Microsoft EXCEL Easy

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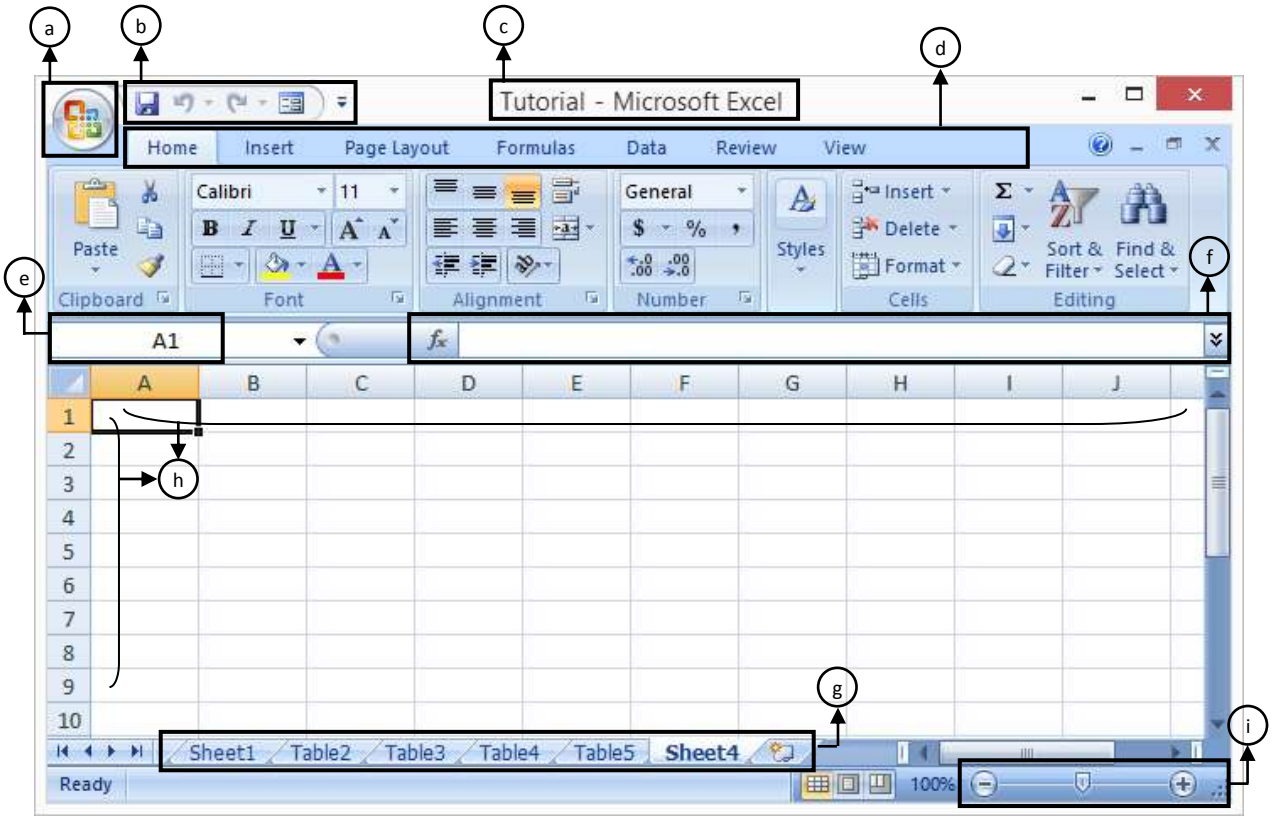
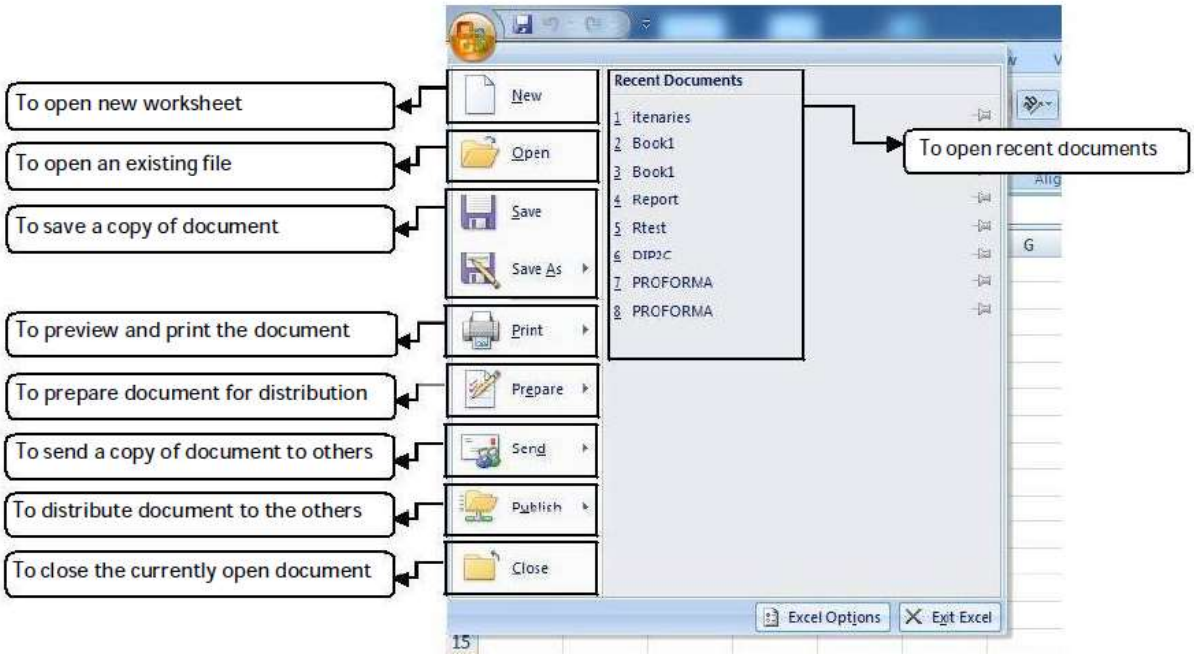
CHAPTER 1

1.0 INTRODUCTION

Microsoft Excel is an electronic spreadsheet. You can use it to organize your data into rows and columns. You can also use it to perform mathematical calculations quickly. Microsoft Excel provides several layers of protection to control who can access and change your Excel files data. Besides, covered in formatting toolbar, conditional formatting and cell reference functions. Microsoft Excel also can create Simple Formulas and Functions. Chart created in Excel can be modified quite easily. Allow you to change the chart type, add in or remove legend and data table, and change text orientation.



a. Main button to access the main menu in Microsoft Excel
b. Quick Access Toolbar
c. Title Bar represent the excel file name
d. Tab for excel functions
e. Cell name box
f. Function box
g. Worksheet tabs
h. Rows and columns
i. Zoom button


To open new worksheet
To open an existing file
To save a copy of document
To preview and print the document
To prepare document for distribution
To send a copy of document to others
To distribute document to the others
To close the currently open document
New
Open
Save
Save As
Print
Prepare
Send
Publish
Close
Recent Documents
1 itenaries
2 Book1
3 Book1
4 Report
5 Rtest
6 DIP2C
7 PROFORMA
8 PROFORMA
To open recent documents
Excel Options
Exit Excel

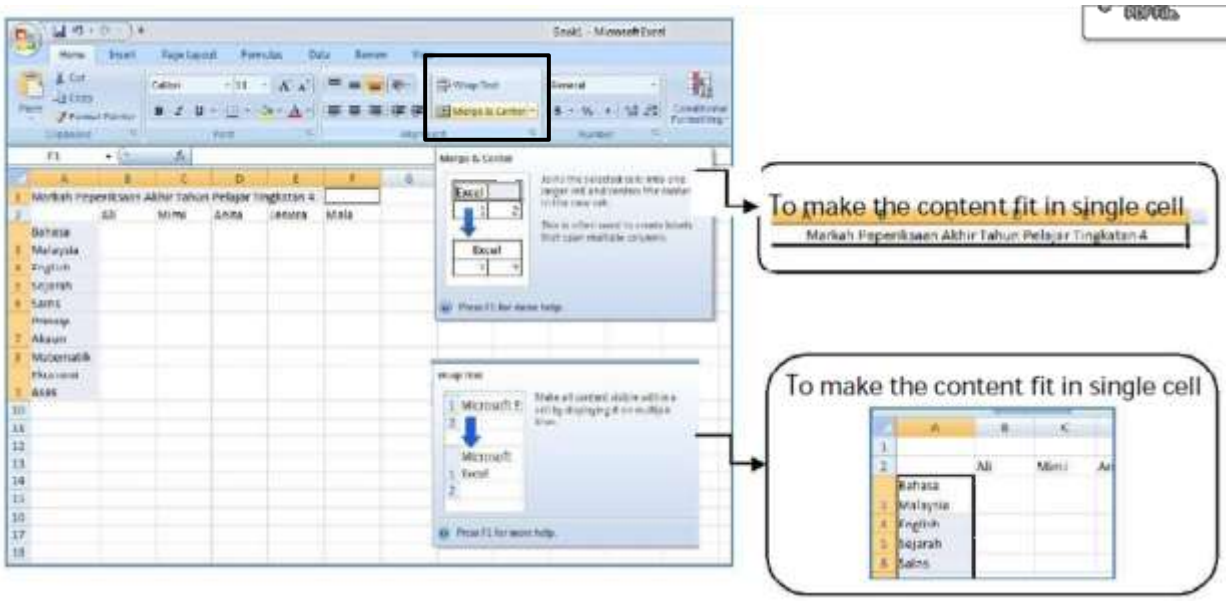
CHAPTER 2

2.0 BASIC FORMATTING

This topic will discuss on how to setup the basic format of the data in the worksheet.

2.1 MERGE AND WRAP

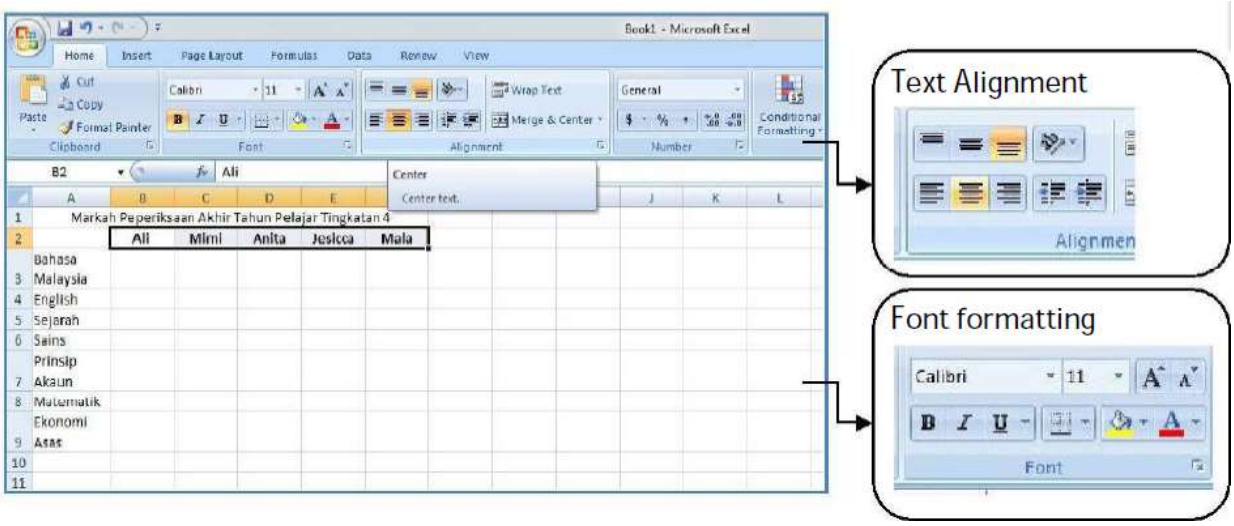
1. Click to select the cells and click on merge icon in order to merge the cell into one. So the selected cells or rows will be merge into single merged cell.
2. Click to select the cells and click on wrap text in order to make sure the content fit into single cell.



2.2 TEXT FORMATTING

Default setting when key in data into cell will be aligns bottom and left. The data can be aligning for how you want the data appear in your document.

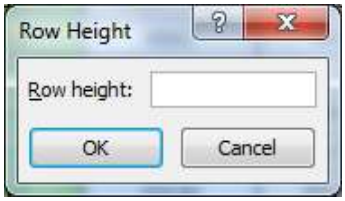
1. Click and select cell or highlight the rows and column and select **Alignment** to align text horizontally top / middle / bottom
2. Besides the text also can be align in vertically left, center, right or justify based on the document requirement.



2.3 SETTING UP ROW AND COLUMN

Set up the row height and column width

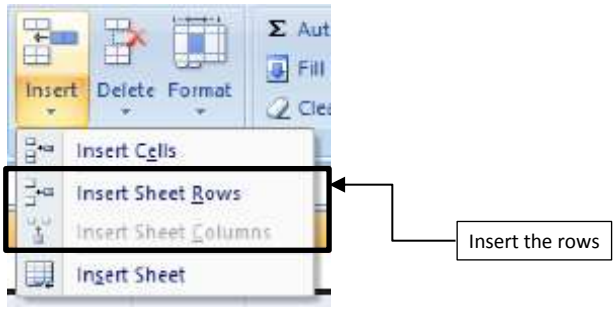
1. Highlight the selected row and right click on row panel, **Row Height** windows will pop-up and you are required to enter the row size

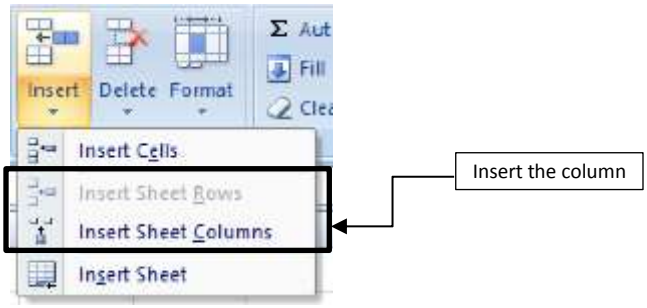


2. Hightlight the selected column and right click on column panel, Column Width windows will pop-up and enter the column size as required.

