

PRACTICAL 8

AIM: Perform pareto chart for given data.




STEPS:

1. Static Pareto Chart :

1) Data to be used :

	A	B
1		
2	DATA TO BE USED	
3	complaint type	no of complaints
4	delay in registration	43
5	room cleaning	34
6	food quality	17
7	delay in room service	9
8	staff attitude	6
9	room interiors	6
10	air conditioning	3
11	concierge	2
12	mini bar	2

2) Apply the formula for cumulative percent as below for first row and then drag the cell to get cumulative percent for all the rows : - $=\text{SUM}(\$B\$2:B2)/\text{SUM}(\$B\$2:\$B\$10)$

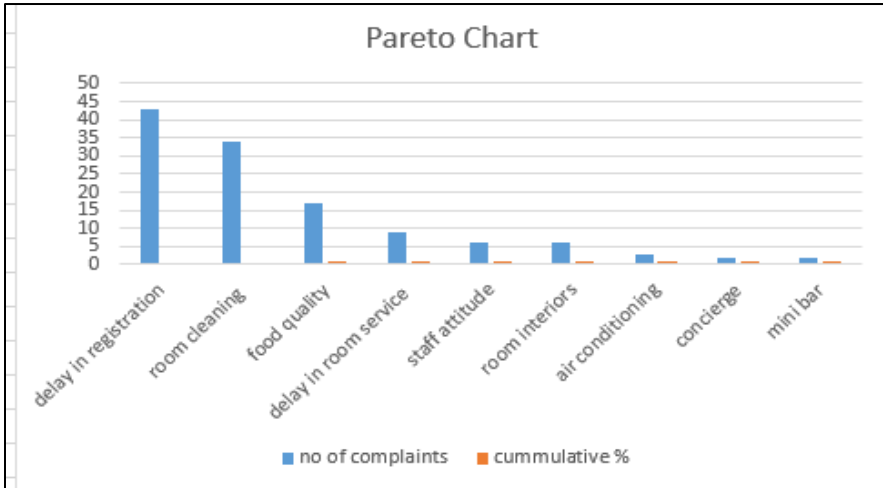
C2	:				=SUM(\$B\$2:B2)/SUM(\$B\$2:\$B\$10)
	A	B	C	D	
1	complaint type	no of complaints	cummulative %		
2	delay in registration	43	0.352459016		
3	room cleaning	34	0.631147541		
4	food quality	17	0.770491803		
5	delay in room service	9	0.844262295		
6	staff attitude	6	0.893442623		
7	room interiors	6	0.942622951		
8	air conditioning	3	0.967213115		
9	concierge	2	0.983606557		
10	mini bar	2	1		

3) Convert cumulative % column to percent type :

