000.00	#DIV/0!
13		P9	G	Fraser	R 35 000.00	R 30 000.00	-14%
14		P10	F	Jackson	R 55 000.00	R 60 000.00	9%
15							

4. To rectify the errors above; select cell G5 and type:

=IFERROR(-(E5-F5)/E5,"Target not given")

5. The screen shot below will be displayed. As you can see the variance has no error messages displayed. Instead a custom error message is given which gives credibility to the data

	A	B	C	D	E	F	G
1				***XYZ Limited***			
2				***Variance Computation***			
3							
4		***Staff Code***	***Name***	***Surname***	***Target***	***Actual***	***Variance***
5		P1	M	Naidoo	0	R 2 500.00	Target not given
6		P2	M	Effort	0	R 3 000.00	Target not given
7		P3	B	Nixon	R 30 000.00	R 35 000.00	17%
8		P4	K	Swartz	R 50 000.00	R 45 000.00	-10%
9		P5	L	Belford	R 60 000.00	R 61 000.00	2%
10		P6	K	Moxford	R 50 000.00	R 54 000.00	8%
11		P7	J	Brown	R 45 000.00	R 46 000.00	2%
12		P8	H	Marks	0	R 3 000.00	Target not given
13		P9	G	Fraser	R 35 000.00	R 30 000.00	-14%
14		P10	F	Jackson	R 55 000.00	R 60 000.00	9%
15							

Customizing Ribbons

Question: I find it tiresome switching between ribbons in Excel 2010 when I am creating reports. Is there a way of customizing a ribbon so that I can group all the frequently used functions together?

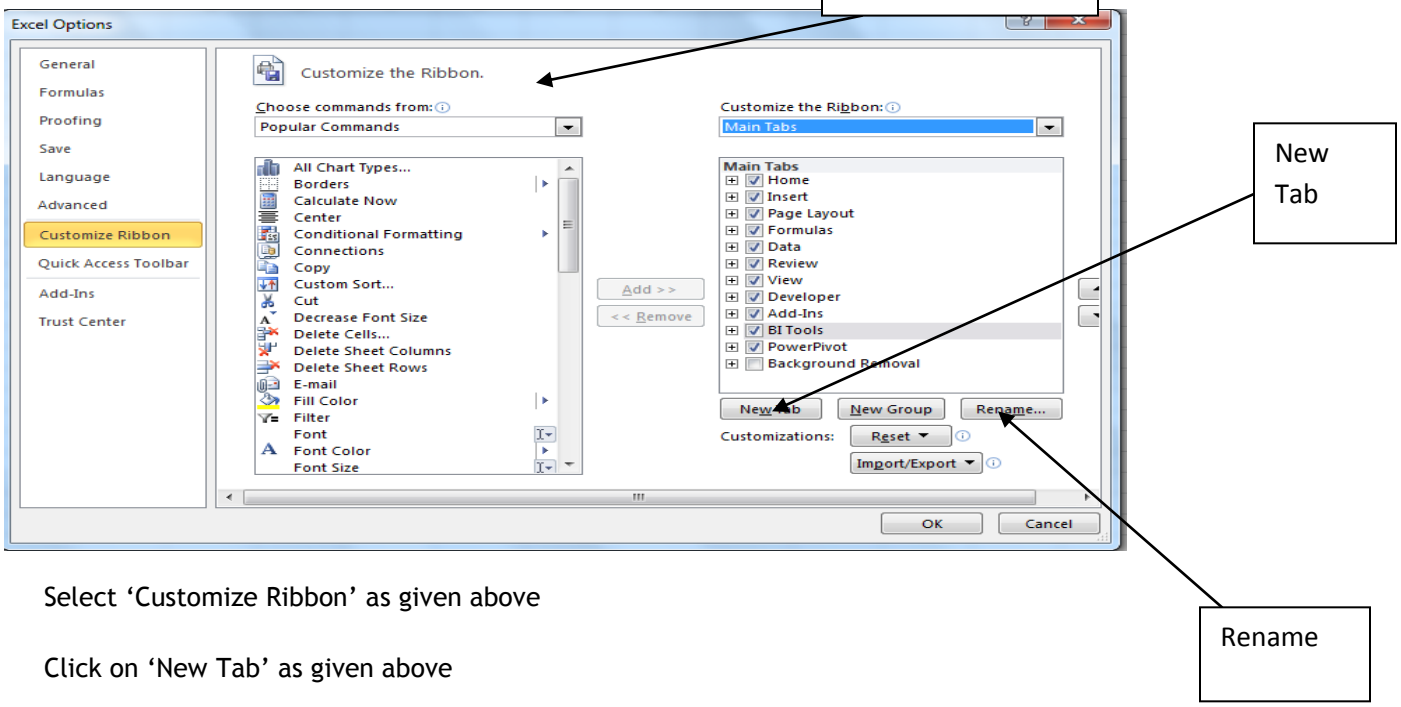
Answer: Yes, by creating a custom ribbon in Excel 2010

In fact, to make your reporting easier, Alchemex has created a customized BI ribbon which you can download for FREE here and follow the easy instructions to install

Why: To group all the frequently used functions together

Applies To MS Excel 2010:

1. Click on the file menu and select options. The screen shot below

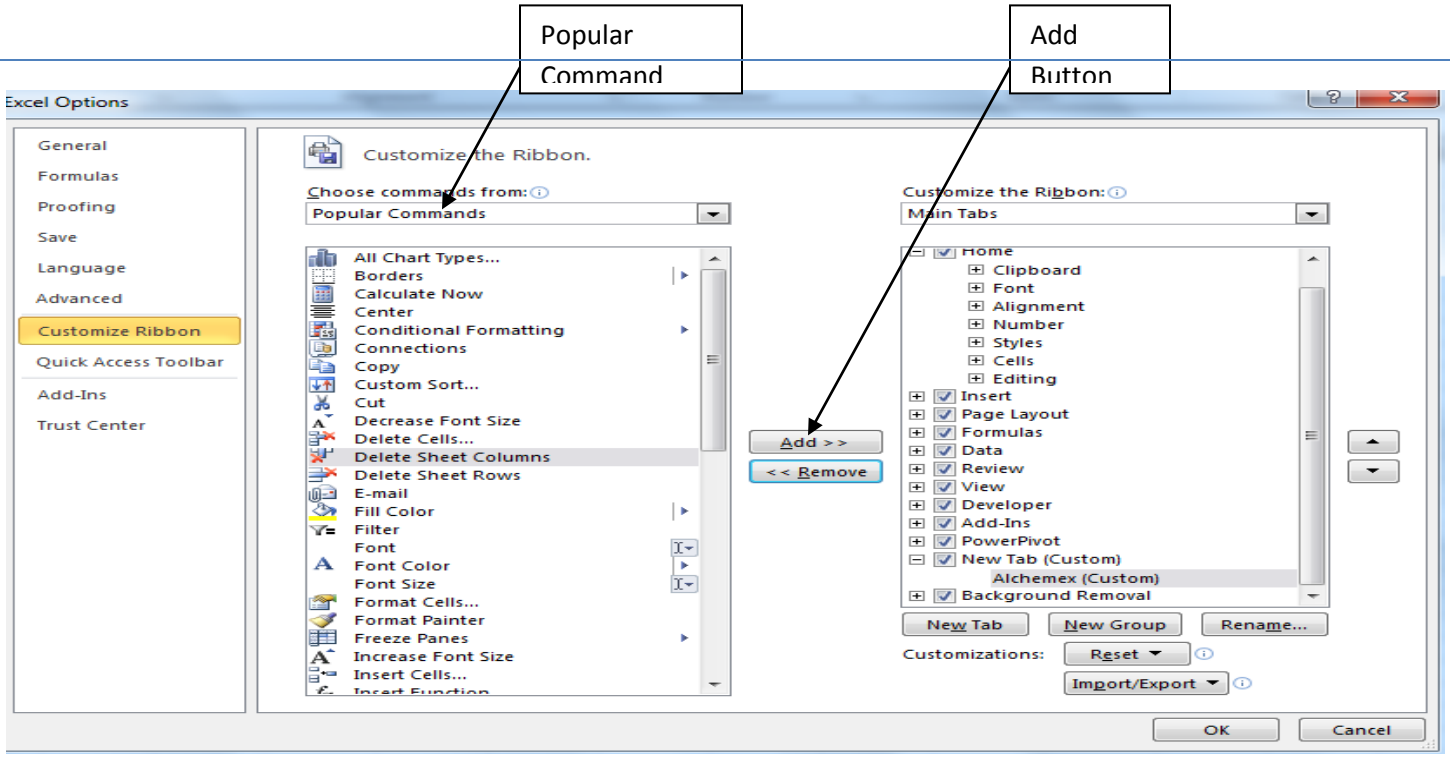


2. Select 'Customize Ribbon' as given above

3. Click on 'New Tab' as given above

4. Rename the ribbon to Alchemex by clicking on the 'Rename' button

5. The screen shot below will be displayed

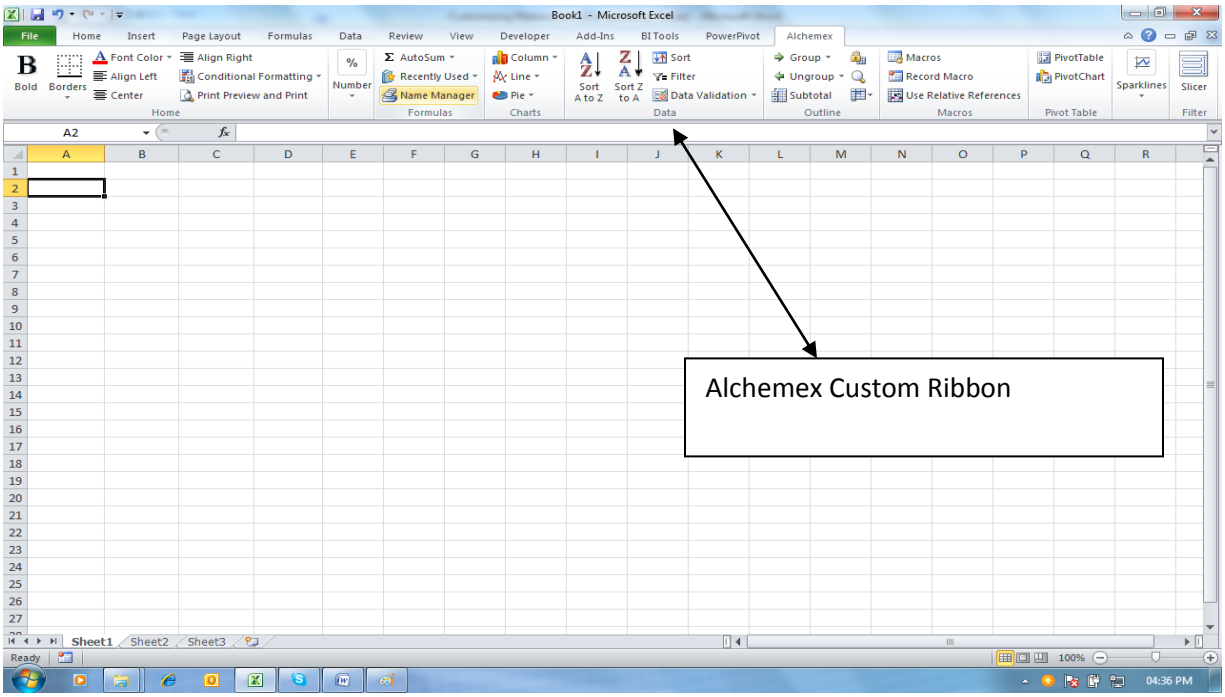


6. Under 'Popular Commands' select the respective icons and click on the 'Add' button

7. To organize the custom ribbon in groups click on the 'New Group' command and repeat step 6

8. Repeat steps 6 & 7 until the new ribbon has been created. Thereafter click the 'Ok' button

A new custom Alchemex Ribbon will appear on the Excel ribbon. The commonly used functions will thus be placed in one group. The user will be able to easily access those functions and eventually will save on time.



Tip 11

Personal Macro Custom Format

Question: Can you help me to apply custom format for employee numbers to all excel workbooks on my computer? I would like the employee numbers to have preceding zeros such as 001,002,003 etc.

Answer: Yes, with the Personal Macro workbook option

Why: For the custom format to apply to all workbooks on the computer

Applies To: Excel 2000, XP, 2003, 2007 and 2010

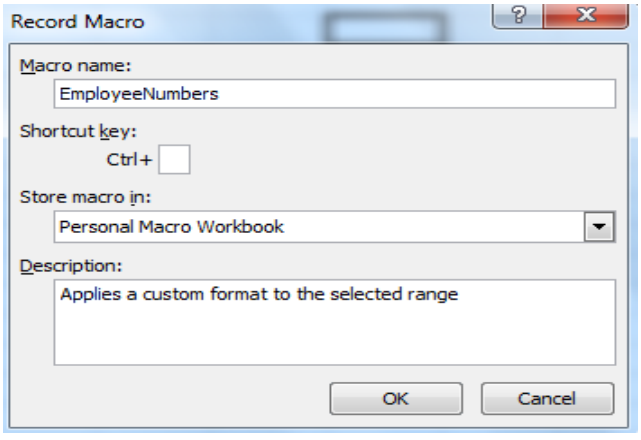
1. Enter the data as given in the example below

Employee List

Employee No	Name	Dept	Region
1	F.H Travisham	Admin	South Coast
2	P. Jones	Accounts	West Coast
3	T. Phillips	Sales	North Coast
4	T. Chetty	Support	East Coast
5	R. B. James	Marketing	East Coast
6	W. Smith	R&D	South Coast
7	T. Phillips	Accounts	South Coast

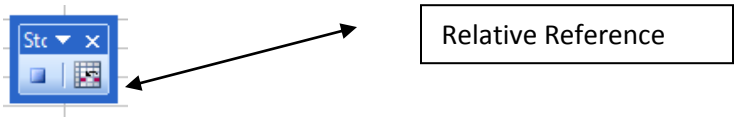
2. For Excel 2007 & 2010 click on the View ribbon and then Macros-Record, New Macro. For Other versions of Excel Click on Tools-Macro-Record, New Macros

3. Make changes as given below

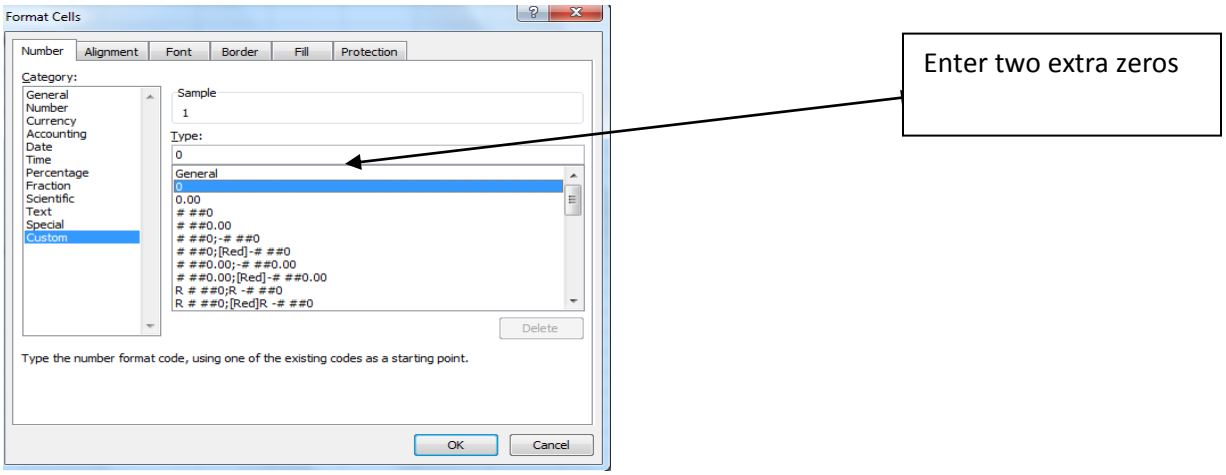


4. Click Ok and select the relative reference button. (This enables the macro to run in any location within the worksheet)

   For Excel 2007 & 2010 click View-Macros-Use Relative Reference. Other versions of Excel click on the relative reference icon as given below.



5. Right click in any cell. Select format cells and make changes as given below



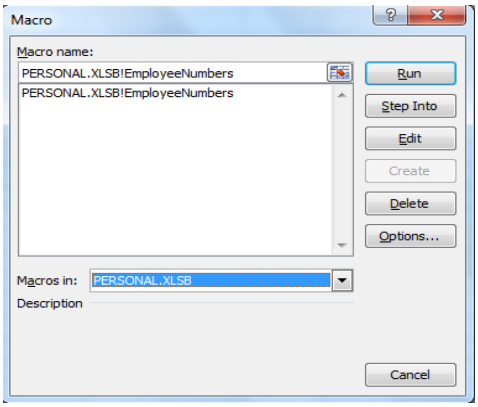
6. Click ok; select the relative reference button again

7. Excel 2007 & 2010- select View-Macros-Stop recording and lower versions of Excel -Tools-Macro-Stop Recording

9. Open the target workbook and highlight the respective employee numbers

10. Excel 2007 & 2010- select View-Macros-View Macros and lower versions of Excel -Tools-Macro-Macros. The screen shot below will be displayed

11. Click on the drop arrow next to macros in and select Personal.XLSB, select the Employee Numbers macro and click the run button



The EmployeeNumbers macro will run in any workbook and apply the custom number format. In that way the process of applying custom number formats in the workbooks is automated.

Tip 12

Text Function in Excel

Question: Given that I have a column of dates in values in my report, how can one only show the name of the months and can this be done in Microsoft Excel?

Answer: Yes, by using the text function in Excel

Why: The Text function coverts a value to text in a specific number format

Applies To MS Excel 2003, 2007, 2010

1. Refer to the data in the Excel worksheet as given in the example below

Product Name	Date	Month Name	Quantity	Unit Price	Product Sales
Maxilaku	2006/01/01		30	$ 16.00	$ 480.00
Gnocchi di nonna Alice	2006/02/01		70	$ 30.40	$ 2 128.00
Tunnbröd	2006/01/02		60	$ 7.20	$ 432.00
Pavlova	2006/02/03		21	$ 13.90	$ 291.90
Singaporean Hokkien Fried Mee	2006/01/03		40	$ 11.20	$ 448.00
Boston Crab Meat	2006/05/07		2	$ 14.70	$ 29.40
Inlagd Sill	2006/01/07		5	$ 15.20	$ 76.00
Chai	2006/01/07		10	$ 14.40	$ 144.00
Gudbrandsdalsost	2006/01/07		15	$ 28.80	$ 432.00
Queso Cabrales	2006/07/07		30	$ 16.80	$ 504.00
Chai	2006/01/14		24	$ 14.40	$ 345.60
Teatime Chocolate Biscuits	2006/01/16		20	$ 7.30	$ 146.00
Original Frankfurter grüne Soße	2006/09/16		35	$ 10.40	$ 364.00
Côte de Blaye	2006/01/16		50	$ 210.80	$ 10 540.00
Teatime Chocolate Biscuits	2006/01/21		4	$ 7.30	$ 29.20
Röd Kaviar	2006/07/21		20	$ 12.00	$ 240.00
Gumbär Gummibärchen	2006/01/22		2	$ 24.90	$ 49.80
Gorgonzola Telino	2006/05/23		14	$ 10.00	$ 140.00
Pâté chinois	2006/02/24		10	$ 19.20	$ 192.00
Gnocchi di nonna Alice	2006/03/30		30	$ 30.40	$ 912.00

2. Select C3

3. Type;=Text(C3,”MMMM”)

4. Press enter and copy the formula down

5. The result will be as in the screen shot below

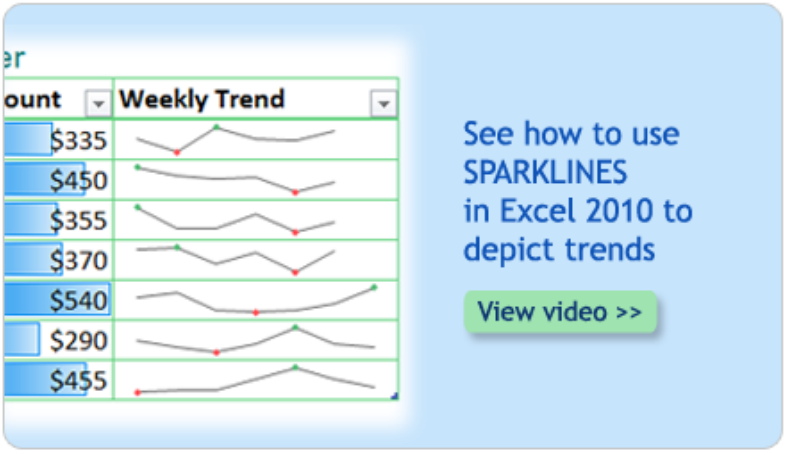
Product Name	Date	Month Name	Quantity	Unit Price	Product Sales
Maxilaku	2006/01/01	January	30	$ 16.00	$ 480.00
Gnocchi di nonna Alice	2006/02/01	February	70	$ 30.40	$ 2 128.00
Tunnbröd	2006/01/02	January	60	$ 7.20	$ 432.00
Pavlova	2006/02/03	February	21	$ 13.90	$ 291.90
Singaporean Hokkien Fried Mee	2006/01/03	January	40	$ 11.20	$ 448.00
Boston Crab Meat	2006/05/07	May	2	$ 14.70	$ 29.40
Inlagd Sill	2006/01/07	January	5	$ 15.20	$ 76.00
Chai	2006/01/07	January	10	$ 14.40	$ 144.00
Gudbrandsdalsost	2006/01/07	January	15	$ 28.80	$ 432.00
Queso Cabrales	2006/07/07	July	30	$ 16.80	$ 504.00
Chai	2006/01/14	January	24	$ 14.40	$ 345.60
Teatime Chocolate Biscuits	2006/01/16	January	20	$ 7.30	$ 146.00
Original Frankfurter grüne Soße	2006/09/16	September	35	$ 10.40	$ 364.00
Côte de Blaye	2006/01/16	January	50	$ 210.80	$ 10 540.00
Teatime Chocolate Biscuits	2006/01/21	January	4	$ 7.30	$ 29.20
Röd Kaviar	2006/07/21	July	20	$ 12.00	$ 240.00
Gumbär Gummibärchen	2006/01/22	January	2	$ 24.90	$ 49.80
Gorgonzola Telino	2006/05/23	May	14	$ 10.00	$ 140.00
Pâté chinois	2006/02/24	February	10	$ 19.20	$ 192.00
Gnocchi di nonna Alice	2006/03/30	March	30	$ 30.40	$ 912.00

You can also use the following formula if you would like a shorter text format.

Type;=Text(C3,”MMM”)

This would give the result Jan, Feb, Mar for example.

As can be seen above the name of the months have been extracted. Analysis in terms of how much sales were made in each month can easily be done now.



Tip13

Mail Merge

Question: How can one merge MS Excel with MS word given that we have a list of clients stored in MS Excel? Are we able to automate the sending of statements to clients?