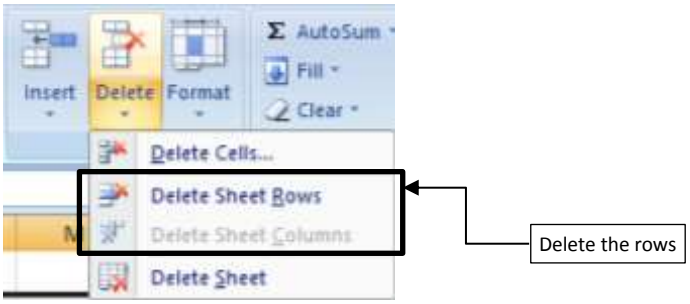
Insert and Delete row / column

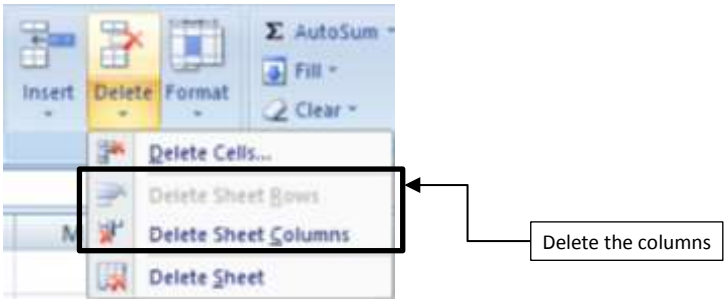
1. Highlight the selected row / column and right click or click Insert Sheet Rows / Insert Sheet Columns in order to insert sheet row / column





2. Highlight the selected row / column and right click or click Delete Sheet Rows / Delete Sheet Columns in order to delete sheet row / column

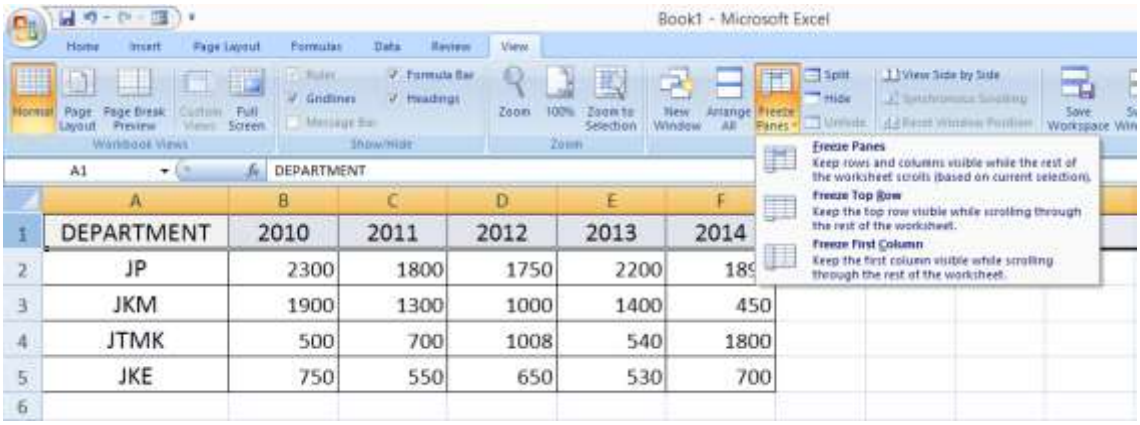




2.4 ROW AND COLUMN LOCKING

Lock the row and column in order to keep rows and column visible while the rest of worksheet can be scrolls

1. Highlight and select row or column to be freeze
2. Go to VIEW and select **Freeze Panes**
3. **Freeze Top Row** and **Freeze First Column** used to freeze the top row and the most left column in worksheet



	A	B	C	D	E	F
1	DEPARTMENT	2010	2011	2012	2013	2014
2	JP	2300	1800	1750	2200	189
3	JKM	1900	1300	1000	1400	450
4	JTMK	500	700	1008	540	1800
5	JKE	750	550	650	530	700
6						

2.5 FIND AND REPLACE

Replacing the data in worksheet using find and replace functions by typing the certain data to be search and click button search to search and replace

1. Highlight the data column/ row to be replace
2. Click Ctrl + F or **Home** > **Editing** > **Find & Select**.

Figure 2.10 Find & Select function

3. Find and Replace windows pop-up and enter Find value and Replace value
4. Click Find All to show the list of data and click Replace All

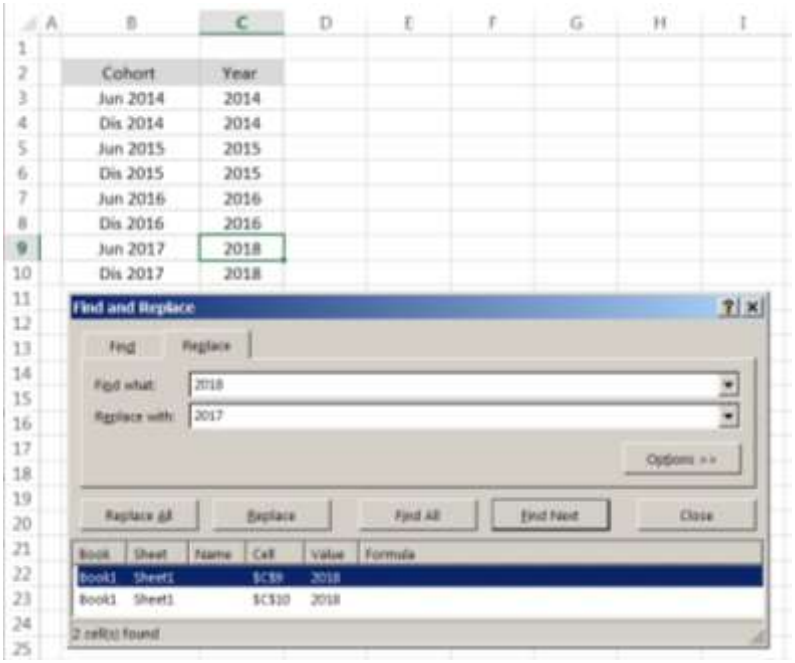


Figure 2.11 Find and Replace windows

5. New pop-ups windows appear to inform user the data has been replaced

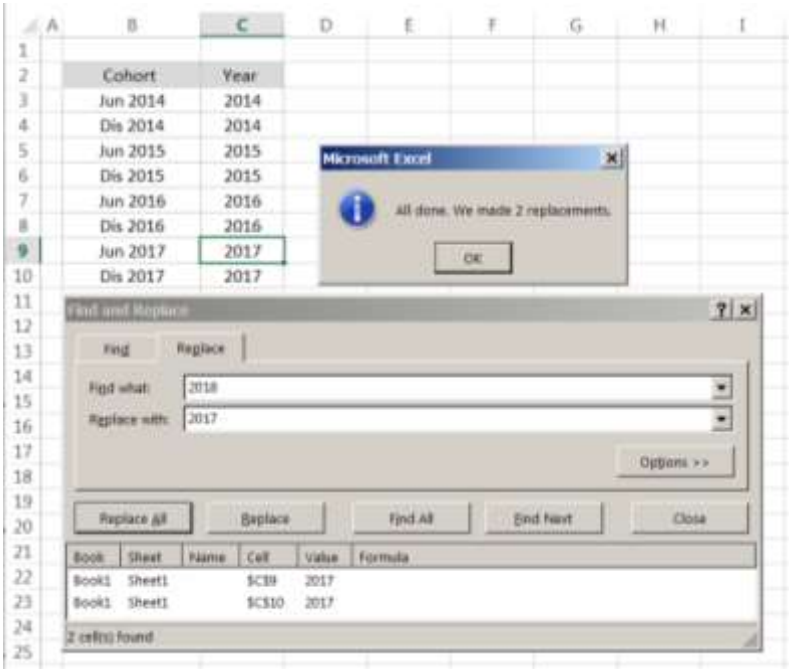


Figure 2.12 Pop-up information windows for find and replace

6. The highlighted data only will be replaced

Find and Replace the data with an option (to change data with cell color)

1. Highlight the selected data in column or row to be replace
2. Ctrl + F > Enter Find value and Replace value in Find and replace windows > Click on Option button

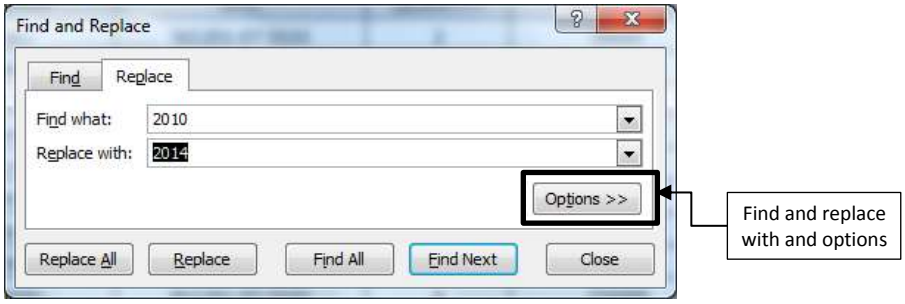


Figure 2.13 Find and Replace windows with an options

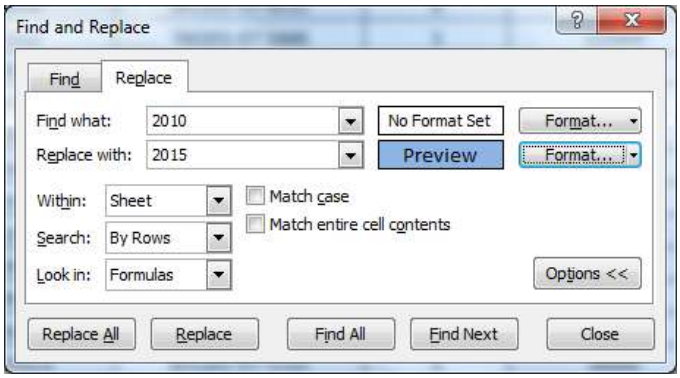


Figure 2.14 Replace stabs to change with color

3. Format button > select Fill colour > click OK

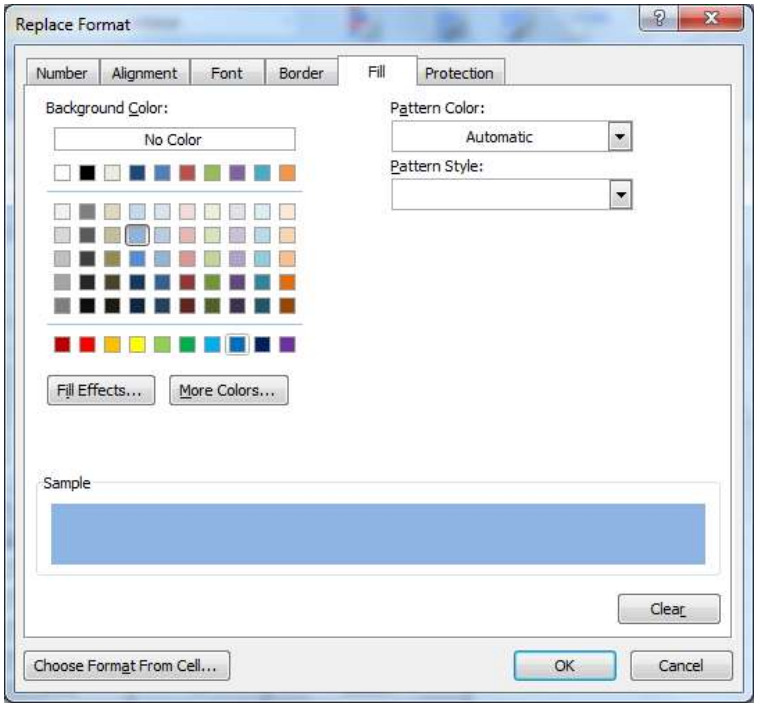


Figure 2.15 Select color from color palette

4. The selected data will change the values and colour

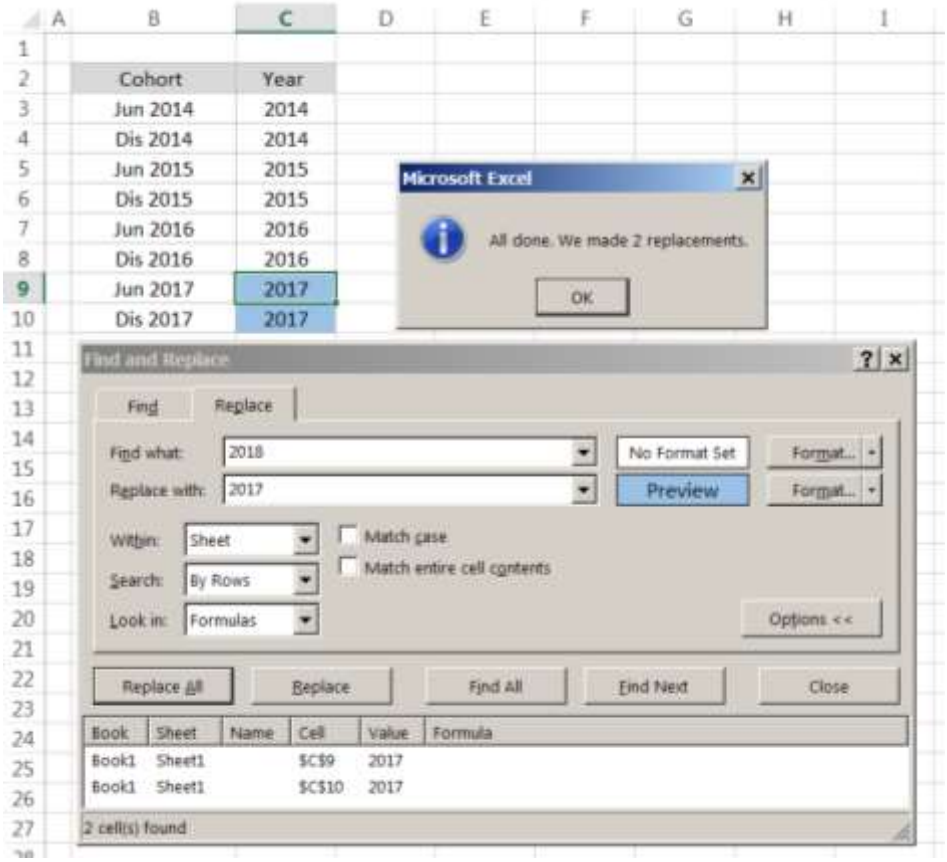


Figure 2.16 Pop-up information windows for find and replace the data with cell color

