Excel Exercise Solution

Day 1

To start **Excel 2010** go to Start → All Programs → Microsoft Office → Microsoft Excel 2010

Or

Press **Window +R** for **Run** Command and type **Excel** then click on **OK** or press **Enter** key

Or

If Desktop Shortcut is available, then double click on **Excel icon**

Or

Press **window** key form keyboard and type **Excel** then press **Enter** key**.**

Or

We can assign and use short-cut key to Open Excel Application

Or

We can pin in Taskbar / Start Menu and we can start from there by clicking.

1. (a) Press **CTRL** +Navigation Key (Right)

   (b) Press CTRL + Navigation key (down)

   (c) Press **F5** or ***Ctrl + G*** for go to command or go to Home tab → Editing Group → Find → Go to → *(it will launch a dialog box),* enter the cell name in reference field → press **Enter** Key or Click on **OK**.

   (d) Type the Cell name in Name Box and press **Enter** Key.

   (e) In name box type **A1** → press **Enter** Key or press **CTRL+Home** Key.

2. To prepare the given data sheet (**Sales report**) enters the values in respective cells → apply formatting as required.

   * To merge cells select the cell range → Home Tab → Alignment group → Merge & Centre
   * To set the Row height or Column width, select row/column → Home tab → Cells group → Format Command → Row Height / Column Width → provide value in points as required.
   * For Bold select the cells or cells values → press **CTRL +B** or **CTRL+2** or Home Tab → Font group → Bold

3. To prepare the given data sheet (**Student report**) follow the above steps of point no. 2

4. To rename the Sheet steps are-

   Right click on Sheet name → Rename → type name as you want

   or

   Double Click on Sheet name → enter the name as you desired.

5. **Step 1:** To create a folder in **D:\STUDENTS** location steps are-

   Start → Computer → D drive → STUDENTS → press **CTRL+Shift+N** to create a folder and type folder name

   Or

   use ***New Folder*** command to create a folder and provide folder name

   Step 2: Now come to Excel and go to File tab → Save → select Location → type the file name as given (Excel Practice) →Save.

6. **Step 1:** To open a file press **CTRL +O** or **CTRL + F12** or File Tab → Open → specify file name → Open

   Step 2: To navigate between Sheets you can directly click on sheet name or use keyboard shortcuts-

   CTRL+ Page Down : Next Sheet

   CTRL+ Page Up : Previous Sheet

7. To auto fit for Columns select the columns → Home tab→ Cells group → Auto Fit Column

   Or

   Double click between columns name.

8. To merge the cells, select cell range → Home tab → Alignment Group → Merge & Center

9. To change or apply cell formatting select the cells →Home tab → Cells group → Format → Format Cells or press **Ctrl+1** → *(it will launch a dialog box)* select Category and related things. It will display Sample of selected category. → Click on OK to apply the selected format *(Refer the figure).*

   CTRL + SHIFT + ~ : General Format

   CTRL + SHIFT + 1 : Number Format

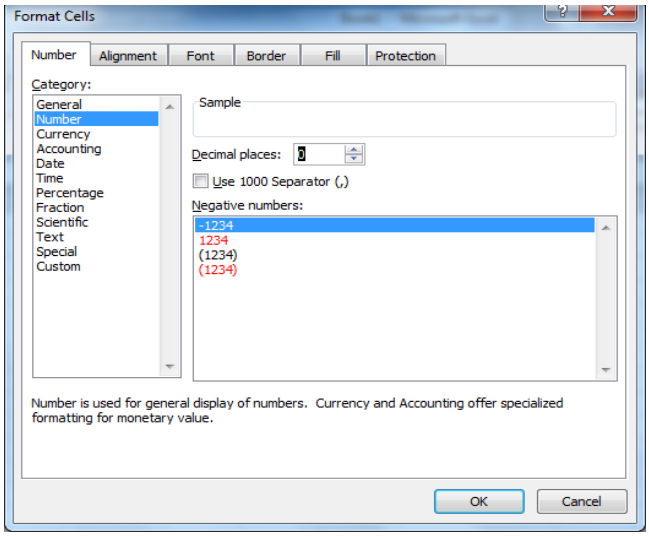
   CTRL + SHIFT + 2 : Time Format

   CTRL + SHIFT + 3 : Date Format

   CTRL + SHIFT + 4 : Currency Format

   CTRL + SHIFT + 5 : Percentage Format

   CTRL + SHIFT + 6 : Scientific Formats



10. **Step 1:** To insert a new sheet press **Shift+F11** or right click on sheet tab →Insert command.

    Step 2: Then prepare a data sheet as given (Employee Table).

    Note*: Make sure that the system date format is* ***dd-mm-yyyy****, otherwise enter the date values in system date format only. To change Date format (like Location, Currency), go to Control Panel → Region and Language Settings*

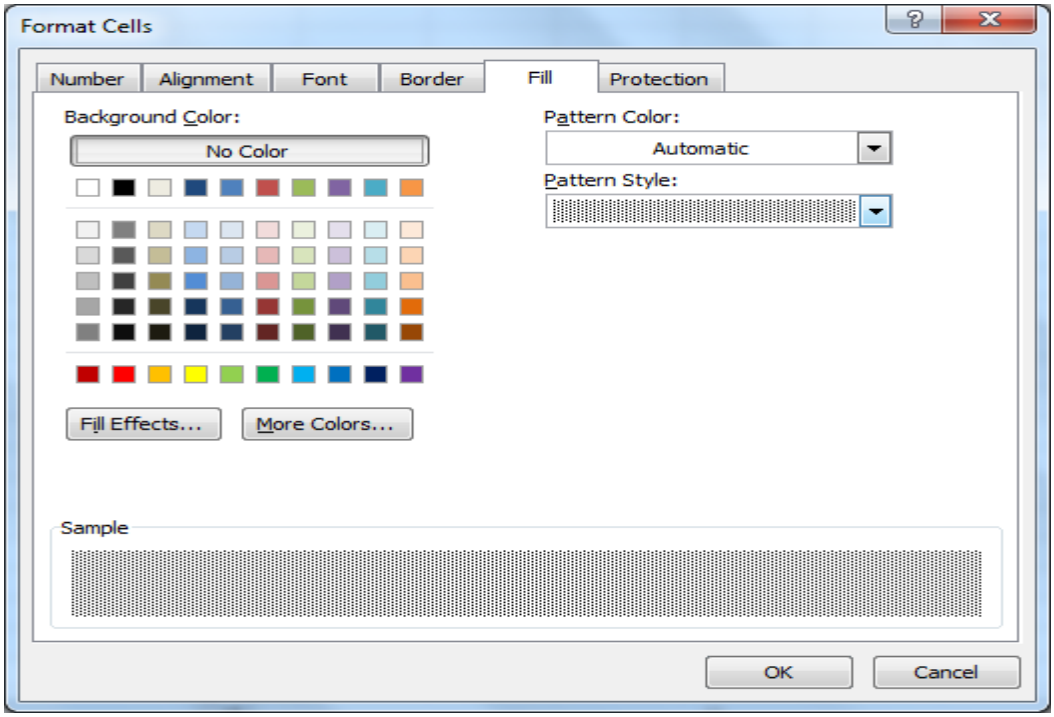
11. To apply cell format as Date follow point no. 9.

12. To apply cell format as Currency follow point no. 9

13. To rename the Sheet follow **"Day 1"** point no. 4.

14. **Step 1**: To apply border select the cells → Home tab → Font group → border.

Step 2: To fill a pattern select cells and go to Home tab →Cells group → Format → Cell Format → Fill → select a pattern which you want to fill (refer the below figure).



15. **Step 1**: To prepare a table style go to Home tab →Styles group → Format as Table → New Table Style (it will launch **New Table Quick Style** dialog Box).

Step 2: Here specify the name for new table style and format it as given in exercise by clicking on **Format** button available in same dialog box and save it.

16. To apply a table style select the cell range and go to Home tab → Format as Table → Select your Style to apply.

17. To apply the format painter steps are –

Step 1: Select the table employee → Home tab → Clipboard group → click on **Format Painter** icon. The moment you will click on Format Painter your Pointer will turn into Brush.

Step 2: Now drag over the cells where you want to apply.

Note: (i) To apply format painter in multiple cells or cell ranges, double click on format painter (after applied press ESC button).

(ii) To clear styles select Student table and go to Home Tab → Editing group → Clear → Clear Formats.

18. To clear the style, select the table and go to Design Tools Tab → Table style group → Clear

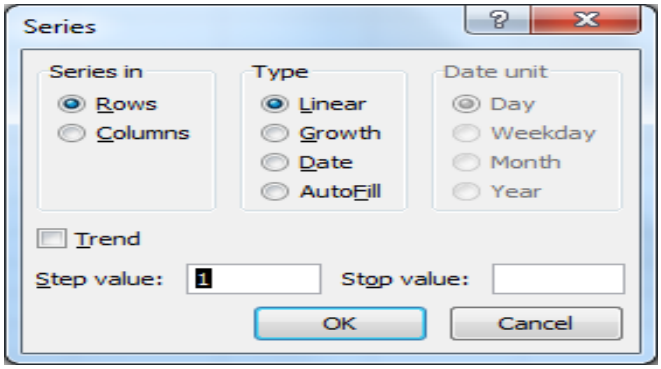
Or

Select Go to Home Tab → Editing group → Clear → Formats

19. **Step 1:** To fill series, Enter initial value in cell and select it.

Step 2: Home Tab → Editing group → Fill →Series → Select **Series in** i.e. Columns or Row → set Step Value and Stop Value as required → OK.

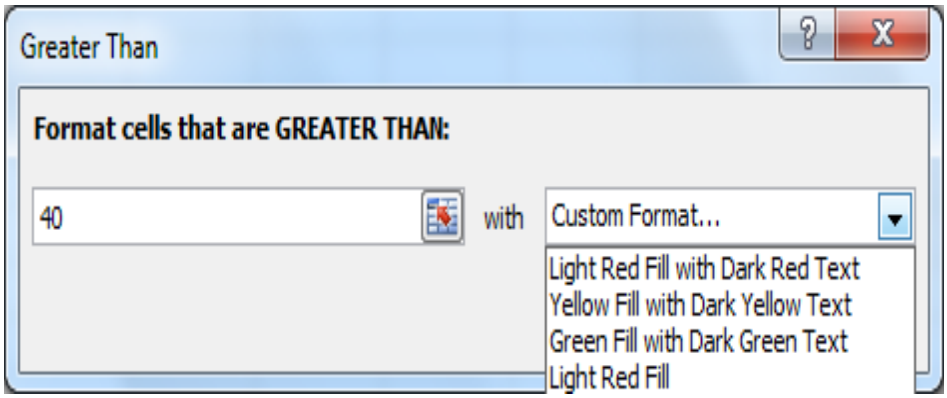
Note: For auto fill, just enter two values and select cells, then using **Fill handle** drag it.