Answer: Yes, by merging MS Excel with MS word

Why: To automate the sending of documents by merging MS Excel with MS Word

Applies To: MS Excel 2003, 2007, 2010

1. Refer to the data as given in the example below

	A	B	C	D	E	F	G
1		CustomerName	Product	Total Price	Paid To Date	Outstanding	
2		Fix Right Plumbers	Serenade Acrylic Cowrie Oval	$ 26 438.88	$ 20 000.00	$ 6 438.88	
3		F.H Travisham	Serenade Acrylic Piazza Conversion Bath	$ 9 914.58	$ 5 000.00	$ 4 914.58	
4		P. Jones	Quadrant 900 White Clear Shower Door	$ 11 851.44	$ 7 000.00	$ 4 851.44	
5		T. Phillips	CE900 White Clear Corner Entry Shower Door	$ 3 873.72	$ 1 500.00	$ 2 373.72	
6		TG Plumbers	CE900 White Clear Corner Entry Shower Door	$ 13 558.02	$ 8 000.00	$ 5 558.02	
7		T. Chetty	Saphire Sink Mixer	$ 1 361.16	$ 650.00	$ 711.16	
8		R. B. James	Noce De Grade	$ 11 846.88	$ 9 000.00	$ 2 846.88	
9		W. Smith	Hygenix Almond Toilet	$ 4 326.30	$ 2 000.00	$ 2 326.30	
10		Wet 'n Wild Plumbers	Rose De Grade	$ 1 480.86	$ 450.00	$ 1 030.86	
11		TG Plumbers	Tm918 Natural Clear Trimati Shower Door	$ 2 664.18	$ 1 000.00	$ 1 664.18	
12		Action Plumbers	Serenade Acrylic Piazza Conversion Bath	$ 9 914.58	$ 5 000.00	$ 4 914.58	
13		Best Plumbers	Serenade Acrylic Cowrie Oval	$ 13 219.44	$ 7 500.00	$ 5 719.44	
14		Berea Plumbers	CE900 White Clear Corner Entry Shower Door	$ 9 684.30	$ 6 500.00	$ 3 184.30	
15		Plumbwave	Tm918 Natural Clear Trimati Shower Door	$ 4 440.30	$ 2 200.00	$ 2 240.30	
16		Surefix	Quadrant 900 White Clear Shower Door	$ 26 665.74	$ 17 500.00	$ 9 165.74	
17							

2. Open MS Word and create the template below

ABC TRADING

STATEMENT

24th March 2011

Customer Name	Product	Total Price	Paid To Date	Outstanding

3. For MS Word 2007 & 2010 click on the mailings tab and select start mail merge (in the select mail merge group) then step by step mail merge wizard

4. For MS Word 2003 and lower; click on the tools menu, letters & mailings then mail merge

5. Click next on the bottom right hand side until you reach step 3

6. Select the browse option

7. Locate your MS Excel client database and click Ok twice

8. For MS Word 2007 & 2010 select the cell below customer name in the statement template and click on insert merge field (under the write & insert fields groups)

9. From the field list select customer name

10. Repeat steps 8-9 until you have inserted all the merge fields

11. For MS Word 2003 & lower; click tools – letters & mailings-show mail merge toolbar

12. On the mail merge toolbar locate the insert merge field icon (next to insert word field) and repeat steps 8-9

13. Click the next button until you reach step 6

14. You can then print or edit the individual letters

The number of letters/statements that will be created will be equal to the number of clients in the database. In that way the process of sending documents to clients will be automated. Meaning an organization with a lot of clients is able to effectively & efficiently send mass mails to its clients.

Negative Data Bars

Question: We have just upgraded from MS Excel 2007 to MS Excel 2010. When applying conditional formatting in MS Excel 2007 we were unable to display negative data bars. Can this be done in MS Excel 2010?

Answer: Yes, by using conditional formatting

Why: To create data bars for negative & positive values

Applies To MS Excel 2010:

1. The screen shot given below has negative & positive stock in/out values

BXC INVESTMENTS PTY	
Product	**Stock In/Out**
Serenade Acrylic Cowrie Oval	-10
Serenade Acrylic Piazza Conversion Bath	-15
Quadrant 900 White Clear Shower Door	-10
CE900 White Clear Corner Entry Shower Door	-12
Tm918 Natural Clear Trimati Shower Door	-9
CE900 White Clear Corner Entry Shower Door	120
Saphire Sink Mixer	115
Noce De Grade	130
Hygenix Almond Toilet	134
Rose De Grade	123
Serenade Acrylic Cowrie Oval	140

2. Highlight the stock in/out values

3. Select conditional formatting under the home tab

4. Select data bars

5. Select the data bar of your choice

6. The data bars below will be displayed

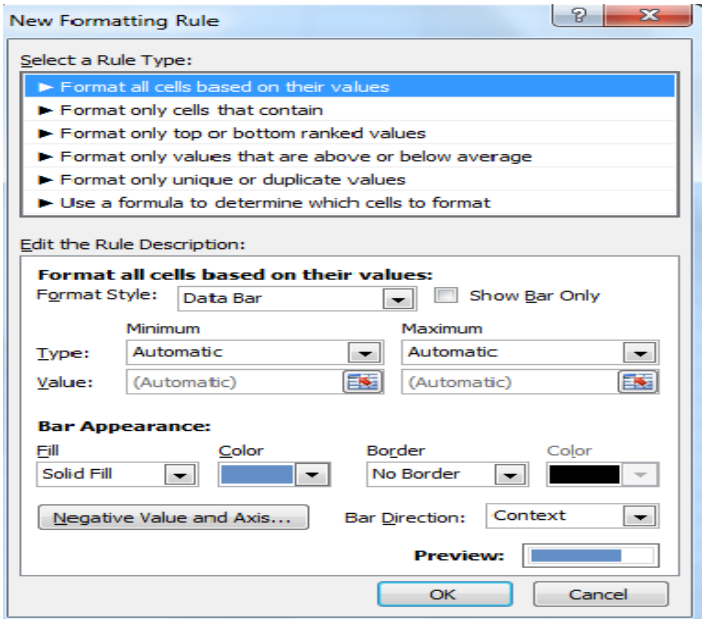
BXC INVESTMENTS PTY

Product	Stock In/Out
Serenade Acrylic Cowrie Oval	-10
Serenade Acrylic Piazza Conversion Bath	-15
Quadrant 900 White Clear Shower Door	-10
CE900 White Clear Corner Entry Shower Door	-12
Tm918 Natural Clear Trimati Shower Door	-9
CE900 White Clear Corner Entry Shower Door	120
Saphire Sink Mixer	115
Noce De Grade	130
Hygenix Almond Toilet	134
Rose De Grade	123
Serenade Acrylic Cowrie Oval	140

7. To customize your data bars

8. Repeat steps 3&4 and then select **More rules**

9. Refer to the screen shot below



You can then customize the data bars, negative values and axis. Data bars for negative and positive values have been created. One is then able to easily analyze and interpret the data in Ms Excel 2010 by using conditional formatting and assigning rules to the conditional formatting.

Mandatory Cell Input

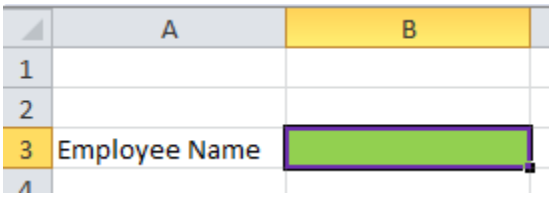
Question: How do I make a specific cell mandatory to fill in, in an Excel workbook? We have a form that employees fill in but require that important information like employee names to be mandatory. Can this be done in Excel?

Answer: Yes, by using Visual Basic For Applications (VBA)

Why: To make a specific cell mandatory

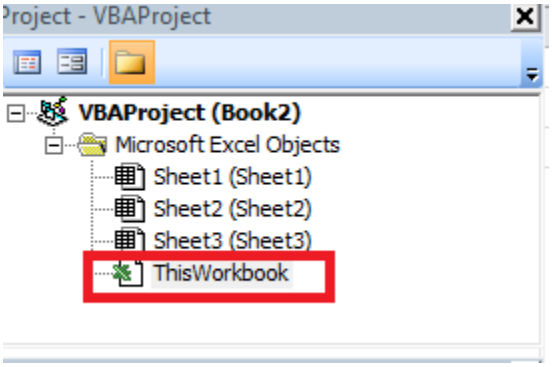
Applies to MS Excel 2003, 2007, 2010: (Hint: Your Macro Security settings need to be enabled)

Example: Make cell B3 mandatory for completion in a workbook.

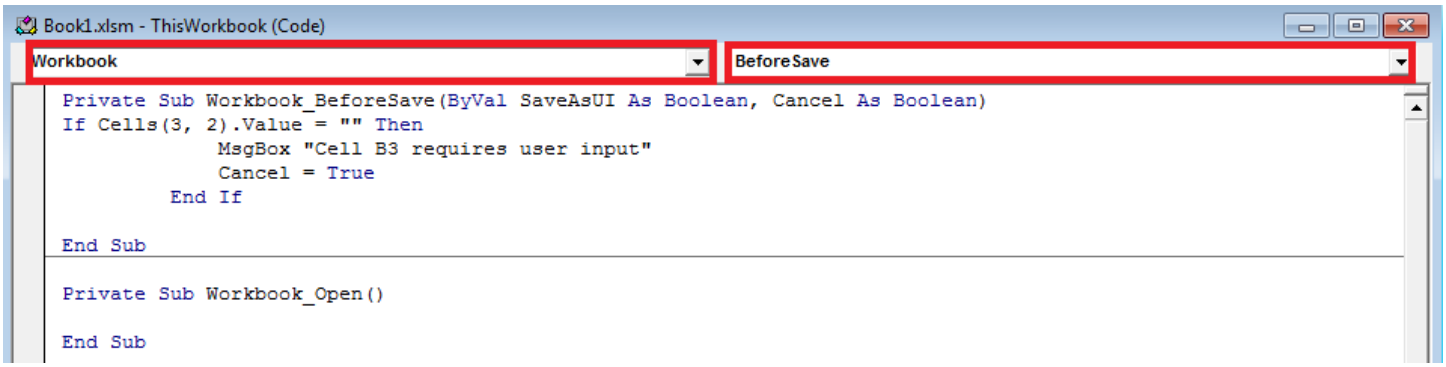


Refer to the steps given below

1. Open Excel
2. Press Alt + F11 to open VBA for Excel
3. Double click on **this workbook** on the drop down list



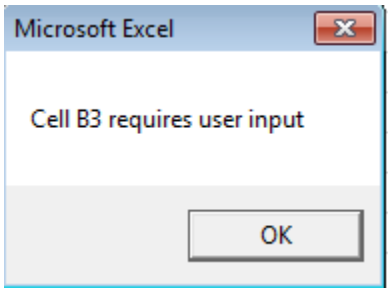
4. If the above option is not available then; select **view-project explorer,** and you'll be able to proceed with the below steps
5. On your top right hand side select the first drop down arrow and choose workbook as given below
6. Select the second drop down arrow and choose BeforeSave as displayed below



7. Enter the following code

```
If Cells(3, 2).Value = "" Then
    MsgBox "Cell B3 requires user input"
    Cancel = True
End If
```

8. Save the Macro
9. To return to Excel press ALT + Q
10. Save the workbook (For Excel 2007 and Excel 2010 save workbook as a **.xlsm**)
11. When you save the workbook it will prompt you to fill in B3 before saving



This tip will only work when one tries to save. Meaning the workbook won't be saved as long as cell B3 is empty. By so doing cell B3 is now a mandatory cell. Important information such as employee names will thus be entered resulting in forms being completed. You may have to check your macro security settings should the tip not work.

Removing Duplicates

Question: Is there an automated way of deleting duplicate data rows from a worksheet?

Answer: Yes, by using remove duplicates data tool

Why: To remove duplicate values from a worksheet

Applies To: MS Excel 2007 & 2010

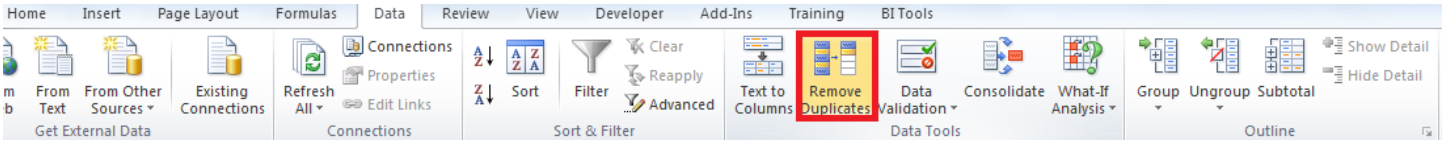
With reference to the data given below staff codes, P1, P2 and P7 have duplicate values

Actual Sales Report

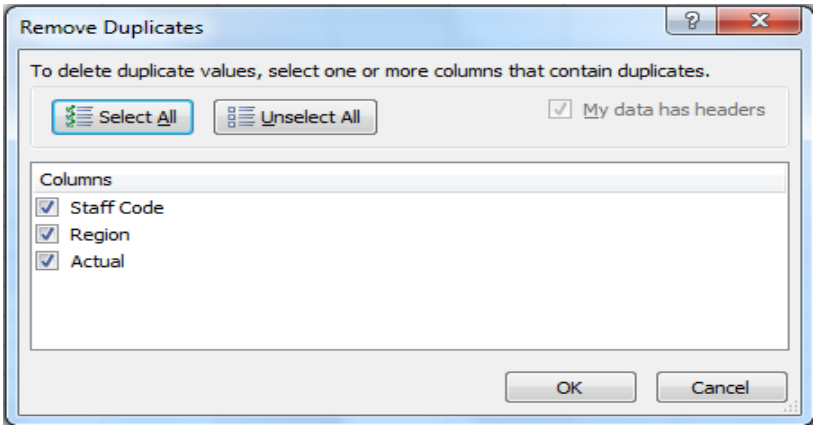
Staff Code	*Region*	*Actual*
P1	North	$ 2 566.77
P1	North	$ 2 566.77
P2	South	$ 16 524.30
P2	South	$ 16 524.30
P2	South	$ 16 524.30
P3	East	$ 868.98
P5	North West	$ 3 700.00
P6	South East	$ 11 248.38
P7	South	$ 2 500.00
P7	South	$ 2 500.00
P8	East	$ 25 666.77
P9	West	$ 4 800.99
Total		**$ 105 991.56**

2. Highlight the data table. You may include/exclude the heading row

3. Select the Data tab and Select Remove Duplicates under the Data Tools group. Refer to the image below

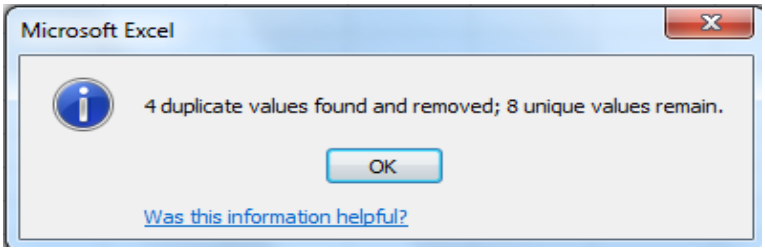


4. The screen shot below will be displayed



5. In order to delete duplicate values at least one column that contain duplicates must be selected

6. Select OK, and refer to the dialogue box below. Thereafter select OK again



The duplicate data rows have been deleted from the worksheet. The user will therefore not locate and delete the duplicate values manually, and this will result in time saving.

Tip 17

Solver (Recovered)

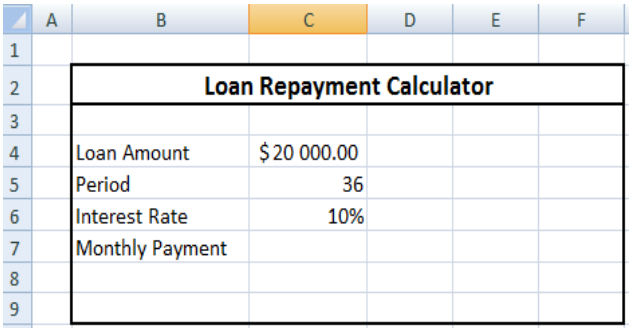
Question: I acquired a loan of $20,000. The repayment period is 3 years at 10% per annum. Is there a way to work out the current repayment? I can afford to pay $1000 per month and would like to know the new repayment period too.

Answer: By first using the Payment function, and then using the solver option one can find a solution

Why: To calculate the new repayment period for a loan amount

Applies To: MS Excel 2003, 2007 & 2010

1. Using the example given above, create a worksheet as per the screen below



	A	B	C	D	E	F
1						
2		Loan Repayment Calculator				
3						
4		Loan Amount	$20 000.00			
5		Period	36			
6		Interest Rate	10%			
7		Monthly Payment				
8						
9						

2. Work out the current installment using the payment function. Select cell C7, (Monthly Payment), and type: =PMT(C6/12,C5,-C4)

3. Calculates the payment for a loan based on constant payments and a constant interest rate

4. PMT(rate, nper, pv, [fv], [type])

   Rate Required. The interest rate for the loan

   Nper Required. The total number of payments for the loan

   Pv Required. The present value or the total amount that a series of future payments is worth now; also known as the principal

   Fv Optional. The future value or a cash balance you want to attain after the last payment is made. If fv is omitted, it is assumed to be 0 (zero), that is, the future value of a loan is 0.

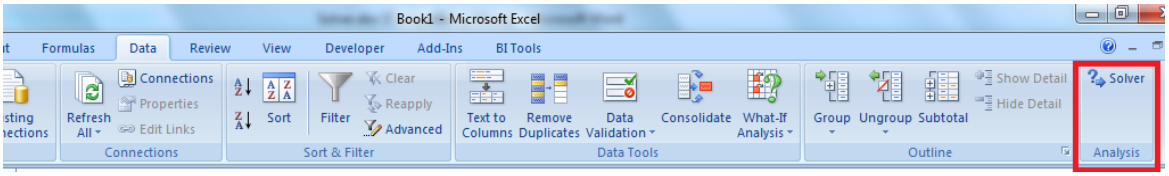
   Type Optional. The number 0 (zero) or 1 and indicates when payments are due

5. The answer will be **$645.34**

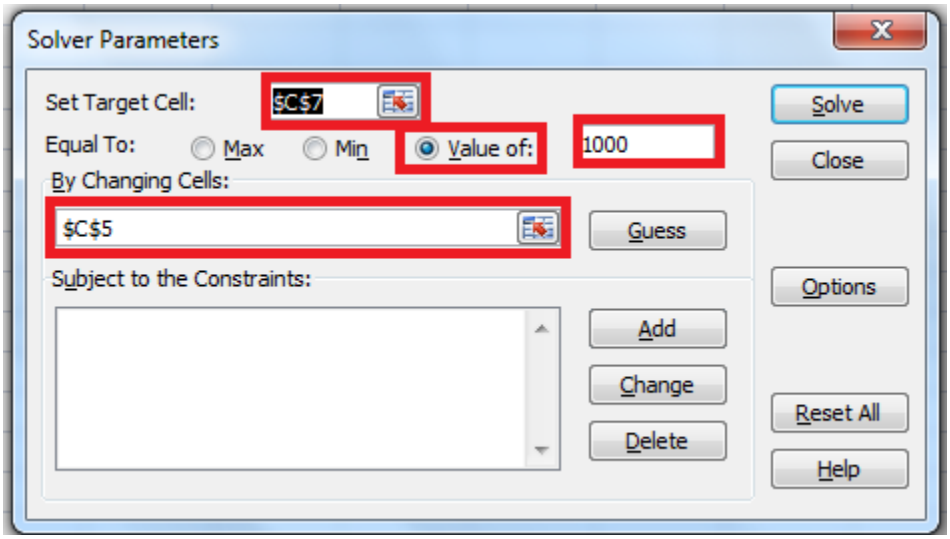
6. Now select Solver under Data –What If Analysis- Data tools group

7. If the solver option is not installed select the link below for instructions on how to add the solver
   http://www.alchemex.com/Resources/EOS%20Previous%20Tips%20And%20Tricks/Solver%20Add-in.pdf

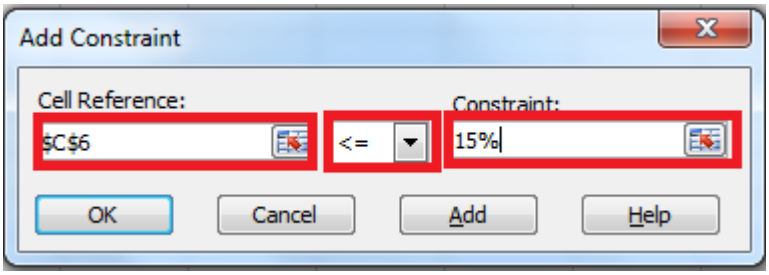
8. when you add the solver option select as given below



9. Make changes as illustrated below

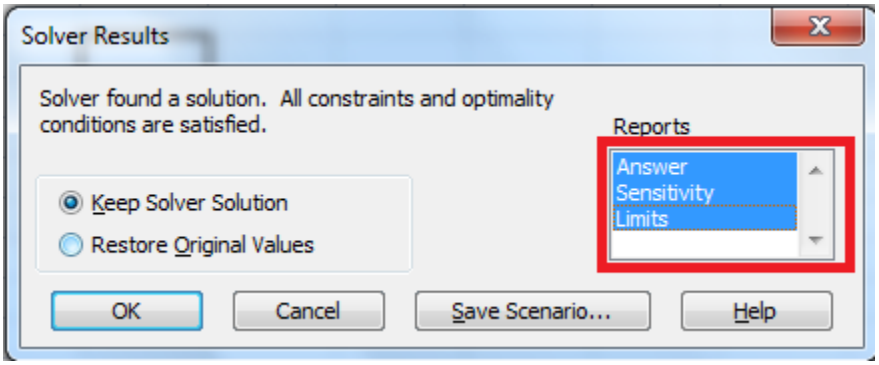


10. Select the Add button and effect the changes below



11. Select OK

12. Select the Solve button and refer to the screen shot below



13. Select OK

The new repayment period will be 22 months. Thus one can easily calculate how long it will take to settle a loan amount based on new variables. The interest rate is envisaged not to exceed 15% in the stipulated period. The answer, sensitivity and limits reports have also been generated to the left of the active worksheet.

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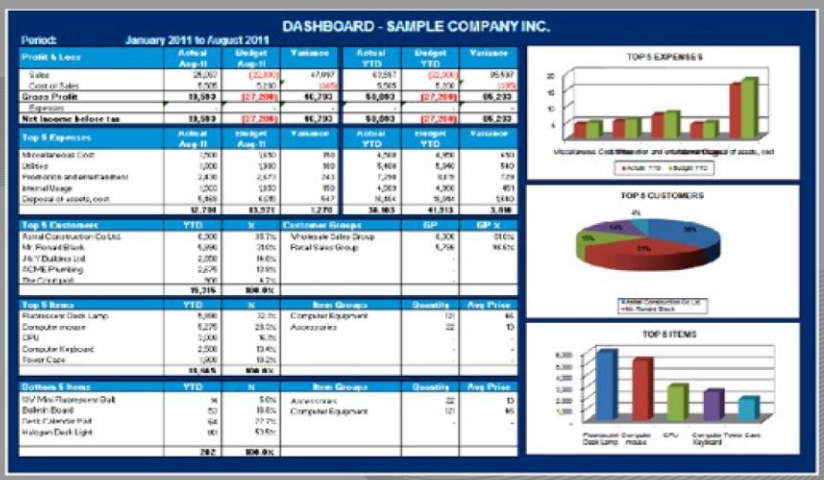

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DataBase Functions

Question: I have a list of product sales with different transaction dates. How do I calculate the total sales for transactions between 2009/03/20 and 2009/03/30 by using one formula?