CHAPTER 3

3.0 SORT AND FILTER

3.1 SORT

Sort the data by ascending and decending the data based on document requirement

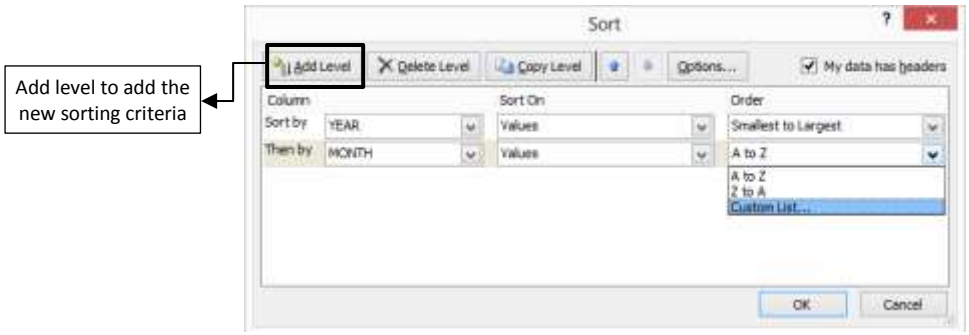
1. Highlight the selected data > select **Sort & Filter** icon
    a. Sort A to Z – sort data ascendingly
    b. Sort Z to A – sort data decendingly

Custom Sort to sort data ordered by colour

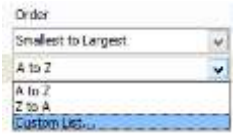
1. Highlight the selected data > select **Sort & Filter** icon > **Custom Sort**
2. In **Sort** windows > select customize the selection data and colour

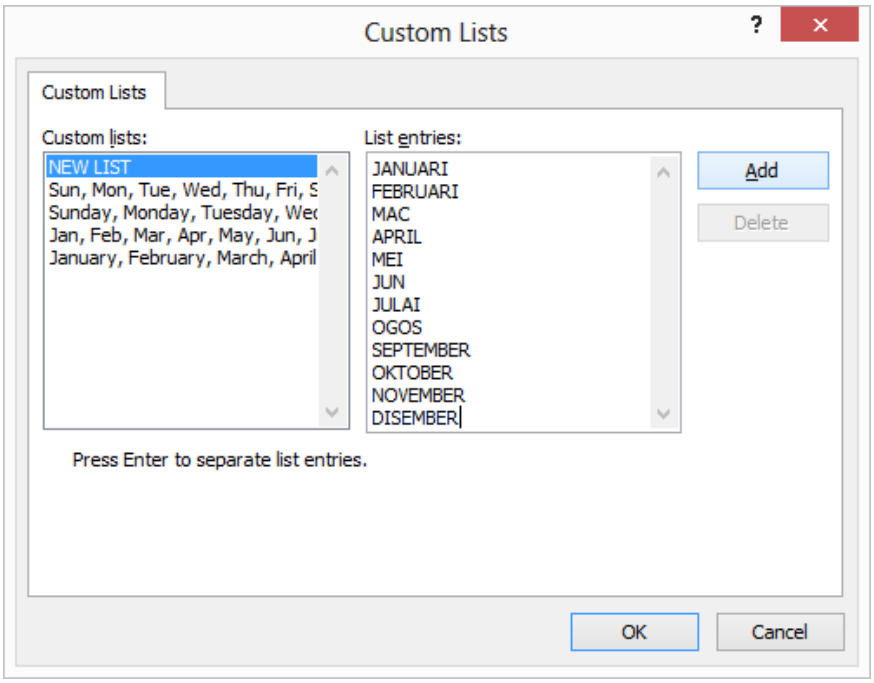
Custom Sort to sort by more than one criteria (eg: year and month)

1. Highlight data > select **Sort & Filter** icon > **Custom Sort**
2. In **Sort** window > select 1 data > Click Add Level to add 2nd data to be sorted



3. Custom Lists window and select the existing list or create new List entries on order to cater the table data > click Add to add the new list > OK

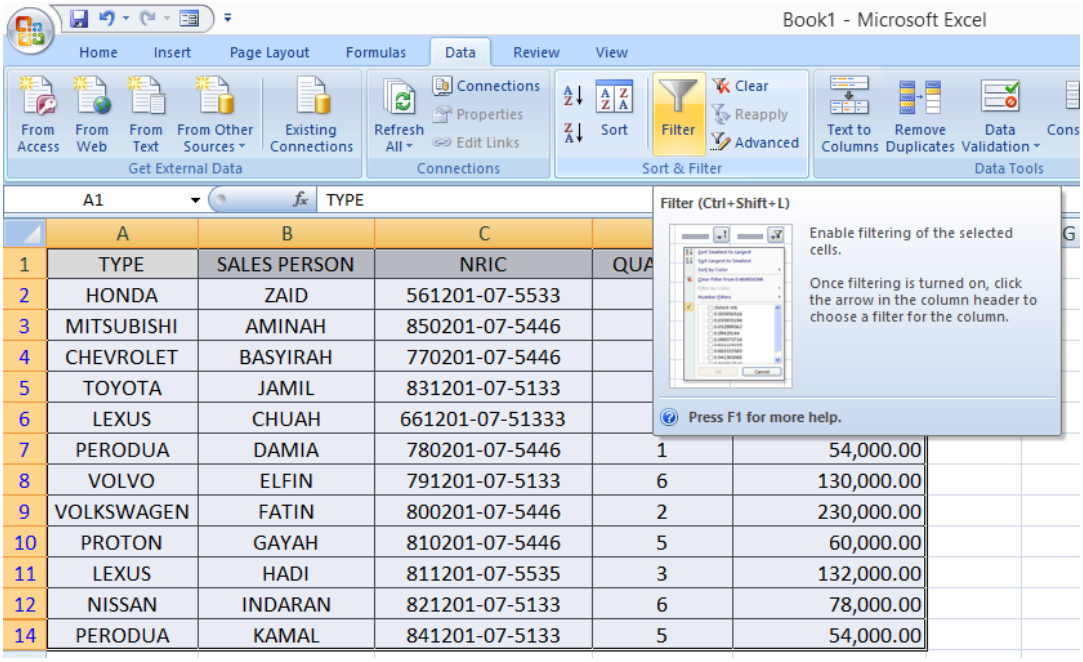




3.2 DATA FILTER

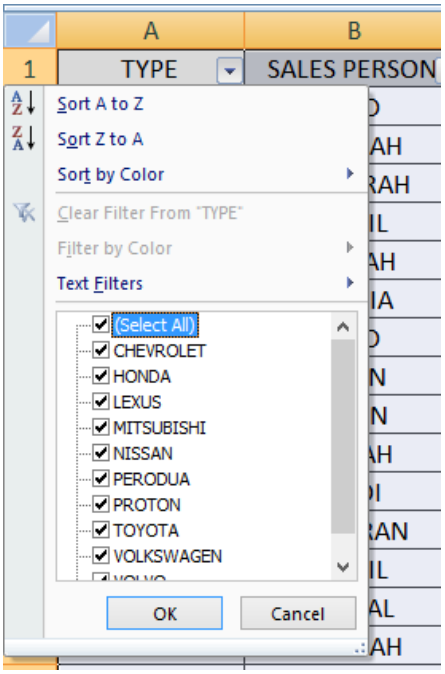
Data Filter will filter the range of data and the drop down arrow in header used to select data

1. Highlight the selected data > go to **Data** > and select **Filter**

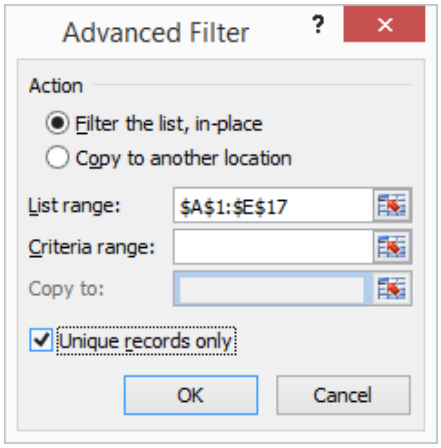


	A	B	C		
1	TYPE	SALES PERSON	NRIC	QUA	
2	HONDA	ZAID	561201-07-5533		
3	MITSUBISHI	AMINAH	850201-07-5446		
4	CHEVROLET	BASYIRAH	770201-07-5446		
5	TOYOTA	JAMIL	831201-07-5133		
6	LEXUS	CHUAH	661201-07-51333		
7	PERODUA	DAMIA	780201-07-5446	1	54,000.00
8	VOLVO	ELFIN	791201-07-5133	6	130,000.00
9	VOLKSWAGEN	FATIN	800201-07-5446	2	230,000.00
10	PROTON	GAYAH	810201-07-5446	5	60,000.00
11	LEXUS	HADI	811201-07-5535	3	132,000.00
12	NISSAN	INDARAN	821201-07-5133	6	78,000.00
14	PERODUA	KAMAL	841201-07-5133	5	54,000.00

2. Choose data to be appear in table



3. Advance filter will appear the selected data



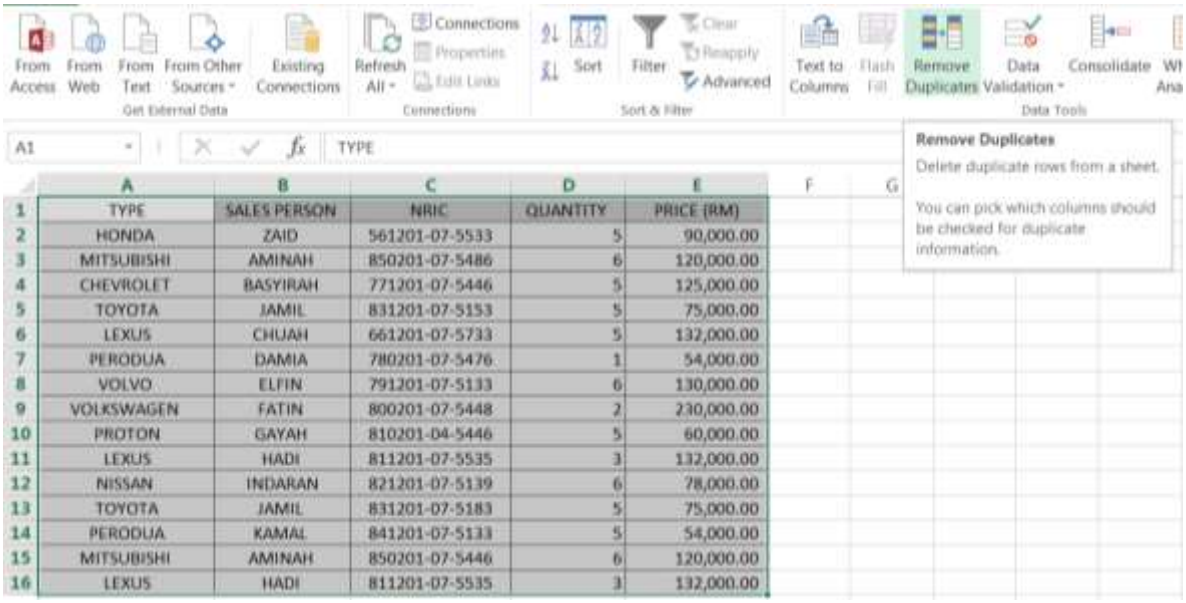
CHAPTER 4

4.0 MANAGING DATA

4.1 REMOVE DUPLICATE

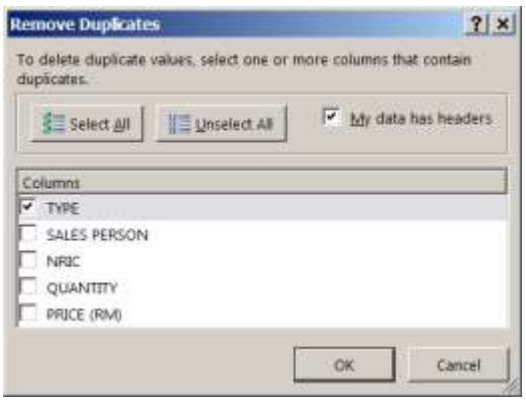
Delete the duplicate data by removing the row in order to avoid redundancy