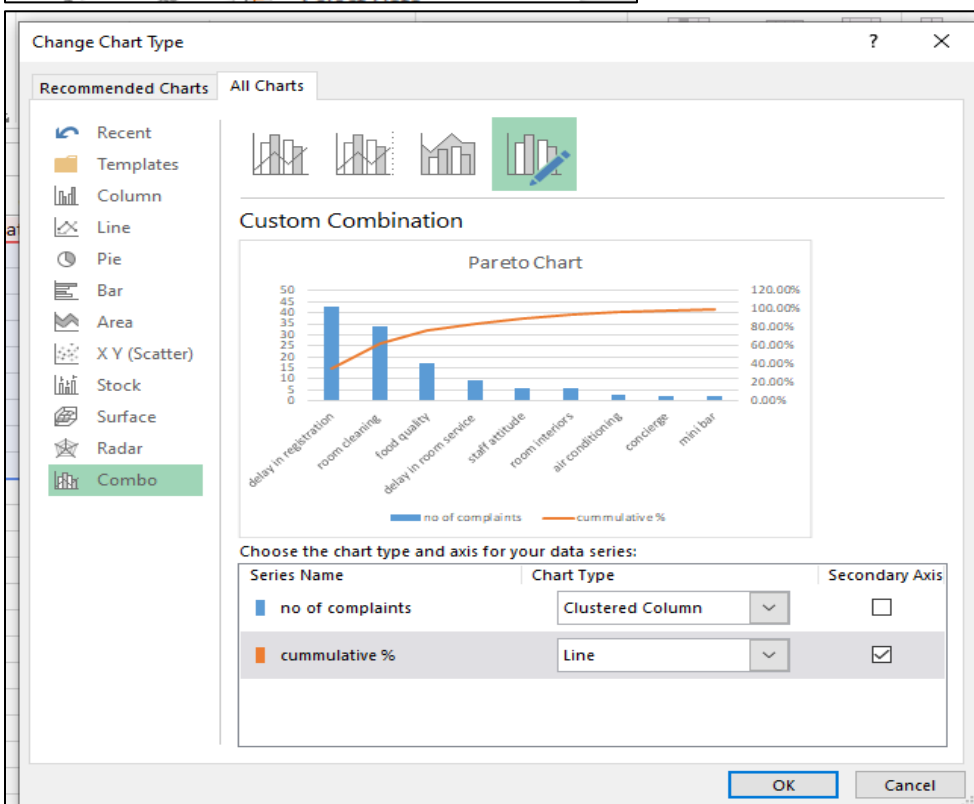
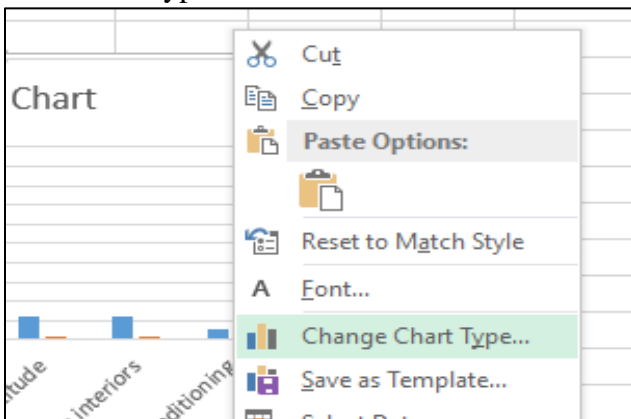
Right Click on cumulative % -> Format Cells... -> Select Percentage -> OK

C4	⌵	:	✕	✓	<i>fx</i>	=SUM(\$B\$4:B4)/SUM(\$B\$4:\$B\$12)
	A		B		C	D
1						
2	DATA TO BE USED					
3	complaint type		no of complaints		cummulative %	
4	delay in registration		43		35.25%	
5	room cleaning		34		63.11%	
6	food quality		17		77.05%	
7	delay in room service		9		84.43%	
8	staff attitude		6		89.34%	
9	room interiors		6		94.26%	
10	air conditioning		3		96.72%	
11	concierge		2		98.36%	
12	mini bar		2		100.00%	

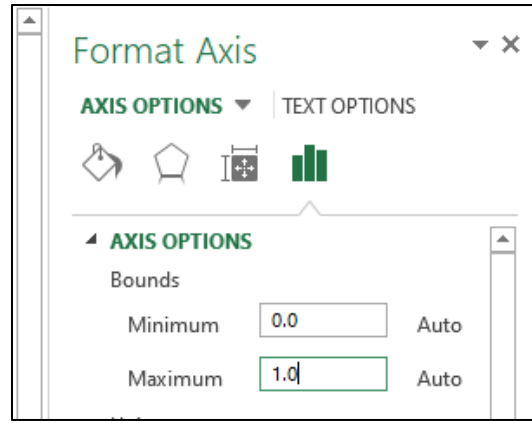
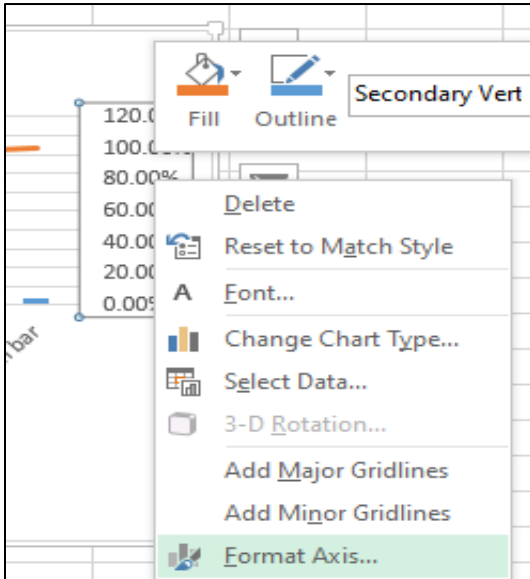
4) To create Bar Graph: Select the entire data -> Insert -> Insert Column Chart -> Clustered Column