Answer: By using the DSUM function (Adds the numbers in a field (column) of records in a list or database that match conditions that you specify)

Why: To calculate the total sales for products, for given a criteria range

Applies To: MS Excel 2003, 2007 & 2010

1. Using the Excel worksheet below

PRODUCT SALES REPORT

ProductName	Date	Quantity	UnitPrice	ProductSales
Gula Malacca	2009/03/31	15	$ 15.50	$ 232.50
Original Frankfurter grüne Soße	2009/03/31	7	$ 10.40	$ 72.80
Pavlova	2009/03/28	18	$ 13.90	$ 250.20
Queso Cabrales	2009/03/28	15	$ 16.80	$ 252.00
Teatime Chocolate Biscuits	2009/03/26	5	$ 7.30	$ 36.50
Queso Cabrales	2009/03/26	5	$ 16.80	$ 84.00
Longlife Tofu	2009/03/15	16	$ 8.00	$ 128.00
Sir Rodney's Scones	2009/03/24	14	$ 8.00	$ 112.00
Manjimup Dried Apples	2009/03/24	3	$ 42.40	$ 127.20
Boston Crab Meat	2009/03/24	10	$ 14.70	$ 147.00
Boston Crab Meat	2009/03/21	10	$ 14.70	$ 147.00
Raclette Courdavault	2009/03/20	12	$ 44.00	$ 528.00
Chai	2009/03/22	15	$ 14.40	$ 216.00
Outback Lager	2009/03/23	12	$ 12.00	$ 144.00
Pâté chinois	2009/03/24	2	$ 19.20	$ 38.40
Rhönbräu Klosterbier	2009/03/21	10	$ 6.20	$ 62.00
Fløtemysost	2009/03/13	12	$ 17.20	$ 206.40
Geitost	2009/03/13	12	$ 2.00	$ 24.00
Rössle Sauerkraut	2009/03/29	18	$ 36.40	$ 655.20

Date	Date
>2009/03/20	<2009/03/30

Total Sales	

2. You must use copy and paste to enter the data labels in H4 & I4

2 Use the DSUM function DSUM(database, field, criteria)

3. Select cell I8 and enter: =DSUM(B4:F23,5,H4:I5)

4. The answer will be $2,271.50

By using one formula the total sales for transactions between 2009/03/20 & 2009/03/30 have been easily calculated. This demonstrates the power of database functions like DSUM.

More on the Database function

The DSUM function syntax has the following arguments:

- **Database Required.** The range of cells that makes up the list or database. A database is a list of related data in which rows of related information are records, and columns of data are fields. The first row of the list contains labels for each column.
- **Field Required.** Indicates which column is used in the function. Enter the column label enclosed between double quotation marks, such as "Age" or "Yield," or a number (without quotation marks) that represents the position of the column within the list: 1 for the first column, 2 for the second column, and so on.
- **Criteria Required**. Is the range of cells that contains the conditions that you specify? You can use any range for the criteria argument, as long as it includes at least one column label and at least one cell below the column label in which you specify a condition for the column.

Tip 19

Subtotal

Question: I have a long data list of products & selling prices stored in an Excel sheet. Is it possible to have a breakdown of subtotals for each product category?

Answer: Yes; by using the subtotal option in Excel

Why: To automatically insert subtotals and totals for the selected cells

Important: The **Subtotal** command will appear grayed out if you are working with a Microsoft Excel table. To add subtotals in a table, you must first convert the table to a normal range of data, and then add the subtotal. Note that this will remove all table functionality from the data except table formatting.

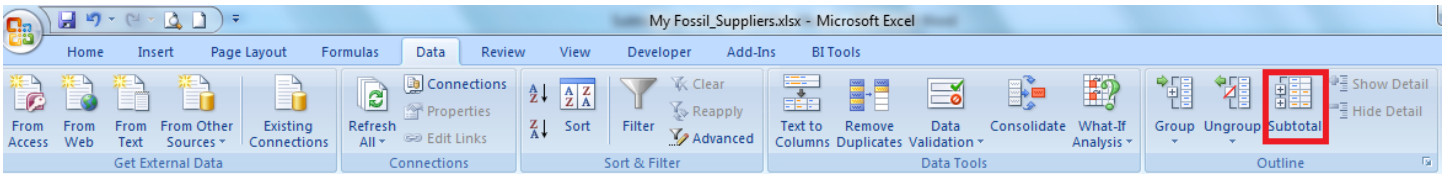
Applies: To MS Excel 2003, 2007 & 2010

1. Refer to the screen shot in the example below

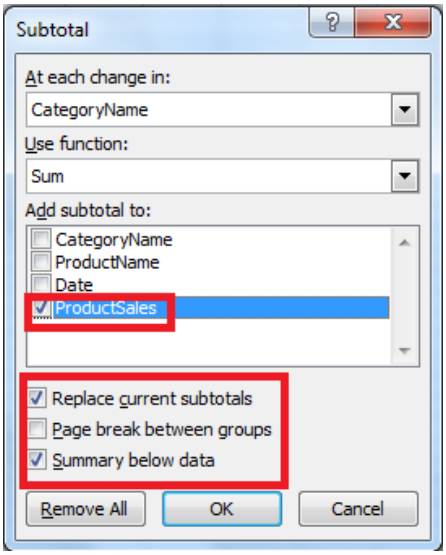
Product List For XYZ Ltd			
CategoryName	*ProductName*	Date	ProductSales
Beverages	Steeleye Stout	2006/01/01	504.00
Beverages	Côte de Blaye	2006/01/16	10540.00
Beverages	Chang	2006/01/17	912.00
Beverages	Côte de Blaye	2006/01/23	8263.36
Beverages	Steeleye Stout	2006/01/23	691.20
Beverages	Chang	2006/02/10	581.40
Condiments	Vegie-spread	2006/01/02	2281.50
Condiments	Aniseed Syrup	2006/01/06	400.00
Condiments	Gula Malacca	2006/01/10	496.00
Condiments	Original Frankfurter grüne Soße	2006/01/16	364.00
Condiments	Vegie-spread	2006/01/29	921.37
Confections	Chocolade	2006/01/03	606.90
Confections	Tarte au sucre	2006/01/08	1379.00
Confections	Tarte au sucre	2006/01/14	1576.00
Confections	Scottish Longbreads	2006/01/16	270.00
Confections	Zaanse koeken	2006/01/17	418.00
Confections	Valkoinen suklaa	2006/01/29	520.00
Dairy Products	Fløtemysost	2006/01/01	1032.00
Dairy Products	Geitost	2006/01/10	98.00
Dairy Products	Geitost	2006/01/14	100.00
Dairy Products	Camembert Pierrot	2006/01/20	1550.40
Dairy Products	Raclette Courdavault	2006/01/30	2464.00
Grains/Cereals	Gnocchi di nonna Alice	2006/01/01	2128.00
Grains/Cereals	Tunnbröd	2006/01/02	432.00
Grains/Cereals	Singaporean Hokkien Fried Mee	2006/01/03	425.60
Grains/Cereals	Gnocchi di nonna Alice	2006/01/30	912.00
Grains/Cereals	Gnocchi di nonna Alice	2006/02/05	1094.40

2. The list **must be sorted** by category names for the subtotal option to be effective

3. Select any cell within the data list and select data-subtotal as given below



4. The screen shot below will be displayed



5. Select the options as given above

6. Select OK

7. The data given below will be displayed

Product List For XYZ Ltd

CategoryName	*ProductName*	Date	ProductSales
Beverages	Steeleye Stout	2006/01/01	504.00
Beverages	Côte de Blaye	2006/01/16	10540.00
Beverages	Chang	2006/01/17	912.00
Beverages	Côte de Blaye	2006/01/23	8263.36
Beverages	Steeleye Stout	2006/01/23	691.20
Beverages	Chang	2006/02/10	581.40
Beverages Total			21491.96
Condiments	Vegie-spread	2006/01/02	2281.50
Condiments	Aniseed Syrup	2006/01/06	400.00
Condiments	Gula Malacca	2006/01/10	496.00
Condiments	Original Frankfurter grüne Soße	2006/01/16	364.00
Condiments	Vegie-spread	2006/01/29	921.37
Condiments Total			4462.87
Confections	Chocolade	2006/01/03	606.90
Confections	Tarte au sucre	2006/01/08	1379.00
Confections	Tarte au sucre	2006/01/14	1576.00
Confections	Scottish Longbreads	2006/01/16	270.00
Confections	Zaanse koeken	2006/01/17	418.00
Confections	Valkoinen suklaa	2006/01/29	520.00
Confections Total			4769.90
Dairy Products	Fløtemysost	2006/01/01	1032.00
Dairy Products	Geitost	2006/01/10	98.00
Dairy Products	Geitost	2006/01/14	100.00
Dairy Products	Camembert Pierrot	2006/01/20	1550.40
Dairy Products	Raclette Courdavault	2006/01/30	2464.00
Dairy Products Total			5244.40
Grains/Cereals	Gnocchi di nonna Alice	2006/01/01	2128.00
Grains/Cereals	Tunnbröd	2006/01/02	432.00
Grains/Cereals	Singaporean Hokkien Fried Mee	2006/01/03	425.60
Grains/Cereals	Gnocchi di nonna Alice	2006/01/30	912.00
Grains/Cereals	Gnocchi di nonna Alice	2006/02/05	1094.40
Grains/Cereals Total			4992.00
Grand Total			40961.13

As can be seen above the data has been grouped by the category names whose subtotals for product sales are displayed.

PivotTable

Question: How do I create an interactive report that can quickly be used to summarize large amounts of data?

Answer: By using a Pivot Table

Why: A PivotTable report is useful to summarize, analyze, explore, and present summary data. A PivotTable enables you to make informed decisions about critical data in your enterprise.

Applies To MS Excel 2003, 2007, 2010

1. Refer to the data as given in the example below

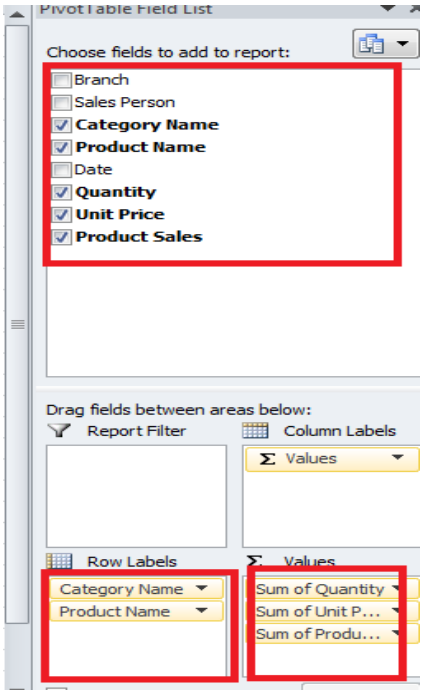
Branch	Sales Person	Category Name	Product Name	Date	Quantity	Unit Price	Product Sales
East Coast	Anderson. P	Confections	Maxilaku	2006/01/01	30	$ 16.00	$ 480.00
East Coast	Johnson. A	Grains/Cereals	Gnocchi di nonna Alice	2006/01/01	70	$ 30.40	$ 2 128.00
East Coast	Peters. K	Grains/Cereals	Tunnbröd	2006/01/02	60	$ 7.20	$ 432.00
East Coast	Bonders. P	Confections	Pavlova	2006/01/03	21	$ 13.90	$ 291.90
East Coast	Newson. L	Grains/Cereals	Singaporean Hokkien Fried Mee	2006/01/03	40	$ 11.20	$ 448.00
East Coast	Lavin. T	Seafood	Boston Crab Meat	2006/01/07	2	$ 14.70	$ 29.40
East Coast	Perks. M	Seafood	Inlagd Sill	2006/01/07	5	$ 15.20	$ 76.00
East Coast	Anderson. P	Beverages	Chai	2006/01/07	10	$ 14.40	$ 144.00
East Coast	Johnson. A	Dairy Products	Gudbrandsdalsost	2006/01/07	15	$ 28.80	$ 432.00
East Coast	Peters. K	Dairy Products	Queso Cabrales	2006/01/07	30	$ 16.80	$ 504.00
East Coast	Bonders. P	Beverages	Chai	2006/01/14	24	$ 14.40	$ 345.60
East Coast	Newson. L	Confections	Teatime Chocolate Biscuits	2006/01/16	20	$ 7.30	$ 146.00
East Coast	Lavin. T	Condiments	Original Frankfurter grüne Soße	2006/01/16	35	$ 10.40	$ 364.00
East Coast	Perks. M	Beverages	Côte de Blaye	2006/01/16	50	$ 210.80	$ 10 540.00
East Coast	Anderson. P	Confections	Teatime Chocolate Biscuits	2006/01/21	4	$ 7.30	$ 29.20
East Coast	Johnson. A	Seafood	Röd Kaviar	2006/01/21	20	$ 12.00	$ 240.00
East Coast	Peters. K	Confections	Gumbär Gummibärchen	2006/01/22	2	$ 24.90	$ 49.80
East Coast	Bonders. P	Dairy Products	Gorgonzola Telino	2006/01/23	14	$ 10.00	$ 140.00
East Coast	Newson. L	Meat/Poultry	Pâté chinois	2006/01/24	10	$ 19.20	$ 192.00
East Coast	Lavin. T	Grains/Cereals	Gnocchi di nonna Alice	2006/01/30	30	$ 30.40	$ 912.00
East Coast	Perks. M	Meat/Poultry	Tourtière	2006/01/31	40	$ 5.90	$ 236.00
East Coast	Anderson. P	Grains/Cereals	Gustaf's Knäckebröd	2006/02/04	12	$ 16.80	$ 201.60
East Coast	Johnson. A	Meat/Poultry	Perth Pasties	2006/02/05	15	$ 26.20	$ 393.00
East Coast	Peters. K	Beverages	Sasquatch Ale	2006/02/06	20	$ 11.20	$ 224.00
East Coast	Bonders. P	Grains/Cereals	Wimmers gute Semmelknödel	2006/02/07	6	$ 26.60	$ 159.60
East Coast	Newson. L	Beverages	Chang	2006/02/10	45	$ 15.20	$ 684.00
East Coast	Lavin. T	Confections	Pavlova	2006/02/10	49	$ 13.90	$ 681.10
East Coast	Perks. M	Condiments	Sirop d'érable	2006/02/10	90	$ 22.80	$ 2 052.00

2. Select any cell in the list

3. From the insert tab, in the tables group, select pivot table and click Ok

4. Drag the category name and product name fields to the row labels area

5. Drag the quantity, unit price and product sales fields to the values area as given below



6. To display data for the products under the sea food category; select the drop down arrow under row labels and select sea food as below.
7. The following pivot table will be given

Row Labels	Sum of Quantity	Sum of Unit Price	Sum of Product Sales
⊟ Seafood	27	41.9	345.4
Boston Crab Meat	2	14.7	29.4
Inlagd Sill	5	15.2	76
Röd Kaviar	20	12	240
Grand Total	27	41.9	345.4

The data given in step 1 above can be summarized and queried in many user friendly ways.

The Design of a PivotTable allows you to:

- Querying large amounts of data in many user-friendly ways.
- Subtotaling and aggregating numeric data, summarizing data by categories and subcategories, and creating custom calculations and formulas.
- Expanding and collapsing levels of data to focus your results, and drilling down to details from the summary data for areas of interest to you.
- Moving rows to columns or columns to rows (or "pivoting") to see different summaries of the source data.
- Filtering, sorting, grouping, and conditionally formatting the most useful and interesting subset of data to enable you to focus on the information that you want.
- Presenting concise, attractive, and annotated online or printed reports.

Notes:

How a PivotTable Field List Works

1. Data Source (Excel, Cube, Database)
2. Report Filter (Department)
3. Column Label Area (Branch)
4. Row Label Area (Customer Name)
5. Values Area (Sales amount)

Tip 21

PivotTable Calculated Fields

Question: How can I create my own calculated fields to include in the pivotTable? I intend to have a mark-up of 25% on the sales figure and then calculate the profit.

Answer: By using the PivotTable formulae option

Why: To create calculated fields

Applies To MS Excel 2003, 2007, 2010

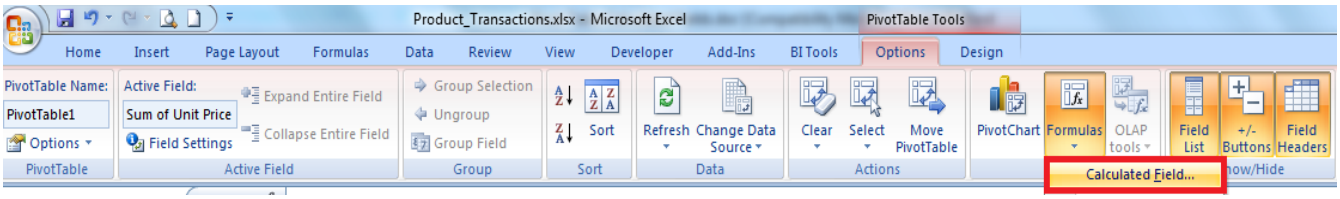
1. This example is based on last week's tip on how to create a pivotTable. The link is given below;
   Creating a PivotTable

2. Select any cell in the PivotTable

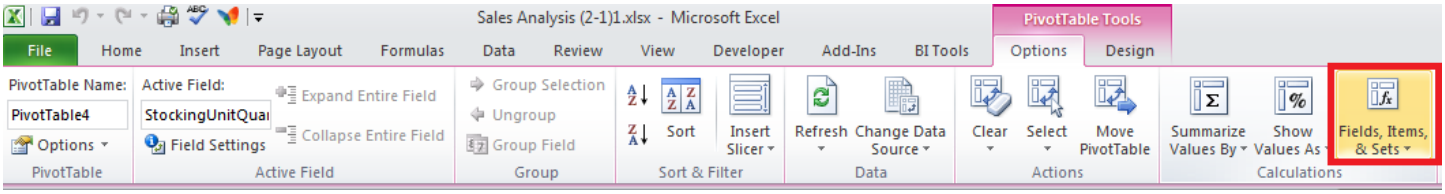
Row Labels	Values Sum of Quantity	Sum of Unit Price	Sum of Product Sales
Seafood	27	41.9	345.4
Boston Crab Meat	2	14.7	29.4
Inlagd Sill	5	15.2	76
Röd Kaviar	20	12	240
Grand Total	27	41.9	345.4

3. Select as given below:

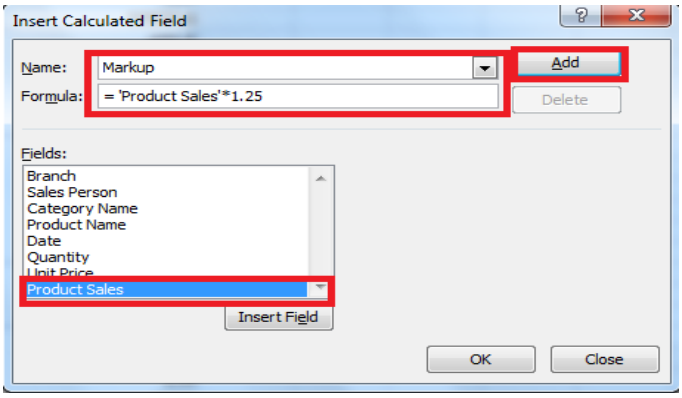
Excel 2007



Excel 2010



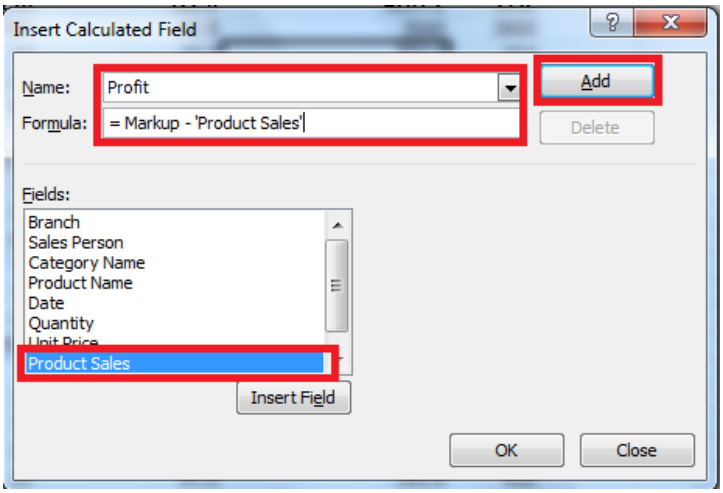
4 The Insert a Calculated field window will open. Enter the following and select add



5. Rename the field on the PivotTable to Markup (double click on “sum of Markup” field, delete the words “sum of” and press enter)

6. Repeat the Process to calculate Profit

7. Enter the following and select add



8. Select Ok

9. Rename the field on the PivotTable to Profit

10. The result will be as given below

	Values				
Row Labels	Sum of Quantity	Sum of Unit Price	Sum of Product Sales	Markup	Profit
Seafood	27	41.9	345.4	432	86
Boston Crab Meat	2	14.7	29.4	37	7
Inlagd Sill	5	15.2	76	95	19
Röd Kaviar	20	12	240	300	60
Grand Total	27	41.9	345.4	432	86

The Markup and Profit figures have been computed by way of adding two calculated fields to the PivotTable.

Using Value Field Settings in PivotTables

Question: I would like to have two fields for analyzing sales in the PivotTable, one in a percentage format and the other in a value format. How can I accomplish this?

Answer: By using the Value Field Settings

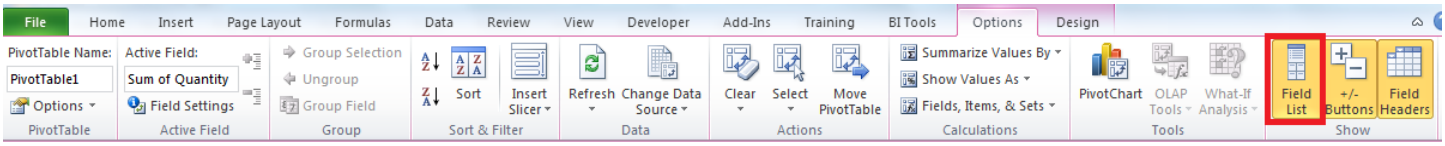
Why: To display the Product sales field in percentage and value formats

Applies To MS Excel 2003, 2007, 2010

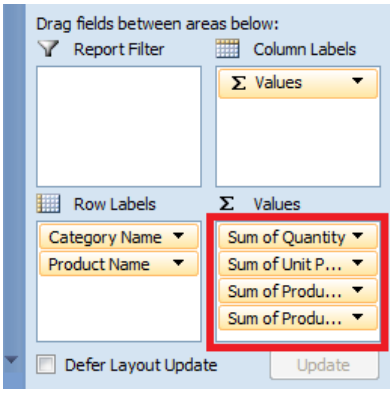
1. For an example on how to create pivot tables refer to the link given below;
   Creating a Pivot Table.
2. Select any cell in the PivotTable as given in the above example

	Values		
Row Labels	Sum of Quantity	Sum of Unit Price	Sum of Product Sales
Seafood	27	41.9	345.4
Boston Crab Meat	2	14.7	29.4
Inlagd Sill	5	15.2	76
Röd Kaviar	20	12	240
Grand Total	27	41.9	345.4

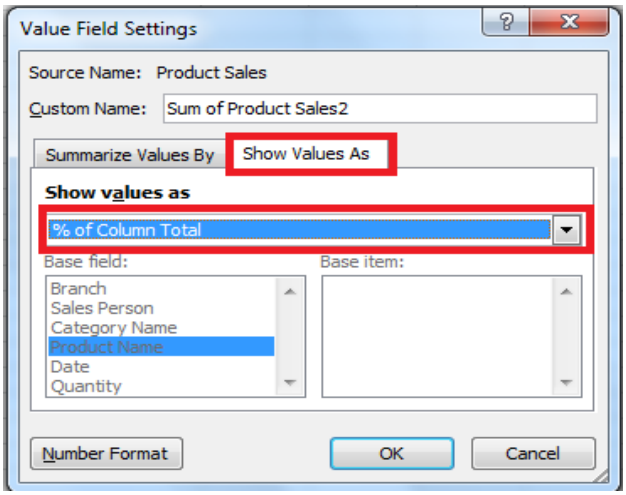
3. If the Pivot Table field list is not displayed select field list button on the Options tab in Excel.