1. Highlight the selected cells > go to **Data** > select **Remove Duplicates**



	A	B	C	D	E
1	TYPE	SALES PERSON	NRIC	QUANTITY	PRICE (RM)
2	HONDA	ZAID	561201-07-5533	5	90,000.00
3	MITSUBISHI	AMINAH	850201-07-5486	6	120,000.00
4	CHEVROLET	BASYIRAH	771201-07-5446	5	125,000.00
5	TOYOTA	JAMIL	831201-07-5153	5	75,000.00
6	LEXUS	CHUAH	661201-07-5733	5	132,000.00
7	PERODUA	DAMIA	780201-07-5476	1	54,000.00
8	VOLVO	ELFIN	791201-07-5133	6	130,000.00
9	VOLKSWAGEN	FATIN	800201-07-5448	2	230,000.00
10	PROTON	GAYAH	810201-04-5446	5	60,000.00
11	LEXUS	HADI	811201-07-5535	3	132,000.00
12	NISSAN	INDARAN	821201-07-5139	6	78,000.00
13	TOYOTA	JAMIL	831201-07-5183	5	75,000.00
14	PERODUA	KAMAL	841201-07-5133	5	54,000.00
15	MITSUBISHI	AMINAH	850201-07-5446	6	120,000.00
16	LEXUS	HADI	811201-07-5535	3	132,000.00

2. In Remove Duplicates windows, select column to validate the duplicates data



3. Popup windows to acknowledge user the number of data been deleted

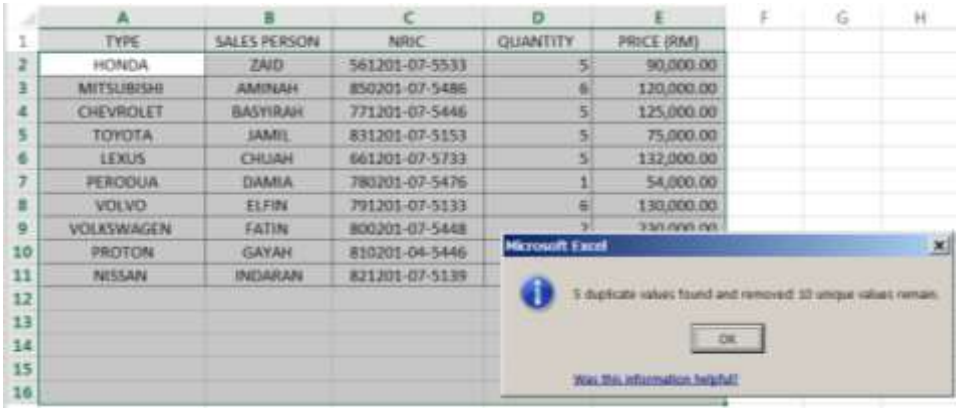
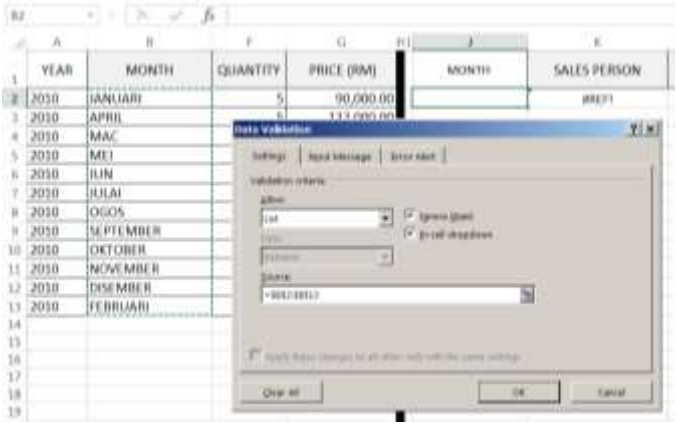


Figure 4.3 Confirmation windows

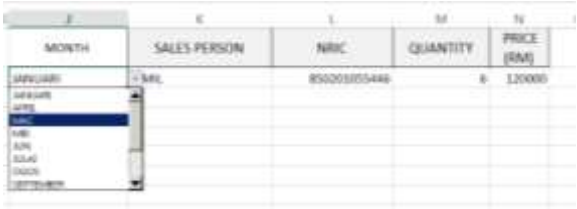
4.2 DATA VALIDATION

1. Setting data list in data validation
    a. Go to Data > Data Validation > List

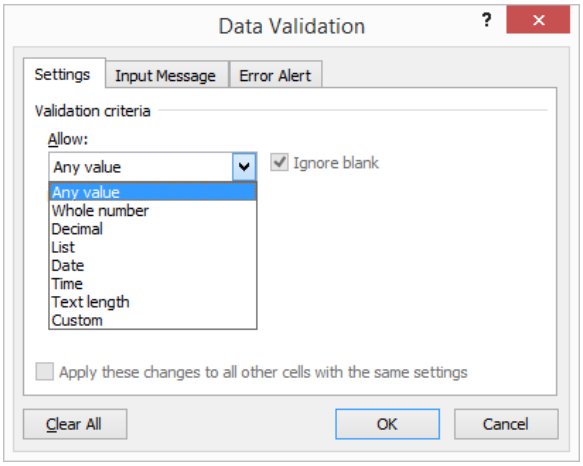
    b. In Data Validation pop-up window, select List and select the Source to be in List and click OK



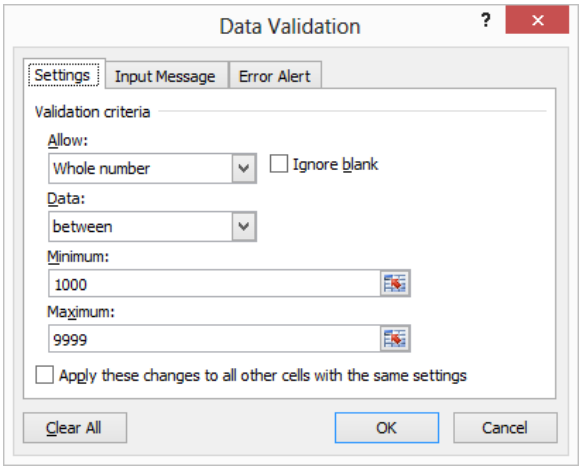
    c. List will be appear as in selected data



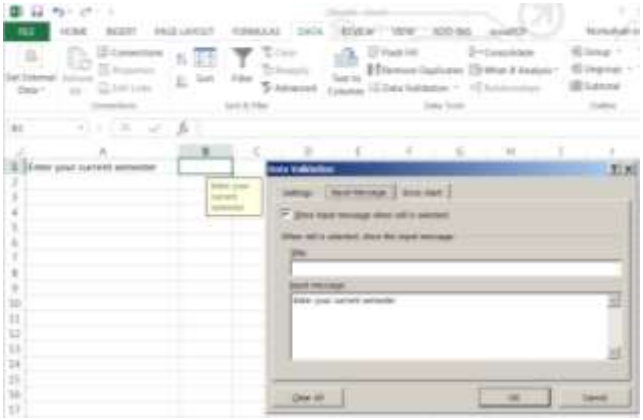
2. Setting up range data that can validate the user entered data
    a. Highlight selected column / row > go to **Data** > and select **Validation Data** windows



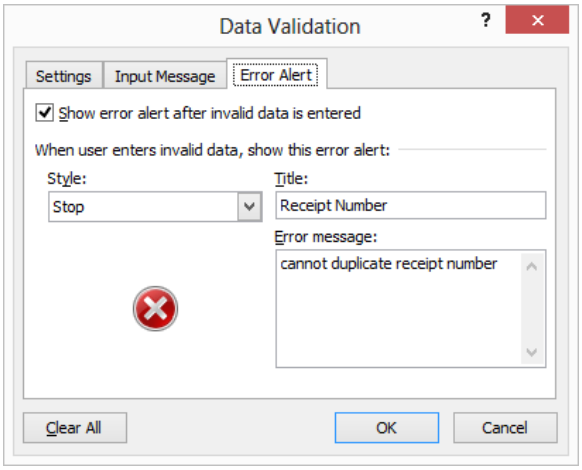
    b. Set up the minimum and maximum number



    c. In **Input Message** tab, the message can be input to inform user the information should be entered in the cells.



d. In Error Alert tab the message for error will be set up in this tab to warning the user who enter the data wrongy



e. The pop up window that appear when data entered wrongly. There are three types of Error Alert

i. Stop

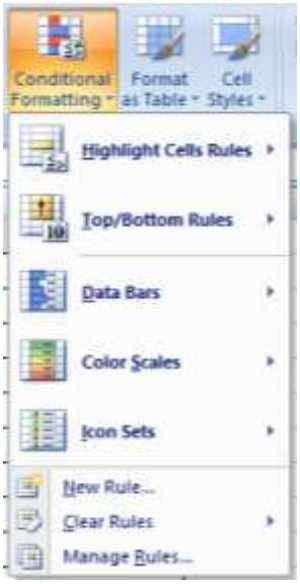
ii. Warning

iii. Information

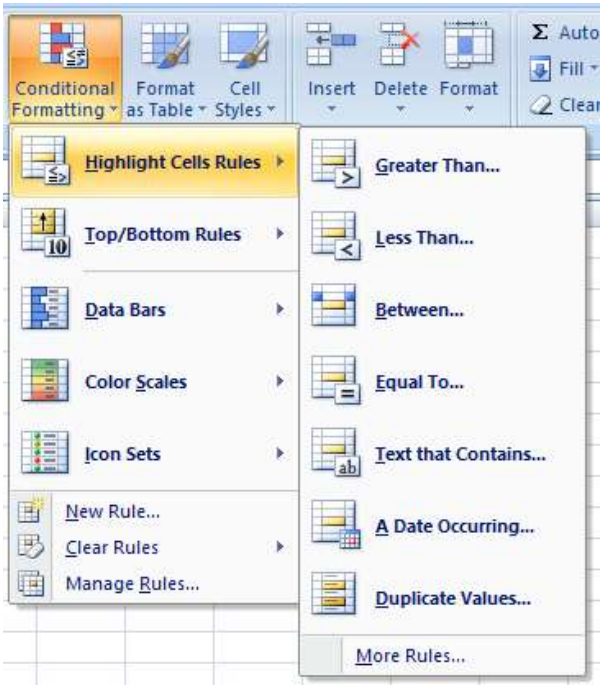
CHAPTER 5

5.0 CONDITIONAL FORMATTING

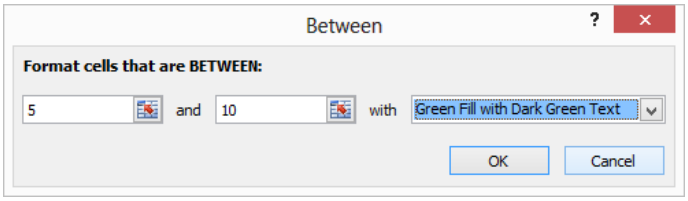
Conditional Formatting is to highlight cell with color in order to differentiate the result



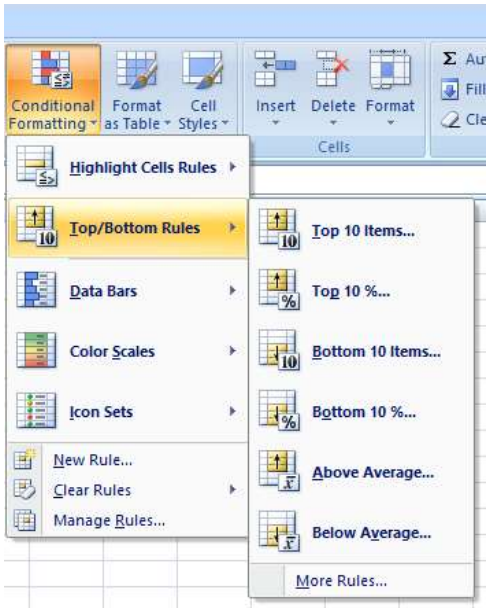
1. Highlight cell rules with value *between*
    a. To Highlight Cells Rules with certain options



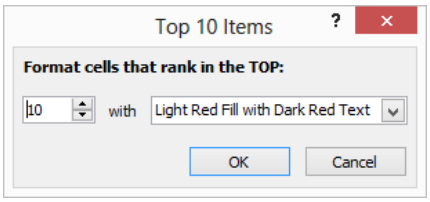
b. Fill the cells with certain color setting (between option)