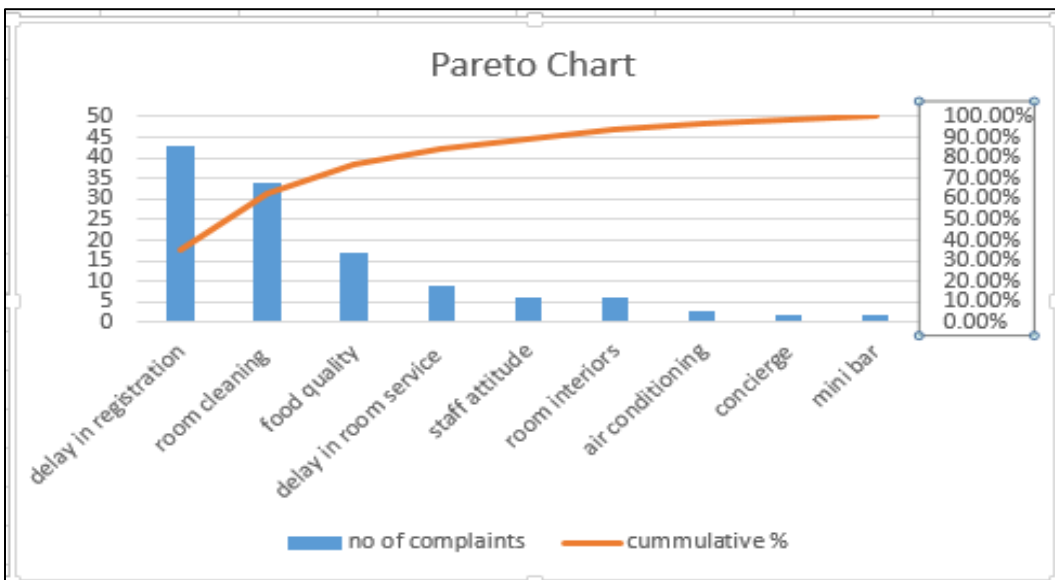
5) To create Static Pareto Chart : Right Click on chart -> Change Chart Type...-> Combo -> For cumulative % , select chart type as Line and tick the checkbox in Secondary Axis -> OK



6) To change the legends range: Right click on the cumulative legend -> Format Axis -> set Maximum as 1.0



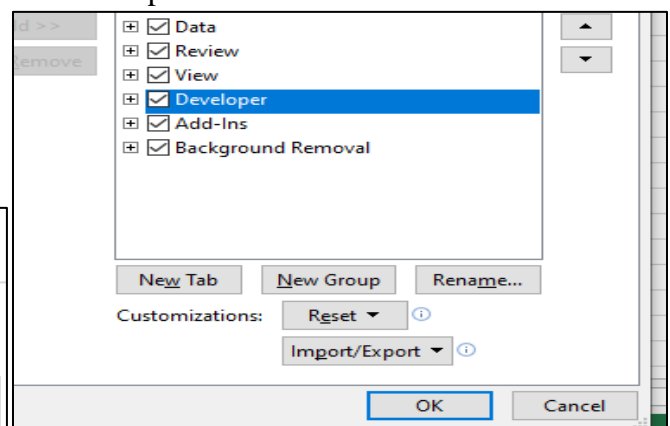
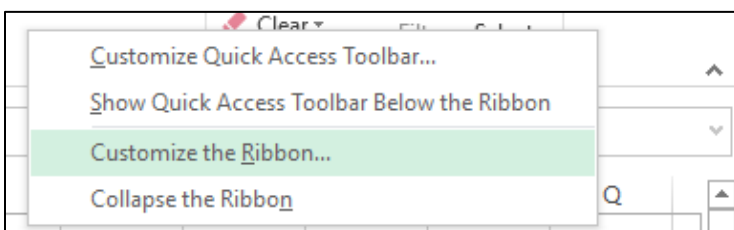
Static Pareto Chart :