4. Add the product Sales column to the values area again. Refer to the screen shot given below



5. Change the Sum of Product Sales2 field to a %;
   (a) Right click on the field Sum of Product Sales 2 in the pivot table
   (b)Select values field setting and select as below



5. The result will be the pivot table shown below

Row Labels	Values Sum of Unit Price	Sum of Quantity	Sum of Product Sales	Sum of Product Sales2
Seafood	**41.9**	**27**	**345.4**	**100.00%**
Boston Crab Meat	14.7	2	29.4	8.51%
Inlagd Sill	15.2	5	76	22.00%
Röd Kaviar	12	20	240	69.48%
Grand Total	**41.9**	**27**	**345.4**	**100.00%**

The analysis of sales by percentage and values can thus be performed.One can easily compare the sales of the various products by looking at the percentage column for the product sales.

You can now change the name of the Fields to be more appropriate. I.e. Sum of Product Sales = Product Sales Total; Sum of Product Sales2 = % of Total Sales

Conditional Formatting

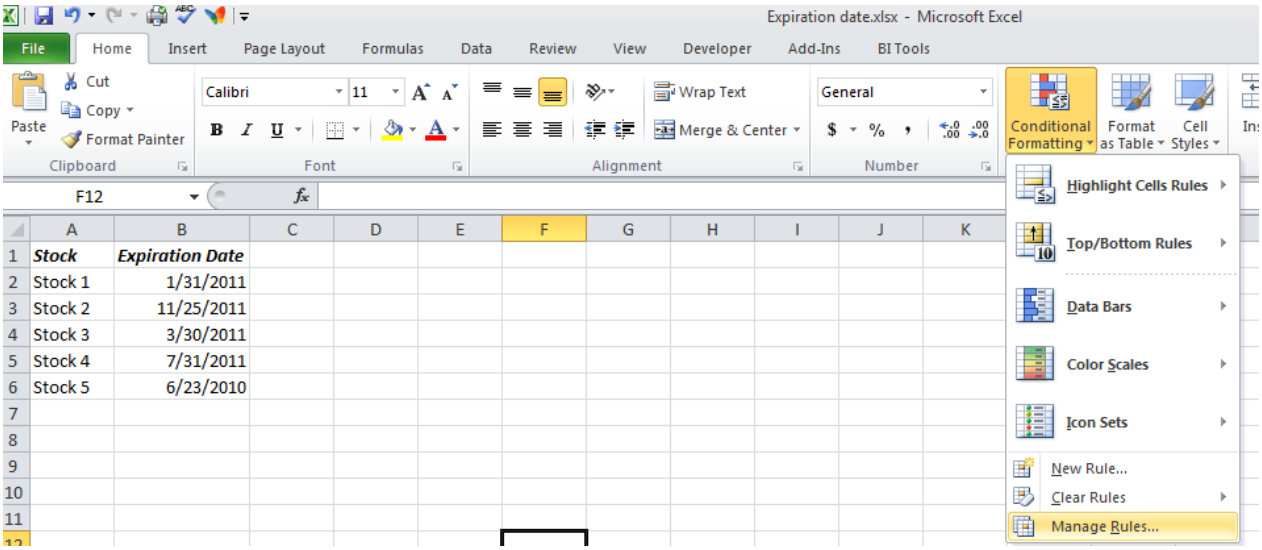
Question: In Excel 2010, is there a way to automatically highlight upcoming and past due dates?

For example, I have dates that stock will expire in a spreadsheet. I would like Excel to highlight the ones that have expired and those that are 30 days from expiration in green. Is that possible?

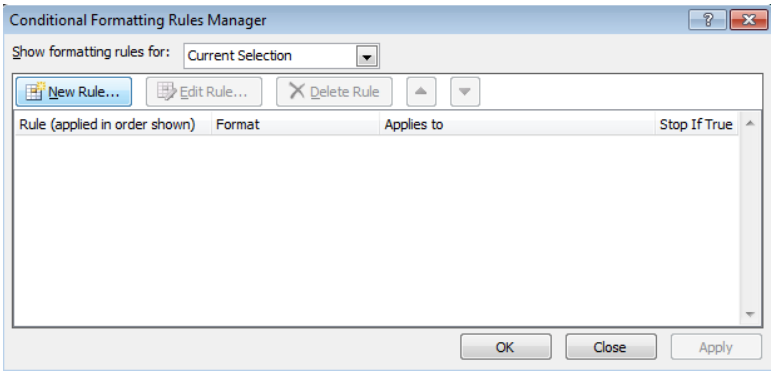
Answer: Yes, you can use conditional formatting to achieve exactly what you are looking for

First highlight the range of cells that you want to apply the formatting to. In this example, we've selected all of the dates in Column B

Select the **Home tab** in the toolbar at the top of the screen. Then in the **Styles group**, click on the Conditional Formatting drop-down and select *Manage Rules*.



When the Conditional Formatting Rules Manager window appears, click on the "New Rule" button to enter the first condition.

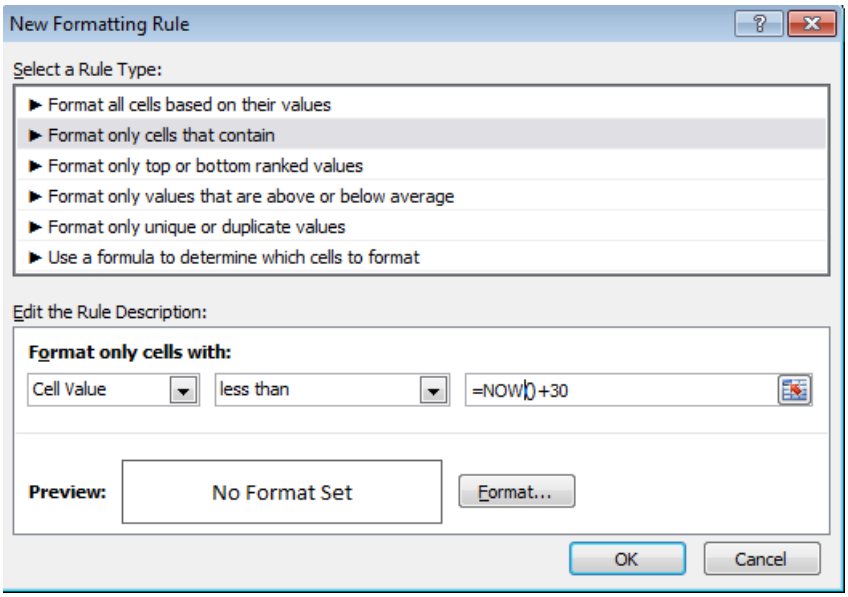


When the New Formatting Rule window appears, select **Format only cells that contain** as the rule type.

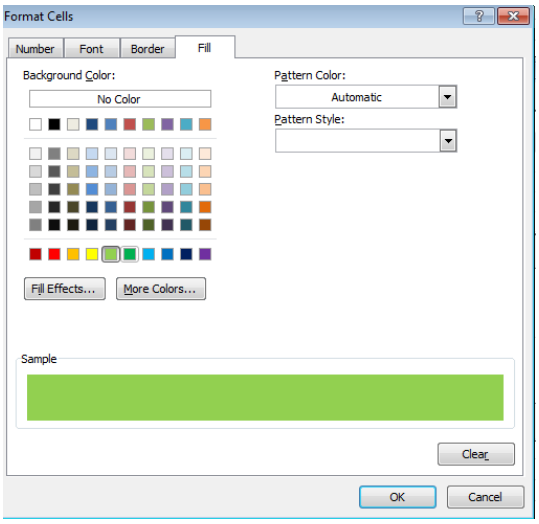
Then select **Cell Value** in the first drop down, **less than** in the second drop down, and enter the following formula:

=NOW()+30

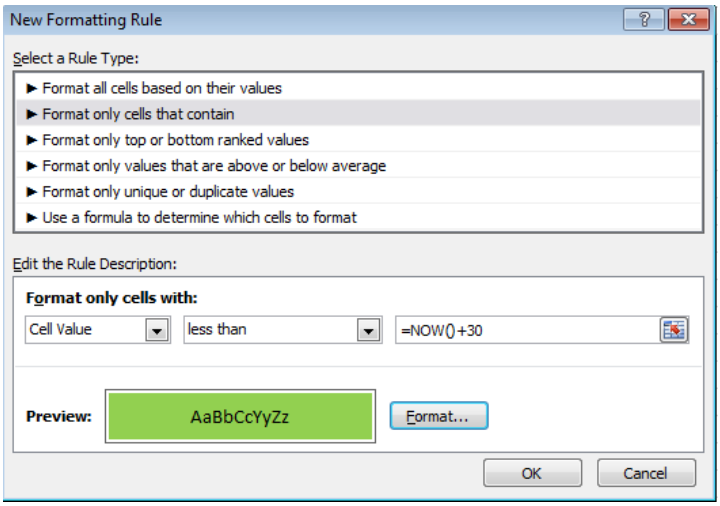
Next, we need to select what formatting to apply when this condition is met. To do this, click on the Format button.



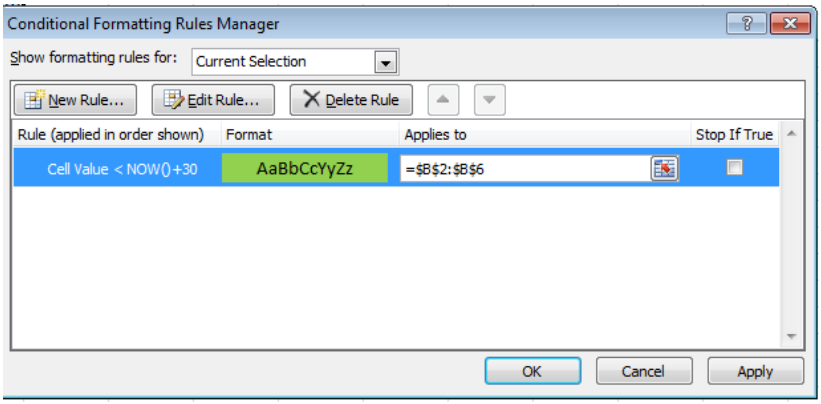
When the Format Cells window appears, select the Fill tab. Then select the color that you'd like to see the dates that will expire in the next 30 days. In this example, we've selected green. Then click on the OK button.



When you return to the New Formatting Rule window, you should see the preview of the formatting in the Preview box. In this example, the preview box shows green as the fill color. Next click on the OK button



This will return you to the Conditional Formatting Rules Manager window. Select Ok.



The stock that has already expired and the stock that will expire in less than 30 days from now will be highlighted in green.

	A	B	C
1	***Stock***	***Expiration Date***	
2	Stock 1	1/31/2011	
3	Stock 2	11/25/2011	
4	Stock 3	3/30/2011	
5	Stock 4	7/31/2011	
6	Stock 5	6/23/2010	
7			

Tip 24

Data Validation

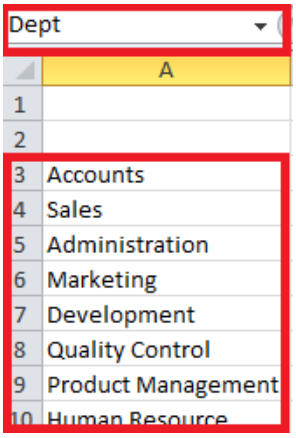
Question: I have a list of all the company's employees in an Excel report and would like to assign the specific department they work in. Is there a way to do this without having to type the department next to each employee's name?

Answer: Yes, by using Data Validation in Excel

Why: You use data validation to control the type of data or the values that users enter into a cell. For example, you may want to restrict data entry to a certain range of dates, limit choices by using a list

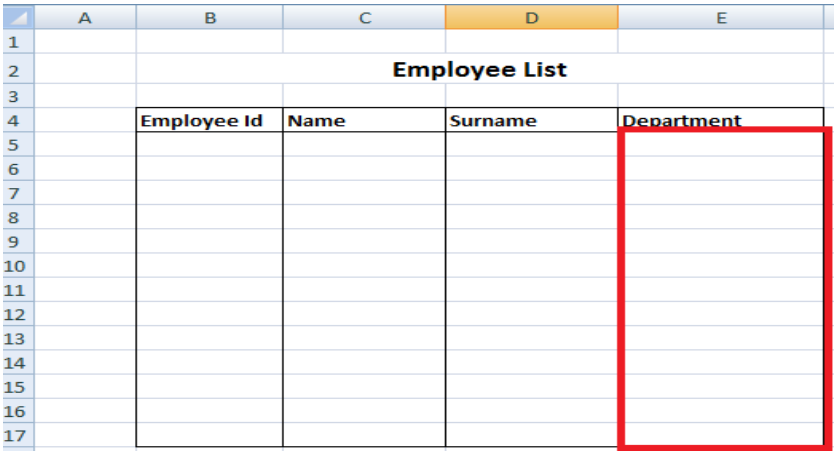
Applies To MS Excel 2003, 2007, 2010

1. First create a list in an Excel Worksheet for the Department Names
2. Select sheet 1 worksheet tab and enter as below

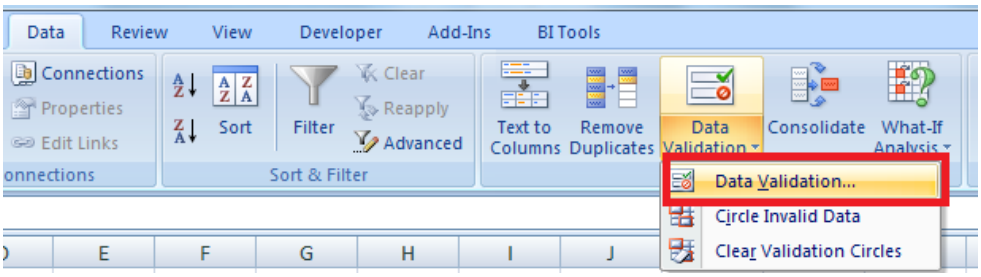


3. Select A3:A10 and enter Dept in the name box (You must press the enter key after typing Dept)

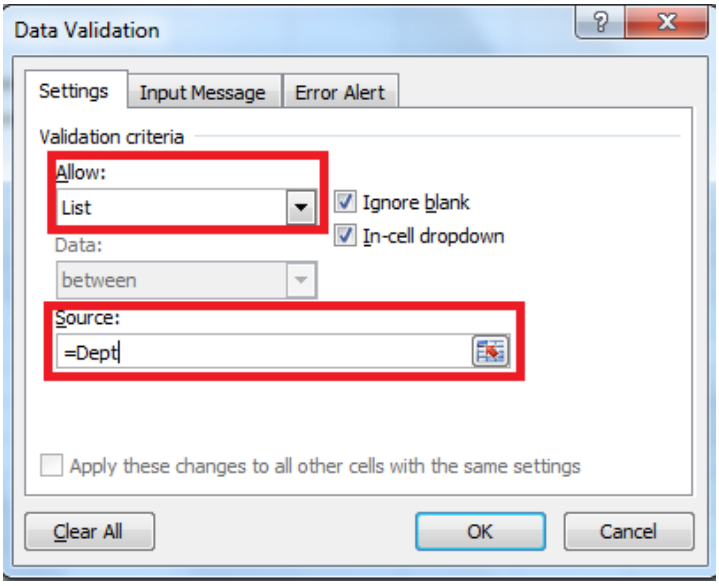
4. Select sheet 2 worksheet tab, and select the cells in the Department Column of the report (E5:E17)



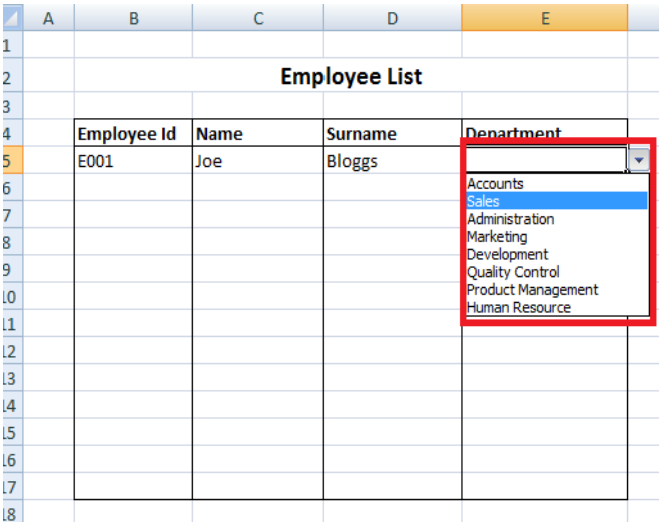
5. Add the Data Validation to the selected cells. Refer to the screen shot below



5. The following screen will be displayed, select the criteria as shown below.
To insert the range name (Dept.) you can either type in =Dept or press F3 in the Source text box and then select Dept from the list of Named Ranges



6. Select OK and enter employees' information. To choose the department, select the drop down arrow in column E. A list of departments will be displayed thus automating the entry of departments into the worksheet. The screen shot is displayed below



Excel File Formats

Question: I am using Excel 2010, and some people in the organization are using Excel 2007 and Excel 2003. Some of the Excel reports they send have very different formats to the ones I know in Excel 2010. What is the difference between the Excel file formats?

Excel File formats Explained

Format	Extension	Description
Excel Workbook	.xlsx	The default XML-based file format for Excel 2010 and Excel 2007. Cannot store Microsoft Visual Basic for Applications (VBA) macro code or Microsoft Office Excel 4.0 macro sheets (.xlm).
Excel Workbook (code)	.xlsm	The XML-based and macro-enabled file format for Excel 2010 and Excel 2007. Stores VBA macro code or Excel 4.0 macro sheets (.xlm).
Excel Binary Workbook	.xlsb	The binary file format (BIFF12) for Excel 2010 and Excel 2007.
Template	.xltx	The default file format for an Excel template for Excel 2010 and Excel 2007. Cannot store VBA macro code or Excel 4.0 macro sheets (.xlm).
Template (code)	.xltm	The macro-enabled file format for an Excel template Excel 2010 and Excel 2007. Stores VBA macro code or Excel 4.0 macro sheets (.xlm).
Excel 97-Excel 2003 Workbook	.xls	The Excel 97 - Excel 2003 Binary file format (BIFF8).
Excel 97-Excel 2003 Template	.xlt	The Excel 97 - Excel 2003 Binary file format (BIFF8) for an Excel template.

Format	Extension	Description
Microsoft Excel 5.0/95 Workbook	.xls	The Excel 5.0/95 Binary file format (BIFF5).
XML Spreadsheet 2003	.xml	XML Spreadsheet 2003 file format (XMLSS).

XML Data	.xml	XML Data format.
Excel Add-In	.xlam	The XML-based and macro-enabled Add-In format for Excel 2010 and Excel 2007. An Add-In is a supplemental program that is designed to run additional code. Supports the use of VBA projects and Excel 4.0 macro sheets (.xlm).
Excel 97-2003 Add-In	.xla	The Excel 97-2003 Add-In, a supplemental program that is designed to run additional code. Supports the use of VBA projects.
Excel 4.0 Workbook	.xlw	An Excel 4.0 file format that saves only worksheets, chart sheets, and macro sheets. You can open a workbook in this file format in Excel 2010, but you cannot save an Excel file to this file format.

Tip 26

Rank Function

Question: How do I return the rank of a number in a list of numbers relative to other values in a list?

Answer: By using the RANK function in Excel. The function returns the rank of a number in a list of numbers. The rank of a number is its size relative to other values in a list. (If you were to sort the list, the rank of the number would be its position.)

Why: To rank numbers in a given list so that one can easily determine the top performing product

Applies To: Excel (2010, 2007, and 2003):

1. Refer to the data given below

	A	B	C	D	E	F
1		Product Sales Report				
2		Product Name	Quantity	Unit Price	Product Sales	Rank
3		Maxilaku	30	16	$ 480.00	
4		Gnocchi di nonna Alice	70	30	$ 2 128.00	
5		Tunnbröd	60	7	$ 432.00	
6		Pavlova	21	14	$ 291.90	
7		Singaporean Hokkien Fried Mee	40	11	$ 448.00	
8		Boston Crab Meat	2	15	$ 29.40	
9		Inlagd Sill	5	15	$ 76.00	
10		Chai	10	14	$ 144.00	
11		Gudbrandsdalsost	15	29	$ 432.00	

2. Select cell F3 and type; =**Rank(E3,$E$3:$E$11)**

   RANK(number,ref,[order])

   The RANK function syntax has the following arguments (argument: A value that provides information to an action, an event, a method, a property, a function, or a procedure.):

   Number (Required.) The number whose rank you want to find.
   Ref (Required.) An array of, or a reference to, a list of numbers. Non-numeric values in ref are ignored.
   Order (Optional.) A number specifying how to rank number.
   If order is 0 (zero) or omitted, Microsoft Excel ranks number as if ref were a list sorted in descending order.

If order is any non-zero value, Microsoft Excel ranks number as if ref were a list sorted in ascending order

3. Press Enter and copy the formula down

4. The result will be the screen shot below

	A	B	C	D	E	F
1		Product Sales Report				
2		Product Name	Quantity	Unit Price	Product Sales	Rank
3		Maxilaku	30	16	$ 480.00	2
4		Gnocchi di nonna Alice	70	30	$ 2 128.00	1
5		Tunnbröd	60	7	$ 432.00	4
6		Pavlova	21	14	$ 291.90	6
7		Singaporean Hokkien Fried Mee	40	11	$ 448.00	3
8		Boston Crab Meat	2	15	$ 29.40	9
9		Inlagd Sill	5	15	$ 76.00	8
10		Chai	10	14	$ 144.00	7
11		Gudbrandsdalsost	15	29	$ 432.00	4

The products sales have now being ranked in order of Product Sales Amount, and one can easily determine the best performing product by looking at the rank column and checking the corresponding product name.