20. **Step 1:** Select sheet **Day 1** → select the cells range which containing Online marks

Step 2: Home tab → Styles → Conditional Formatting →Highlight Cell Rules → Greater Than → specify the value then select Custom format (it will launch Format Cell dialog box)

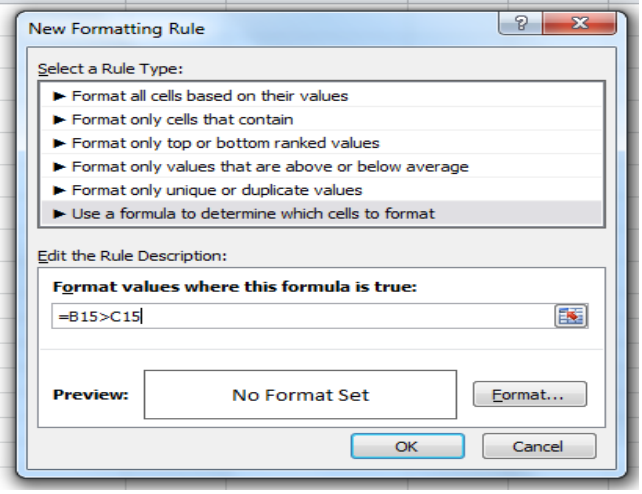
Step 3: Select formatting as required → OK → OK



21. To apply conditional formatting steps are-

Step 1: select the cell range *(as shown in below figure)* → Home tab → Styles group →Conditional Formatting → New rules → **Use Formulae to determine which cell to format** (refer to below figure)

	A	B	C	D
13	STUDENTS REPORT			
14	Name	Module I	Module II	Online
15	Jack	5	7	45
16	Rose	6	8	32
17	Sathana	5	7	36
18	Santhanan	6	9	29
19	Vadivel	7	8	33
20	Aathesh	6	6	40
21	Mahesh	8	6	50



Step 2: Enter the formula with relative reference → select **Format** as required → OK → OK

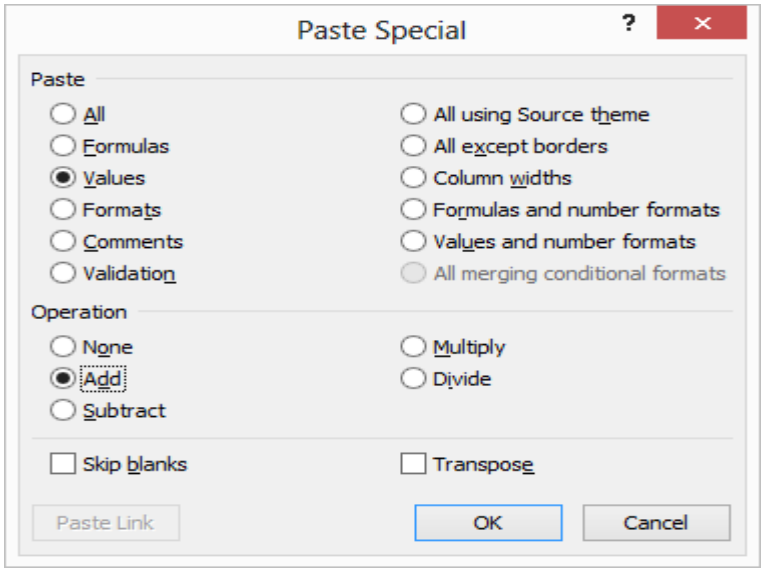
22. Create both tables as given.

23. Type heading for table 5 as given.

24. **Step 1:** Select Total sales values from table 4 and copy it.

Step 2: Now select Total sales values from table 5→ press **ALT+CTRL+V** for paste special command.

Step 3: under **Paste** select **Values** as well as under **Operation** select **Add** operation → OK. *(Refer the below figure)*



25. To transpose steps are-

Step 1: copy the table → select location *(any blank cell)* for paste

Step 2: press **ALT+CTRL+V** → enable **Transpose** check box → OK.

26. To paste as a link steps are -

select data and copy → select the location → now right click → Paste Special → Other paste options → Paste Link

Or

Now right click → Paste Option →click on **Paste Link** icon**.**

Note: *In case of link, if original data will change, linked data will auto update.*

Day 2

1. **Step 1:** Start Excel and open file excel practice →Select sheet Day 1

   Step 2: To calculate difference between Actual Qty and Plan Qty use formulae (refer the below figure).

	A	B	C	D	E
1	SALES REPORT				
2	**Product**	**Category**	**Actual Qty**	**Plan Qty**	**Difference**
3	Product A	Monitor	145	2000	=C3-D3
4	Product B	Server	185	3167	
5	Product C	Desktop	225	4334	
6	Product D	Keyboard	265	5501	
7	Product E	Mouse	305	6668	
8	Product F	Monitor	345	7835	
9	Product G	Monitor	385	9002	

2. Press Shift+F11 to insert new sheet and rename it as Day 2.

3. **Step 1:** Prepare Commission sheet as given in exercise.

   Step 2: To calculate commission enter formulae as shown in below figure and fill the remaining**. To use Absolute Reference Press F4**

	A	B	C
1	Commissions - January 2014		
2	Name	Total Sales	Commission
3	Shadrac	32,000.00	=B3*$B$8
4	Jenifer	12,000.00	
5	Abdul	29,000.00	
6	Ganesh	42,000.00	
7	Sam	23,000.00	
8	Rate	10%	

4. To prepare cross table write formulae in Cell B2 as shown below and drag the same to fill the entire table.

	A	B	C	D	E	F	G	H
1	1	2	3	4	5	6	7	8
2	2	=$A2*B$1						
3	3							
4	4							
5	5							
6	6							
7	7							
8	8							

5. Go to sheet Day1

a. To calculate Sum of **Actual Qty** for **Monitor** Category use function **=SUMIF()** as shown in following figure-

	A	B	C	D
1				**SALES REPORT**
2	**Product**	**Category**	**Actual Qty**	**Plan Qty**
3	Product A	Monitor	145	2000
4	Product B	Server	185	3167
5	Product C	Desktop	225	4334
6	Product D	Keyboard	265	5501
7	Product E	Mouse	305	6668
8	Product F	Monitor	345	7835
9	Product G	Monitor	385	9002
10				
11	Sum of Actual Qty for Monitor Category			=SUMIF(B3:B9,"monitor",C3:C9)

b. To count the number of Products use function **=COUNTA()** as shown below -

=COUNTA(A3:A9)

c. To count the number of Monitors use function **=COUNTIF()** as shown below-

=COUNTIF(B3:B9,"Monitor")

d. To count the blank cells in given cell range use function **=COUNTBLANK()** as below syntax-

=COUNTBLANK*(cell Range*)

6. Prepare the table as given.

7. To calculate total, average and Result refer the below figure

	A	B	C	D	E	F	G	H	I
46									
47	Roll No.	Name	Accounts	Tax	Law	Costing	Total	Average	Result
48	3278	RAHUL	35	42	44	45	=SUM(C48:F48)	=AVERAGE(C48:F48)	=IF(AND(C48>=40,D48>=40,E48>=40,F48>=40),"Pass","Fail")
49	3279	SOWMYA	40	82	66	49	=SUM(C49:F49)	=AVERAGE(C49:F49)	=IF(AND(C49>=40,D49>=40,E49>=40,F49>=40),"Pass","Fail")
50	3280	EASWAR	55	26	54	58	=SUM(C50:F50)	=AVERAGE(C50:F50)	=IF(AND(C50>=40,D50>=40,E50>=40,F50>=40),"Pass","Fail")
51	3281	ABISHEK	55	85	39	52	=SUM(C51:F51)	=AVERAGE(C51:F51)	=IF(AND(C51>=40,D51>=40,E51>=40,F51>=40),"Pass","Fail")
52	3282	MUNIYAMMA	60	36	46	53	=SUM(C52:F52)	=AVERAGE(C52:F52)	=IF(AND(C52>=40,D52>=40,E52>=40,F52>=40),"Pass","Fail")
53	3283	MRUTHULA	65	44	53	55	=SUM(C53:F53)	=AVERAGE(C53:F53)	=IF(AND(C53>=40,D53>=40,E53>=40,F53>=40),"Pass","Fail")
54	3284	SHYAM	70	46	58	78	=SUM(C54:F54)	=AVERAGE(C54:F54)	=IF(AND(C54>=40,D54>=40,E54>=40,F54>=40),"Pass","Fail")

a. For calculating total, use Sum() function as below

=SUM(C48:F48) and drag the same till last record.

b. For calculating average, use Average() function as below

=AVERAGE(C48:F48) and drag the same till last record.

c. For Rank calculation use the following syntax

=RANK(G48,$G$48:$G$54) and drag the same till last record.

d. For calculating Result, use IF(), And() function as below

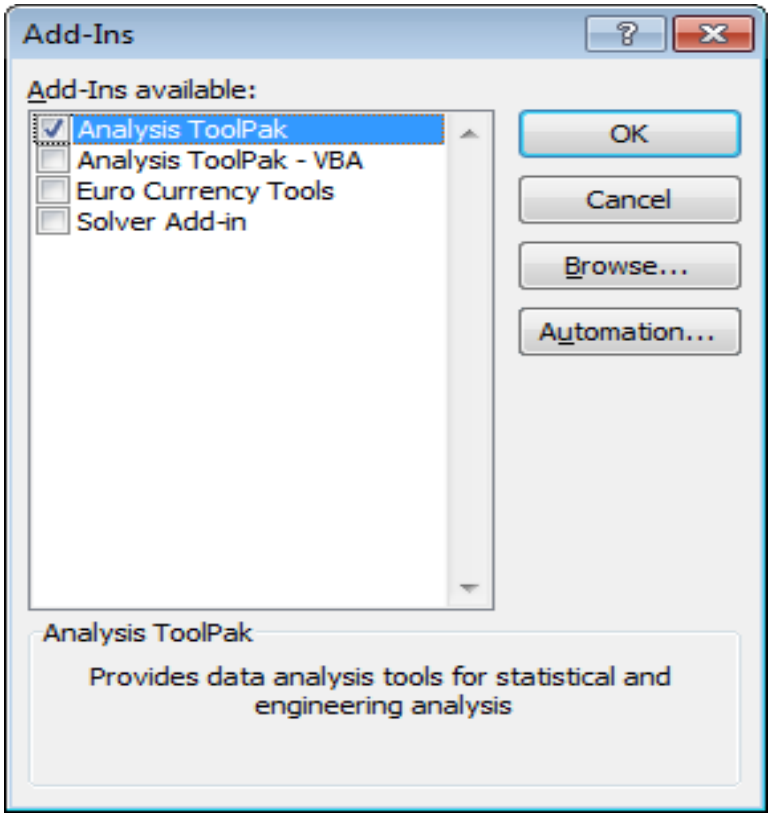
=IF(AND(C48>=40,D48>=40,E48>=40,F48>=40),"Pass","Fail") and drag the same till last record.

8. Prepare the table Number as given in exercise and then use functions to get result as shown in below figure-

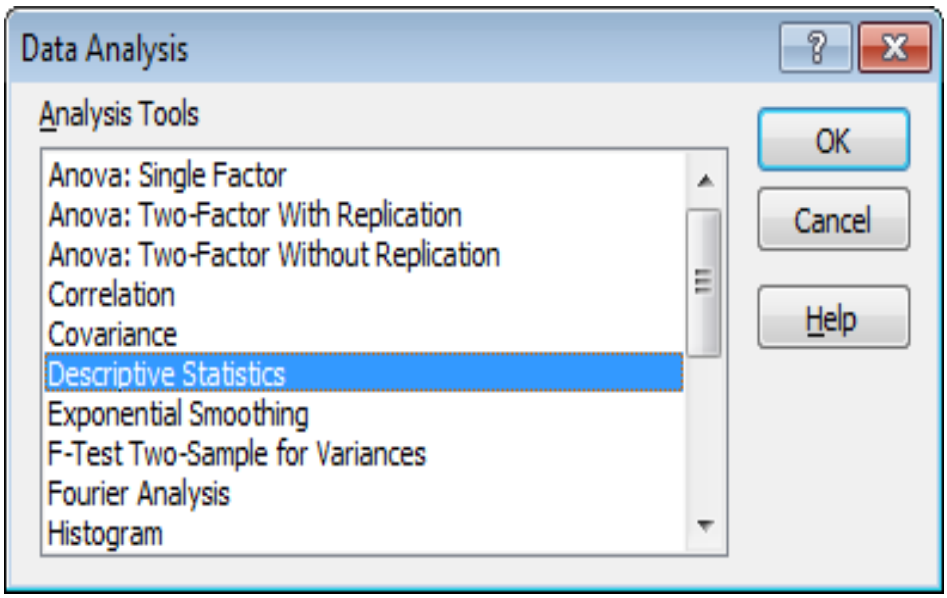
	A	B	C	D	E
31					
32					
33					
34	**Number**	**Integer Value**	**Reminder**	**Square Root**	**Rounded Figure**
35	23.56	=INT(A35)	=MOD(A35,2)	=SQRT(A35)	=ROUND(D35,2)
36	45.78				
37	38.54				
38	88.75				
39	76.23				