2. Top/ Bottom Rules with 10 top value
   a. Top/ Bottom Rules with an options

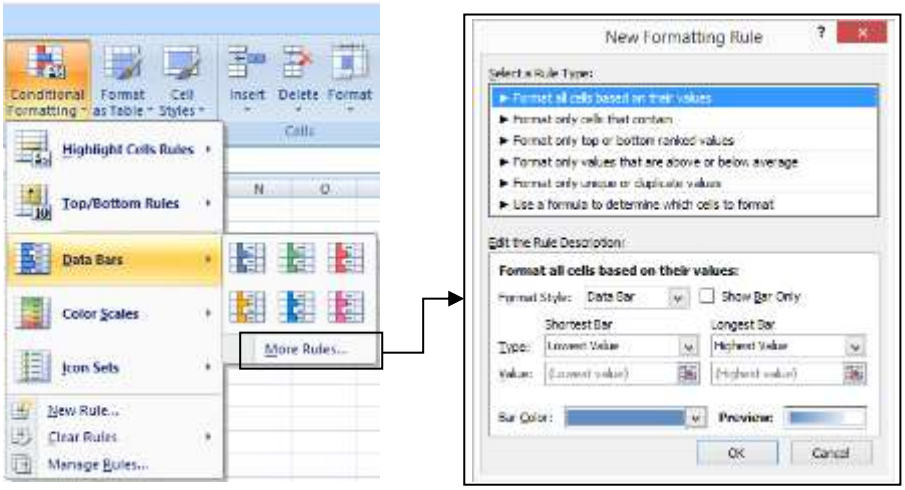


b. Fill the cells with certain color setting



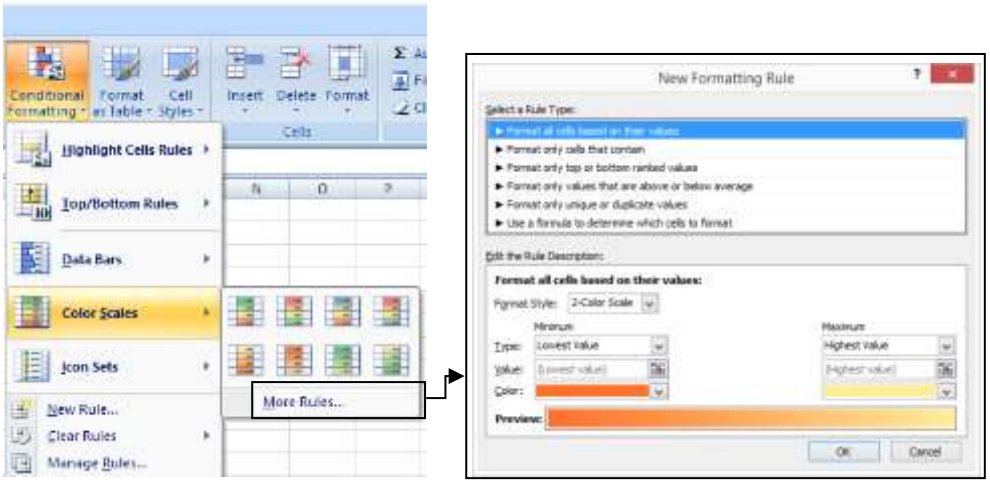
3. Data Bars / Color Scale / Icon Set
    a. Data bars

    Color Bars will be set up based on the value in selected rows or columns



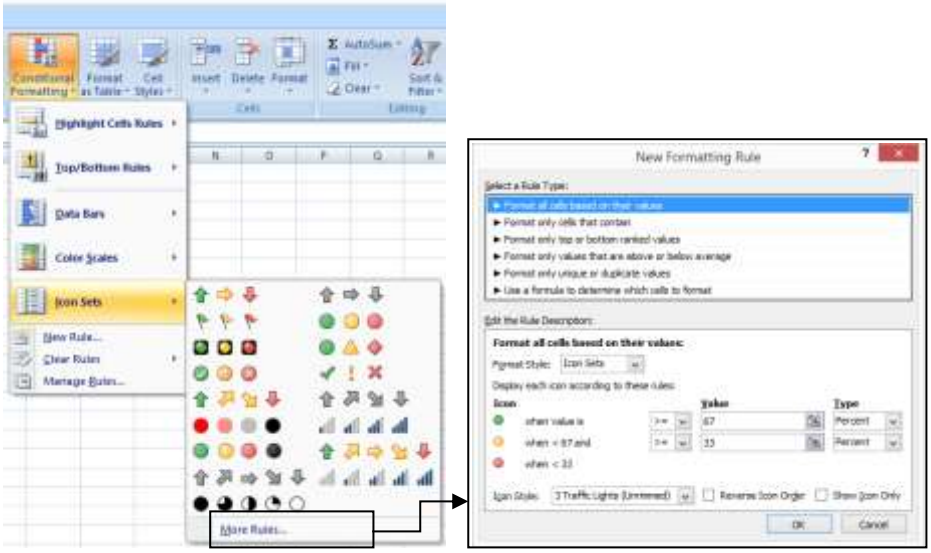
    b. Color scales

    Color scales can be set up besides the color shades will be based on minimum and maximum value in cells



c. Icon Sets

Icon sets is similar as color scales whereby the icons can be set up based on the cells value



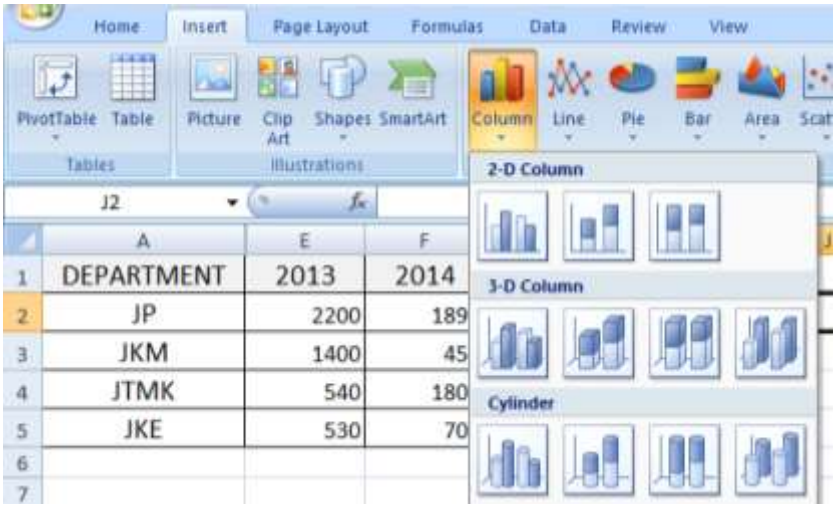
CHAPTER 6

6.0 GRAPH/ CHART

Here is a step by step guides for creating graphs/charts:

1. Adding graph / chart.
   a. Key in the data below. Click on any cell within the data containing the information that you wish to display as a chart.

   b. Click **Insert** > Click the **Column** icon on the Standard toolbar. This will display the 2-D Column as show below. You can select any Column that you wish to create.



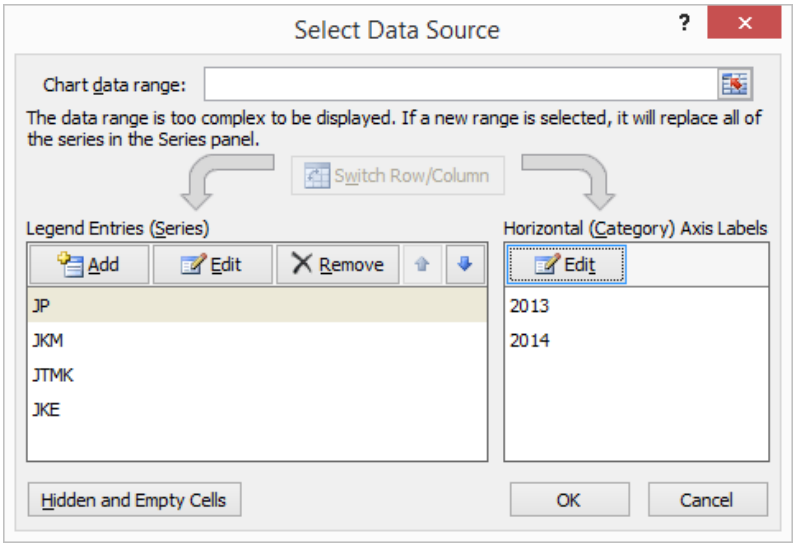
Select/ Reselect Data Source of Chart.

Once the chart is created, you can still change the chart ranges by tweaking the values manually. If you want to re-select your chart data source you can do with a single click option.

The *Select Data* option is included in the Design chart tab, which can be used after selecting the chart area. Once the tab appears on the ribbon, just click Select Data option from Data group to display the Data Source dialog to modify the data range by defining the columns and rows range.

You can select the data source using the mouse, or manually enter the fields you want to enter. In addition, you can also see the hidden and empty cells.

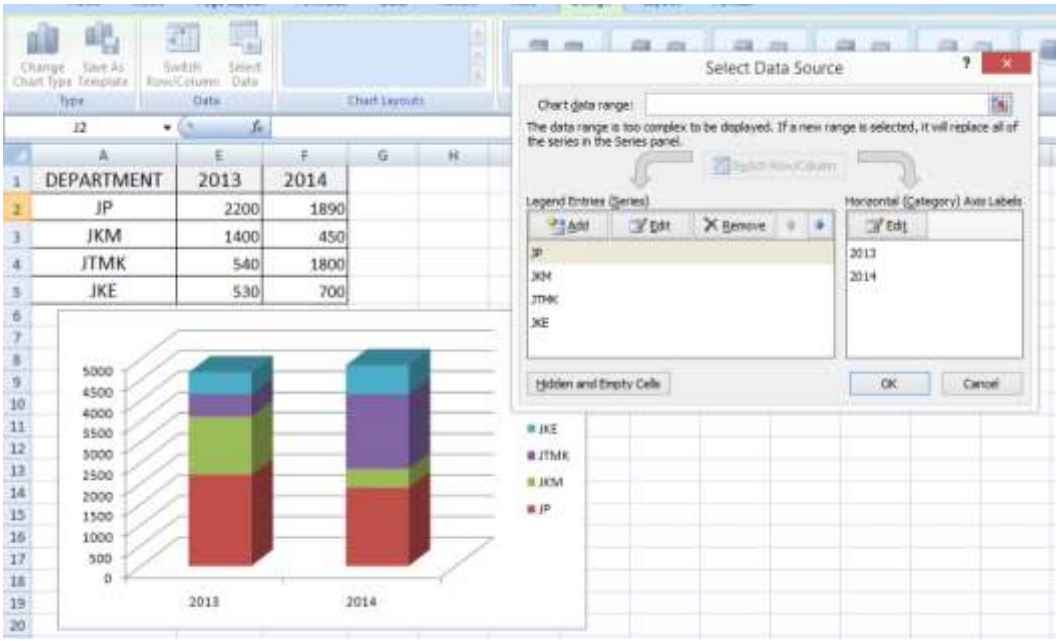
In order to select the chart data source, select the chart and heading > **Design** tab and > click **Select Data** > Insert data in **Select Data Sources** window.



Select Data Source dialog will appear. Here, you can change the data source, edit horizontal and vertical axis.

Click Hidden and Empty Cells button opens a dialog Hidden and Empty Cells Settings, allowing you to enable/disable show data in rows and columns hidden options, and show empty cells in the source data as gaps or zeroes. Once finished, click OK, you will see a changing data source is displayed in the chart.

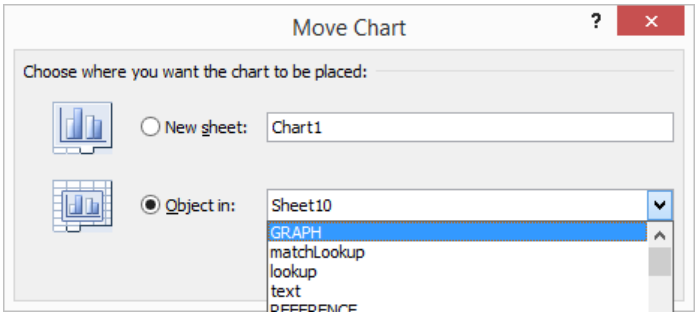
2. The chart develop based on the data insert into the Data Sources window.



3. Determine the location of the chart .
You can choose to place the chart on an existing worksheet as an object, or you can place it on a new worksheet. Two options for you to choose:

New sheet: It will place the chart in the new worksheet.
Object in: It will place the chart in the existing worksheet or graph.

Right click chart > **Move Chart** > Select the new location to place the chart.

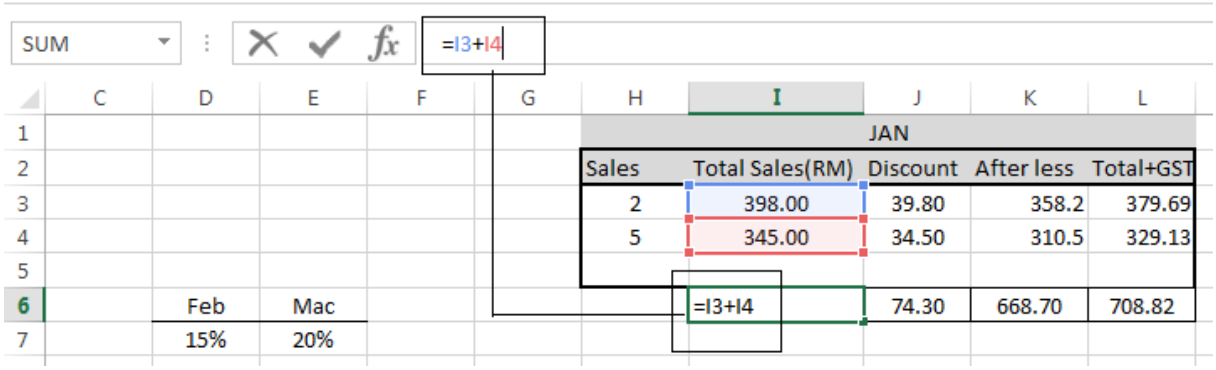


CHAPTER 7

7.0 CELL REFERENCE

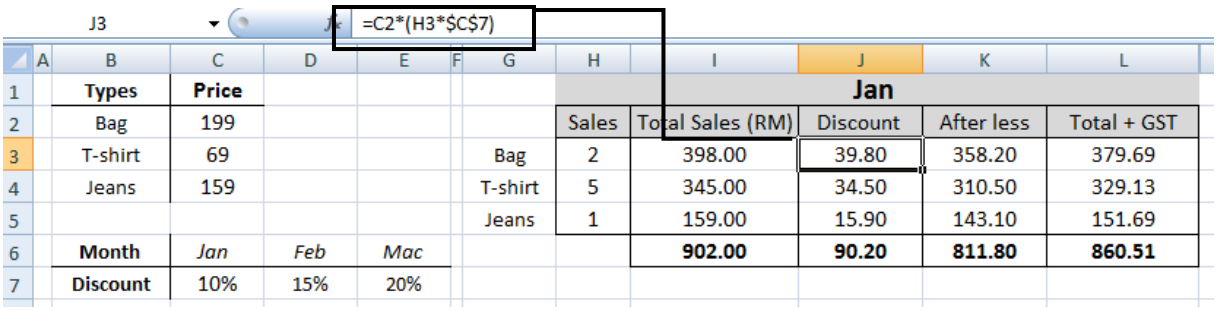
7.1 RELATIVE REFERENCE

1. By default, Excel using relative reference. Look at the formula in cell I6 below. Cell I6 references (points to) cell I3 and cell I4. Both references are relative.
2. When copied across multiple cells, they change based on the relative position of rows and columns. For example, if you copy the formula **=A1+B1** from row 1 to row 2, the formula will be **=A2+B2.**
3. Relative references are especially convenient when you have to **repeat** the same calculation on multiple rows or columns.