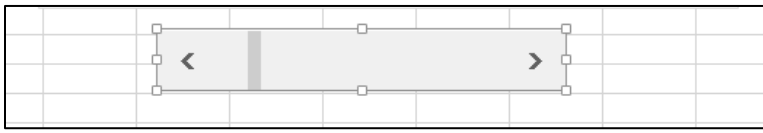
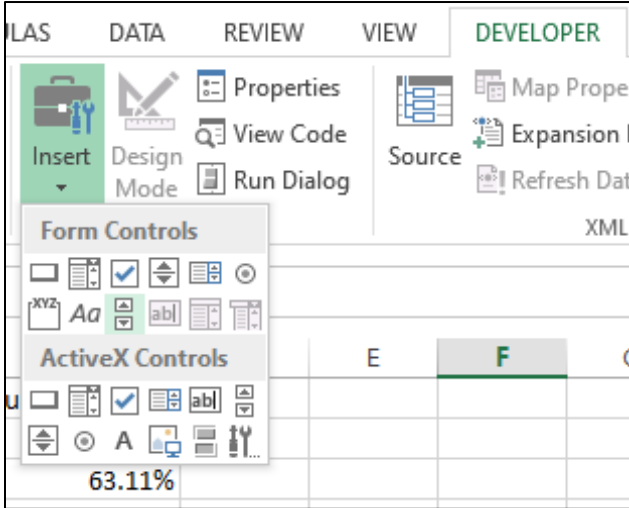
2. Dynamic Pareto Chart :

1) Add Developer option :

Right click on ToolBar -> Customize the Ribbon... -> Select Developer -> OK

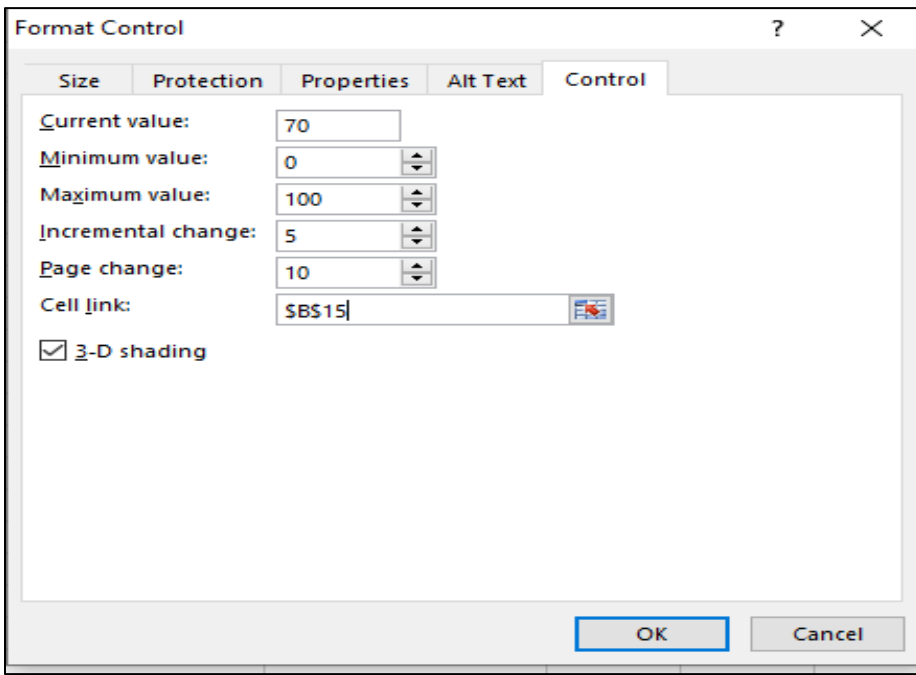
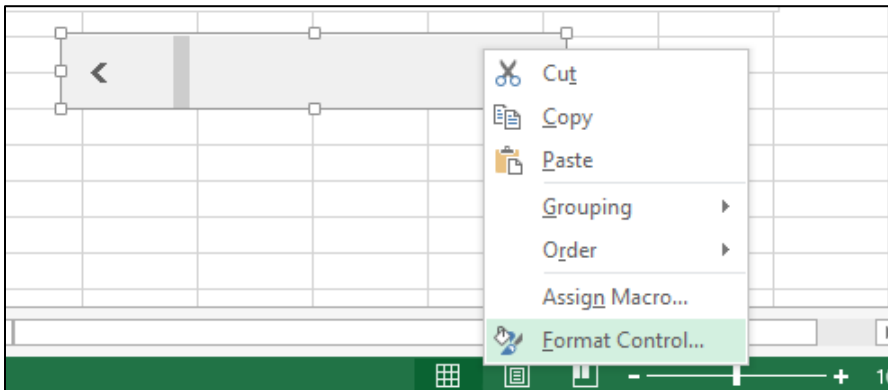