Day 3

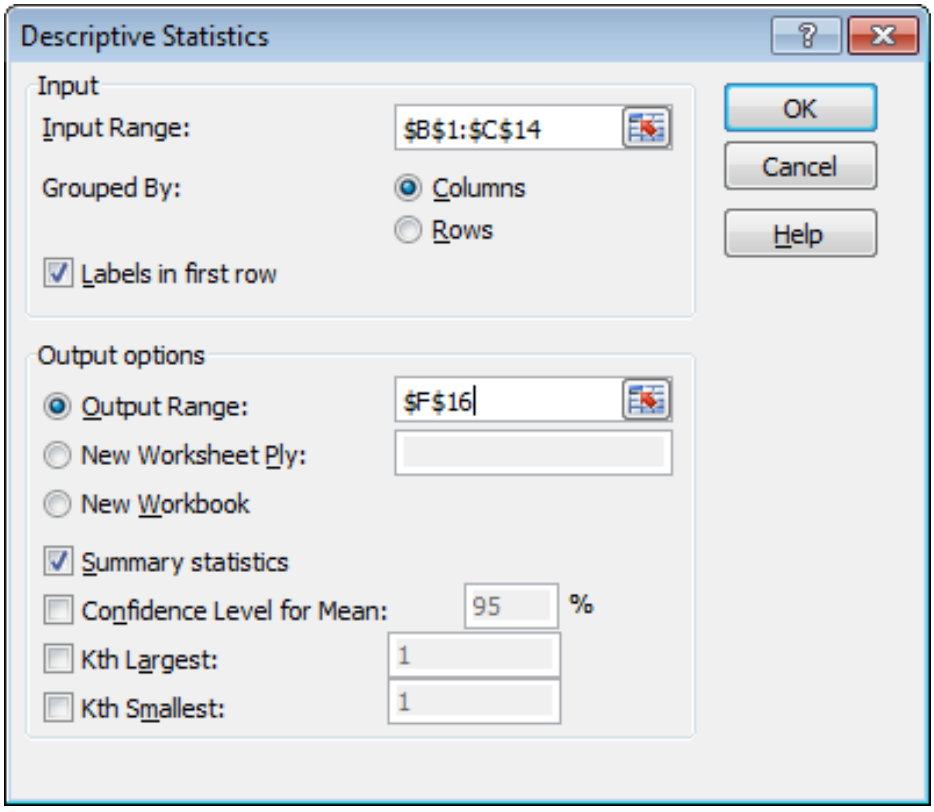
1. Create the table as given.
2. **Step 1:** To create the descriptive statistics, go to Excel Options → Add-Ins → Go → Select Analysis Tool Pack as shown below → OK.



Step 2: Select the table → go to Data Tab → Analysis Group → Data Analysis → select **Descriptive analysis** as shown below → OK.



Step 3: now provide input as shown in the dialog box and click on OK option.



Result will be as following-

US		*Euro*	
Mean	52.74153846	Mean	64.92
Standard Error	0.259001649	Standard Error	3.354633802
Median	52.52	Median	68.73
Mode	#N/A	Mode	#N/A
Standard Deviation	0.933843725	Standard Deviation	12.09530419
Sample Variance	0.872064103	Sample Variance	146.2963833
Kurtosis	1.188469318	Kurtosis	12.4521876
Skewness	1.361985947	Skewness	-3.502612871
Range	3.02	Range	44.75
Minimum	51.87	Minimum	25
Maximum	54.89	Maximum	69.75
Sum	685.64	Sum	843.96
Count	13	Count	13

3. To calculate the employee table fields refer the following-

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Emp No	Employee Name	DOJ	Designation	Dept	Basic	D.A.	T.A.	Spl.All	Gross	P.F.	Annual NET	TAX
2	IC3278	RAHUL	01-02-10	HOD	ITT	45000	6750	4500	0	56250	6468.75	597375	44475
3	IC3279	SOWMYA	28-06-12	Staff	ORIENTATION	23000	2760	0	0	25760	3220	270480	2048
4	IC3280	EASWAR	23-11-14	Staff	GMCS	23000	2760	0	0	25760	3220	270480	2048
5	IC3281	ABISHEK	19-04-11	Staff	BOS	23000	2760	0	0	25760	3220	270480	2048
6	IC3282	ANU	14-09-10	HOD	PRODUCTION	35000	5250	0	0	40250	5031.25	422625	17262.5
7	IC3283	MRUTHULA	08-02-07	HOD	SALES	35000	5250	0	2500	42750	5031.25	452625	20262.5
8	IC3284	SHYAM	05-07-13	Staff	SIRC	23000	2760	0	0	25760	3220	270480	2048
9	IC3285	MUKESH	30-11-13	Staff	ITT	30000	3600	0	0	33600	4200	352800	10280
10	IC3286	KRISHNA	26-04-08	HOD	ORIENTATION	35000	5250	0	2500	42750	5031.25	452625	20262.5
11	IC3287	RAHUL	21-09-09	HOD	GMCS	35000	5250	0	2500	42750	5031.25	452625	20262.5
12	IC3288	SHADRACH	15-02-09	HOD	BOS	35000	5250	0	2500	42750	5031.25	452625	20262.5
13	IC3289	JENIFER	12-07-12	Staff	PRODUCTION	23000	2760	0	0	25760	3220	270480	2048
14	IC3290	ABDUL	07-12-10	HOD	SALES	35000	5250	0	0	40250	5031.25	422625	17262.5

a. For Basic calculation-

=IF(AND(D2="HOD",E2="ITT"),45000,IF(AND(D2="HOD",NOT(E2="ITT")),35000,IF(AND(D2="Staff",E2="ITT"),30000,23000)))

Or

=IF(AND(Designation ="HOD", Dept="ITT"),45000,IF(AND(Designation ="Staff", Dept="ITT"),30000,IF(Designation ="HOD",35000,23000)))

Note: *In place of Designation and Dept please pass cell reference.*

b. For DA calculation-

=IF(D2="HOD",F2*0.15,F2*0.12)

c. For TA calculation-

=IF(AND(D2="HOD",OR(E2="ITT",E2="ACCOUNTS")),F2*0.1,0)

d. For Special allowance calculation-

=IF(AND(D2="HOD",C2<DATE(2010,1,1)),2500,0)

e. For Gross calculation -

=sum(F2:I2)

- For PF calculation -

  =(F2+G2)*12.5%

f. For Annual Net Sal -

=(Gross – PF)*12 *i.e.* **=(J2-K2)*12**

g. For Tax calculation -

=IF(L2>1000000,(L2-1000000)*0.3+125000,IF(L2>500000,(L2-500000)*0.2+25000,IF(L2>250000,(L2-250000)*0.1,0)))

Or

=IF(L2<=250000,0,IF(L2<=500000,(L2-250000)*0.1,IF(L2<=1000000,(L2-500000)*0.2+25000,(L2-1000000)*0.3+125000)))

4. Go to sheet Day2 -Table 8 and to calculate grade use the following syntax

=IF(AND(I48="Pass",H48>=60),"A Grade",IF(AND(I48="Pass",H48>=50),"B Grade",IF(AND(I48="Pass",H48>=40),"C Grade","Nil")))

5. **Step 1:** Insert a new sheet and rename it **Sales-Report**.

Step 2: Now make same heading as heading or field name given in sales report table.

The data in sheet Day 1 is as following-

	A	B	C	D	E
1	SALES REPORT				
2	**Product**	**Category**	**Actual Qty**	**Plan Qty**	**Difference**
3	Product A	Monitor	145	2000	-1855
4	Product B	Server	185	3167	-2982
5	Product C	Desktop	225	4334	-4109
6	Product D	Keyboard	265	5501	-5236
7	Product E	Mouse	305	6668	-6363
8	Product F	Monitor	345	7835	-7490
9	Product G	Monitor	385	9002	-8617

Step 3: Now in sheet **Sales-Report** select Cell **B2** and enter **lookup function** as shown in following figure--

	A	B	C
1	**Product**	**Category**	**Actual Qty**
2	Product A	=VLOOKUP($A$2,'Day 1'!$A$2:$E$9,2,FALSE)	=VLOOKUP(A2,'Day 1'!$A$2:$E$9,3,FALSE)

Formula for Plan Qty. is **=VLOOKUP($A$2,$A$2:$E$9,4,FALSE)**

Day 4

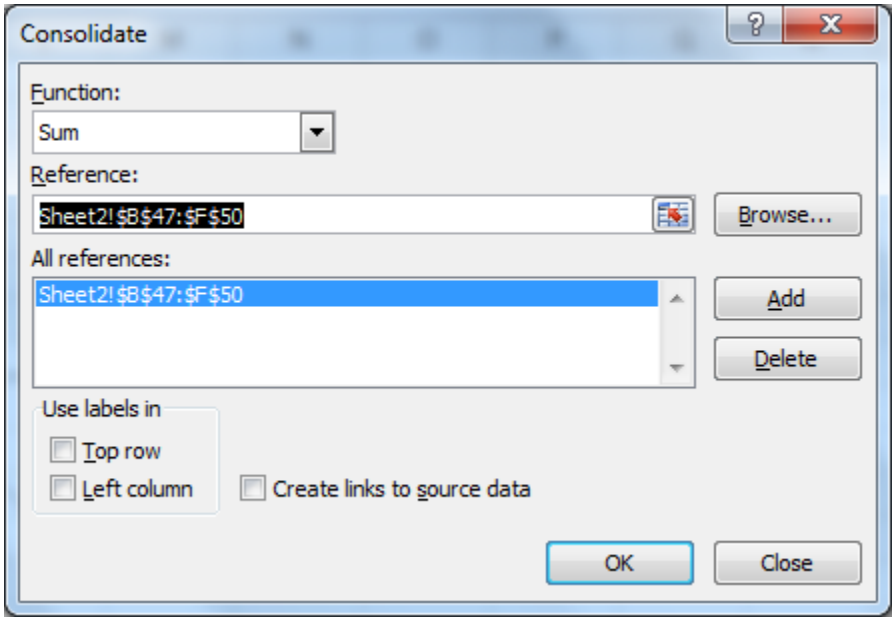
1. **Step 1:** To open a new workbook press **CTRL+N** or go to File Tab → New →
   select **Blank Workbook** →Create

   Step 2: Enter the data as given in exercise in Sheet1, Sheet2, and Sheet3.

   Step 3: To get consolidated report select a cell in Sheet4 (insert new sheet if required). Now follow the steps-

   (i) Data Tab →Data tools group → Consolidate

   (ii) Now add references from Sheet1, Sheet2, and Sheet3 one by one →
   check on **check boxes** for **Top Row, Left column** and **Create Links to source data** → OK *(refer the following figure)*.



2. To trace Dependents for Gross of third employee, select that cell and go to Formulae Tab → Formulae Auditing Group → Trace Dependents.
3. To trace Precedents for Gross of third employee select that cell and go to Formulae Tab → Formulae Auditing Group → Trace Precedents.
4. To remove formulae from a cell, copy the formulae and paste it as Value.
5. To use Goal Seek follow the steps-

   Data →What if Analysis → Goal Seek

   In Goal Seek Dialog Box do the following-

   Set Cell: Select Net Salary cell of first employee

   To Value: Enter a new value i.e. (current cell value +500)

   By Changing Cell: Select basic cell for first employee and then click on OK Button. It will calculate and display the updated value.