PV function

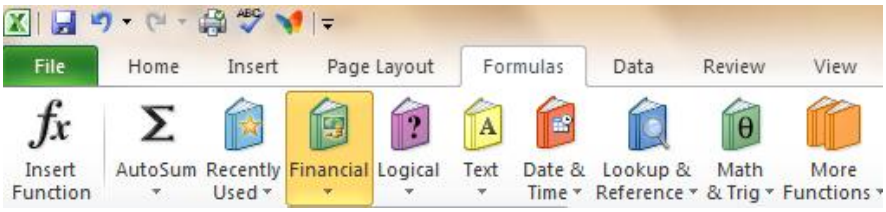
Question: How much deposit do I need to pay in order to have a monthly installment of $400 over a period of 4 years for a car costing $15,000? The interest rate is 8.5%

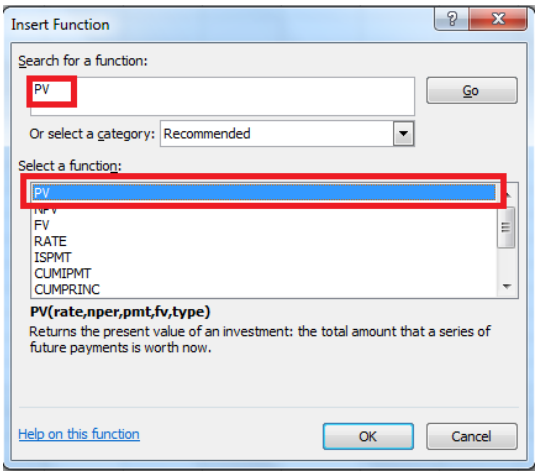
Answer: The PV function will be used to find a solution. The PV Function returns the present value of an investment. The present value is the total amount that a series of future payments is worth now. For example, when you borrow money, the loan amount is the present value to the lender

Why: To calculate the amount of deposit to be paid for a car costing $15,000

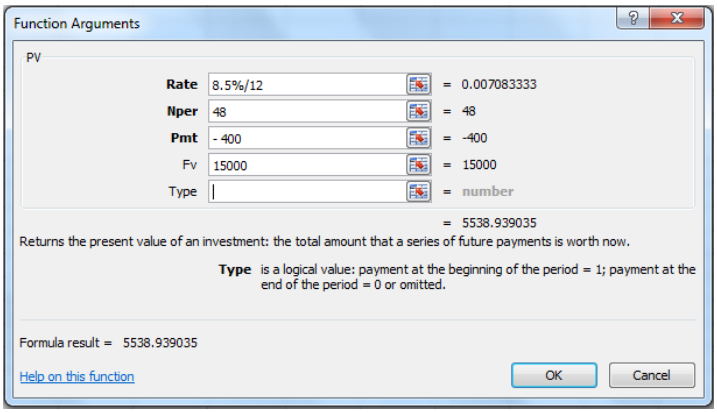
Applies To: Excel 2010, 2007, and 2003

1. Select **Formulas- Insert function > Financial** and select as below



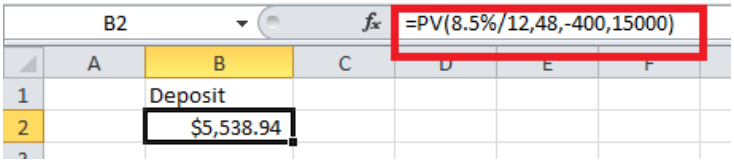


2. Select **Ok** and enter as below



3. Select **OK**

The amount of deposit to be paid for a car costing $15 ,000 at a monthly installment of $400 over 4 years and interest rate of 8.5% is **$ 5 538.94 .** You can also type the formula in excel as; **=PV(8.5%/12,48,- 400,15000)**



PV(rate, nper, pmt, [fv], [type])

The PV function syntax has the following arguments (argument: A value that provides information to an action, an event, a method, a property, a function, or a procedure)

- **Rate** Required. The interest rate per period. For example, if you obtain an automobile loan at a 10 percent annual interest rate and make monthly payments, your interest rate per month is 10%/12, or 0.83%. You would enter 10%/12, or 0.83%, or 0.0083, into the formula as the rate
- **Nper** Required. The total number of payment periods in an annuity. For example, if you get a four-year car loan and make monthly payments, your loan has 4*12 (or 48) periods. You would enter 48 into the formula for nper
- **Pmt** Required. The payment made each period and cannot change over the life of the annuity. Typically, pmt includes principal and interest but no other fees or taxes. For example, the monthly payments on a $10,000, four-year car loan at 12 percent are $263.33. You would enter -263.33 into the formula as the pmt. If pmt is omitted, you must include the fv argument
- **Fv** Optional. The future value or a cash balance you want to attain after the last payment is made. If fv is omitted, it is assumed to be 0 (the future value of a loan, for example, is 0). For example, if you want to save $50,000 to pay for a special project in 18 years, then $50,000 is the future value. You could then make a conservative guess at an interest rate and determine how much you must save each month. If fv is omitted, you must include the pmt argument
- **Type** Optional. The number 0 or 1 and indicates when payments are due

Two Chart Types

Question: Is it possible to combine two or more chart types in a chart?

Answer: Yes

Why: To display the results of different sets of data in one graph

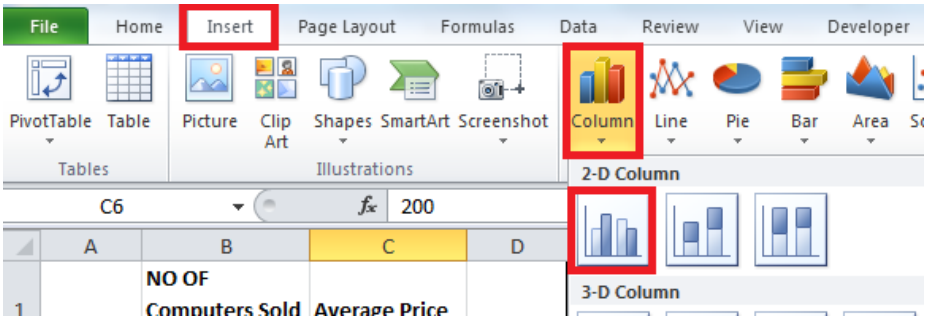
Applies To: Excel 2010, 2007, 2003:

1. Refer to the data given below

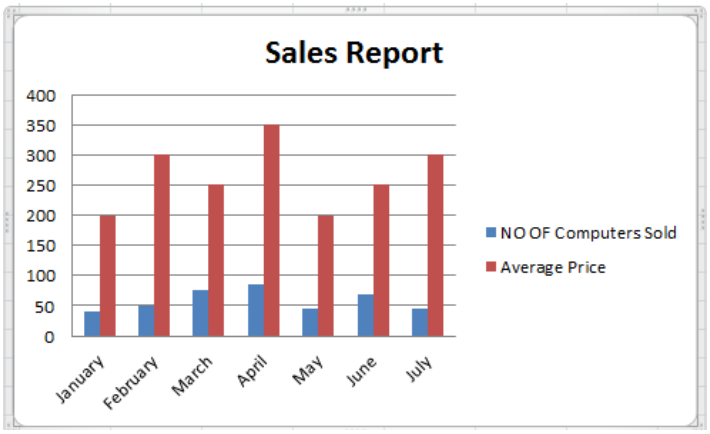
	A	B	C	D
1		NO OF Computers Sold	Average Price	
2	January	40	$ 200	
3	February	50	$ 300	
4	March	75	$ 250	
5	April	85	$ 350	
6	May	45	$ 200	
7	June	70	$ 250	
8	July	45	$ 300	
9				

2. Select any cell within the data range

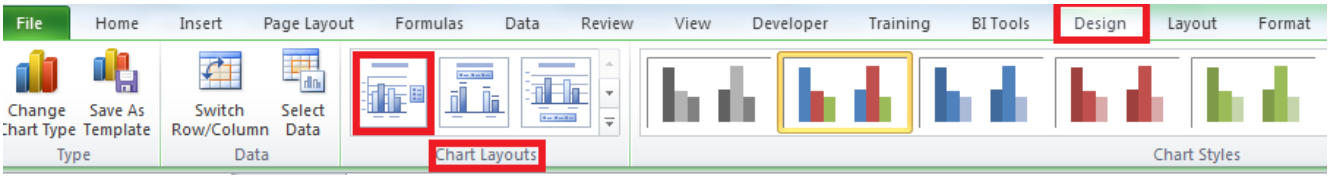
3. Select as below



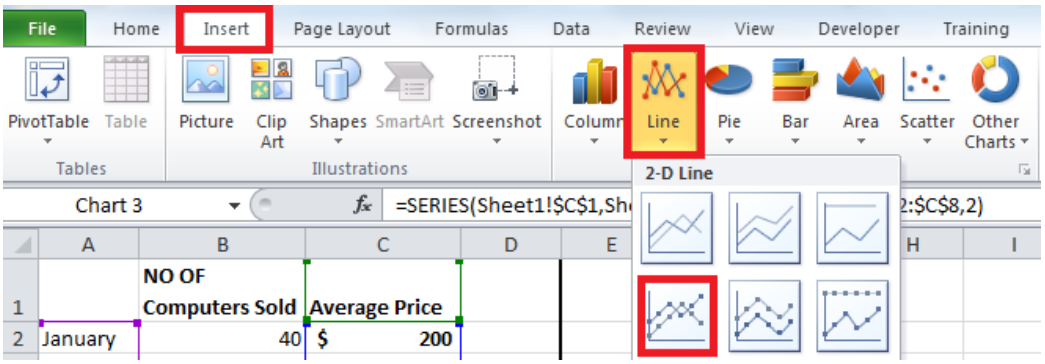
4. The following chart will be displayed



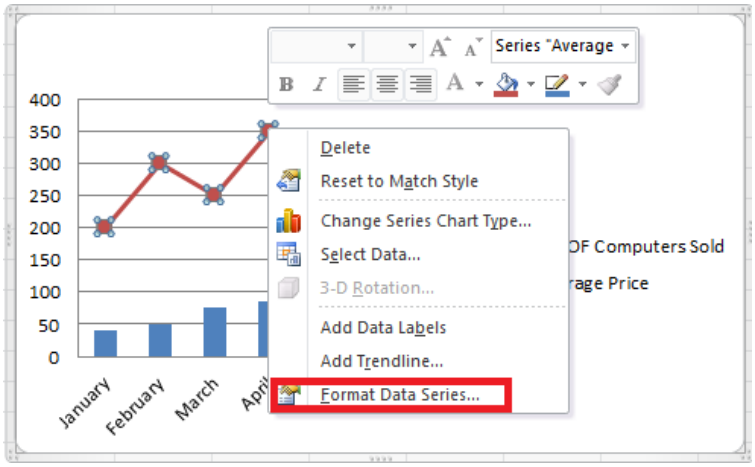
5. To insert the heading select the chart and select as below



6. Select the average price bars in the chart and as below

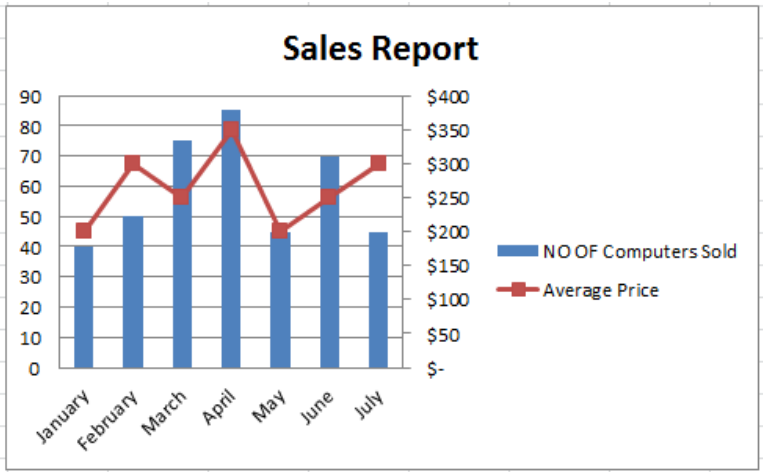


7. Two charts (line and column will be displayed)
8. Right select the line graph and select as below



9. Select **Secondary axis** and then the close button

10. The following chart will be displayed



Two graphs with separate axis have been combined in one chart. Therefore one can easily interpret the different sets of data in the chart.

Workdays

Question: How can I calculate the number of workdays between two dates? The usual off days are Saturday, Sunday and public holidays.

Answer: By using the Networkdays function

Why: To calculate the number of workdays between two dates

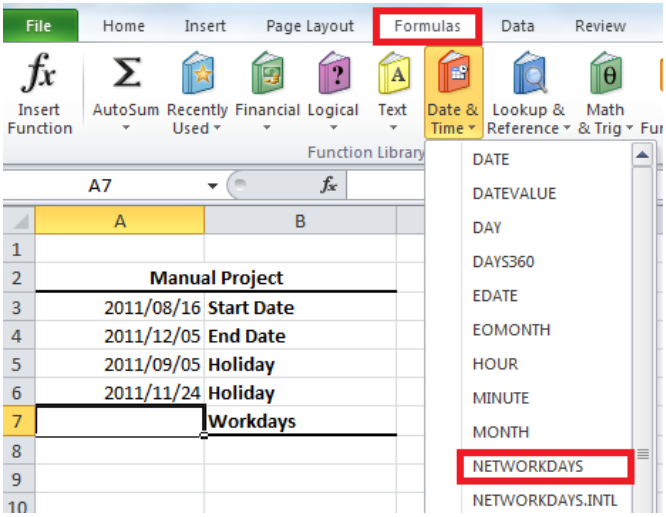
Applies To: Excel (2010, 2007):

1. The data below will be used for illustration purposes

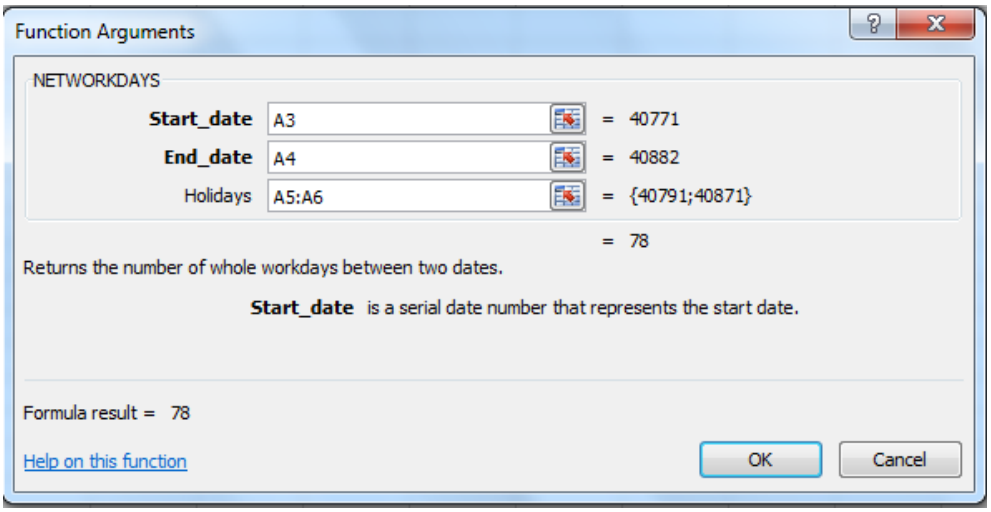
	A	B
1		
2	**Manual Project**	
3	2011/08/16	**Start Date**
4	2011/12/05	**End Date**
5	2011/09/05	**Holiday**
6	2011/11/24	**Holiday**
7		**Workdays**

2. Select cell A7

3. Select **Formulas**>**Date & Time**>NETWORKDAYS. Refer to the screen shot below



4. Enter as below and select **Ok**



The number of workdays between the two given dates is **78.** The formula can also be entered in this way;

=NETWORKDAYS (A3,A4,A5:A6). The formula subtracts the usual weekend days and any specified holidays from the difference between the start and end dates of the project.

Tip 30

Trends

Question: Is there a function in MS Excel that can be used to predict future sales based on past performance or sales trends?

Answer: Yes, by using the Trend function

Description: Returns values along a linear trend. Fits a straight line (using the method of least squares) to the arrays known_y's and known_x's. Returns the y-values along that line for the array of new_x's that you specify

Syntax: TREND(known_y's, [known_x's], [new_x's], [const])

Why: To predict future sales based on past performance or trends

Applies To: Excel 2003, 2007, 2010

1. The data below will be used for illustration purposes

	A	B
1	**Period**	**Sales**
2	1	$ 1 000
3	2	$ 1 500
4	3	$ 2 000
5	4	$ 2 000
6	5	$ 1 700
7	6	$ 1 200
8	7	$ 2 000
9	8	$ 1 500
10	9	$ 1 200
11	10	
12	11	
13	12	

2. To predict the sales for periods **10, 11 and12**

3. Select cell **B11** and enter; **=Trend(B2:B10,A2:A10,A11:A13)**

4. The projected sales for periods 10, 11 and 12 will be as below;

	A	B
1	Period	Sales
2	1	$ 1 000
3	2	$ 1 500
4	3	$ 2 000
5	4	$ 2 000
6	5	$ 1 700
7	6	$ 1 200
8	7	$ 2 000
9	8	$ 1 500
10	9	$ 1 200
11	10	$ 1 567
12	11	$ 1 394
13	12	$ 1 249

The projected sales for periods 10, 11 and 12 can thus be estimated based on past trend or performance

Tip 31

Aggregate Function

Question: How do I calculate the sum for a range of numbers with error values within the range? Using the standard sum function in Microsoft Excel returns an error.

Answer: By using the Aggregate function in MS Excel 2010.

Why: To find the sum for a range of numbers where there are error values within the range.

Description: The AGGREGATE function addresses the limitation of conditional formatting. Data bars, Icon Sets and Color Scales cannot display conditional formatting if there are errors in the range. This is because the MIN, MAX and PERCENTILE functions do not calculate when there is an error in the calculation range. The LARGE, SMALL, and STDEVP functions also affect the appropriate functionality of certain conditional formatting rules for the same reasons. By using the AGGREGATE function, you can implement those functions because the errors will be ignored. In addition, the AGGREGATE function can apply different aggregate functions to a list or database with the option to ignore hidden rows and error values

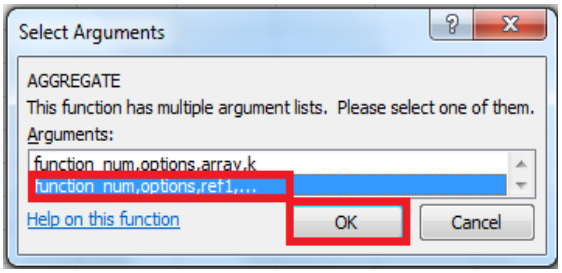
Syntax: AGGREGATE(function_num, options, ref1, [ref2], …)

Applies To: Excel 2010

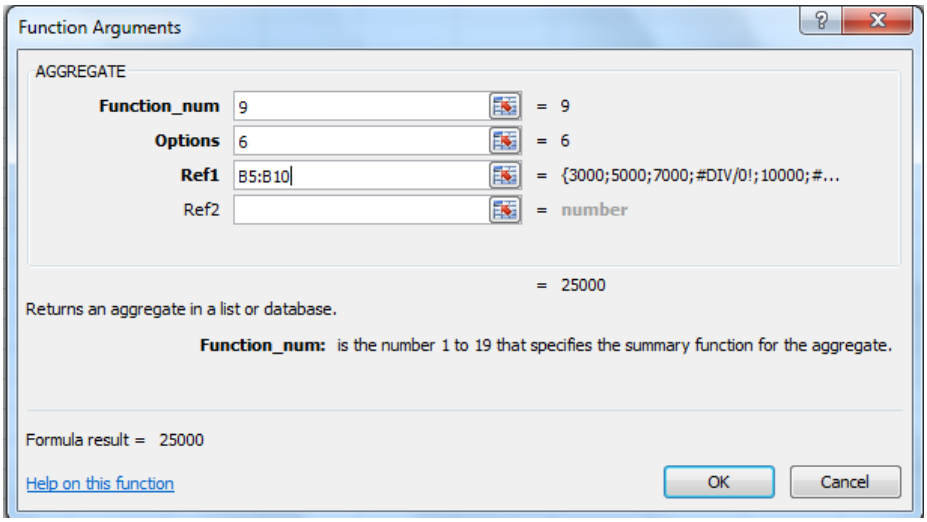
1. Refer to the data given below

	A	B
1		
2	**Sales Report**	
3		
4	**Month**	**Sales Amount**
5	January	$ 3 000.00
6	February	$ 5 000.00
7	March	$ 7 000.00
8	April	#DIV/0!
9	May	$ 10 000.00
10	June	#DIV/0!
11	**Total**	

2. Select B11 and enter; =sum(B5:B10) and press enter
3. An error message will be displayed in the Total. Delete the error message in cell **B11**
4. To overcome this limitation, we shall use the Aggregate function
5. Select cell **B11**
6. Select **Formulas**, **Insert Function** and search for the Aggregate function
7. Select **OK**
8. Select as below



9. Enter as below



10. Select OK

11. The answer will be as below;

	A	B
1		
2	**Sales Report**	
3		
4	**Month**	**Sales Amount**
5	January	$ 3 000.00
6	February	$ 5 000.00
7	March	$ 7 000.00
8	April	#DIV/0!
9	May	$ 10 000.00
10	June	#DIV/0!
11	**Total**	$ 25 000.00

The following numbers represent some function numbers than can be used in the formula above:

1=Average,2=Count,3=CountA,4=Max,5=Min,9=Sum.

For Option numbers refer to the table below.

OPTION	BEHAVIOUR
0 or omitted	Ignore nested SUBTOTAL and AGGREGATE functions

1	Ignore hidden rows, nested SUBTOTAL and AGGREGATE functions
2	Ignore error values, nested SUBTOTAL and AGGREGATE functions
3	Ignore hidden rows, error values, nested SUBTOTAL and AGGREGATE functions
4	Ignore nothing
5	Ignore hidden rows
6	Ignore error values
7	Ignore hidden rows and error values

Tip 32

Subtotal Command

Question: I have a list of sales transactions for various months. How can I quickly calculate the total sales for each month?