2) Go to Developer -> Insert -> Form Control -> Scroll Bar



3) Add cells such as target, cumulative value , scroll bar link value below data

4) Add control to the Scroll Bar :Right click on Scroll bar -> Format Control -> Set the values as follows -> OK



5) Add Columns as 'highlighted bars' and 'remaining bars' to data and add the following formula for the same & drag drop values for entire column :

highlighted bars : =IF(\$B\$14>=C2,B2,NA())

remaining bars : =IF(\$B\$14<C2,B2,NA())

6) Add the following formula to the target and cumulative value :

target : =B15/100

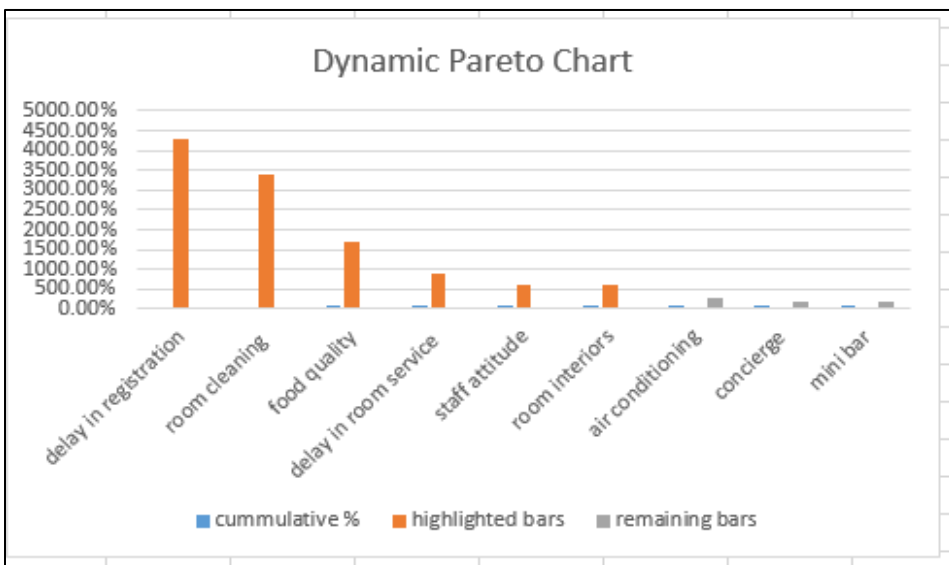
cumulative value : =INDEX(\$C\$2:\$C\$10,MATCH(\$B\$13,\$C\$2:\$C\$10,1)+1)