   ***Note**: (i) For using Goal Seek, **To Value** cell must be formulated including changing cell*

(ii) ***By Changing Cell*** *must be a constant (it should not be a formulae)*

6. Select entire table, copy it and go to new location (i.e. new sheet or new cell in the same sheet), then go to Paste Special → select Option **Values** → OK.

   a. To sort the records Employee name wise steps are-

      Select any Employee name Sort A to Z.

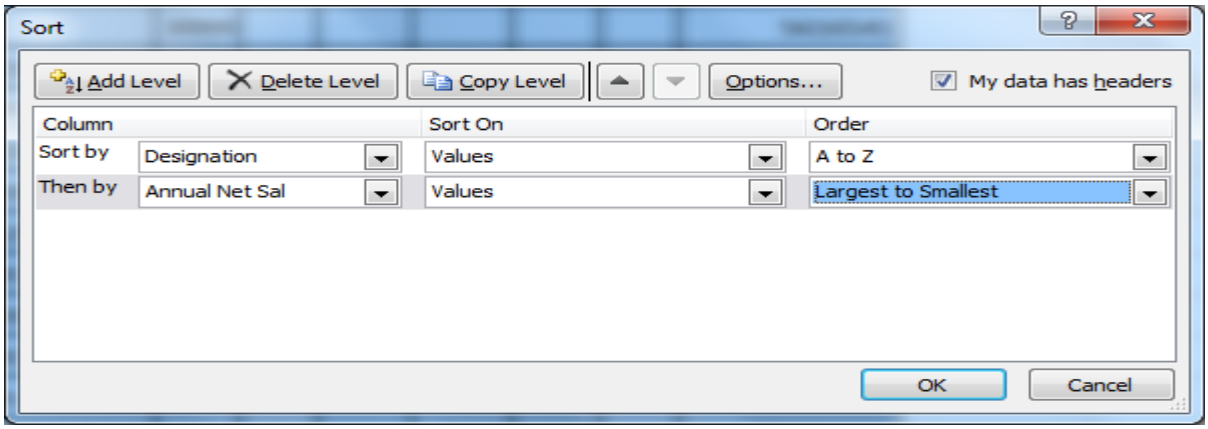
      Or

      Select any Employee name →Data tab → Sort & Filter group → click on  icon or Sort

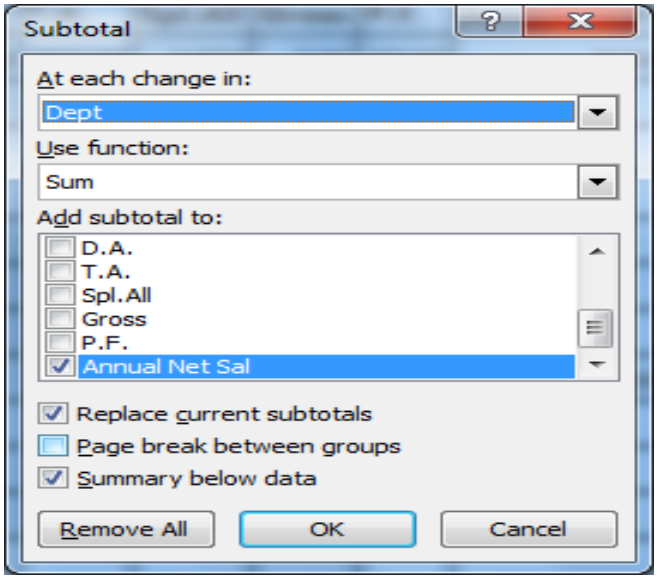
   b. To sort the records Net salary wise steps are-

      Select any Net salary → Home Tab → Editing group → Largest to Smallest.

Note: For multilevel sorting in excel, select the data and use custom sort command from editing group of Home Tab. It will launch Sort dialog box. Here select the fields in given order and also select the sorting order. If you are not getting Fields name then enable Check Box **My data has headers**.



   c. To calculate Dept wise Net salary do the following-



   i. Sort the data Dept wise

   ii. Select the whole data with heading

   iii. Use Subtotal function from Outline group of Data Tab.

   iv. At each changes: Dept

   v. Use function: Sum

   vi. Add subtotal to: Annual Net Sal

   vii. Now click on Ok button.

   It will group the data and provide group wise sum with Grand Total for selected Field.

7. Prepare the table Party Outstanding Reports as given in exercise and format it accordingly.

   a. To concatenate texts use concatenate function or & operator as shown in following figure.

	A	B	C	D	E
16					
17					
18		Party Outstanding Reports			
19		Party Name	Pending Amount	Overdue by Days	Remarks
20		Party A	Rs. 17,000.00	30	="Overdue by "&D20&" Days"
21		Party B	Rs. 33,000.00	45	=CONCATENATE("Overdue by ",D21," Days")
22		Party C	Rs. 46,000.00	180	
23		Party D	Rs. 19,000.00	30	

   b. Copy the above table and paste it in new location and use text functions to convert in upper and proper case in new Location (Cell), Syntax is -

   =PROPER(Text) or =PROPER(Cell ref.)

   =UPPER(Text) or =UPPER(Cell ref.)

   c. To compare two texts use function Exact.

   Syntax is: =EXACT(text1,text2)

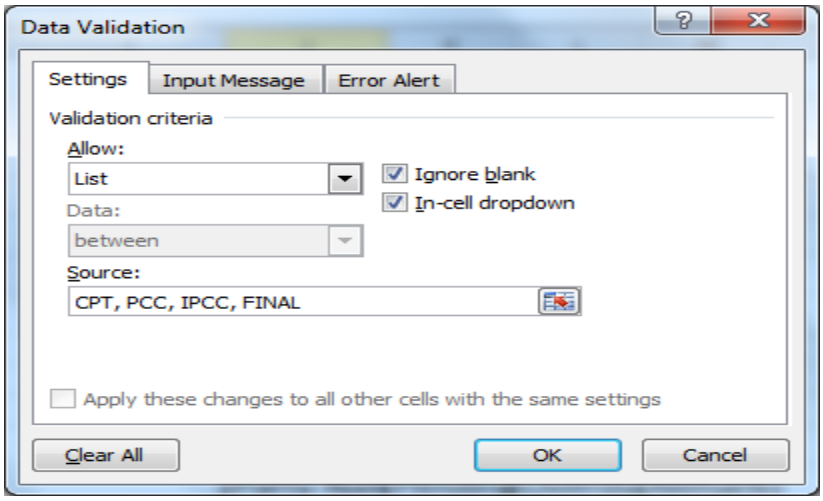
8. For Data validation -

   a) To apply Data validation which accept only **values,** steps are-

   Select cell range A1:A5 → Data tab →Data Tools group → Data validation → Setting →

   Allow: List

   Source: CPT, PCC, IPCC, FINAL → Ok (refer the below figure).



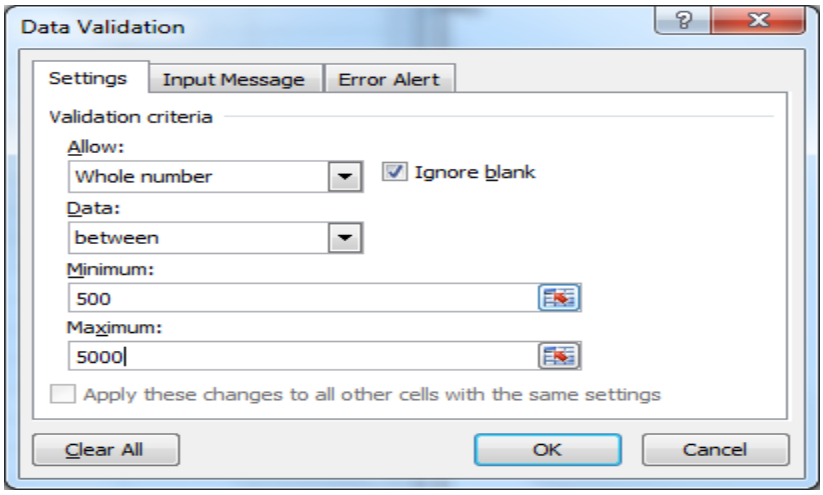
   b) Select cell range B1:B5 → Data tab →Data Tools group → Data validation → Setting →

   Allow: Whole number

   Data: Between

   Minimum: 500

Maximum: 5000 → Ok.



c) Select cell range C1:C5 → Data tab → Data Tools group → Data validation → Setting →

Allow: Date

Data: Less than

End Date: 03/31/2013 *(date should entered in date format)* → OK.

d) Select cell range D1:D5 → Data tab →Data Tools group → Data validation → Setting →

Allow: Text Length

Data: equal to

Length: 5 → OK.

9. To analyze the data using **Scenario Manager** follow the steps-

Step1: Calculate the sales, Expenses and Profit as per given Expected rate. (Refer the formulae in below figure to calculate).

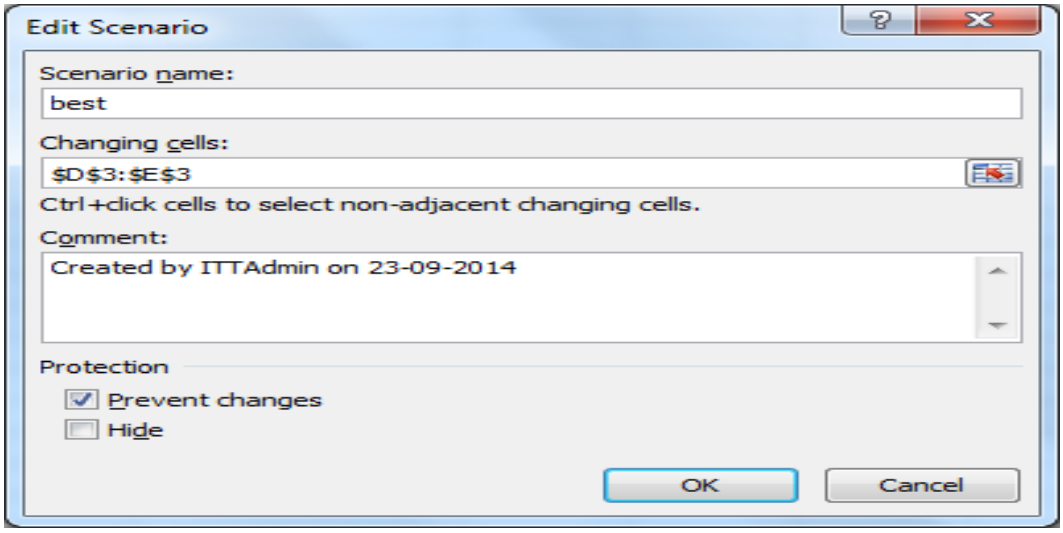
	A	B	C	D	E
1	Annual Report in 2013				
2	Sales	500000		Sales	Expenses
3	Expenses	200000		0.3	0.15
4	Profit	300000			
5					
6	Expected in 2014				
7	Sales	=B2+B2*D3			
8	Expenses	=B3+B3*E3			
9	Profit	=B7-B8			

Step2: Select the cells D2:E3 and Go to Data tab → Data tools → What If Analysis → Scenario Manager (it will launch a dialog box)

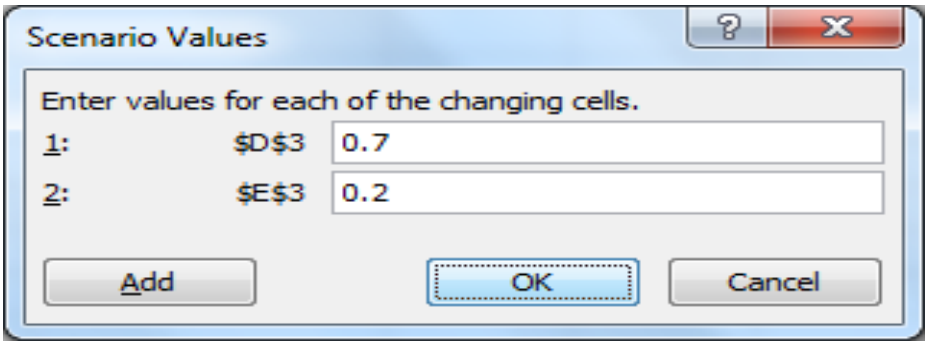
Step3: Now click on Add button

Scenario name: best

Changing cells: D3:E3 (for storing values as shown in below figure) → OK→



Step4: Enter the new value for this scenario as given in exercise and click on Add button to add more scenarios.