Answer: By using the Subtotal command

Why: To calculate the total sales for each month

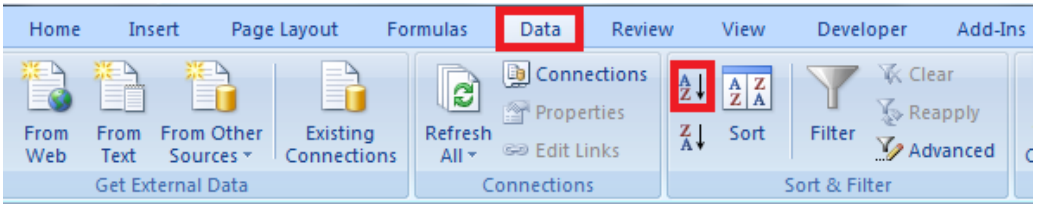
Applies To: Excel 2003, 2007 and 2010

1. Refer to the data given below

	A	B	C	D	E
1	***Product Name***	***Date***	***Quantity***	***Unit Price***	***Product Sales***
2	Maxilaku	January	60	7	432
3	Gnocchi di nonna Alice	February	21	14	248
4	Steeleye Stout	March	50	8	400
5	Nord-Ost Matjeshering	April	65	35	2282
6	Louisiana Fiery Hot Pepper Sauce	February	30	25	710
7	Thüringer Rostbratwurst	June	30	8	216
8	Fløtemysost	Janaury	35	39	1379
9	Tunnbröd	Janaury	40	11	426
10	Vegie-spread	Janaury	70	10	607
11	Pavlova	May	2	15	26
12	Singaporean Hokkien Fried Mee	May	5	15	68
13	Maxilaku	May	42	36	1376
14	Gumbär Gummibärchen	May	15	17	258
15	Chocolade	August	10	21	208
16	Aniseed Syrup	August	6	6	35
17	Boston Crab Meat	August	10	14	144
18	Inlagd Sill	August	15	29	432
19	Chai	April	30	17	504
20	Gudbrandsdalsost	May	24	14	346
21	Queso Cabrales	June	20	7	146
22	Rössle Sauerkraut	July	12	8	96
23	Fløtemysost	December	40	16	496
24	Sir Rodney's Scones	December	12	19	223
25	Tourtière	December	25	44	1021
26	Gravad lax	May	2	31	62
27	Tarte au sucre	May	25	8	154
28	Sir Rodney's Scones	April	49	2	98
29	Tofu	April	14	14	202
30	Raclette Courdavault	January	20	19	335
31	Geitost	January	18	7	125
32					

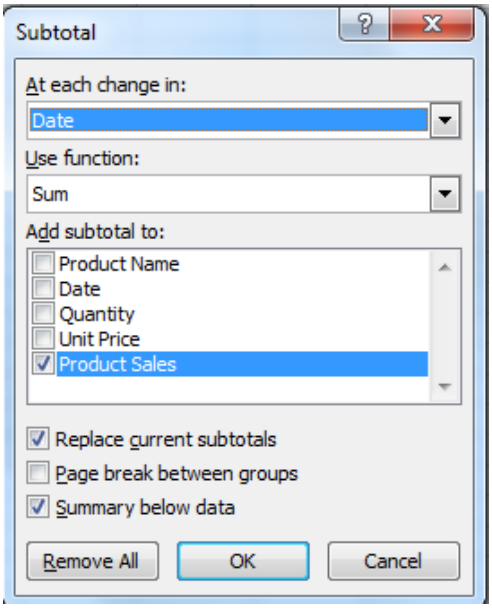
2. The data must be **sorted**. Select any cell within the date column (column B)

3. Select as below, to sort in ascending order



4. Select Data, Subtotal

5. Select as below



6. Select OK. The data below will be displayed

	A	B	C	D	E
11		**August Total**			819
12	Fløtemysost	December	40	16	496
13	Sir Rodney's Scones	December	12	19	223
14	Tourtière	December	25	44	1021
15		**December Total**			1740
16	Gnocchi di nonna Alice	February	21	14	248
17	Louisiana Fiery Hot Pepper Sauce	February	30	25	710
18		**February Total**			958
19	Fløtemysost	Janaury	35	39	1379
20	Tunnbröd	Janaury	40	11	426
21	Vegie-spread	Janaury	70	10	607
22		**Janaury Total**			2412
23	Maxilaku	January	60	7	432
24	Raclette Courdavault	January	20	19	335
25	Geitost	January	18	7	125
26		**January Total**			892
27	Rössle Sauerkraut	July	12	8	96
28		**July Total**			96
29	Thüringer Rostbratwurst	June	30	8	216
30	Queso Cabrales	June	20	7	146
31		**June Total**			362
32	Steeleye Stout	March	50	8	400
33		**March Total**			400
34	Pavlova	May	2	15	26
35	Singaporean Hokkien Fried Mee	May	5	15	68
36	Maxilaku	May	42	36	1376
37	Gumbär Gummibärchen	May	15	17	258
38	Gudbrandsdalsost	May	24	14	346
39	Gravad lax	May	2	31	62
40	Tarte au sucre	May	25	8	154
41		**May Total**			2291
42		**Grand Total**			13054

7. The subtotals for each month will be computed as above. To display the Grand total value select 1
8. For the monthly totals only select 2. To display the entire data list with subtotals for each month select 3

Tip 33

Excel Web Query

Question: **Is it possible to link a table from an intranet/internet website to my spreadsheet?**

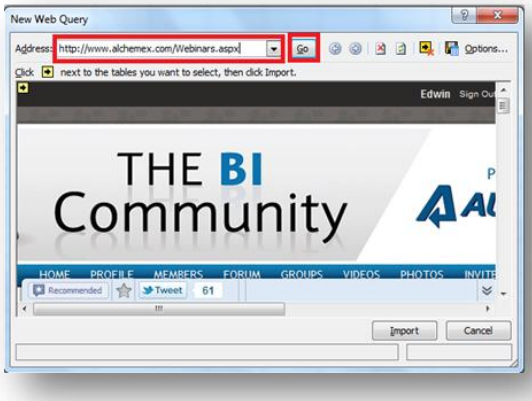
Answer: **Yes, by using the get external data from web option (Web query)**

Why: You can use a Web query to retrieve refreshable data that is stored on your intranet or the Internet, such as a single table, multiple tables, or all of the text on a Web page. Then you can analyze the data by using the tools and features in Excel. For example, you can retrieve and update stock quotes from a public Web page or retrieve and update a table of sales information from a company Web page

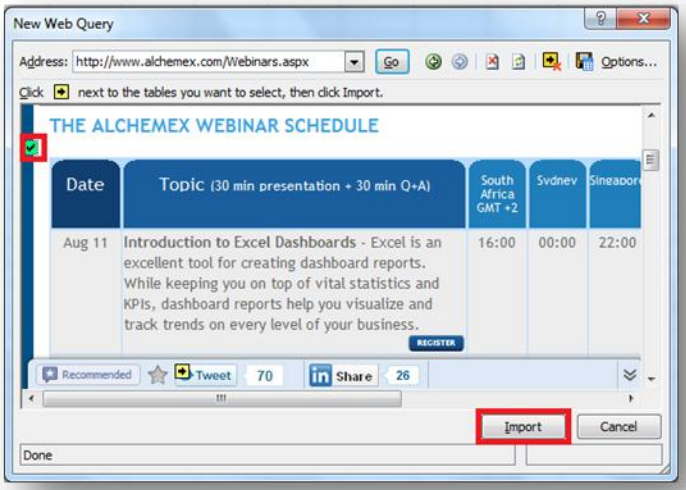
Applies To: Excel 2003, 2007, and 2010

1. Select Data, From Web

2. Enter the URL where you would like to import the table from, and then select go

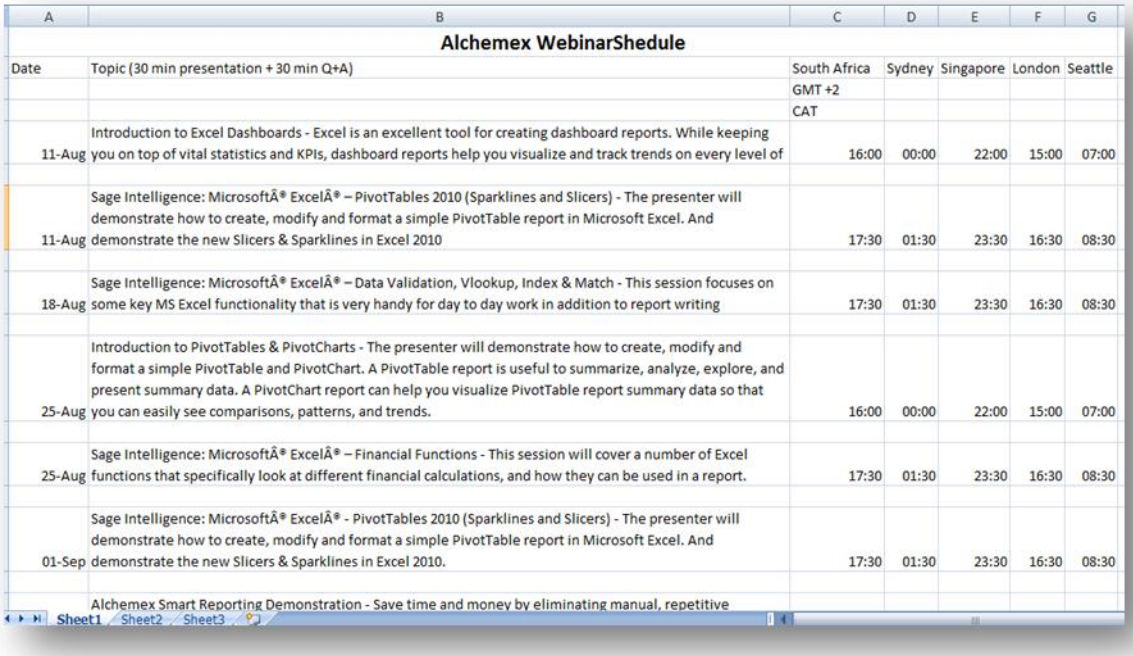


3. Select on the arrow alongside the table you wish to query. See below



4. Select the location, (the cell you would like to insert the data in), of the data and select **OK**

5. The data will be displayed as below



	A	B	C	D	E	F	G
		Alchemex WebinarShedule					
	Date	Topic (30 min presentation + 30 min Q+A)	South Africa	Sydney	Singapore	London	Seattle
			GMT +2				
			CAT				
	11-Aug	Introduction to Excel Dashboards - Excel is an excellent tool for creating dashboard reports. While keeping you on top of vital statistics and KPIs, dashboard reports help you visualize and track trends on every level of	16:00	00:00	22:00	15:00	07:00
	11-Aug	Sage Intelligence: MicrosoftÂ® ExcelÂ® – PivotTables 2010 (Sparklines and Slicers) - The presenter will demonstrate how to create, modify and format a simple PivotTable report in Microsoft Excel. And demonstrate the new Slicers & Sparklines in Excel 2010	17:30	01:30	23:30	16:30	08:30
	18-Aug	Sage Intelligence: MicrosoftÂ® ExcelÂ® – Data Validation, Vlookup, Index & Match - This session focuses on some key MS Excel functionality that is very handy for day to day work in addition to report writing	17:30	01:30	23:30	16:30	08:30
	25-Aug	Introduction to PivotTables & PivotCharts - The presenter will demonstrate how to create, modify and format a simple PivotTable and PivotChart. A PivotTable report is useful to summarize, analyze, explore, and present summary data. A PivotChart report can help you visualize PivotTable report summary data so that you can easily see comparisons, patterns, and trends.	16:00	00:00	22:00	15:00	07:00
	25-Aug	Sage Intelligence: MicrosoftÂ® ExcelÂ® – Financial Functions - This session will cover a number of Excel functions that specifically look at different financial calculations, and how they can be used in a report.	17:30	01:30	23:30	16:30	08:30
	01-Sep	Sage Intelligence: MicrosoftÂ® ExcelÂ® - PivotTables 2010 (Sparklines and Slicers) - The presenter will demonstrate how to create, modify and format a simple PivotTable report in Microsoft Excel. And demonstrate the new Slicers & Sparklines in Excel 2010.	17:30	01:30	23:30	16:30	08:30
		Alchemex Smart Reporting Demonstration - Save time and money by eliminating manual, repetitive					

Sheet1 Sheet2 Sheet3

The table/data can then be updated or refreshed by selecting **Data, Refresh All.** In this way the latest data will be displayed in MS Excel spreadsheet. MS Excel functionality can also be used to analyze or format the data.

Subtotal Visible Cells

Question: How can I quickly calculate the total sales for each month and copy only the visible cells or subtotals to a new worksheet

Answer: By using the Subtotal command and visible cells only option

Why: If some cells, rows, or columns on the worksheet are not displayed, you have the option of copying all cells or only the visible cells. By default, Excel copies hidden or filtered cells in addition to visible cells. If this is not what you want, follow the steps in this tip to copy visible cells only. For example, you can choose to copy only the displayed summary data on an outlined worksheet

Applies To: Excel 2003, 2007, and 2010

1. Refer to the data given below

	Region	Category Name	Product Name	Date	Quantity	Unit Price	Product Sales
2	North Coast	Confections	Teatime Chocolate Biscuits	April	12	9.20	82.80
3	South Coast	Confections	Teatime Chocolate Biscuits	April	12	9.20	110.40
4	West Coast	Condiments	Aniseed Syrup	April	14	10.00	140.00
5	West Coast	Confections	Chocolade	April	15	10.20	137.70
6	West Coast	Confections	Chocolade	April	15	12.75	162.56
7	East Coast	Beverages	Ipoh Coffee	April	15	36.80	552.00
8	East Coast	Beverages	Ipoh Coffee	April	15	46.00	586.50
9	East Coast	Beverages	Outback Lager	April	15	15.00	213.75
10	West Coast	Condiments	Chef Anton's Cajun Seasoning	August	50	22.00	990.00
11	West Coast	Condiments	Chef Anton's Cajun Seasoning	August	50	22.00	1045.00
12	East Coast	Beverages	Outback Lager	August	50	15.00	750.00
13	South Coast	Confections	Teatime Chocolate Biscuits	August	50	9.20	437.00
14	West Coast	Condiments	Aniseed Syrup	August	60	10.00	600.00
15	West Coast	Dairy Products	Camembert Pierrot	August	60	27.20	1550.40
16	South Coast	Condiments	Vegie-spread	February	6	43.90	263.40
17	East Coast	Beverages	Laughing Lumberjack Lager	February	7	14.00	98.00
18	East Coast	Dairy Products	Mozzarella di Giovanni	February	7	34.80	243.60
19	East Coast	Beverages	Outback Lager	February	7	15.00	105.00
20	North Coast	Confections	Teatime Chocolate Biscuits	February	7	9.20	64.40
21	South Coast	Confections	Teatime Chocolate Biscuits	February	7	9.20	48.30
22	North Coast	Beverages	Outback Lager	February	8	15.00	114.00
23	South Coast	Condiments	Vegie-spread	February	9	43.90	395.10
24	East Coast	Beverages	Ipoh Coffee	January	3	36.80	110.40
25	East Coast	Beverages	Laughing Lumberjack Lager	January	3	14.00	42.00
26	West Coast	Condiments	Aniseed Syrup	January	6	10.00	60.00
27	West Coast	Condiments	Chef Anton's Cajun Seasoning	January	6	22.00	132.00

2. When a subtotal command is applied to the sorted data the result will be as below

	Region	Category Name	Product Name	Date	Quantity	Unit Price	Product Sales
2	North Coast	Confections	Teatime Chocolate Biscuits	April	12	9.20	82.80
3	South Coast	Confections	Teatime Chocolate Biscuits	April	12	9.20	110.40
4	West Coast	Condiments	Aniseed Syrup	April	14	10.00	140.00
5	West Coast	Confections	Chocolade	April	15	10.20	137.70
6	West Coast	Confections	Chocolade	April	15	12.75	162.56
7	East Coast	Beverages	Ipoh Coffee	April	15	36.80	552.00
8	East Coast	Beverages	Ipoh Coffee	April	15	46.00	586.50
9	East Coast	Beverages	Outback Lager	April	15	15.00	213.75
10				**April Total**			1985.71
11	West Coast	Condiments	Chef Anton's Cajun Seasoning	August	50	22.00	990.00
12	West Coast	Condiments	Chef Anton's Cajun Seasoning	August	50	22.00	1045.00
13	East Coast	Beverages	Outback Lager	August	50	15.00	750.00
14	South Coast	Confections	Teatime Chocolate Biscuits	August	50	9.20	437.00
15	West Coast	Condiments	Aniseed Syrup	August	60	10.00	600.00
16	West Coast	Dairy Products	Camembert Pierrot	August	60	27.20	1550.40
17				**August Total**			5372.40
18	South Coast	Condiments	Vegie-spread	February	6	43.90	263.40
19	East Coast	Beverages	Laughing Lumberjack Lager	February	7	14.00	98.00
20	East Coast	Dairy Products	Mozzarella di Giovanni	February	7	34.80	243.60
21	East Coast	Beverages	Outback Lager	February	7	15.00	105.00
22	North Coast	Confections	Teatime Chocolate Biscuits	February	7	9.20	64.40
23	South Coast	Confections	Teatime Chocolate Biscuits	February	7	9.20	48.30
24	North Coast	Beverages	Outback Lager	February	8	15.00	114.00
25	South Coast	Condiments	Vegie-spread	February	9	43.90	395.10
26				**February Total**			1331.80
27	East Coast	Beverages	Ipoh Coffee	January	3	36.80	110.40
28	East Coast	Beverages	Laughing Lumberjack Lager	January	3	14.00	42.00
29	West Coast	Condiments	Aniseed Syrup	January	6	10.00	60.00
30	West Coast	Condiments	Chef Anton's Cajun Seasoning	January	6	22.00	132.00
31				**January Total**			344.40
32				**Grand Total**			9034.31

3. To display only the monthly totals select as below

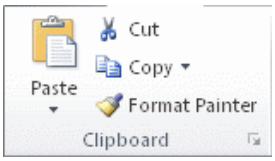
	A	B	C	D	E	F	G
1	*Region*	*Category Name*	*Product Name*	Date	Quantity	Unit Price	Product Sales
10				**April Total**			1985.71
17				**August Total**			5372.40
26				**February Total**			1331.80
31				**January Total**			344.40
32				**Grand Total**			9034.31

4. To select only the visible cells as given above;

a. On the **Home** tab, in the **Editing** group, click **Find & Select**, and then click **Go To Special**

b. Under **Select**, click **Visible cells only**, and then click **OK**

c. On the **Home** tab, in the **Clipboard** group, click **Copy**



Keyboard shortcut: CTRL+C

d. Select the upper-left cell of the paste area.

e. On the **Home** tab, in the **Clipboard** group, click **Paste**

Keyboard shortcut: CTRL+V

Future dates projection

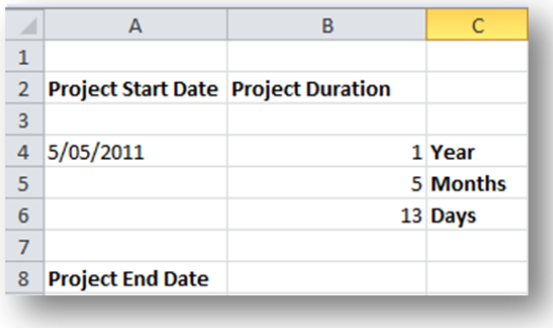
Question: How can I calculate the date that a project ends, this date falls after a certain amount of years, months and days?

Answer: By using the Date function, =Date(Year,month,Day)

Why: To predict the completion date of a project

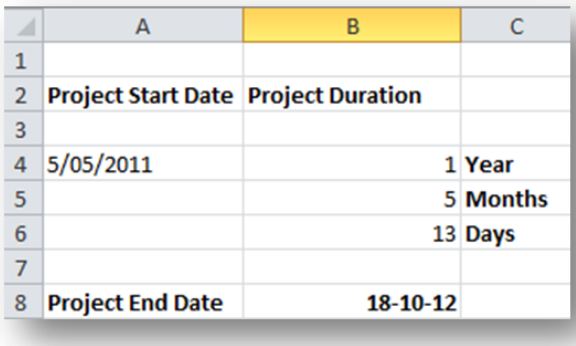
Applies To: Excel 2003, 2007, and 2010

1. Refer to the data below



	A	B	C
1			
2	**Project Start Date**	**Project Duration**	
3			
4	5/05/2011	1	**Year**
5		5	**Months**
6		13	**Days**
7			
8	**Project End Date**		

2. To predict the project end date, select B8 an, enter as below
3. =Date(2011+B4,5+B5,5+B6)
4. The project will end on the **18-10-2012**, as given below



	A	B	C
1			
2	**Project Start Date**	**Project Duration**	
3			
4	5/05/2011	1	**Year**
5		5	**Months**
6		13	**Days**
7			
8	**Project End Date**	**18-10-12**	

Keyboard Shortcuts to Access the Ribbon programs

Question: How do I access any ribbon command in a few keystrokes?

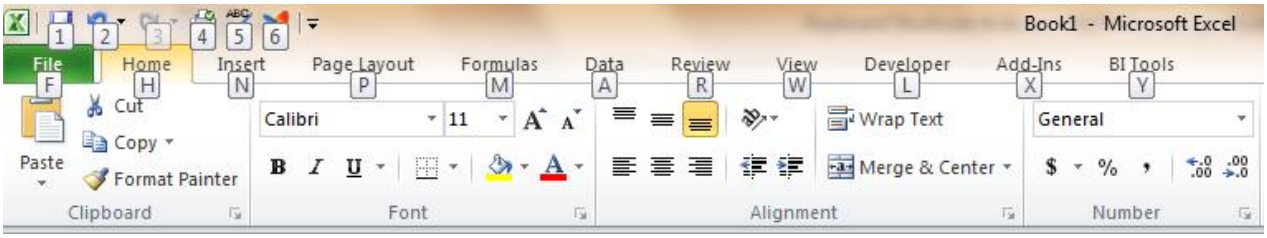
Answer: By using access keys: Access keys provide a way to quickly use a command by pressing a few keystrokes, no matter where you are in the program. Every command in a program that uses an Office Fluent ribbon can be accessed by using an access key. You can get to most commands by using two to four keystrokes.

Why: To access any ribbon command in a few keystrokes

Applies To: Excel 2007, and 2010

1. Press and release the ALT key

The KeyTips are displayed over each feature that is available in the current view

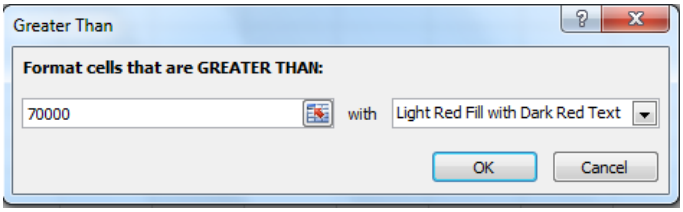


2. To apply conditional formatting using access keys; Refer to the data below

	A	B	C
1	ProductName	CustomerName	Sales Amount
2	Crystal Puddle Ranberry Juice	JUICE HAVEN	$ 40 000.00
3	Bohemian Grapey Tea	TREE TEA GARDENS	$ 75 000.00
4	Bohemian Grapey Tea	TEA 4 U (JHB)	$ 90 000.00
5	Crystal Puddle Grape Juice	PKS SERVICES	$ 45 000.00
6	Bohemian Grapey Tea	BOBS UNCLE	$ 85 000.00
7	B & X Wholenuts	THIRSTY KIRSTIES	$ 78 000.00
8	Ricky Liquors - Whisky	SPICE POT	$ 34 000.00
9	B & X Wholenuts	SPICE POT	$ 100 000.00
10	Redberg Tequila	PL STORES	$ 1 400 000.00
11	Crystal Puddle Ranberry Juice	BEE B'S DELIGHTS	$ 150 000.00
12	Ronalds Dried Basil	FAT BOYS CC	$ 85 000.00
13	Ricky Liquors - Brandy	THIRSTY KIRSTIES	$ 95 000.00
14	Bohemian Grapey Tea	BOBS UNCLE	$ 56 000.00
15	Crystal Puddle Grape Juice	SPICE POT	$ 34 000.00
16	Crystal Puddle Ranberry Juice	PL STORES	$ 54 000.00
17	Redberg Tequila	FRICKELS PICKLES	$ 89 000.00
18	Bohemian Grapey Tea	TEA 4 U (DBN NRTH)	$ 77 000.00

3. Select C2:C18

4. Press the ALT key
5. Press H
6. Press L
7. Press H
8. Press G
9. Enter as below



10. Press the Enter Key
11. The result will be as below

	A	B	C
1	ProductName	CustomerName	Sales Amount
2	Crystal Puddle Ranberry Juice	JUICE HAVEN	$ 40 000.00
3	Bohemian Grapey Tea	TREE TEA GARDENS	$ 75 000.00
4	Bohemian Grapey Tea	TEA 4 U (JHB)	$ 90 000.00
5	Crystal Puddle Grape Juice	PKS SERVICES	$ 45 000.00
6	Bohemian Grapey Tea	BOBS UNCLE	$ 85 000.00
7	B & X Wholenuts	THIRSTY KIRSTIES	$ 78 000.00
8	Ricky Liquors - Whisky	SPICE POT	$ 34 000.00
9	B & X Wholenuts	SPICE POT	$ 100 000.00
10	Redberg Tequila	PL STORES	$ 1 400 000.00
11	Crystal Puddle Ranberry Juice	BEE B'S DELIGHTS	$ 150 000.00
12	Ronalds Dried Basil	FAT BOYS CC	$ 85 000.00
13	Ricky Liquors - Brandy	THIRSTY KIRSTIES	$ 95 000.00
14	Bohemian Grapey Tea	BOBS UNCLE	$ 56 000.00
15	Crystal Puddle Grape Juice	SPICE POT	$ 34 000.00
16	Crystal Puddle Ranberry Juice	PL STORES	$ 54 000.00
17	Redberg Tequila	FRICKELS PICKLES	$ 89 000.00
18	Bohemian Grapey Tea	TEA 4 U (DBN NRTH)	$ 77 000.00

Date Data Validation

Question: I would like to ensure that the end date is greater than the start date? Can this be done in MS Excel?