7.2 ABSOLUTE REFERENCE

1. Do not change when copied or filled. You can use an absolute reference to keep a row and/or column **constant**.
2. An absolute reference is designated in a formula by the adding a **dollar sign ($) in front of the column letter and row number of cell** .It can precede the column reference, the row reference, or both.
3. To create an absolute reference to cell J3, place a $ symbol in front of the column letter and row number of cell C7 (C7).
4. Or you can use F4 to create absolute reference.



CHAPTER 8

8.0 BASIC FORMULA & LOGICAL FUNCTION

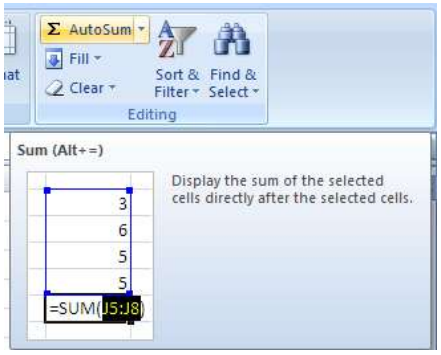
8.1 BASIC FORMULA

1. SUM

   To sum a range of cells, use the SUM function.

   a. Highlight cells data with extra one blank cells > click Autosum icon and get the result

	F	G
	QUANTITY	PRICE (RM)
	2	54000
	5	68000
	2	60000
	6	75000
	3	125000
	6	180000
	8	225000
	5	60000
	4	225000
	5	66000
	7	132000
	5	60000

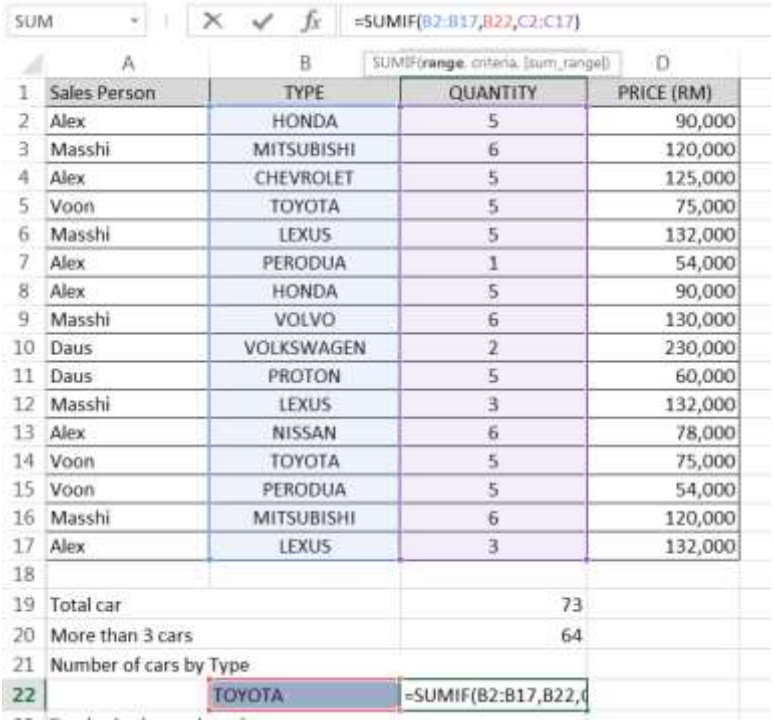


   b. Use SUM function

J1 =SUM(F14:F25)

	C	F	J
1	TYPE	QUANTI	58
14	PERODUA	2	
15	PEUGEOT	5	
16	PROTON	2	
17	TOYOTA	6	
18	CHEVROLET	3	
19	MAZDA	6	
20	BMW	8	
21	PROTON	5	
22	BMW	4	
23	HYUNDAI	5	
24	LEXUS	7	
25	PROTON	5	

c. SUMIF function



	A	B	C	D
1	Sales Person	TYPE	QUANTITY	PRICE (RM)
2	Alex	HONDA	5	90,000
3	Masshi	MITSUBISHI	6	120,000
4	Alex	CHEVROLET	5	125,000
5	Voon	TOYOTA	5	75,000
6	Masshi	LEXUS	5	132,000
7	Alex	PERODUA	1	54,000
8	Alex	HONDA	5	90,000
9	Masshi	VOLVO	6	130,000
10	Daus	VOLKSWAGEN	2	230,000
11	Daus	PROTON	5	60,000
12	Masshi	LEXUS	3	132,000
13	Alex	NISSAN	6	78,000
14	Voon	TOYOTA	5	75,000
15	Voon	PERODUA	5	54,000
16	Masshi	MITSUBISHI	6	120,000
17	Alex	LEXUS	3	132,000
18				
19	Total car		73	
20	More than 3 cars		64	
21	Number of cars by Type			
22		TOYOTA	=SUMIF(B2:B17,B22,(	

d. SUMIFS function

	A	B	C	D
1	Sales Person	TYPE	QUANTITY	PRICE (RM)
2	Alex	HONDA	5	90,000
3	Masshi	MITSUBISHI	6	120,000
4	Alex	CHEVROLET	5	125,000
5	Voon	TOYOTA	5	75,000
6	Masshi	LEXUS	5	132,000
7	Alex	PERODUA	1	54,000
8	Alex	HONDA	5	90,000
9	Masshi	VOLVO	6	130,000
10	Daus	VOLKSWAGEN	2	230,000
11	Daus	PROTON	5	60,000
12	Masshi	LEXUS	3	132,000
13	Alex	NISSAN	6	78,000
14	Voon	TOYOTA	5	75,000
15	Voon	PERODUA	5	54,000
16	Masshi	MITSUBISHI	6	120,000
17	Alex	LEXUS	3	132,000
18				
23	Total sales by car by salesman			
24		VOLKSWAGEN		
25		Daus	=SUMIFS(D2:D17,B2:	

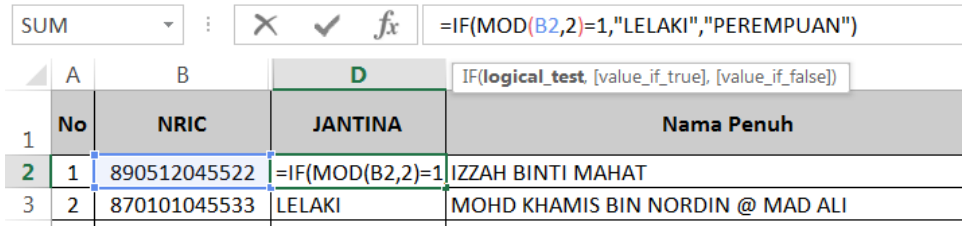
e. SUMPRODUCT function

	A	B	C	D
1	Sales Person	TYPE	QUANTITY	PRICE (RM)
2	Alex	HONDA	5	90,000
3	Masshi	MITSUBISHI	6	120,000
4	Alex	CHEVROLET	5	125,000
5	Voon	TOYOTA	5	75,000
6	Masshi	LEXUS	5	132,000
7	Alex	PERODUA	1	54,000
8	Alex	HONDA	5	90,000
9	Masshi	VOLVO	6	130,000
10	Daus	VOLKSWAGEN	2	230,000
11	Daus	PROTON	5	60,000
12	Masshi	LEXUS	3	132,000
13	Alex	NISSAN	6	78,000
14	Voon	TOYOTA	5	75,000
15	Voon	PERODUA	5	54,000
16	Masshi	MITSUBISHI	6	120,000
17	Alex	LEXUS	3	132,000
18				
19	Total car		73	
20	Total Sales		=SUMPRODUCT(C2:C	

2. MOD

Function returns the remainder of two numbers after division

a. Highlight the numbers and identify number to devide

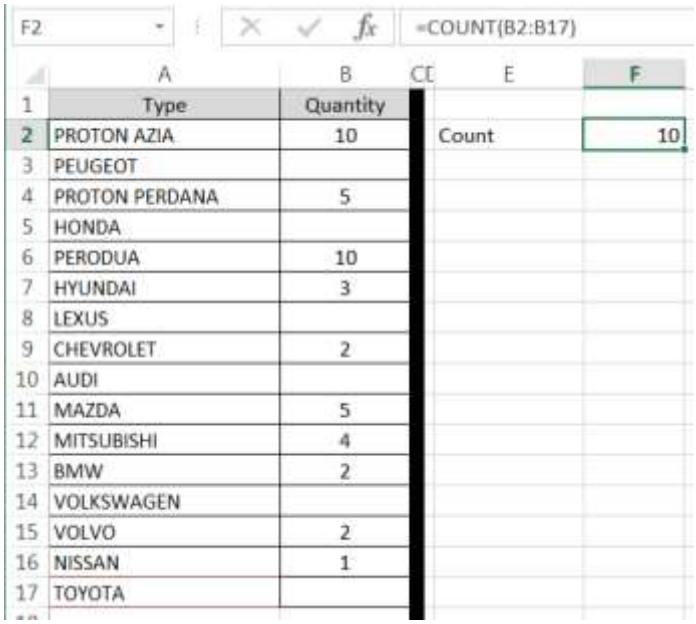


	A	B	D	
1	No	NRIC	JANTINA	Nama Penuh
2	1	890512045522	=IF(MOD(B2,2)=1	IZZAH BINTI MAHAT
3	2	870101045533	LELAKI	MOHD KHAMIS BIN NORDIN @ MAD ALI

3. COUNT

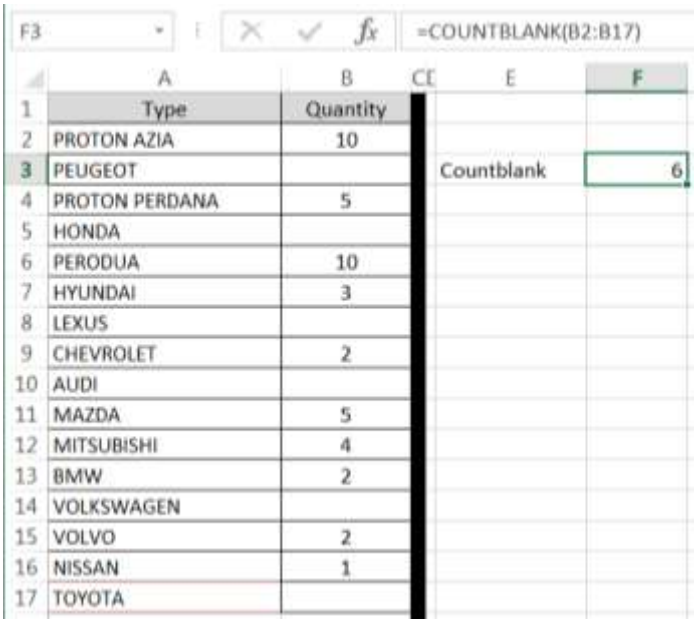
   To count cells based on one criteria

   a. COUNT - count number cell that contain value



	A	B	C	E	F
1	Type	Quantity			
2	PROTON AZIA	10		Count	10
3	PEUGEOT				
4	PROTON PERDANA	5			
5	HONDA				
6	PERODUA	10			
7	HYUNDAI	3			
8	LEXUS				
9	CHEVROLET	2			
10	AUDI				
11	MAZDA	5			
12	MITSUBISHI	4			
13	BMW	2			
14	VOLKSWAGEN				
15	VOLVO	2			
16	NISSAN	1			
17	TOYOTA				

   b. COUNTBLANK - count cell without value



	A	B	C	E	F
1	Type	Quantity			
2	PROTON AZIA	10			
3	PEUGEOT			Countblank	6
4	PROTON PERDANA	5			
5	HONDA				
6	PERODUA	10			
7	HYUNDAI	3			
8	LEXUS				
9	CHEVROLET	2			
10	AUDI				
11	MAZDA	5			
12	MITSUBISHI	4			
13	BMW	2			
14	VOLKSWAGEN				
15	VOLVO	2			
16	NISSAN	1			
17	TOYOTA				

   c. COUNT the number of occurrence text in range

      * wildcard

      ? number character count

F4 =COUNTIF(A2:A17,"PROTON*

	A	B	E	F
1	Type	Quantity		
2	PROTON AZIA	10		
3	PEUGEOT			
4	PROTON PERDANA	5	Countif	2
5	HONDA			
6	PERODUA	10		
7	HYUNDAI	3		
8	LEXUS			
9	CHEVROLET	2		
10	AUDI			
11	MAZDA	5		
12	MITSUBISHI	4		
13	BMW	2		
14	VOLKSWAGEN			
15	VOLVO	2		
16	NISSAN	1		
17	TOYOTA			