Step 5: Repeat step 4 for Average and Bad → OK.

Note: (i) To view the different result use show command from scenario manager dialog box

(ii) If required you can insert a summary of recorded scenario by using Summary command from the same dialog box. It will insert the scenario Summary in new sheet. For resultant cell select **Expected in 2014** i.e. **A7:B9** cell range.

10. **Step 1:** To calculate loan sheet prepare table as given in following figure-

	A	B	C	D	E	F
1		Sample Loan Sheet				
2						
3	Loan Amount	$ 300,000.00		EMI / PMT		$ 14,122.04
4	Annual Interest rate	12.00%				
5	Duration in Months	24		Total amount with interest		$338,929.00
6						
7						
8	Installment No.	Principal /PPMT	Interest/IPMT	EMI	Total Paid Amount	Balance
9	1	$ 11,122.04	$ 3,000.00	$14,122.04	$ 14,122.04	$324,806.96
10	2	$ 11,233.26	$ 2,888.78	$14,122.04	$ 28,244.08	$310,684.92
11	3	$ 11,345.59	$ 2,776.45	$14,122.04	$ 42,366.13	$296,562.88
32	.	.	.	.	.	.
33	.	.	.	.	.	.
34	.	.	.	.	.	.
35	24	$ 13,982.22	$ 139.82	$14,122.04	$ 338,929.00	$ (0.00)

Step 2: Now use financial functions as shown in below figure.

	A	B	C	D	E	F
1		Sample Loan Sheet				
2						
3	Loan Amount	300000		EMI / PMT		=PMT(B4/12,B5,-B3)
4	Annual Interest rate	0.12				
5	Duration in Months	24		Total amount with interest		=B5*F3
6						
7						
8	Installment No.	Principal /PPMT	Interest/IPMT	EMI	Total Paid Amount	Balance
9	1	=PPMT($B$4/12,A9,$B$5,-$B$3)	=IPMT($B$4/12,A9,$B$5,-$B$3)	=B9+C9	=D9	=F5-D9
10	2	=PPMT($B$4/12,A10,$B$5,-$B$3)	=IPMT($B$4/12,A10,$B$5,-$B$3)	=B10+C10	=E9+D10	=F9-D10
11	3	=PPMT($B$4/12,A11,$B$5,-$B$3)	=IPMT($B$4/12,A11,$B$5,-$B$3)	=B11+C11	=E10+D11	=F10-D11
32	.	.	.	.	.	.
33	.	.	.	.	.	.
34	.	.	.	.	.	.
35	24	=PPMT($B$4/12,A35,$B$5,-$B$3)	=IPMT($B$4/12,A35,$B$5,-$B$3)	=B35+C35	=E31+D35	=F31-D35

11. To prepare a data table follow the steps-

Step 1: Enter the given data in excel sheet as below-

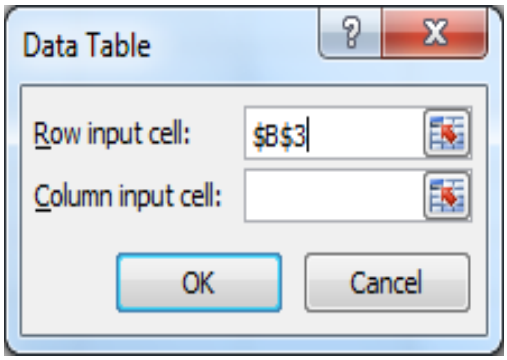
	A	B	C	D	E	F
1	**Loan Amount**	**300000**				
2	**Interest Rate for Year**	**12%**				
3	**Duration in Months**	**24**				
4				**Duration in Months**		
5			36	48	60	72
6	**EMI**					
7						

Step 2: Now calculate the EMI using PMT function in cell **B6** i.e.

=PMT(B2/12,B3,-B1)

Step 3: Select the cell range **B5:F6** and go to Data Tab → Data tools group → What if Analysis → Data Table. It will launch a Data table dialog box.

Step 4: Here for **Row input cell:** select cell B3 as shown in figure and click on OK button.



Note: *A part of data table can't be change.*

12. To find the date difference use =datedif() function. Refer the following figure-

	A	B	C	D
1		**Date Difference**		
2	Date of Birth	=DATE(1986,10,27)		
3	Current date	=TODAY()		
4				
5		Age is	=DATEDIF($B$2,$B$3,"y")	Years
6			=DATEDIF($B$2,$B$3,"ym")	Months
7			=DATEDIF($B$2,$B$3,"md")	Days
9	="You are "&C5&D5&C6&D6&C7&D7&" old"			
10				

The function syntax is :

=DATEDIF(FirstDate,SecondDate,"Interval")

Where, FirstDate: This is the earlier of the two dates.

SecondDate: This is the more recent of the two dates.

"Interval": This indicates what you want to calculate.

These are the available intervals.

"d"	Days between the two dates.
"m"	Months between the two dates.
"y"	Years between the two dates.
"yd"	Days between the dates, as if the dates were in the same year.
"ym"	Months between the dates, as if the dates were in the same year.
"md"	Days between the two dates, as if the dates were in the same month and year.

Note: If required to display you can use concatenate function or operator to display as a sentence.

Output will be as following-

	A	B	C	D
1	Date Difference			
2	Date of Birth	10/27/1986		
3	Current date	4/25/2014		
4				
5		Age is	27	Years
6			5	Months
7			29	Days
9	You are 27 Years 5 Months 29 Days old			

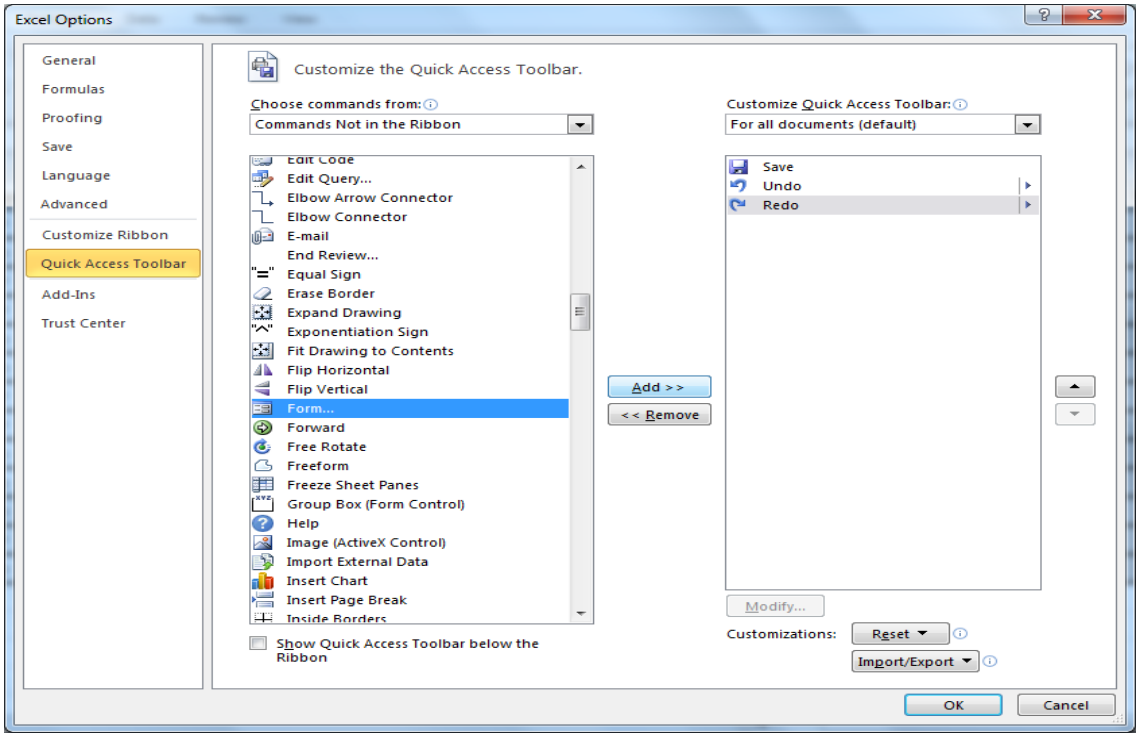
13. Please refer the above point no. 11.

    To calculate total cost, Syntax is

    =product(value1, value2, value3,…)

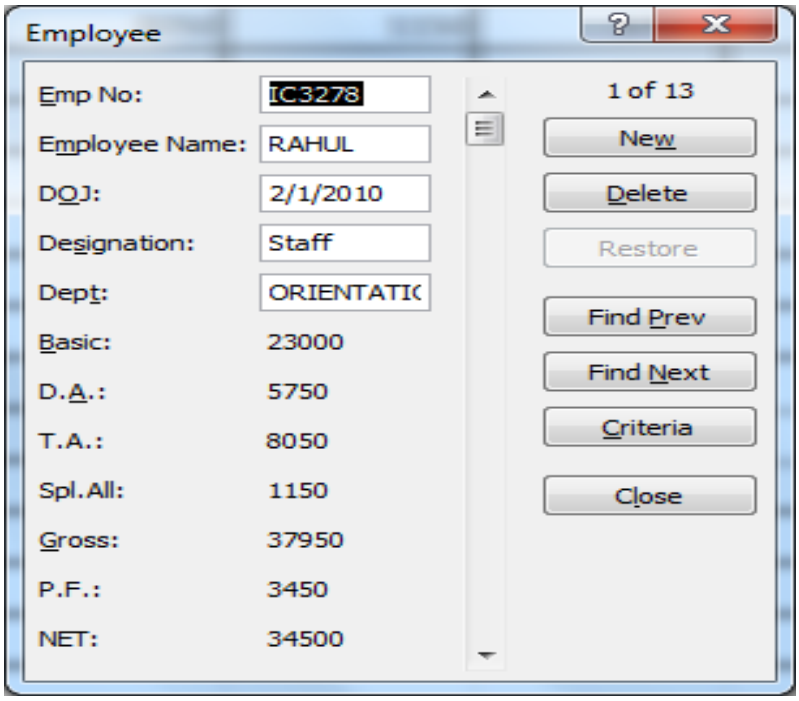
14. To add a Data Form follow the steps-

    Step 1: File → Options → Quick Access Toolbar → Commands Not in Ribbon → Form → **Add>>** → OK



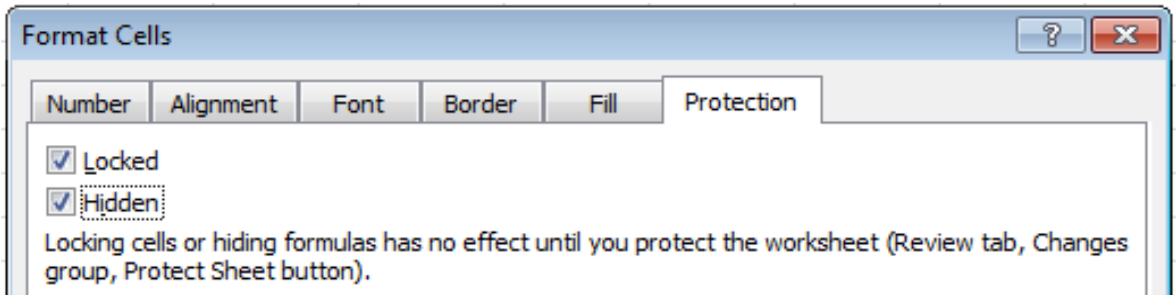
Step 2: Select employee data including Fields name → Quick Access Toolbar →Form *(form will appear like below figure)*.