Answer: Using Data Validation

Why: When entering project tasks the end date has to be greater than the start date

Applies To: Excel 2003, 2007, 2010

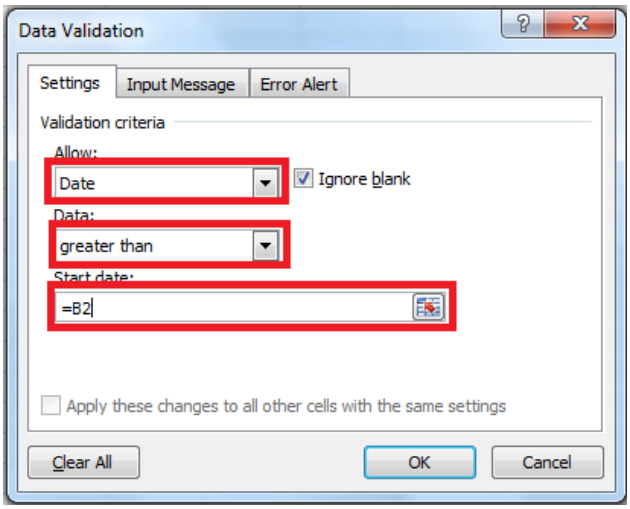
1. Refer to the data given below

	A	B	C
1	**Task**	**Start Date**	**End Date**
2	A	14/01/2011	
3	B	15/02/2011	
4	C	17/03/2011	
5	D	19/04/2011	
6	E	20/03/2011	
7	F	22/05/2011	
8	G	24/06/2011	

2. Select the range; **C2:C8**

3. From the Data tab, in the Data Tools group, select Data Validation

4. Select as below;



5. Select the **OK** button

6. Enter **01/01/2011** in cell C2.An error message given below will be displayed since 01/01/2011 is less than 14/01/2011

Thus one is able to ensure that the data that users enter into a worksheet conforms to certain standards by enforcing the data validation rule

Tip 38

GETPIVOTDATA

Question: Is there a way to quickly extract certain data from a PivotTable in Microsoft Excel?

Answer: Yes, but using the GETPIVOTDATA function

Description: Returns data stored in a PivotTable report. You can use GETPIVOTDATA to retrieve summary data from a PivotTable report, provided the summary data is visible in the report

Applies To MS Excel 2007, 2010

1. The PivotTable report below includes detailed information on the sales by customer and product; to easily extract the Grand Total for Sales you can use the GETPIVOTDATA function

Service / Inventory	(All)
SalesmanName	(All)
ProductCategory	(All)

		Data					
CustomerName	Product Code Name	Selling Unit Quantity	Stocking Unit Quantity	TotalSale	TotalCost	Gross Profit	GP %
Ashburton Reinforcing		1,475.80	1,475.80	33,740.00	5,165.98	28,574.02	84.69%
	S1020 Drafting	5.80	5.80	580.00		580.00	100.00%
	H1020 Handles: Locking	1,000.00	1,000.00	30,000.00	3,711.80	26,288.20	87.63%
	L1030 Plywood: 3/4"	70.00	70.00	1,960.00	653.10	1,306.90	66.68%
	H2010 Hinges: Cabinet	400.00	400.00	1,200.00	801.08	398.92	33.24%
Askew Shopping Centre		2,670.58	2,670.58	34,700.55	1,638.90	33,061.65	95.28%
	S1020 Drafting	160.00	160.00	16,000.00		16,000.00	100.00%
	S1040 Engineering Consulting	0.58	0.58	575.55		575.55	100.00%
	S1080 Surveying	8.00	8.00	4,000.00		4,000.00	100.00%
	H2020 Hinges: Door	2,500.00	2,500.00	13,125.00	1,638.90	11,486.10	87.51%

2. Select in a blank cell and enter the following GETPIVOTDATA function

3. =GETPIVOTDATA("TotalSale",$E$10)

4. This will give you the Grand Total Figure for Total Sale **$1,029,790.03**

D4 fx =GETPIVOTDATA("TotalSale",$E$10)

	A	B	C	D	E
1	UNIVERSAL CONSTRUCTION				
2	SALES ANALYSIS				
3	for the period from 01 Jul 2014 to 31 Mar 2015				
4				$1,029,790.03	
5	Service / Inventory	(All)			
6	SalesmanName	(All)			
7	ProductCategory	(All)			
8					
9			Data		
10	CustomerName	Product Code Name	Selling Unit Quantity	Stocking Unit Quantity	TotalSale
11	Ashburton Reinforcing		1,475.80	1,475.80	33,740.00
12		S1020 Drafting	5.80	5.80	580.00

SYNTAX

GETPIVOTDATA(data_field, pivot_table, [field1, item1, field2, item2], ...)

The GETPIVOTDATA function syntax has the following arguments:

- **Data_field** Required. The name, enclosed in quotation marks, for the data field that contains the data that you want to retrieve
- **Pivot_table** Required. A reference to any cell, range of cells, or named range of cells in a PivotTable report. This information is used to determine which PivotTable report contains the data that you want to retrieve
- **Field1, Item1, Field2, Item2** Optional. 1 to 126 pairs of field names and item names that describe the data that you want to retrieve. The pairs can be in any order. Field names and names for items other than dates and numbers are enclosed in quotation marks

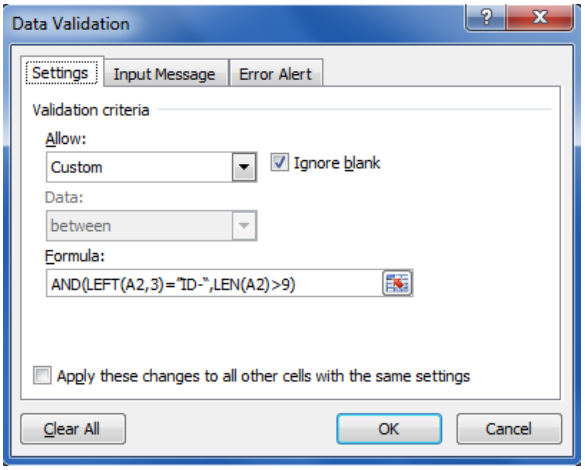
Data Validation with Formula

Question: I send out a weekly stock report to the stock controller to update with the new stock items that come into the warehouse. In this Excel report the cell that contains a product code name always needs to begin with a standard prefix of ID- and must be at least 10 characters long. How do I ensure that the stock controller captures the Product ID's correctly?

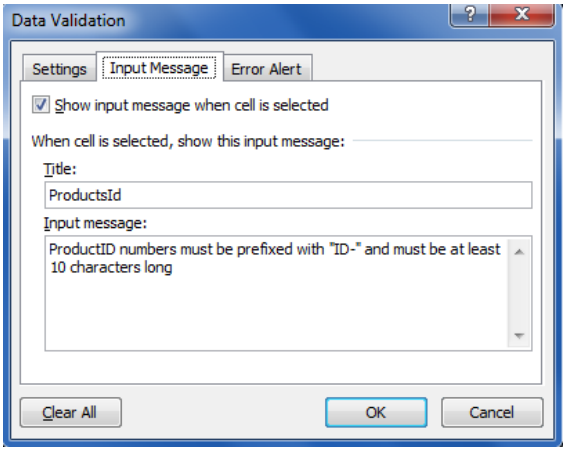
Answer: By using a Formula in a Data Validation to calculate what is allowed to be captured

Applies To: MS Excel 2007, 2010

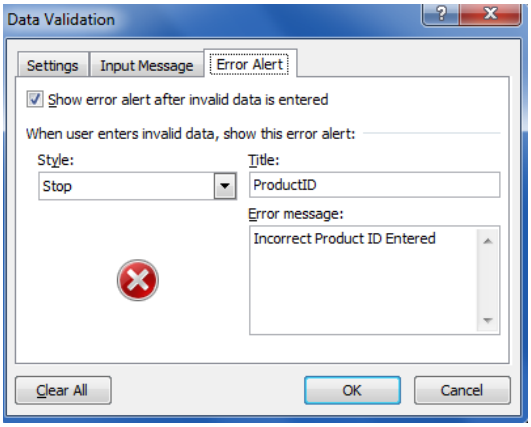
1. Apply Data Validation to column A (ProductID) to ensure that Product ID's are entered correctly in future
2. Select the Data Tab, Go to Data Validation
3. Enter the following criteria for the Data Validation Settings Window
    - Allow: Custom
    - Formula: AND(LEFT(A2,3)="ID-",LEN(A2)>9)



4. Enter the following criteria for the Data Validation Input Message Window

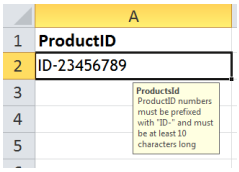


5. Enter the following criteria for the Data Validation Error Alert Window
6.

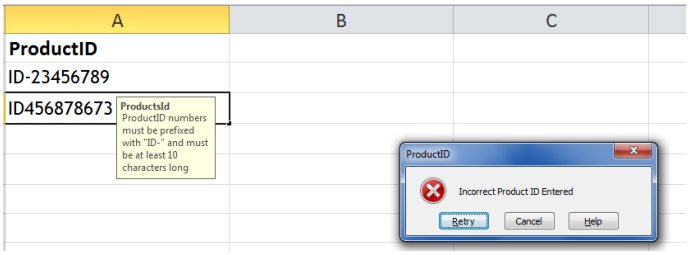


7. Insert the following Product ID's into Column A

- ID-23456789



- ID456878673



You will get an Error alerting you that the Incorrect Product ID has been entered

Note: The input message prompts you to enter the correct Product ID's

IF Function

Question: I have number of sales employees in my organization and I would like to automatically calculate, if they reach a certain target, their commission based on their above target figures. If they reach a specific above target I want to multiply this target by a set percentage, if they don't reach the target, I need this target figure to be multiplied by different percentage.

Answer: Use the IF Function. The IF function is one of Excel's most useful and most used functions. What it does, basically, is test to see whether a certain condition is true or false. If the condition is true, the function will do one thing, if the condition is false, the function will do something else.

Syntax: =IF(logic test, value if true, value if false)

How:

1. To calculate the commission figures for the following employees. Base on the following criteria. If the above target figure is above the target benchmark of $10,000 then multiply the value by 20% if the above target figure is below $10,000 then multiply the figure by 5%

	A	B
1		
2	**Target Benchmarck**	$ 10,000.00
3		
4		**Above Targets ($)**
5	Employee 1	$ 35,000.00
6	Employee 2	$ 24,600.00
7	Employee 3	$ 12,000.00
8	Employee 4	$ 50,000.00
9	Employee 5	$ 18,600.00

2. You can use the IF Statement
3. Use the following formula and copy down =IF(B5>10000,B5*20%,B5*5%)
4. The commission figures will be automatically calculated based on the IF function

	A	B	C
1			
2	**Target Benchmarck**	$ 10,000.00	
3			
4		**Above Targets ($)**	**Commission**
5	Employee 1	$ 35,000.00	$ 7,000.00
6	Employee 2	$ 24,600.00	$ 4,920.00
7	Employee 3	$ 12,000.00	$ 2,400.00
8	Employee 4	$ 50,000.00	$ 10,000.00
9	Employee 5	$ 18,600.00	$ 3,720.00
10			

5. The logic test is always a comparison between two values. Comparison operators are used, for example, to see if the first value is greater than or less than the second, or equal to it

6. While the logic test section is limited to answering a true or false question, you have greater flexibility in what you place in the last two arguments

7. The IF function can perform different calculations depending on whether the function returns a true value or not

Note: There is no comma separator used for the number in 10,000 in the above example. This is because the IF function uses the comma to separate the three sections of the IF function contained within the round brackets.

Hlookup

Question: How can I search for a value in the top row of the table and then return a value in the same column from a specified row?

Answer: By using Hlookup

Why: To perform a horizontal lookup on a data list

Applies To: Excel 2003, 2007, 2010

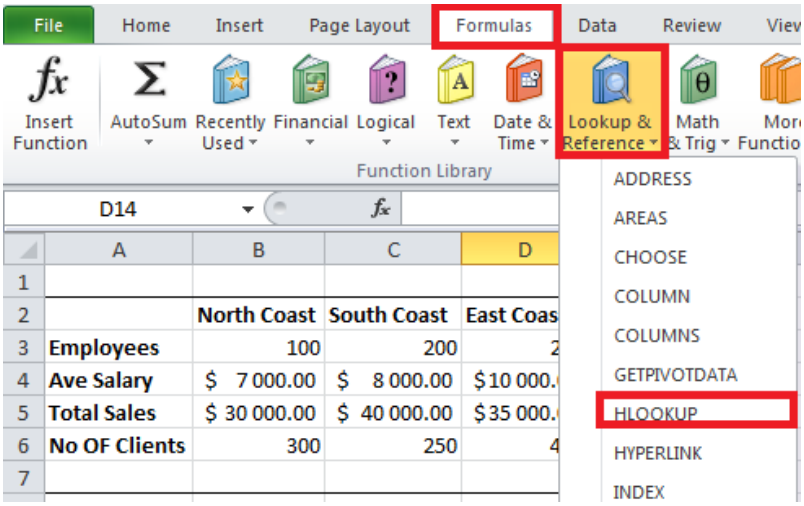
1. Refer to the data given below;

	A	B	C	D	E
1					
2		North Coast	South Coast	East Coast	West Coast
3	Employees	100	200	250	150
4	Ave Salary	$ 7 000.00	$ 8 000.00	$ 10 000.00	$ 6 000.00
5	Total Sales	$ 30 000.00	$ 40 000.00	$ 35 000.00	$ 36 000.00
6	No OF Clients	300	250	400	200
7					

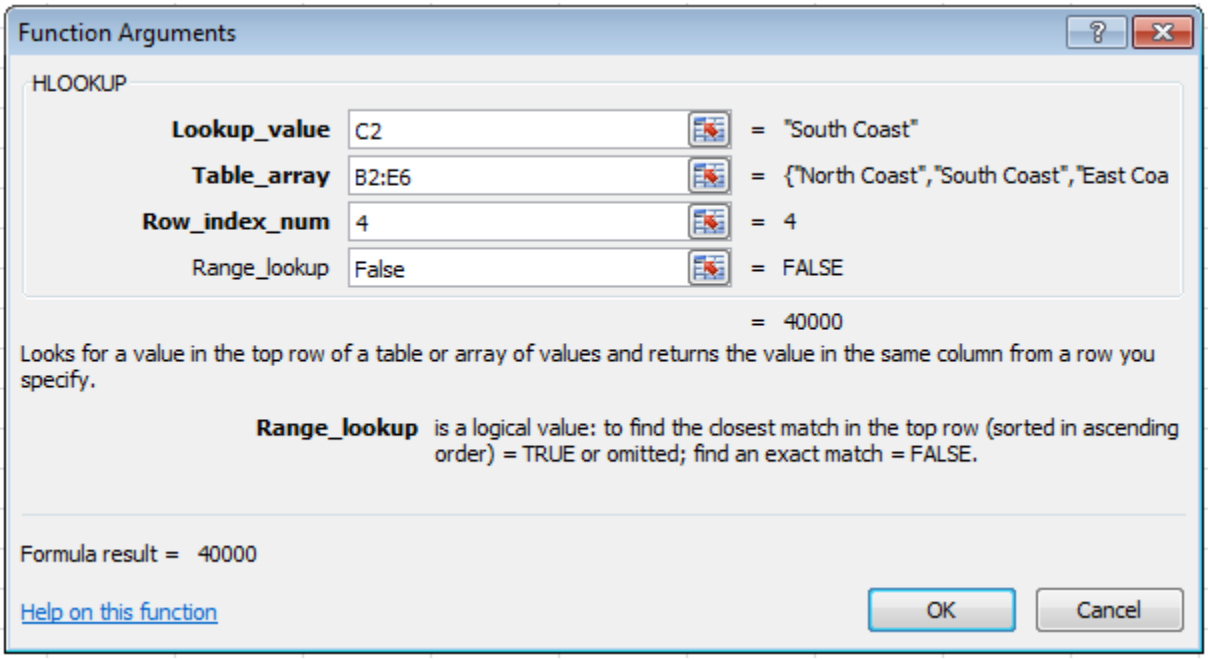
2. To find the total sales for the South Coast;

3. Select any empty cell

4. Select as below



3. Enter as below and select OK



The answer will be $40,000.00

The formula can also be entered as =HLOOKUP(C2,B2:E6,4,False)

The syntax of the Hlookup formula is as given below.

= HLOOKUP(lookup_value, table_array, row_index_num, [range_lookup])

Lookup_value . The value to be found in the first row of the table. Lookup_value can be a value, a reference, or a text string.

Table_array . A table of information in which data is looked up. Use a reference to a range or a range name.

Row_index_num . The row number in table_array from which the matching value will be returned.

Range_lookup . A logical value that specifies whether you want HLOOKUP to find an exact match or an approximate match. If TRUE or omitted, an approximate match is returned.. If FALSE, HLOOKUP will find an exact match.

Creating the Slicer connection to second PivotTable

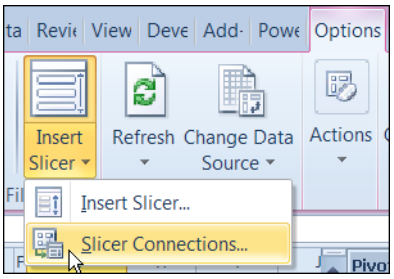
Question: Can you connect a slicer to more than 1 PivotTable?

Answer: Yes, by using the Slicers connection functionality. If you have created 2 PivotTables and you have created a slicer off the PivoTable1, you can connect the same slicer to use Filter on the PivotTable2

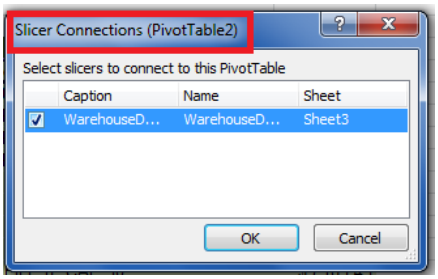
Applies: Excel 2010

Method:

1. Select a cell in the second PivotTable
2. On the Excel Ribbon's Options tab, click Insert Slicer
3. Click Slicer Connections



4. In the Slicer Connections window, add a check mark the slicer to Connect to PivotTable2.



Both pivot tables are now connected to the Slicer. If you select an item in a slicer, both pivot tables will be filtered. For example, in the Warehouse slicer below, Central is selected, and both pivot tables show only the Central Warehouse related data.

Before Filter:

PivotTable1

Customers	Total Sales
American Business Futures	$4,530.91
Avnet Processing Corp	$1,935.25
Breslin Parts Supply	$10,835.25
Custom Craft Products	$1,601.10
Greater Alarm Company	$916.20
Jellco Packing	$133.04
Orange Door & Window Co.	$309.85
Shepard Motorworks	$283,500.00
Grand Total	$303,761.60

PivotTable2

Items	Total Sales
22" Widget with Hinges	$968.00
8" x 10" Widgets	$55.25
ART SPECIALTY EMP CANDLE LAMP	$129.95
ART SPECIALTY GINGER JAR LAMP	$1,601.10
ART SPECIALTY WALNUT CNDL LAMP	$179.90
BOOK BIN W/FLUORESCENT LIGHT	$130.00
DESK 72" X 30"	$283,500.00
DESK FILE 3 1/2" CAP 50	$23.70
DESK FILE 5 1/4" CAP 50	$37.91
DESK FILE 8" CAP 50	$9,163.45
HON 2 DRAWER LETTER FLE W/O LK	$1,426.32
MODEM 9600 FAST POLL	$1,995.00
Monthly Maintenance Billing	$2,000.00
PAPER CADDY 18"W 14"D 3"H	$135.00
RJ-11 4 WIRE MOD CABLE 14 FT	$57.44
SOUND CVR 24.5"W 20"D 12"H LQ	$790.00
UNIVERSAL 5 1/4" DSDD FLEX DSK	$356.74
UNIVERSAL 5 1/4" SSDD FLEX DSK	$66.84
Widget 10 Pack	$1,145.00
Grand Total	$303,761.60

WarehouseDesc

- CENTRAL WAREHOUSE
- EAST WAREHOUSE
- SCRAP WAREHOUSE
- WEST WAREHOUSE
- (blank)

After Filter (Central Warehouse)

PivotTable1

Customers	Total Sales
American Business Futures	$33.20
Breslin Parts Supply	$9,130.25
Grand Total	$9,163.45

PivotTable2

Items	Total Sales
DESK FILE 8" CAP 50	$9,163.45
Grand Total	$9,163.45

WarehouseDesc

- CENTRAL WAREHOUSE
- EAST WAREHOUSE
- SCRAP WAREHOUSE
- WEST WAREHOUSE
- (blank)

Auto Generation of Names

Question: How do I automatically generate names from the top row of the selected data?

Answer: By defining names with the **Create from Selection** option.

Why: To automatically generate names from selected text.

By using names (name: A word or string of characters in Excel that represents a cell, range of cells, formula, or constant value.), you can make your formulas much easier to understand and maintain. You can define a name for a cell range, function, constant, or table. Once you adopt the practice of using names in your workbook, you can easily update, audit, and manage these names.

