

## Assignment No. 8

\* Aim - Visualize the data using R/python by plotting the graphics for assignment 8 & 7

\* Theory -

① R Pie-charts - In R the pie chart created using the `pie()` function which takes the number as a vector input. The additional parameters are used to control labels, colors, title etc.

Syntax -

`pie(x, labels, radius, main, col,  
clockwise)`

② R-Bar charts -

A bar chart represents data in rectangular bar with length of bar proportional to the value of variable.

It uses the function `barplot()` to create bar charts. It can draw both vertical & horizontal bars in bar charts.

Syntax -

`barplot(H, xlab, ylab, main, names, arg,  
col)`

③ R-Rosplot - Rosplots are a measure of how

well distributed is the data in the dataset.

It divides the dataset in three quartiles.

This graph represents the minimum, maximum, median first quartile & second quartile in dataset.

It is also useful in computing the distribution of data across data sets by drawing box plots for each of them.

Syntax

```
boxplot(x.data, notch, var width, name,  
main)
```

#### ④ R-Histogram

A histogram represents the frequencies of values of a variable bunched into ranges.

Histogram is similar to bar chart but the difference is it groups the values into continuous ranges.

Syntax

```
plot(x, y, main, xlab, ylab, xlim, ylim, axes)
```



### ⑤ Scatter plot matrix

When we have more than 2 variables & we want to find the correlation betn one variable vs. remaining one we use scatterplot matrix.

#### Syntax

`pairs(formula, data)`

\* Conclusion - Thus, I have learnt & implemented the data visualization using R/python by plotting the various types of graphs.