Step 3: Here using **New** command you can enter data into excel sheet. Using Data Form Deletion will be permanent.



15. **Step 1:** Go to Home tab → Find & Select → Formulae, *(it will select all cells those contain formulae)*

Step 2: Go to format cell dialog box by pressing **CTRL+1** → select **protection Tab** → enable **Hidden** option → OK.



Note: it will be effective only after protecting sheet.

16. To protect sheet go to Home tab → Cells group → Format → Protect Sheet → entre password to unprotect (optional).

Or

Review Tab → Changes Group → Protect Sheet

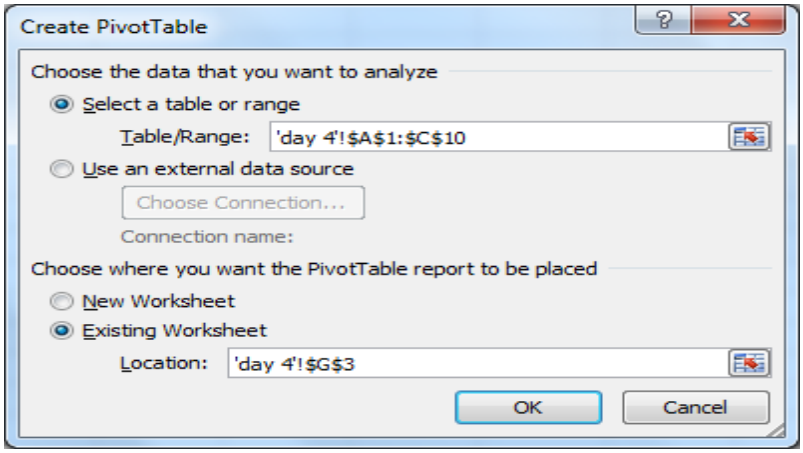
17. To protect entire workbook go to Review Tab → Changes Group → Protect workbook.

Note: Password is optional to unprotect the same.

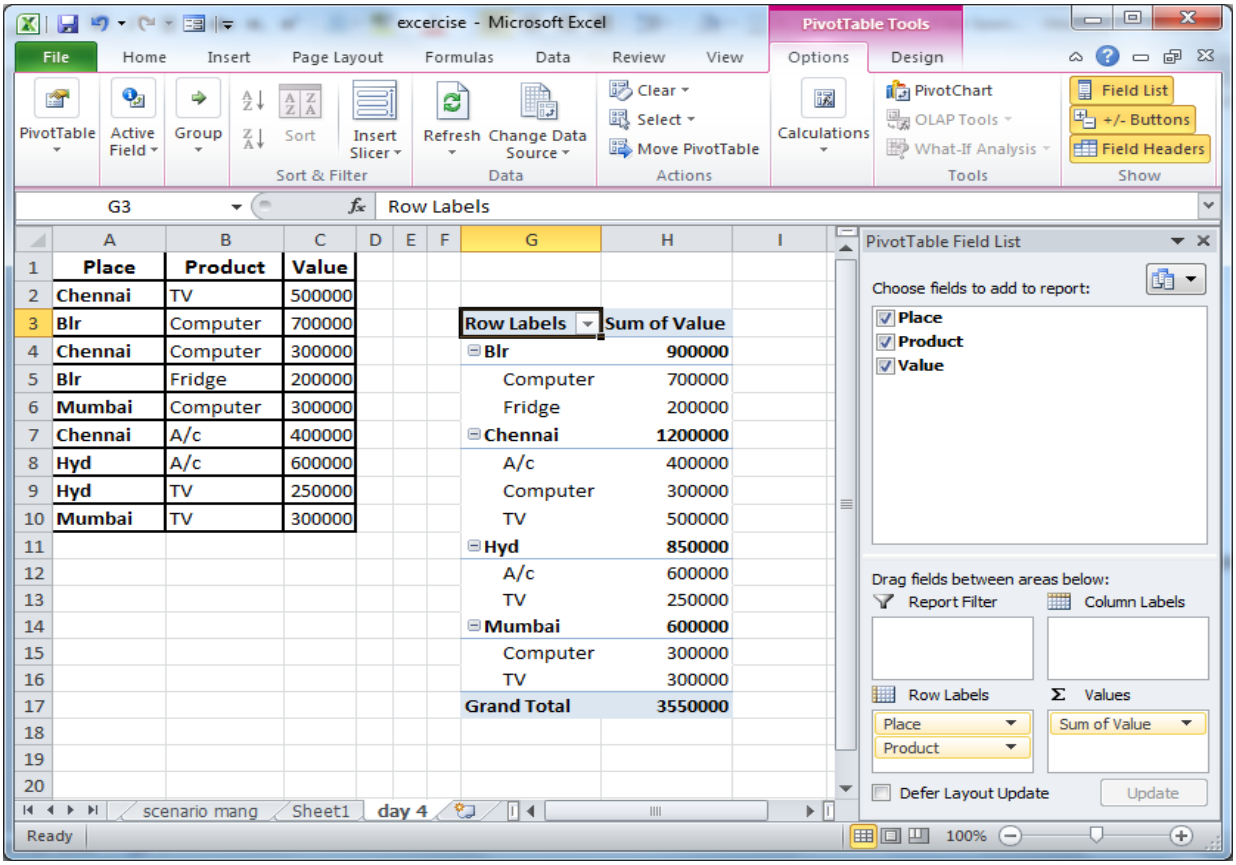
Day 5

1. To insert a Pivot table report steps are-

   Step 1: Select data including headings→ Insert Tab → Table group → Pivot Table. It will launch a dialog box as below figure.



   Step 2: In the above dialog box data range already selected. Now specify the location where you want to place the report → OK



Step 3: Now from Pivot table field List you can choose fields which you want to add in report as shown in above figure.

2. To filter the records do the following steps-

Step 1: Select Heading → Home Tab → Sort & Filter → Filter Or Data Tab → Filter

It will add filter to all selected Fields.|

Step 2: click on Filter Button of product → select Computer.

Step 3: click on Filter Button of Value → Number Filer → set criteria

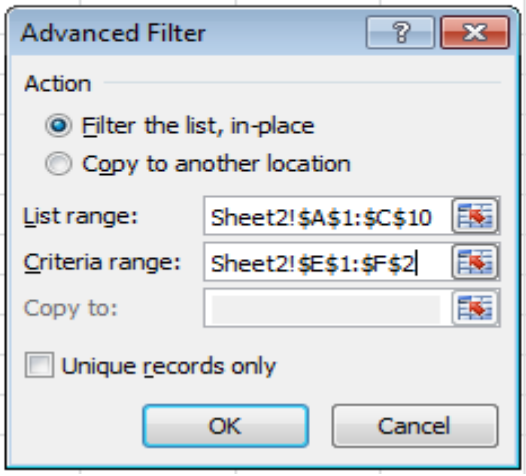
or

To apply Advance filter do the following-

Step 1: go to Data Tab → Advanced → it will launch Advance filter dialog box.

Step 2: Select List range (entire data) & criteria range as shown below → OK

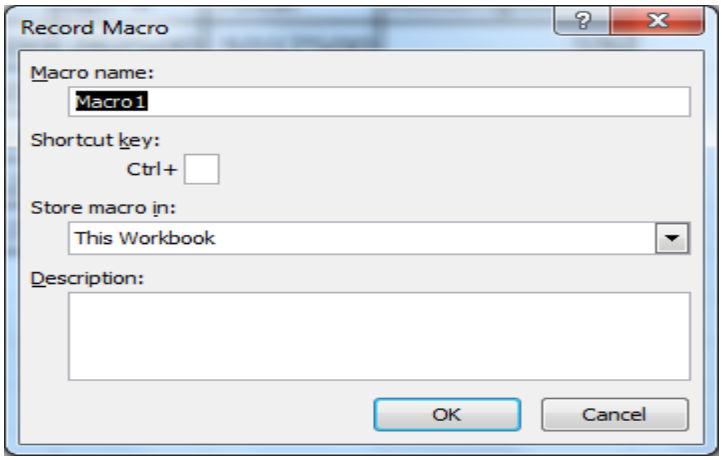
	A	B	C	D	E	F	G
1	Place	Product	Value		Product	Value	
2	Chennai	TV	500000		Computer	>500000	
3	Blr	Computer	700000				
4	Chennai	Computer	300000				
5	Blr	Fridge	200000				
6	Mumbai	Computer	300000				
7	Chennai	A/c	400000				
8	Hyd	A/c	600000				
9	Hyd	TV	250000				
10	Mumbai	TV	300000				
11							
12							
13							
14							



3. (a) To record a macro steps are-

Step 1: Select given sheet → View Tab → Macros group → Record Macro *(It will launch record macro dialog box)*

Step 2: In this dialog box provide a macro name as well as set shortcut key as you desired *(make sure that key has not been assigned earlier)* → OK



Step 3: The moment you will click on OK button, recording will start. Now insert a Pie Chart for given data and then Stop recording.

Note: (i) Macro will run in Macro enabled workbook only otherwise enable the related setting from Options. It's better to record a macro in new workbook and save it as a Macro enabled workbook (.xlsm).

(ii) To enable Macros steps are -

File → Options → Trust Center → Trust Center settings →

Macro Settings → Enable all Macros → OK

(iii) While naming the macro take care of following points-

- The name does not begin with a letter or an underscore
- Space or other invalid characters are not allowed in name
- The name conflicts with an Excel built-in name or the name of another object in the workbook

(b) To run macro steps are-

View Tab → Macros → View Macros → select the Macro to run → click on Run Button

Or

you can press keyboard shortcut which is already assigned to that macro

Or

Press **CTRL+F8** to view macro → now select the macro and click on **Run** Command.

4. **Step 1:** Go to the **"Day 1"** worksheet in your workbook.

   Step 2: Select a cell from where you want to split it → View Tab → Window group → Split (*It will split window in multiple resizable Panes*).

5. To remove the split option, steps are-

   View Tab → Window group → click on **Split** icon.

6. To apply Freeze Panes steps are-

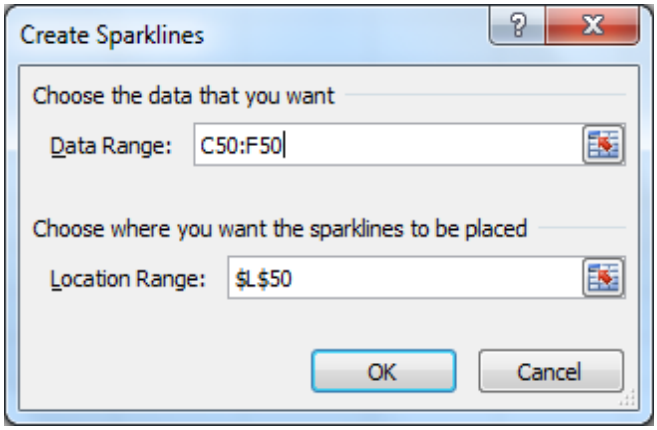
   Select cell as given → View Tab → Window group → Freeze Panes (*It will freeze the above rows and left columns from selected cell*).

7. To unfreeze panes click on Freeze panes icon. It will unfreeze if already freeze.

8. To insert Sparkline steps are-

   Step 1: Select the output cell → Insert Tab → Sparkline Group →use **Line** or **Column** any.

   Step 2: Now select the data range (all subject marks for individual) → OK.