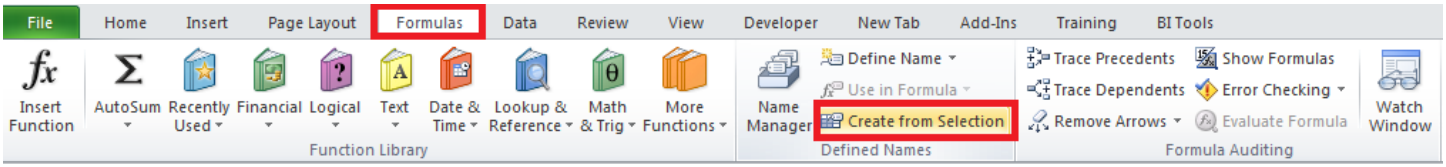
Applies To: **Microsoft Excel 2003, 2007, 2010**

1. Refer to the data given below

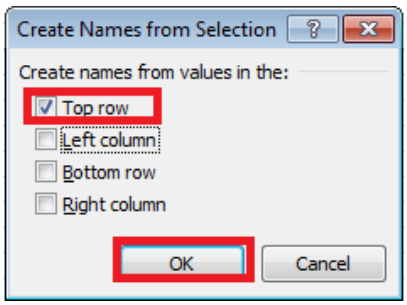
	A	B	C	D	E	F
1	Sales Transactions 2008					
2						
3	**Product Name**	**Branch**	**Month**	**Quantity**	**Unit Price**	**Product Sales**
4	Chang	West Coast	March	40	20.00	800.00
5	Chang	West Coast	March	40	20.00	800.00
6	Chang	West Coast	March	40	20.00	800.00
7	Chang	West Coast	April	45	20.00	900.00
8	Chang	East Coast	April	50	20.00	1000.00
9	Chang	East Coast	May	50	20.00	1000.00
10	Chang	East Coast	April	60	20.00	1200.00
11	Chang	East Coast	April	100	20.00	2000.00
12	Chang	East Coast	April	150	20.00	3000.00
13	Chang	South Coast	April	160	20.00	3200.00
14	Chef Anton's Cajun Seasoning	South Coast	March	30	25.00	750.00
15	Seeds	South Coast	March	45	25.00	1125.00
16	Chef Anton's Cajun Seasoning	South Coast	April	49	25.00	1225.00
17	Seeds	South Coast	March	50	25.00	1250.00
18	Chef Anton's Cajun Seasoning	South Coast	April	50	25.00	1250.00
19	Chef Anton's Cajun Seasoning	North Coast	May	50	25.00	1250.00
20	Chef Anton's Cajun Seasoning	North Coast	May	50	25.00	1250.00
21	Seeds	North Coast	April	120	25.00	3000.00
22	Seeds	North Coast	May	130	25.00	3250.00
23	Seeds	North Coast	May	140	25.00	3500.00
24	Seeds	North Coast	April	150	25.00	3750.00
25						
26			**Total**	**1599**	**475**	**36300**

2. Highlight cells A3:F25

3. Select as below

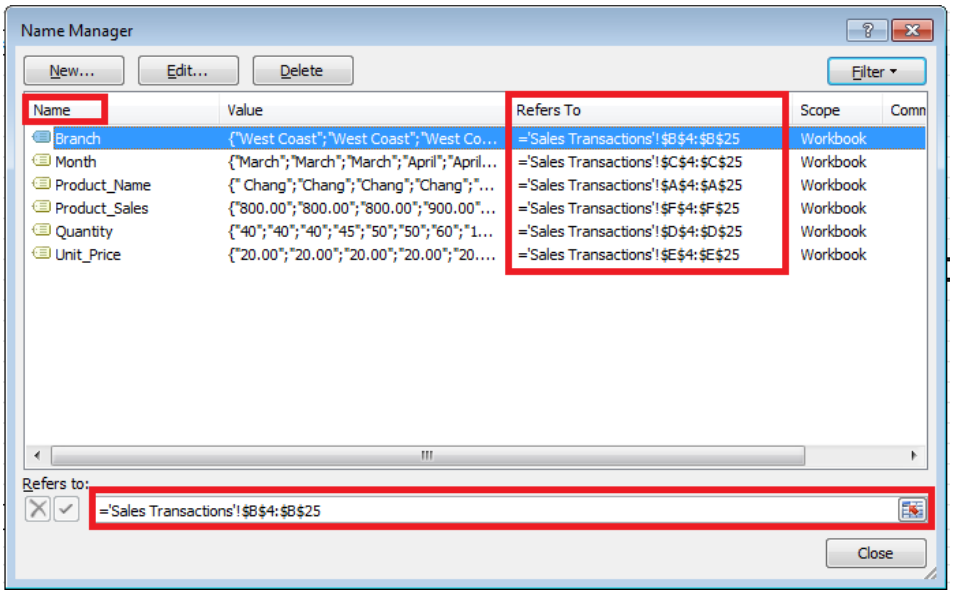


4. Select **Top row** and then the **OK** button as given below



5. Select **Name Manager** under the **Defined Names** group

6. A list of names will confirm that the column headings have been automatically generated as the names for the corresponding data



Creating a 3D Reference Name

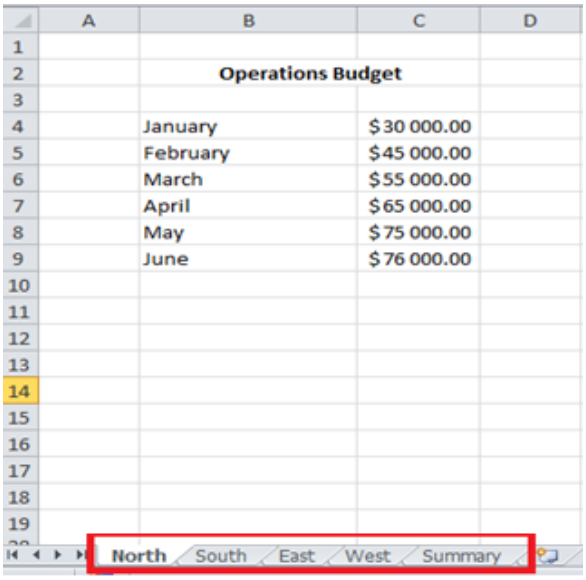
Question: How do I create a reference (name) that refers to the same cell or range on multiple sheets?

Answer: By creating a 3D reference name

Why: A 3-D reference is a useful and convenient way to reference several worksheets that follow the same pattern and contain the same type of data, such as when you consolidate budget data from different departments in your organization

Applies To: MS Excel 2003, 2007, 2010

1. Refer to the data given below. The Operations Budget figures for the **North**, **South**, **East** and **West** are captured on the respective worksheets as given below. The consolidated budget figure will be displayed on the summary worksheet



	A	B	C	D
1				
2		**Operations Budget**		
3				
4		January	$30 000.00	
5		February	$45 000.00	
6		March	$55 000.00	
7		April	$65 000.00	
8		May	$75 000.00	
9		June	$76 000.00	
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				

   The budget figures captured on the **South**, **East** & **West** worksheets in the order of the months given above is;

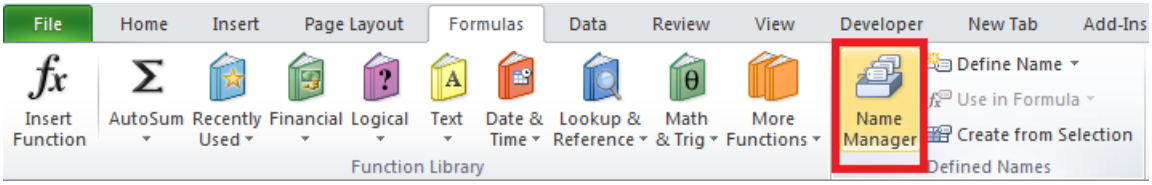
   South: $51 000, $32 000, $45 000, $74 000, $90 000, $88 000

   East: $120,000, $95 000, $88 000, $93 000, $54 000, $34 000

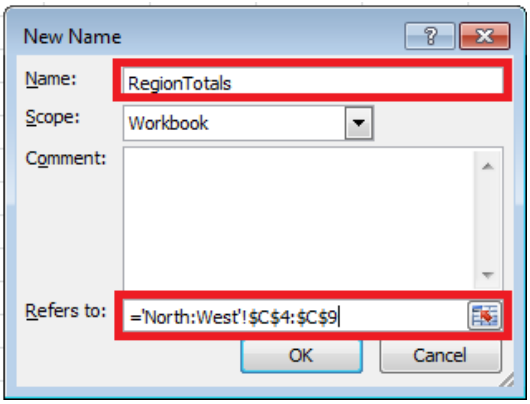
   West: $45 000, $34 000, $87 000, $89 000, $56 000, $77 000

2. Select **C4:C9** on the **North** worksheet

3. Select as below



4. Select **New** on the **Name Manager** window and select as below



5. Select **OK** and then select the close button

6. Select cell **G9** on the summary worksheet and enter the following formula; **=Sum(RegionTotals)**

7. Press the **Enter** Key

8. The consolidated Regional Total Value of **$1,598,000.00** will be displayed

Large Function

Question: You know how to find the largest value from a given data range by using the maximum function. But how can one find the second largest value from a data range?

Answer: By using the LARGE function

Why: Returns the k-th largest value in a data set. You can use this function to select a value based on its relative standing. For example, you can use LARGE to return the highest, runner-up, or third-place score

Syntax: =Large(Array,K)

Array is an array or range of numerical data for which you want to determine the k-th largest value

K is the position (from the largest) in the array or range of data to return

Applies To: Excel 2003, 2007 and 2010

1. To find the second largest value from the following data range;

	A	B
1	***Sales Person***	**Product Sales**
2	Anderson. P	$ 480.00
3	Johnson. A	$ 2 128.00
4	Peters. K	$ 432.00
5	Bonders. P	$ 291.90
6	Newson. L	$ 448.00
7	Lavin. T	$ 29.40
8	Perks. M	$ 76.00
9	Anderson. P	$ 144.00
10	Johnson. A	$ 432.00
11	Peters. K	$ 504.00
12	Bonders. P	$ 345.60
13	Newson. L	$ 146.00
14	Lavin. T	$ 364.00
15	Perks. M	$ 10 540.00
16	Anderson. P	$ 29.20
17	Johnson. A	$ 240.00
18		
19	**Second Largest value**	

2. Select cell B19 and type **=Large(B2:B17,2)**
3. The answer will be **$2128.00** meaning the second best sales person is **Johnson A**

The LARGE function can also be used as an alternative to the MAX function.

TRIM Function

Question: I have just imported data into MS Excel. How do I remove leading or trailing spaces from the data? I also would like to limit the amount of space between words to one

Answer: By using the TRIM function

Why: Removes all spaces from text except for single spaces between words. Use TRIM on text that you have received from another application that may have irregular spacing

Applies To: MS Excel 2003, 2007, 2010

1. For this example the screen shot given below will be used

	A	B
1	**Product Name(Before)**	**Product Name(After)**
2	Maxilaku	
3	Gnocchi di nonna Alice	
4	Tunnbröd	
5	Pavlova	
6	Singaporean Hokkien Fried Mee	
7	Boston Crab Meat	
8	Inlagd Sill	
9	Chai	
10	Gudbrandsdalsost	
11	Queso Cabrales	
12	Chai	
13	Teatime Chocolate Biscuits	
14	Original Frankfurter grüne Soße	
15	Côte de Blaye	
16	Teatime Chocolate Biscuits	
17	Röd Kaviar	
18	Gumbär Gummibärchen	
19	Gorgonzola Telino	
20	Pâté chinois	
21	Gnocchi di nonna Alice	
22	Tourtière	
23	Gustaf's Knäckebröd	
24	Perth Pasties	
25	Sasquatch Ale	
26	Wimmers gute Semmelknödel	
27	Chang	
28	Pavlova	
29	Sirop d'érable	
30	Louisiana Hot Spiced Okra	
31	Alice Mutton	

2. Select cell **B2** and type **=Trim(A2)** then press enter. Drag the formula down

3. The result will be as follows

	A	B
1	**Product Name(Before)**	**Product Name(After)**
2	Maxilaku	Maxilaku
3	Gnocchi di nonna Alice	Gnocchi di nonna Alice
4	Tunnbröd	Tunnbröd
5	Pavlova	Pavlova
6	Singaporean Hokkien Fried Mee	Singaporean Hokkien Fried Mee
7	Boston Crab Meat	Boston Crab Meat
8	Inlagd Sill	Inlagd Sill
9	Chai	Chai
10	Gudbrandsdalsost	Gudbrandsdalsost
11	Queso Cabrales	Queso Cabrales
12	Chai	Chai
13	Teatime Chocolate Biscuits	Teatime Chocolate Biscuits
14	Original Frankfurter grüne Soße	Original Frankfurter grüne Soße
15	Côte de Blaye	Côte de Blaye
16	Teatime Chocolate Biscuits	Teatime Chocolate Biscuits
17	Röd Kaviar	Röd Kaviar
18	Gumbär Gummibärchen	Gumbär Gummibärchen
19	Gorgonzola Telino	Gorgonzola Telino
20	Pâté chinois	Pâté chinois
21	Gnocchi di nonna Alice	Gnocchi di nonna Alice
22	Tourtière	Tourtière
23	Gustaf's Knäckebröd	Gustaf's Knäckebröd
24	Perth Pasties	Perth Pasties
25	Sasquatch Ale	Sasquatch Ale
26	Wimmers gute Semmelknödel	Wimmers gute Semmelknödel
27	Chang	Chang
28	Pavlova	Pavlova
29	Sirop d'érable	Sirop d'érable
30	Louisiana Hot Spiced Okra	Louisiana Hot Spiced Okra
31	Alice Mutton	Alice Mutton

As you can see from the data above, all spaces from the text except for single spaces between words have been removed.

Small Function

Question: Is there an alternative to the minimum function when finding the smallest value in a given data range?

Answer: Yes, the **Small** function

Why: Returns the k-th smallest value in a data set. Use this function to return values with a particular relative standing in a data set

Syntax

SMALL(array,k)

Array is an array or range of numerical data for which you want to determine the k-th smallest value.

K is the position (from the smallest) in the array or range of data to return

Applies To: Excel 2003, 2007 and 2010

1. Refer to the following screen shot used for this example

	A	B	
1	***Sales Person***	**Product Sales**	
2	Anderson. P	$	480.00
3	Johnson. A	$	2 128.00
4	Peters. K	$	432.00
5	Bonders. P	$	291.90
6	Newson. L	$	448.00
7	Lavin. T	$	29.40
8	Perks. M	$	76.00
9	Anderson. P	$	144.00
10	Johnson. A	$	432.00
11	Peters. K	$	504.00
12	Bonders. P	$	345.60
13	Newson. L	$	146.00
14	Lavin. T	$	364.00
15	Perks. M	$	10 540.00
16	Anderson. P	$	29.20
17	Johnson. A	$	240.00
18			
19	**Lowest Sales Value**	**$**	**29.20**

2. Select cell **B19** and type **=Small(B2:B17,1)**
3. The answer will be **$29.20** meaning the sales person with the lowest sales value is **Anderson .P**.

Mode Function

Question: We commissioned a research into the buying habits of our clients. How can we find the most frequently ordered quantity of our product?

Answer: By using the **Mode** function

Why: Returns the most frequently occurring, or repetitive, value in an array or range of data.

Syntax

MODE(number1,number2,...)

Number1, number2, ... are 1 to 255 arguments for which you want to calculate the mode. You can also use a single array or a reference to an array instead of arguments separated by commas.

Remarks

Arguments can either be numbers or names, arrays, or references that contain numbers.

If an array or reference argument contains text, logical values, or empty cells, those values are ignored.

Applies To: Excel 2003, 2007 and 2010

1. For this example the following screen shot will be used.

	A	B
1		
2	**Product**	**Ordered Quantity**
3	A	10
4	A	15
5	A	20
6	A	10
7	A	15
8	A	10
9	A	20
10	A	25
11	A	40
12	**Mode**	

2. To find the mode ;
3. Select **B12** and type **=Mode(B3:B11)**
4. The answer will be **10**
5. Meaning the quantity of product A that most clients ordered is 10

Transpose Option

Question: Can I return a horizontal range of cells as a vertical range, or vice versa?

Answer: Yes, using the **transpose** option

Why: To change the positional alignment of the data

Applies To: MS Excel 2003, 2007, 2010

1. For this example we shall make use of the screen shot given below

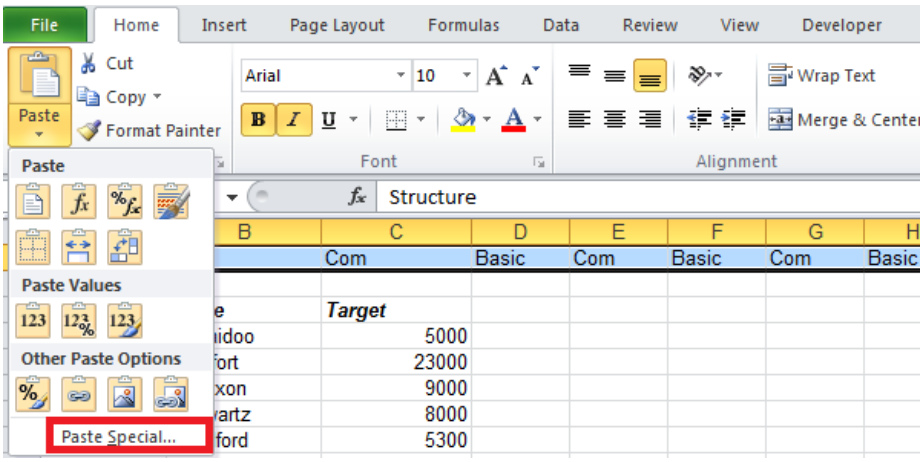
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	***Structure***	Com	Com	Basic	Com	Basic	Com	Basic	Com	Basic	Com	Basic	Basic	Incentive	Basic
2															
3	***Staff Code***	***Name***	***Target***												
4	P1	M Naidoo	5000												
5	P2	M Effort	23000												
6	P3	B Nixon	9000												
7	P4	K Swartz	8000												
8	P5	L Belford	5300												
9	P6	Kelvin Moxford	5000												
10	P7	Jenny Brown	7500												
11	P8	Helen Marks	19500												
12	P9	Gene Fraser	25000												
13	P10	F Jackson	18500												
14	P11	Evan Peterson	21000												
15	P12	Devan Oxford	87000												
16	P13	K Sweet	38000												
17	P14	P Cox	76000												
18															

2. Select cells **A1:O1**

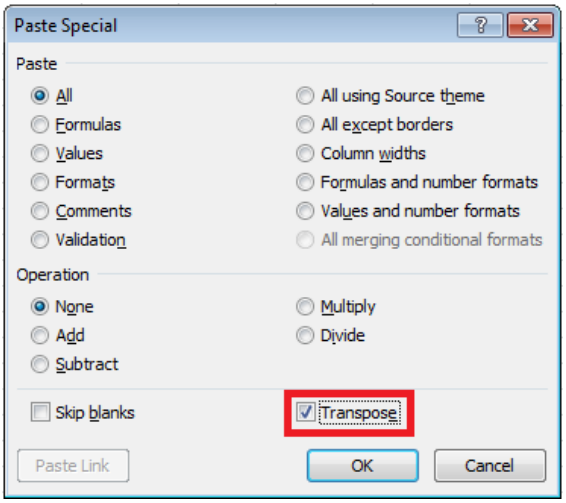
3. Press **Ctrl + C**

4. Select cell **D4**

5. Select as below



6. Select **Transpose** then **OK**



7. Select cells **A1:O1** then press the **delete** key

8. The result will be as follows

	A	B	C	D
1				
2				
3	***Staff Code***	***Name***	***Target***	***Structure***
4	P1	M Naidoo	5000	Com
5	P2	M Effort	23000	Com
6	P3	B Nixon	9000	Basic
7	P4	K Swartz	8000	Com
8	P5	L Belford	5300	Basic
9	P6	Kelvin Moxford	5000	Com
10	P7	Jenny Brown	7500	Basic
11	P8	Helen Marks	19500	Com
12	P9	Gene Fraser	25000	Basic
13	P10	F Jackson	18500	Com
14	P11	Evan Peterson	21000	Basic
15	P12	Devan Oxford	87000	Basic
16	P13	K Sweet	38000	Incentive
17	P14	P Cox	76000	Basic

Initially the data in row 1 was aligned horizontally but has been changed to vertical alignment and placed in column **D** by using the **transpose** option

REPT Function

Question: How do I display the total sales amount by way of a chart? I don't want to use the normal chart options given in excel. Is there an alternative to the normal chart options?

Answer: Yes, the **REPT** function

Why: Repeats text a given number of times. Use **REPT** to fill a cell with a number of instances of a text string

Syntax

REPT(text,number_times)

- Text Required. The text you want to repeat
- Number_times Required. A positive number specifying the number of times to repeat text

Applies To: MS Excel 2003, 2007, 2010

1. The screen shot below will be used to illustrate this example

	A	B	C	D
1				
2				
3	**Staff Code**	**Name**	**Total Sales(Millions)**	
4	P1	M Naidoo	40	
5	P2	M Effort	30	
6	P3	B Nixon	25	
7	P4	K Swartz	72	
8	P5	L Belford	58	
9	P6	Kelvin Moxford	89	
10	P7	Jenny Brown	47	
11	P8	Helen Marks	87	
12	P9	Gene Fraser	26	
13	P10	F Jackson	78	
14	P11	Evan Peterson	37	
15	P12	Devan Oxford	48	
16	P13	K Sweet	49	
17	P14	P Cox	66	

2. Select cell **D4** and type **=REPT("I",C4) & C4**

3. The result will be as follows

	A	B	C	D	E	F	G	H
1								
2								
3	**Staff Code**	**Name**	**Total Sales(Millions)**					
4	P1	M Naidoo	40	40				
5	P2	M Effort	30	30				
6	P3	B Nixon	25	25				
7	P4	K Swartz	72	72				
8	P5	L Belford	58	58				
9	P6	Kelvin Moxford	89	89				
10	P7	Jenny Brown	47	47				
11	P8	Helen Marks	87	87				
12	P9	Gene Fraser	26	26				
13	P10	F Jackson	78	78				
14	P11	Evan Peterson	37	37				
15	P12	Devan Oxford	48	48				
16	P13	K Sweet	49	49				
17	P14	P Cox	66	66				

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Course Overview

Workshop 1: Business Reporting using Formulas and Functions

- Create your own ribbon/s (in MS Excel 2010)
- By viewing multiple windows you can Copy and Move worksheets between workbooks
- Save time on data capturing in multiple worksheets by using Grouping
- Consolidating worksheets by using Paste Special
- Quickly identifying certain transactions and highlighting duplicates by using Conditional Formatting including Data Bars, Icons, etc.
- Ensuring certain cells cannot be selected and formulae protected by using worksheet Protection
- Simplify formulae by using Named Ranges
- Using powerful functions to develop your report such as Lookup Functions, Text Functions, Logical Functions, Information Functions, Statistical Functions and Mathematical Functions

Workshop 2: Managing Data lists and Macros

- Sorting your list in any specific order by using a Custom List
- Using Subtotals to analyze your list to view totals by category
- Identifying certain data based on a criteria by using Filtering
- Ensuring you have consistent data capturing by using Data Validation
- Summarizing your rows and columns by using Group and Outline and create Custom Views
- Forecast outcomes by creating Scenarios
- Simplify repetitive tasks by recording, viewing, running, and editing Macros

Workshop 3: Data analysis using PivotTables and Pivot Charts

- Understanding the definitions and layout of a PivotTable
- Summarizing data by creating a PivotTable
- Improving the look and feel of the PivotTable by Modifying and Formatting an existing PivotTable
- Saving time creating a new PivotTable by moving or copying an existing PivotTable
- Using Pivot Tools to manage your PivotTable effectively (MS Excel 2010 includes using slicers to filter and for connection to another PivotTable)
- Create and customize Sparkline's (only in MS Excel 2010)
- Creating specific formulae within your PivotTable by using a Calculated field
- Summarizing dates into Months, Quarters and Years by using Grouping
- Graphically representing your PivotTable by creating a PivotChart

I would just like to thank you and your team for the amazing Excel On Steroids course which I attended. I've learned amazing new things and this will definitely improve my efficiency at the office.

As an example of how this has already changed my life: We had our quarterly stock take on Saturday and I've finalized the stock take 3 hours earlier than normal just because I was able to work through the data so much quicker.

Linka Lubbe (Financial Controller), Jost South Africa

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