Now as we click the scroll bar , accordingly the reflections will be seen

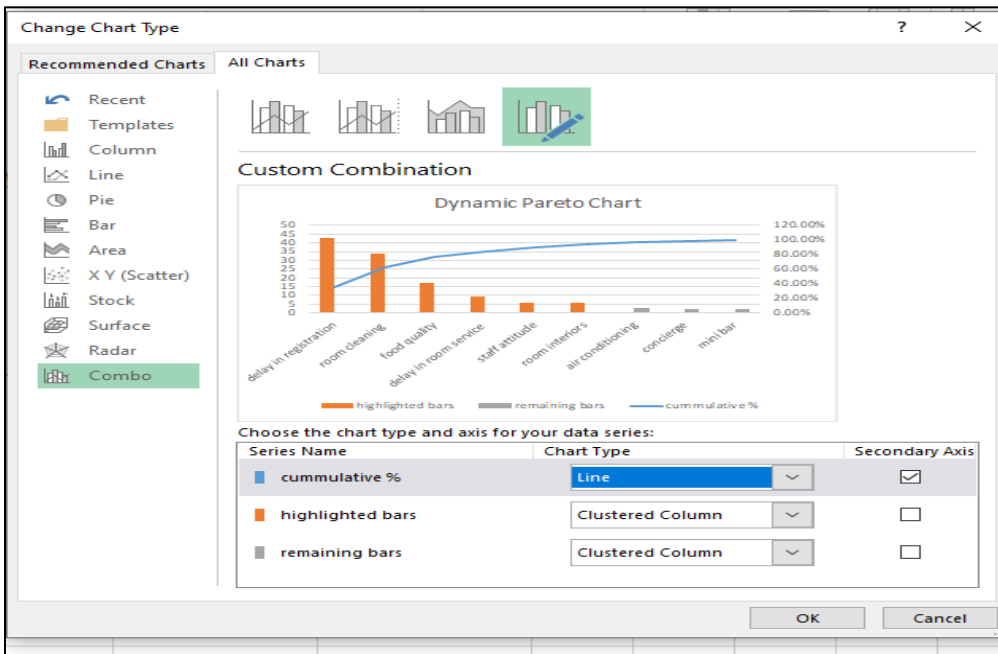
	A	B	C	D	E
1	complaint type	no of complaints	cummulative %	highlighted bars	remaining bars
2	delay in registration	43	35.25%	target : =B15/100	#N/A
3	room cleaning	34	63.11%	34	#N/A
4	food quality	17	77.05%	17	#N/A
5	delay in room service	9	84.43%	#N/A	9
6	staff attitude	6	89.34%	#N/A	6
7	room interiors	6	94.26%	#N/A	6
8	air conditioning	3	96.72%	#N/A	3
9	concierge	2	98.36%	#N/A	2
10	mini bar	2	100.00%	#N/A	2

target	0.72
cummulative value	0.770491803
scroll bar link value	72

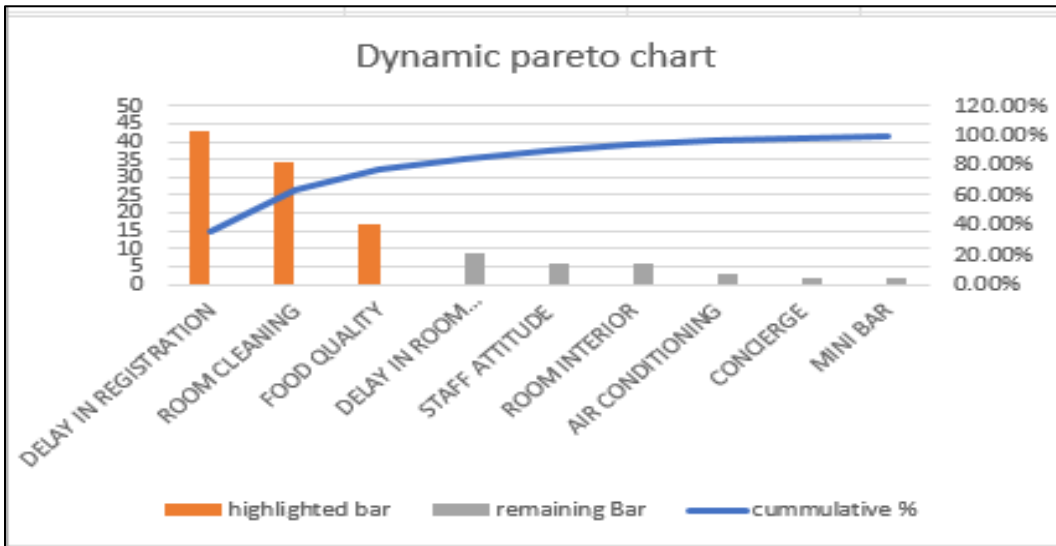
7) Select the columns with data : complaint type , cumulative % , highlighted bars and remaining bars -> Insert -> Insert Column Chart -> Clustered Column