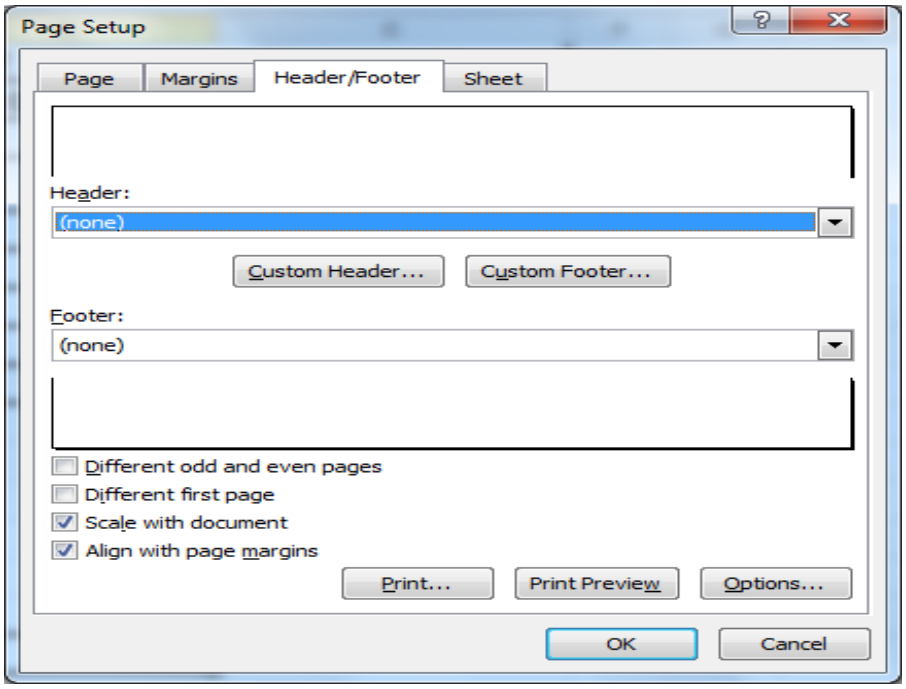


9. **Step 1:** Select the Employee data →Page Layout Tab → Page Setup group → Print area → Set Print Area

   Step 2: File → Print or press **CTRL+F2** for print preview.

10. To set header and footer in Excel steps are-

Step 1: Page Layout Tab → Page Setup group → launch this group.



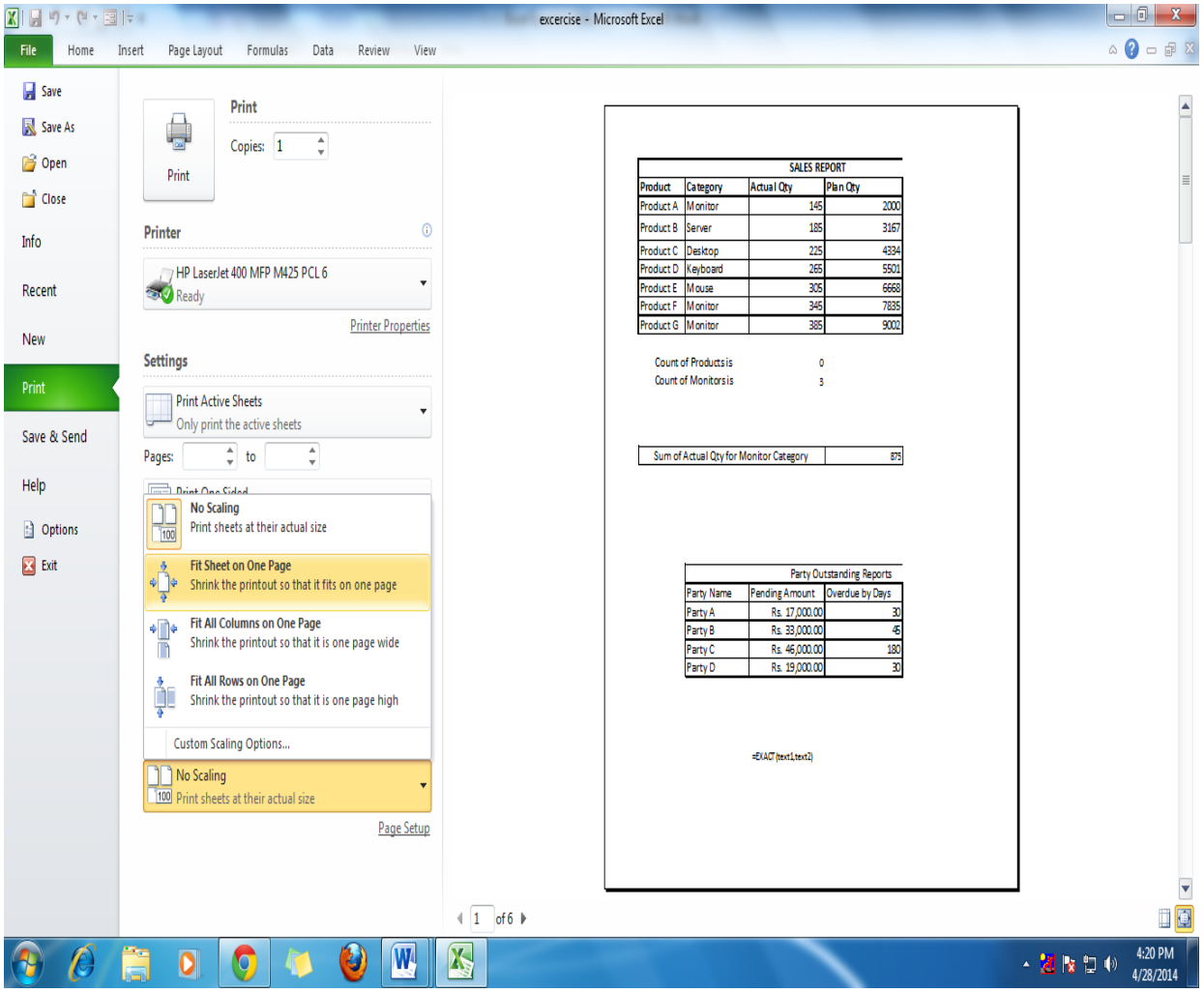
Step 2: In page seetup dialog box select Header/ Footer group → Custom Header and set header as given in exercise. Do the same for Footer also.

11. To set paper size, orientation and margins you can use page setup window as shown in above figure of Point no. 10 of Day 5

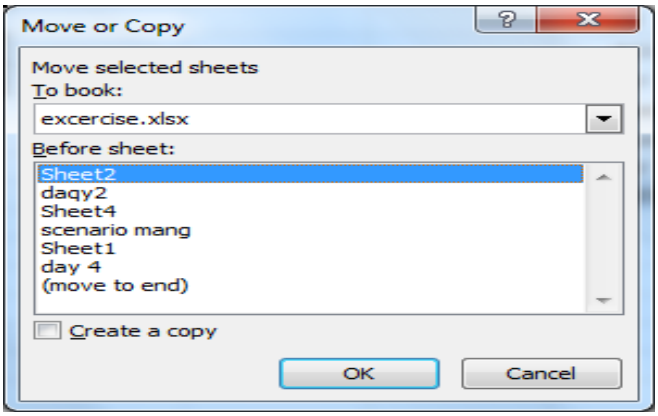
Or

Page Layout Tab → Page Setup group → select commands as required and set it.

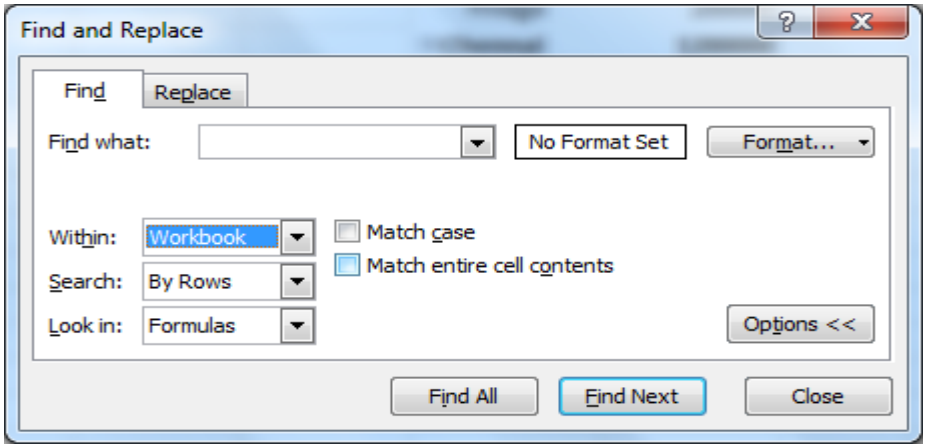
12. Open a workbook containing some data.
    a) To repeat row / column in sheets for printing go to Page Layout Tab → Page Setup group → Print titles. Here select the row / columns to repeat.
    b) To fit contents in a single page if exceeds one or two row / columns for printing use command Print under file tab → Scaling → Fit sheet on One page (refer the below figure).


excercise - Microsoft Excel
File
Home
Insert
Page Layout
Formulas
Data
Review
View
Save
Save As
Open
Close
Info
Recent
New
Print
Save & Send
Help
Options
Exit
Print
Copies: 1
Printer
HP LaserJet 400 MFP M425 PCL 6
Ready
Printer Properties
Settings
Print Active Sheets
Only print the active sheets
Pages: to
No Scaling
Print sheets at their actual size
Fit Sheet on One Page
Shrink the printout so that it fits on one page
Fit All Columns on One Page
Shrink the printout so that it is one page wide
Fit All Rows on One Page
Shrink the printout so that it is one page high
Custom Scaling Options...
No Scaling
Print sheets at their actual size
Page Setup
SALES REPORT
Product Category Actual Qty Plan Qty
Product A Monitor 145 2000
Product B Server 185 3167
Product C Desktop 225 4334
Product D Keyboard 265 5501
Product E Mouse 305 6668
Product F Monitor 345 7835
Product G Monitor 385 9002
Count of Products is 0
Count of Monitors is 3
Sum of Actual Qty for Monitor Category 875
Party Outstanding Reports
Party Name Pending Amount Overdue by Days
Party A Rs. 17,000.00 30
Party B Rs. 33,000.00 45
Party C Rs. 46,000.00 180
Party D Rs. 19,000.00 30
=EXACT(text1,text2)
1 of 6
4:20 PM
4/28/2014

c) To move or copy sheet in existing or other workbook steps are-
Right click on sheet →**Move or Copy** →select the Book where you want to place it as well as position → OK
Note : *It will Move the sheet. If you want to copy it then enable checkbox for* ***Create a copy***.



d) To search from entire workbook go to Home tab → Editing group → find & select → Find
Or
Press **CTRL+F** → Options → **Within :** workbook.



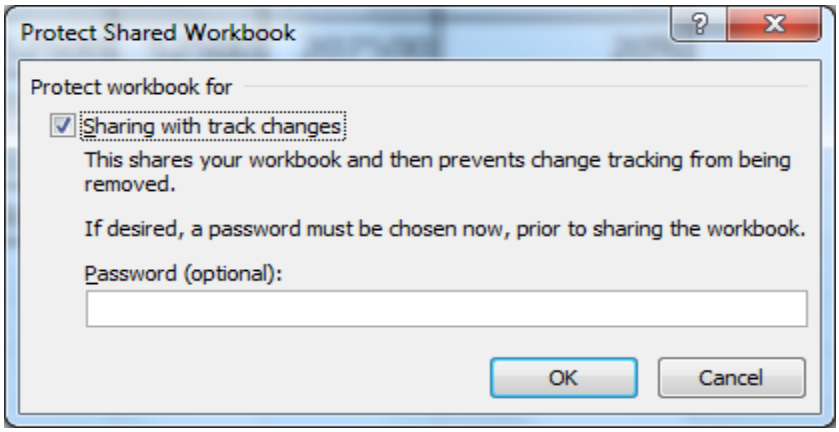
e) To work with comments in excel go to Review Tab → Comments Group and use command as you required. To insert comment in cells you can right click and use command Insert comment.

f) To insert multiple cells, select the cells and press **CTRL++** and choose the direction for shift cell.
To insert multiple rows/columns select multiple row/column and press **CTRL++**

g) To insert an object in worksheet go to Insert Tab → Text group → Object.

h) To define a name select the range and type name in name box.
Or
Select the range and go to Formulae Tab → Define Names group → Define name.

i) To enable Track Changes in excel go to Review Tab → Changes group → Protect and Share workbook → Enable the option: Sharing with track changes (refer the below figure).



j) For multicolumn sorting use Custom Sort command from Sort & Filter of Editing group of Home tab.

