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myCOMPANION

Assignment - 08

* **Aim :-** Visualise data for ⑥ and ⑦ using R and python

* **Theory :-**

- **Software Required →** 1. Ubuntu 2. R Studio

A. **Piechart →**

In R, the piechart is created using the pie function which takes positive numbers as a vector input. The additional parameters are used to control label, color etc

- **Syntax →**

Pie (x, labels, radius, main, col, clockwise)

Eg :- x ← c (21, 62, 10, 53)

labels ← c ("London", "NY", "Mumbai")

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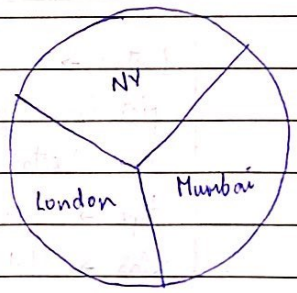
png (file = "city.jpg")

Pie (x, labels)

Dev.off ()



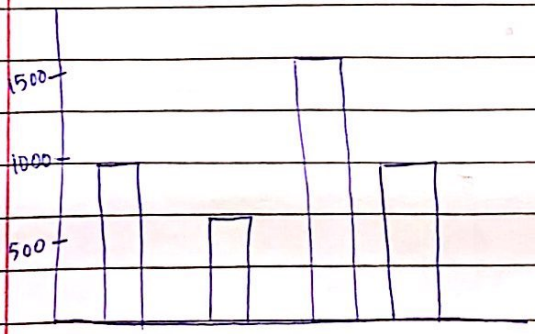
B. **R- Bar charts →**

A bar chart represents data in rectangular bars with length of bar proportional to the value of the variable. R uses function barplot() to create bar charts.

- **Syntax ⇒**

barplot (Vector of values, xlab, ylab, main, names.arg, col)

↑ Title of graph

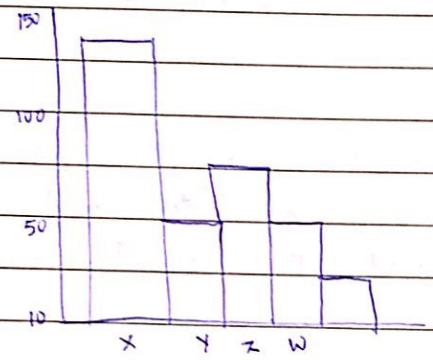


C. R- Histogram →

Histogram represents the frequencies of values of a variable into ranges. R creates histograms using hist() function.

- Syntax → #

hist (H, main, X lib, Y lib, breaks, col, border)



D. Line chart →

Syntax →

plot (v, type, col, X lab, Y lab)

v → Vector

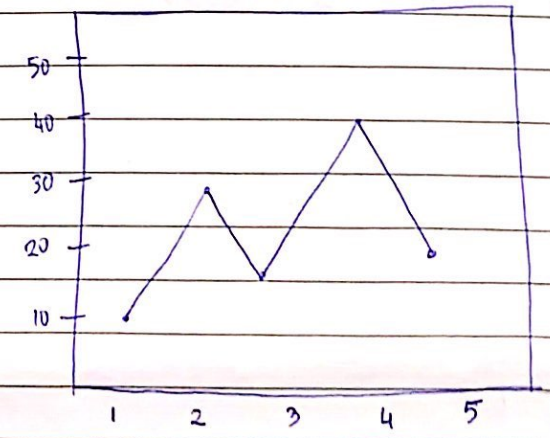
type → P: Points, L: lines, O: Both

Xlab → label for x

Ylab → label for Y

main → Title of chart

col → give colors

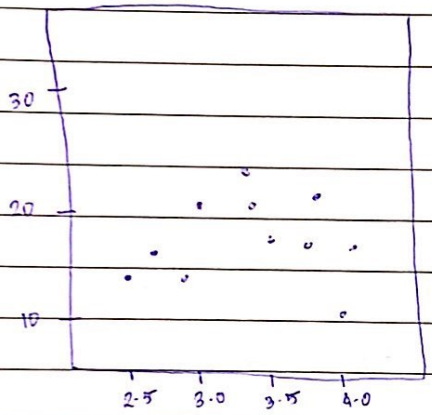


E. Scatter plot →

It shows many points plotted in the cartesian plane. Each point represents the value of 2 variables → one on the horizontal and one on vertical axis

Syntax:

plot (x, y, main, x lab, y lab, x lim, y lim, axes)



* Conclusion :- Thus I have learnt how to visualise data using R/python and about the various visualisation techniques.