8) Right Click on Chart -> Change Chart Type -> Combo -> For cumulative % , select chart type as Line and tick the checkbox in Secondary Axis -> OK



Now on the click of scroll bar , as the values changes the graph reflect the changes for the same **Dynamic Pareto Chart :**



A	B	C	D	E	
complaint type	no of complaints	cummulative %	highlighted bars	remaining bars	
delay in registration	43	35.25%	43	#N/A	
room cleaning	34	63.11%	34	#N/A	
food quality	17	77.05%	17	#N/A	
delay in room service	9	84.43%	#N/A	9	
staff attitude	6	89.34%	#N/A	6	
room interiors	6	94.26%	#N/A	6	
air conditioning	3	96.72%	#N/A	3	
concierge	2	98.36%	#N/A	2	
mini bar	2	100.00%	#N/A	2	
target	70.00%				
cumulative value	77.05%				
scroll bar link value	70				

PRACTICAL 9

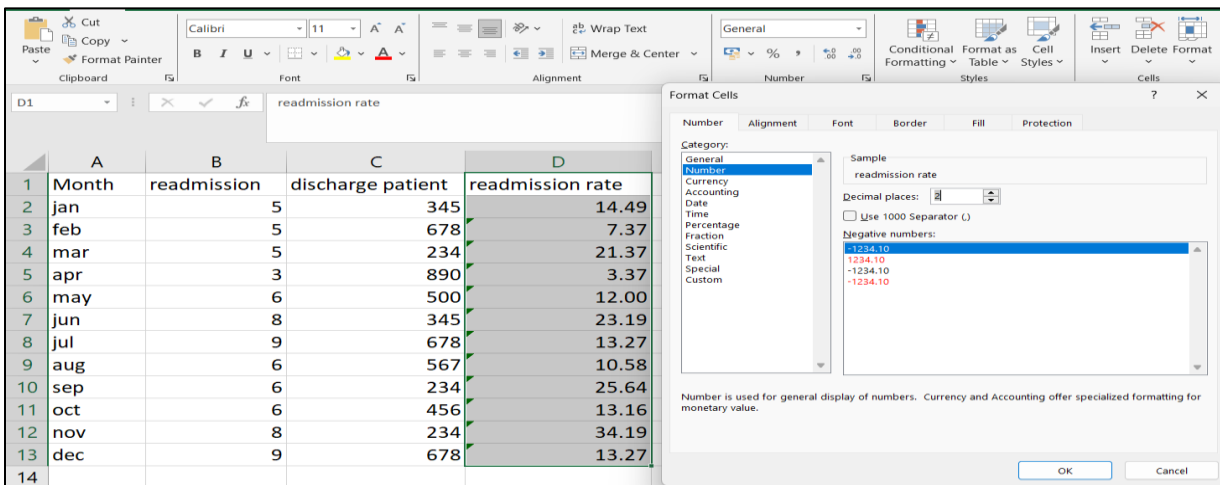
AIM To design Scatter diagram and Run Chart by using excel to perform defect analysis.