Shortcut keys

(a) Function Keys

Shortcut key	Functionality
F1	Displays the Microsoft Office Excel Help task pane
F2	Edits the active cell, putting the cursor at the end
F3	Displays the Paste Name dialog box
F4	Repeats the last command or action, if possible
F5	Displays the Go To dialog box
F6	Switches between the worksheet, Ribbon, task pane, and Zoom controls. In a worksheet that has been split, it also includes the split panes.
F7	Displays the Spelling dialog box
F8	Turns extend mode on or off
F9	Calculates all worksheets in all open workbooks
F10	Turns key tips on or off
F11	Creates a chart (on a chart sheet) using the highlighted range
F12	Displays the Save As dialog box

(b) SHIFT + Function Keys

Shortcut key	Functionality
Shift + F2	Inserts or edits a cell comment
Shift + F3	Displays the Insert Function dialog box
Shift + F4	Repeats the last Find, the same as Find Next
Shift + F5	Displays the Find dialog box
Shift + F6	Switches between the worksheet, Zoom controls, task pane, and Ribbon
Shift + F8	Enables the user to add a nonadjacent cell or range to a selection of cells by using the arrow keys
Shift + F9	Calculates the active worksheet
Shift + F10	Displays the (Shortcut) menu for the selected item
Shift + F11	Inserts a new worksheet
Shift + F12	Displays the Save As dialog box

(c) CTRL + Function Keys

Shortcut key	Functionality
Ctrl + F1	Displays or hides the Ribbon
Ctrl + F2	Displays the Print Preview window
Ctrl + F3	Displays the Name Manager dialog box
Ctrl + F4	Closes the selected workbook window
Ctrl + F5	Restores the window size of the selected

	workbook window
Ctrl + F6	Moves to the next open workbook or window
Ctrl + F7	Performs the Move window command when the window is not maximized
Ctrl + F8	Performs the Size window command when the window is not maximized
Ctrl + F9	Minimizes the workbook window to an icon
Ctrl + F10	Maximizes or restores the selected workbook window
Ctrl + F11	Inserts a new macro sheet
Ctrl + F12	Displays the Open dialog box

(d) Other + Function keys

Shortcut key	Functionality
Alt + F1	Creates a chart (on a chart sheet) using the highlighted range
Alt + F2 or Alt + Shift + F2	Displays the Save As dialog box
Alt + F4 or Alt + Shift + F4	Closes all the workbooks (saving first) and exits Excel
Alt + F8	Displays the Macro dialog box
Alt + F11	Toggles between the Visual Basic Editor window (in which one can create a macro using VBA) and the Excel window
Alt + Ctrl + F9	Calculates all worksheets in all open workbooks
Alt + Shift + F1	Inserts a new worksheet
Ctrl + Shift + F3	Displays the Create Names from Selection dialog box
Ctrl + Shift + F12	Displays the Print dialog box

(e) CTRL + Number Keys

Shortcut key	Functionality
Ctrl + 0	Hides the selected columns
Ctrl + 1	Displays the Format Cells dialog box
Ctrl + 2	Toggles bold on the current selection
Ctrl + 3	Toggles italics on the current selection
Ctrl + 4	Toggles underlining on the current selection
Ctrl + 5	Toggles the strikethrough of text on the current selection
Ctrl + 6	Alternates between hiding objects, displaying objects, and displaying place-holders for objects
Ctrl + 8	Toggles the display of outline symbols
Ctrl + 9	Hides the selected rows

(f) CTRL + Alphabet Keys

Shortcut key	Functionality
Ctrl + A	Selects the entire worksheet
Ctrl + B	Toggles bold on the current selection
Ctrl + C	Copies the current selection to the clipboard
Ctrl + D	Copies the contents and format of the first cell in the selection downwards
Ctrl + F	Displays the Find dialog box
Ctrl + G	Displays the Go To dialog box
Ctrl + H	Displays the Replace dialog box
Ctrl + I	Toggles italics on the current selection
Ctrl + K	Displays the Insert Hyperlink dialog box for new hyperlinks or the Edit Hyperlink dialog box for selected existing hyperlinks
Ctrl + L	Displays the Create Table dialog box
Ctrl + N	Creates a new blank workbook
Ctrl + O	Displays the Open dialog box
Ctrl + P	Displays the Print dialog box
Ctrl + R	Copies the contents and format of the leftmost cell in the selection to the right
Ctrl + S	Saves the active file
Ctrl + U	Toggles underlining on the current selection
Ctrl + V	Pastes the contents of the clipboard at the insertion point
Ctrl + W	Closes the selected workbook window
Ctrl + X	Cuts the current selection to the clipboard
Ctrl + Y	Repeats the last command or action, if possible
Ctrl + Z	Undo the last command or action

(g) Other Shortcuts

Shortcut key	Functionality
Ctrl + Shift + A	Inserts argument names and parentheses when the insertion point is to the right of a function name in a formula
Ctrl + Shift + F or Ctrl + Shift + P	Opens the Format Cells dialog box with the Font tab selected
Ctrl + Shift + O	Selects all the cells with comments
Enter	Enters the contents of the active cell and moves to the cell below
Shift + Enter	Enters the contents of the active cell and moves to the cell above

Tab	Enters the contents of the active cell and moves one cell (unlocked in a protected worksheet) to the right
Shift + Tab	Enters the contents of the active cell and moves one cell (unlocked in a protected worksheet) to the left
Alt + =	Enters the SUM() function in the active cell
Alt + 0128	Enters the euro symbol (€) (using Number keypad)
Alt + 0162	Enters the cent symbol (¢) (using Number keypad)
Alt + 0163	Enters the pound sign symbol (£) (using Number keypad)
Alt + 0165	Enters the yen symbol (¥) (using Number keypad)
Alt + Enter	Enters a new line (or carriage return) into a cell
Ctrl + '	Enters the formula from the cell directly above into the active cell
Ctrl + ;	Enters the current date into the active cell
Ctrl + Enter	Enters the contents of the active cell to the selected cell range
Ctrl + Shift + :	Enters the current time into the active cell
Shift + Insert	Enters the data from the clipboard
Alt + Down Arrow	Displays a drop-down list of the values in the current column of a range row
Esc	Cancels the cell entry
Ctrl + Tab	Switches to the next tab in a dialog box
Ctrl + Shift + Tab	Switches to the previous tab in a dialog box
Home	Moves to the first column in the current row
End + Arrow Key	Move by one block of data within a row or column
Page Down	Moves one screen down in a worksheet
Page Up	Moves one screen up in a worksheet
Alt + Page Down	Moves one screen to the right in a worksheet
Alt + Page Up	Moves one screen to the left in a worksheet
Ctrl + Home	Moves to the beginning (cell —A1‖) of a worksheet
Ctrl + End	Moves to the last cell on a worksheet, in the lowest used row of the rightmost used column
Ctrl + Arrow Key	Moves to the edge of the current data region
Ctrl + Page Up	Moves to the previous worksheet in a workbook
Ctrl + Page Down	Moves to the next worksheet in a workbook
Scroll Lock + Arrow Key	Moves the workbook window by one cell in the corresponding direction
Scroll Lock + End	Moves to the last cell in the current workbook window
Scroll Lock + Home	Moves to the first cell in the current workbook window
Scroll Lock + Page Down	Moves you down one screen (current

	selection unchanged)
Scroll Lock + Page Up	Moves you up one screen (current selection unchanged)
Ctrl + .	Moves clockwise to the next corner within a selected range
Ctrl + Alt + Left Arrow	Switches to the next non-adjacent selection to the left
Ctrl + Alt + Right Arrow	Switches to the next non-adjacent selection to the right
=	Starts a Formula
Ctrl + `	Alternates between displaying cell values and displaying formulas in the worksheet
Ctrl + Delete	Deletes text to the end of the line
Ctrl + Insert	Copies the current selection to the clipboard
Ctrl + Shift + (	Unhides any hidden rows within the selection
Ctrl + Shift +)	Unhides any hidden columns within the selection
Alt	Shows key tips
Alt + Shift + Left Arrow	Displays the Ungroup dialog box
Alt + Shift + Right Arrow	Displays the Group dialog box
Alt + Backspace	Undo the last action
Alt + Spacebar	Displays the control menu for the Microsoft Office Excel window
Alt + - (from the Numeric keypad)	Displays the Excel application control menu
End	Moves to the cell in the lower-right corner of the window when SCROLL LOCK is turned on.
Delete	Deletes the selection or one character to the right
Backspace	Deletes the selection or one character to the left
Shift + Delete	Cuts the selection to the clipboard
Ctrl + -	Displays the Delete dialog box
Ctrl + Shift + =	Displays the Insert dialog box
Ctrl + Backspace	Scrolls to display the active cell
Ctrl + Shift + U	Switches between expanding and collapsing of the formula bar

(h) Selecting data

Shortcut key	Functionality
Ctrl + \	Selects the cells in a selected row that do not match the value in the active cell
Ctrl + Shift + \	Selects the cells in a selected column that do not match the value in the active cell
Ctrl + /	Selects the array containing the active cell
Alt + ;	Selects the visible cells in the current selection
Ctrl + Shift + *	Selects the current region around the active cell (surrounded by blank rows and columns). In a PivotTable, it selects the entire PivotTable report.
Ctrl + [	Selects all the cells that are directly referred

	to by the formula in the active cell (precedents)
Ctrl + Shift + [	Selects all the cells that are directly (or indirectly) referred to by the formula in the active cell
Ctrl +]	Selects all the cells that directly refer to the active cell (dependents)
Ctrl + Shift +]	Selects all the cells that directly (or indirectly) refer to the active cell
Ctrl + Shift +	Page Selects the active worksheet and the one after it Down
Ctrl + Shift +	Selects the active worksheet and the one before it PageUp
Ctrl + Shift +	Selects all the objects on a worksheet when an object is selected or selects the
Spacebar	entire worksheet
Ctrl + Spacebar	Selects an entire column in a worksheet
Shift + Spacebar	Selects an entire row in a worksheet
Shift + Arrow	Selects the active cell and the cell in the given direction keys
Shift + Backspace	Selects the active cell when multiple cells are selected

(i) Extending data

Shortcut key	Functionality
Ctrl + Shift + Arrow Key	Extends the selection to the last non-blank cell in the same column or row as the active cell, or if the next cell is blank, extends the selection to the next non-blank cell
Ctrl + Shift + End	Extends the selection to the last used cell on the worksheet
Ctrl + Shift + Home	Extends the selection to the beginning of the worksheet
Shift + Arrow Key	Extends the selection by one cell in that direction
Shift + Home	Extends the selection to the first column
Shift + Page Down	Extends the selection down one screen
Shift + Page Up	Extends the selection up one screen
End, Shift + Arrow Key	Extends the selection to the next non-blank cell in that direction

(j) Formatting data

Shortcut key	Functionality
Alt + '	Displays the Style dialog box
Ctrl + Shift + !	Applies the Number format with two decimal places, thousands separator, and minus

	sign (-) for negative values
Ctrl + Shift + $	Applies the Currency format with —$ll sign and two decimal places (negative numbers in parentheses)
Ctrl + Shift + %	Applies the Percentage format with no decimal places
Ctrl + Shift + ^	Applies the Exponential number format with two decimal places
Ctrl + Shift + ~	Applies the General number format
Ctrl + Shift + @	Applies Time format with the hour and minute, and AM or PM
Ctrl + Shift + #	Applies the Date format "dd-mmm-yy" to the selection
Ctrl + Shift + &	Applies the outline border to the selected cells
Ctrl + Shift + _	Removes the outline border from the selected cells

All the very best ☺