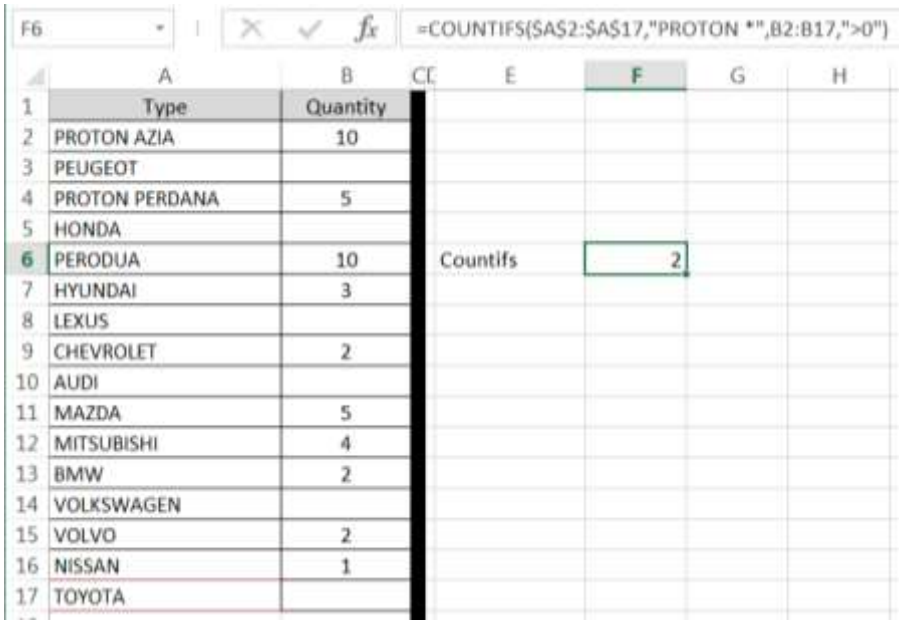
d. COUNT logical value

F5 =COUNTIF(A2:A17,"PROTON *")+COUNTIF(A2:A17,"PERODUA")

	A	B	E	F	G	H	I
1	Type	Quantity					
2	PROTON AZIA	10					
3	PEUGEOT						
4	PROTON PERDANA	5					
5	HONDA		Countif	3			
6	PERODUA	10					
7	HYUNDAI	3					
8	LEXUS						
9	CHEVROLET	2					
10	AUDI						
11	MAZDA	5					
12	MITSUBISHI	4					
13	BMW	2					
14	VOLKSWAGEN						
15	VOLVO	2					
16	NISSAN	1					
17	TOYOTA						

Figure 8.7 Count Logical Value

4. COUNTIFS – To count cells based on multiple criteria



	A	B	E	F	G	H
1	Type	Quantity				
2	PROTON AZIA	10				
3	PEUGEOT					
4	PROTON PERDANA	5				
5	HONDA					
6	PERODUA	10	Countifs	2		
7	HYUNDAI	3				
8	LEXUS					
9	CHEVROLET	2				
10	AUDI					
11	MAZDA	5				
12	MITSUBISHI	4				
13	BMW	2				
14	VOLKSWAGEN					
15	VOLVO	2				
16	NISSAN	1				
17	TOYOTA					

8.2 LOGICAL FUNCTION

The IF function checks whether a condition is satisfied, and returns one value if TRUE and another value if FALSE.

1. If... if and.. if or

	A	B	D	E
1	SUBJECT	GRADE	if	
2	history	80	PASS	=IF(B2 > 50,"PASS","FAIL")
3	science	30		
4			if and	
5			FAIL	=IF(AND(B2 > 50,B3>50),"PASS","FAIL")
6			t AND t = TRUE	
7			f AND f = FALSE	
8				
9			if or	
10			PASS	=IF(OR(B2 > 50,B3>50),"PASS","FAIL")
11			t OR f = TRUE	
12			f OR t = TRUE	
13			f OR f = FALSE	
14				

Figure 8.9 COUNTIF –count with multiple criteria

a. If function

Return result PASS if value more than 50

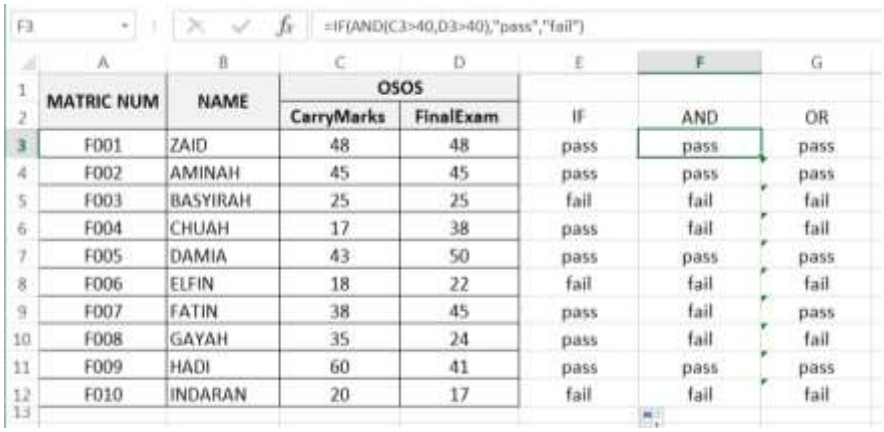
E3 =IF(SUM(C3,D3)>50,"pass","fail")

	A	B	C	D	E	F	G
1	MATRIC NUM	NAME	OSOS				
2			CarryMarks	FinalExam	IF	AND	OR
3	F001	ZAID	48	48	pass	pass	pass
4	F002	AMINAH	45	45	pass	pass	pass
5	F003	BASYIRAH	25	25	fail	fail	fail
6	F004	CHUAH	17	38	pass	fail	fail
7	F005	DAMIA	43	50	pass	pass	pass
8	F006	ELFIN	18	22	fail	fail	fail
9	F007	FATIN	38	45	pass	fail	pass
10	F008	GAYAH	35	24	pass	fail	fail
11	F009	HADI	60	41	pass	pass	pass
12	F010	INDARAN	20	17	fail	fail	fail
13							

=IF(SUM(C3,D3)>50,"pass","fail")

b. If and function

Return result PASS for both value TRUE and return result FAIL for both value FALSE

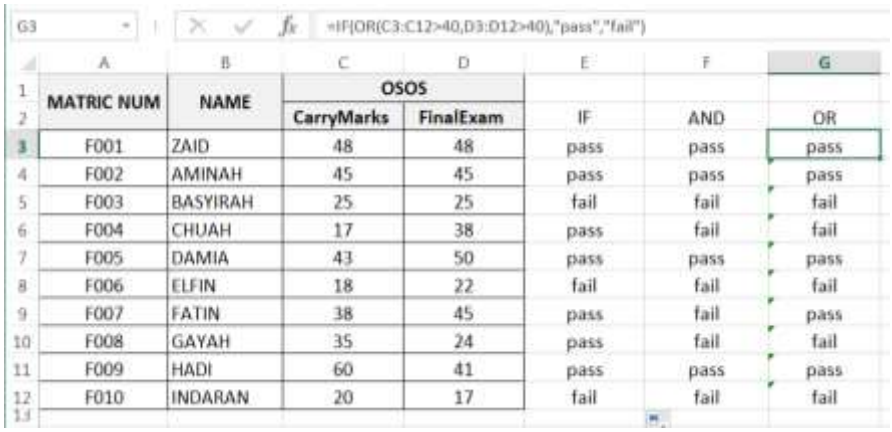


MATRIC NUM	NAME	OSOS		IF	AND	OR
		CarryMarks	FinalExam			
F001	ZAID	48	48	pass	pass	pass
F002	AMINAH	45	45	pass	pass	pass
F003	BASYIRAH	25	25	fail	fail	fail
F004	CHUAH	17	38	pass	fail	fail
F005	DAMIA	43	50	pass	pass	pass
F006	ELFIN	18	22	fail	fail	fail
F007	FATIN	38	45	pass	fail	pass
F008	GAYAH	35	24	pass	fail	fail
F009	HADI	60	41	pass	pass	pass
F010	INDARAN	20	17	fail	fail	fail

=IF(AND(C3>40,D3>40),"pass","fail")

c. If or function

Return result PASS if any of result are TRUE and return result FAIL if both value are FALSE



MATRIC NUM	NAME	OSOS		IF	AND	OR
		CarryMarks	FinalExam			
F001	ZAID	48	48	pass	pass	pass
F002	AMINAH	45	45	pass	pass	pass
F003	BASYIRAH	25	25	fail	fail	fail
F004	CHUAH	17	38	pass	fail	fail
F005	DAMIA	43	50	pass	pass	pass
F006	ELFIN	18	22	fail	fail	fail
F007	FATIN	38	45	pass	fail	pass
F008	GAYAH	35	24	pass	fail	fail
F009	HADI	60	41	pass	pass	pass
F010	INDARAN	20	17	fail	fail	fail

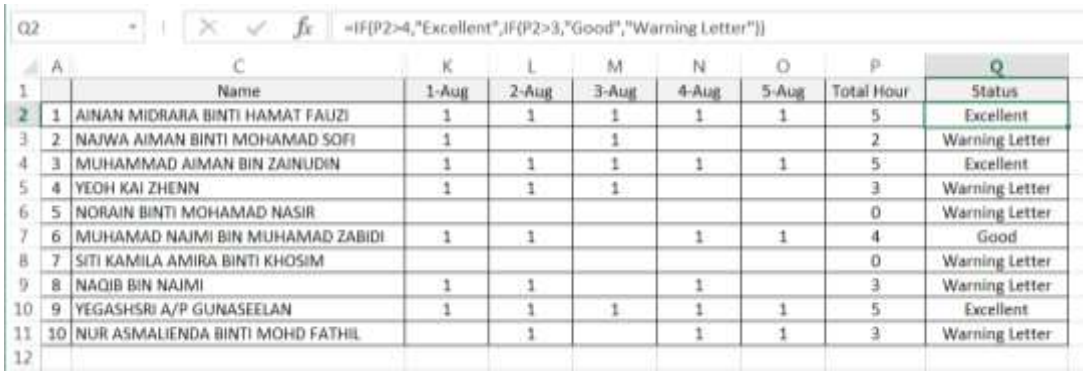
=IF(OR(C3:C12>40,D3:D12>40),"pass","fail")

d. if with mod

TYPE	SALES PERSON	NRIC	QUANTITY	PRICE (RM)	Jantina
AUDI	QUSYAIRI	841201015553	5	190000	=IF(MOD(E3,2)
AUDI	XIAN	700201075446	2	190000	Perempuan
BMW	HANIF	761201078511	2	225000	Lelaki
BMW	JAMAL	811201085533	4	225000	Lelaki
CHEVROLET	BASYIRAH	770201075446	5	125000	Perempuan
CHEVROLET	ELINA	760201085446	3	125000	Perempuan
CHEVROLET	WAN	691201015533	6	125000	Lelaki

=IF(MOD(E3,2)=1,"Lelaki","Perempuan")

2. Nested if function
    a. Using nested if to validate data in cells

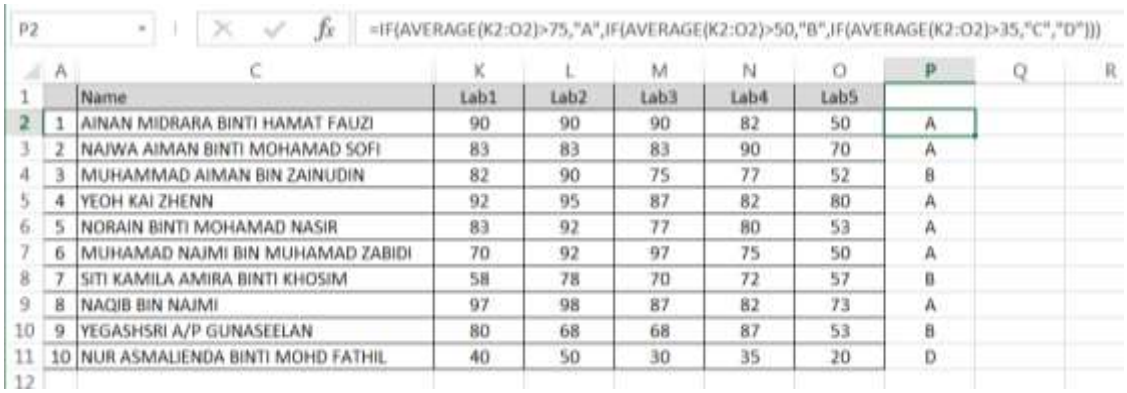


Q2 | =IF(P2>4,"Excellent",IF(P2>3,"Good","Warning Letter"))

	A	C	K	L	M	N	O	P	Q
1		Name	1-Aug	2-Aug	3-Aug	4-Aug	5-Aug	Total Hour	Status
2	1	AINAN MIDRARA BINTI HAMAT FAUZI	1	1	1	1	1	5	Excellent
3	2	NAJWA AIMAN BINTI MOHAMAD SOFI	1		1			2	Warning Letter
4	3	MUHAMMAD AIMAN BIN ZAINUDIN	1	1	1	1	1	5	Excellent
5	4	YEOH KAI ZHENN	1	1	1			3	Warning Letter
6	5	NORAIN BINTI MOHAMAD NASIR						0	Warning Letter
7	6	MUHAMAD NAJMI BIN MUHAMAD ZABIDI	1	1		1	1	4	Good
8	7	SITI KAMILA AMIRA BINTI KHOSIM						0	Warning Letter
9	8	NAQIB BIN NAJMI	1	1		1		3	Warning Letter
10	9	YEGASHSRI A/P GUNASEELAN	1	1	1	1	1	5	Excellent
11	10	NUR ASMALIENDA BINTI MOHD FATHIL		1		1	1	3	Warning Letter
12									