STEPS

1. Calculate readmission rate with the formula = (readmission/discharge patient) *1000. Apply same formula to all rows.

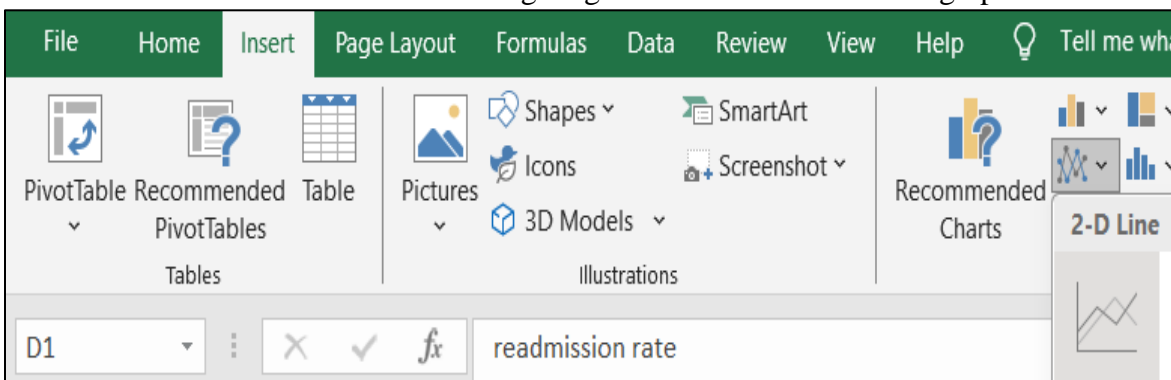
Month	readmission	discharge patient	readmission rate
jan	5	345	14.49
feb	5	678	7.37
mar	5	234	21.37
apr	3	890	3.37
may	6	500	12.00
jun	8	345	23.19
jul	9	678	13.27
aug	6	567	10.58
sep	6	234	25.64
oct	6	456	13.16
nov	8	234	34.19
dec	9	678	13.27

2. Select readmission rate column right click and select format cell and choose 2 decimal places for Number.



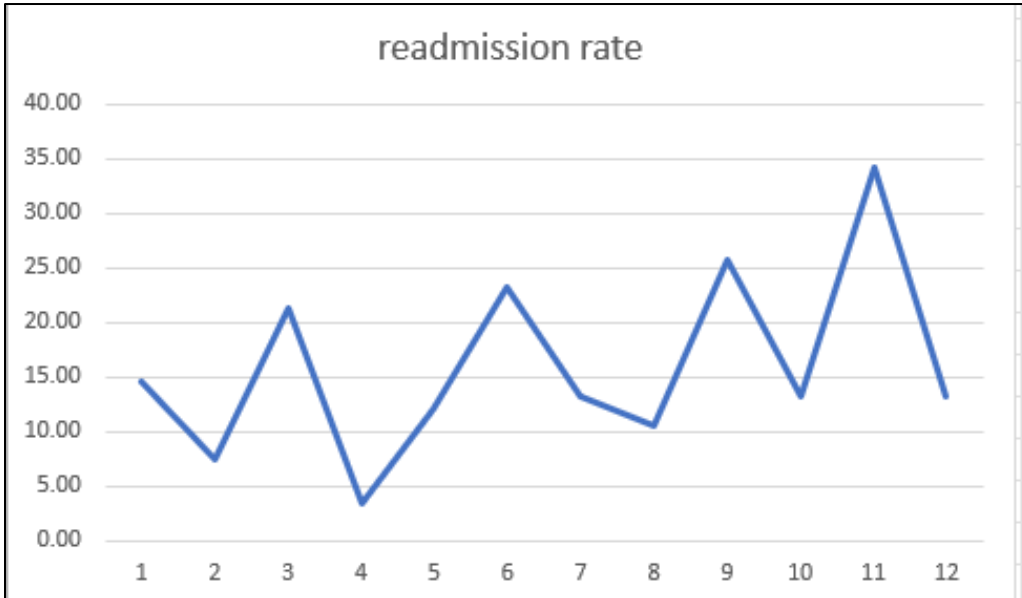
The screenshot shows the Excel 'Format Cells' dialog box for the 'readmission rate' column. The 'Number' category is selected, and 'Decimal places' is set to 2. The 'Sample' shows 'readmission rate' with two decimal places. The background shows the Excel spreadsheet with the 'readmission rate' column highlighted.

3. Now select readmission rate column again go to Insert and select Line graph to draw Run Chart.



The screenshot shows the Excel 'Insert' tab ribbon. The 'Charts' group is expanded, showing the '2-D Line' chart type selected. The background shows the Excel spreadsheet with the 'readmission rate' column highlighted.

4. Run Chart is ready.



5. Now select readmission rate column again go to Insert and select Scatter chart to draw Scatter Diagram.