=IF(P2>4,"Excellent",
IF(P2>3,"Good","Warning Letter"))

    b. Nested if with average



P2 | =IF(AVERAGE(K2:O2)>75,"A",IF(AVERAGE(K2:O2)>50,"B",IF(AVERAGE(K2:O2)>35,"C","D")))

	A	C	K	L	M	N	O	P	Q	R
1		Name	Lab1	Lab2	Lab3	Lab4	Lab5			
2	1	AINAN MIDRARA BINTI HAMAT FAUZI	90	90	90	82	50	A		
3	2	NAJWA AIMAN BINTI MOHAMAD SOFI	83	83	83	90	70	A		
4	3	MUHAMMAD AIMAN BIN ZAINUDIN	82	90	75	77	52	B		
5	4	YEOH KAI ZHENN	92	95	87	82	80	A		
6	5	NORAIN BINTI MOHAMAD NASIR	83	92	77	80	53	A		
7	6	MUHAMAD NAJMI BIN MUHAMAD ZABIDI	70	92	97	75	50	A		
8	7	SITI KAMILA AMIRA BINTI KHOSIM	58	78	70	72	57	B		
9	8	NAQIB BIN NAJMI	97	98	87	82	73	A		
10	9	YEGASHSRI A/P GUNASEELAN	80	68	68	87	53	B		
11	10	NUR ASMALIENDA BINTI MOHD FATHIL	40	50	30	35	20	D		
12										

=IF(AVERAGE(K2:O2)>75,"A",
IF(AVERAGE(K2:O2)>50,"B",
IF(AVERAGE(K2:O2)>35,"C","D")))

CHAPTER 9

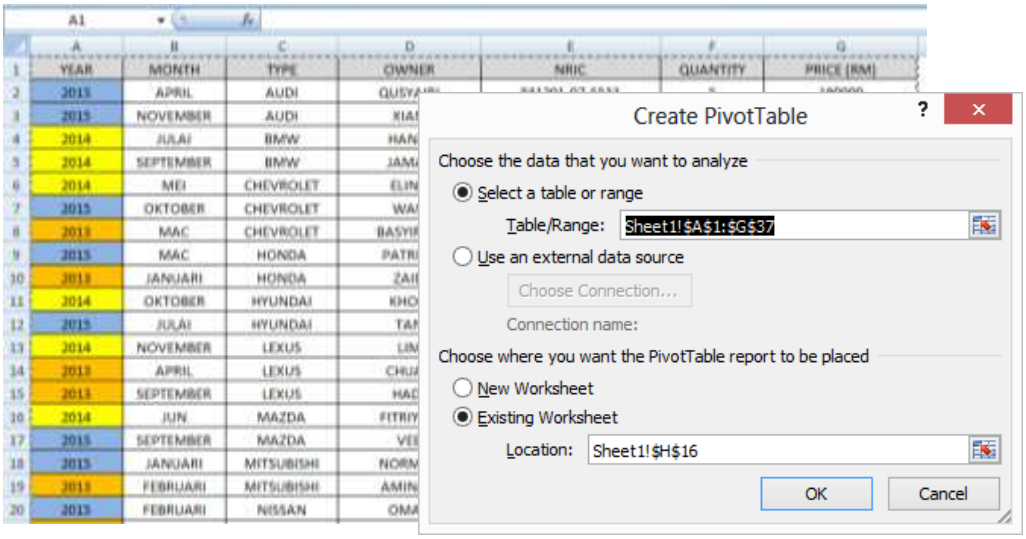
9.0 PIVOT TABLES

A pivot table allows you to extract the significance from a large, detailed data set.

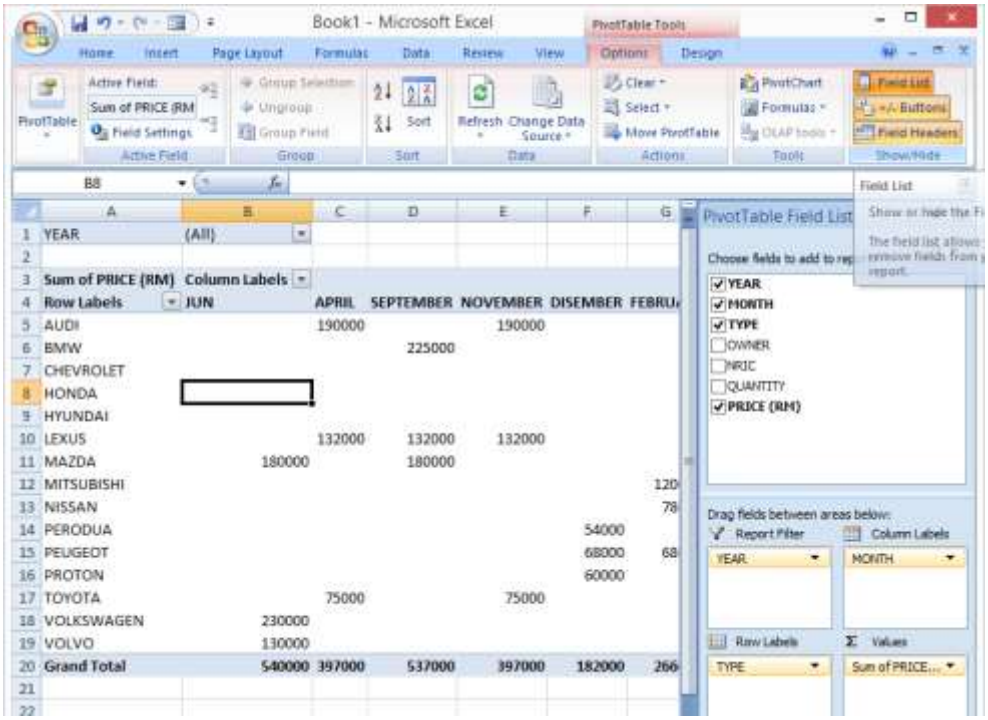
Create Pivot Table in blank sheet

1. Open blank sheet > Insert > PivotTable

2. Highlight data in Create PivotTable windows

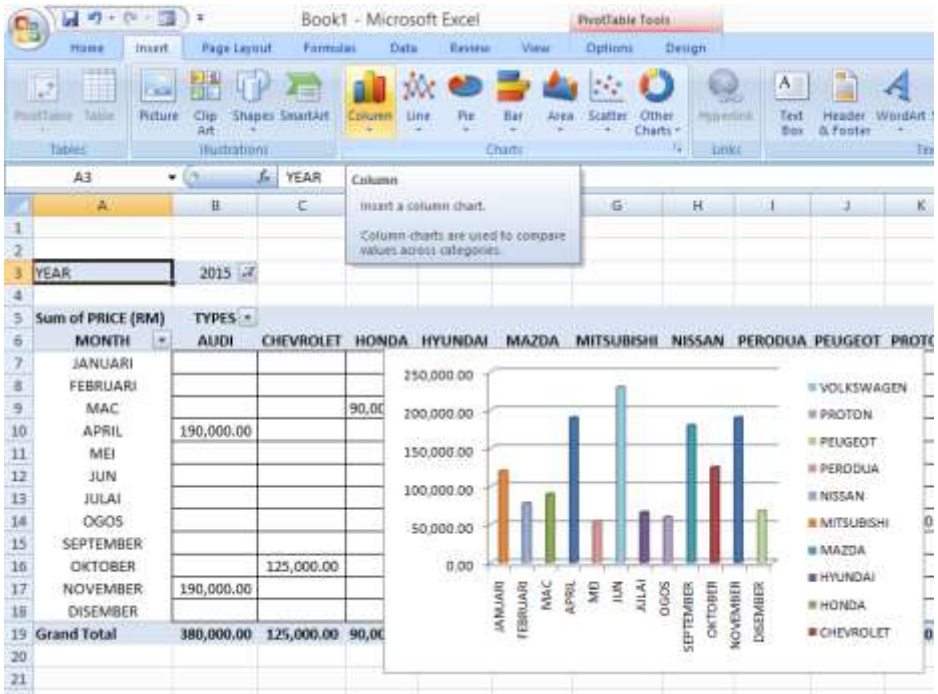


3. In PivotTable Tools, Choose field to be insert in report



Create Chart from Pivot Table

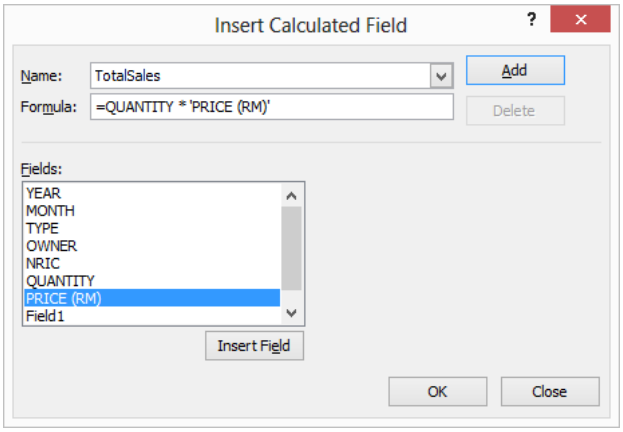
1. Choose data > **Insert** > select **chart** to represent the PivotTable data



Use formula in calculate data for Pivot Table

1. In **PivotTable Tools** > **Formula** > **Calculated Field**

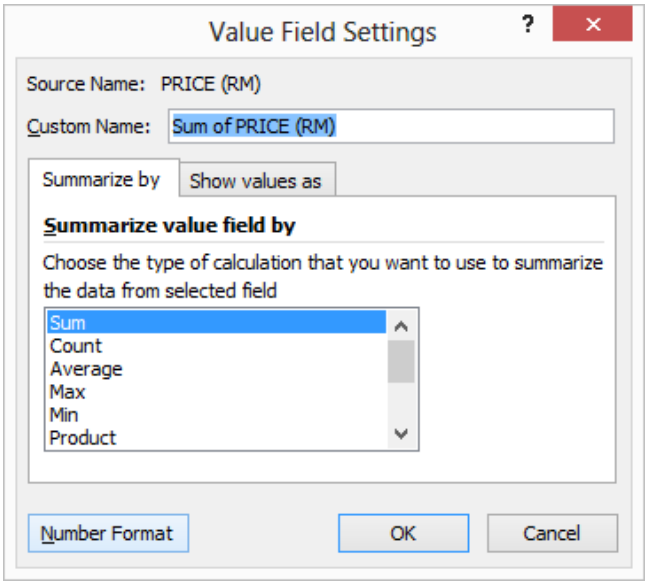
2. Insert Calculated Field > select value (quatity * price) > Add the value

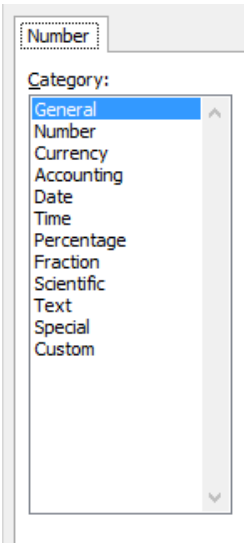


Format number in Pivot Table

1. In **PivotTable Tools** > **Field Settings**

2. In Value Field Settings windows > click on Number Format > choose the number category.





CHAPTER 10

10.0 LOOKUP

To look up a value or a series of values from a large database and append a column to a table using data from a larger database

10.1 HLOOKUP

1. Look up value in horizontal column

1 **3**
=HLOOKUP (lookup value , table_array , row_index_num , [range_lookup])
2 **4**

10.2 VLOOKUP

1. Look up value in vertical row

```
                1                          3
=VLOOKUP(lookup value, table_array, col_index_num, [range_lookup]
                          2                              4
```

C15 =VLOOKUP(B15,B1:F11,2,0)

MATRIC NUM	NAME	CO	OSOS	NS
F001	ZAID	56	12	45
F002	AMINAH	77	55	51
F003	BASYIRAH	88	47	54
F004	CHUAH	24	48	47
F005	DAMIA	31	44	95
F006	ELFIN	89	98	51
F007	FATIN	54	54	41
F008	GAYAH	78	21	12
F009	HADI	63	25	54
F010	INDARAN	21	45	68

3 2

MATRIC NUM	NAME	CO	OSOS	NS
F010	INDARAN	21	45	68

1

10.3 MATCH and INDEX

The MATCH function returns the position of a value in a given range.

The INDEX function returns a specific value in a two-dimensional range.

1. Lookup two dimensional range
2. Get data combination of both Vlookup and Hlookup using MATCH and INDEX

J10

	A	B	C	D	E	F	G
1	DEPARTMENT	2010	2011	2012	2013	2014	
2	JP	2300	1800	1750	2200	1890	
3	JKM	1900	1300	1000	1400	450	
4	JTMK	500	700	1008	540	1800	
5	JKE	750	550	650	530	700	
6							
7							
8	YEAR	2011	2				
9	DEPARTMENT	JTMK	3				
10	STUDENT	1000	=INDEX(B2:F5,MATCH(B8,B1:F1,0),MATCH(B9,A2:A5,0))				
11	STUDENT	1000	=INDEX(B2:F5,C8,C9)				
12							