Graphs & Charts

Bar Plots in R

Simple Bar Plot
Horizontal Bar Plot
Stacked Bar Plot
Grouped Bar Plot.

Bar Plot

* Created by using → bar plot () function
* Input can be vector / matrix
* If we supply a vector, the plot will have bars with their equal to the elements in the vector/matrix

Argument used

main → used to give heading
xlab → name
* xlim
* ylim

Plotting of Categorical Data

x ← c(1,1,2,2,3,3,3,1,1,2,2,3,4,4,4)

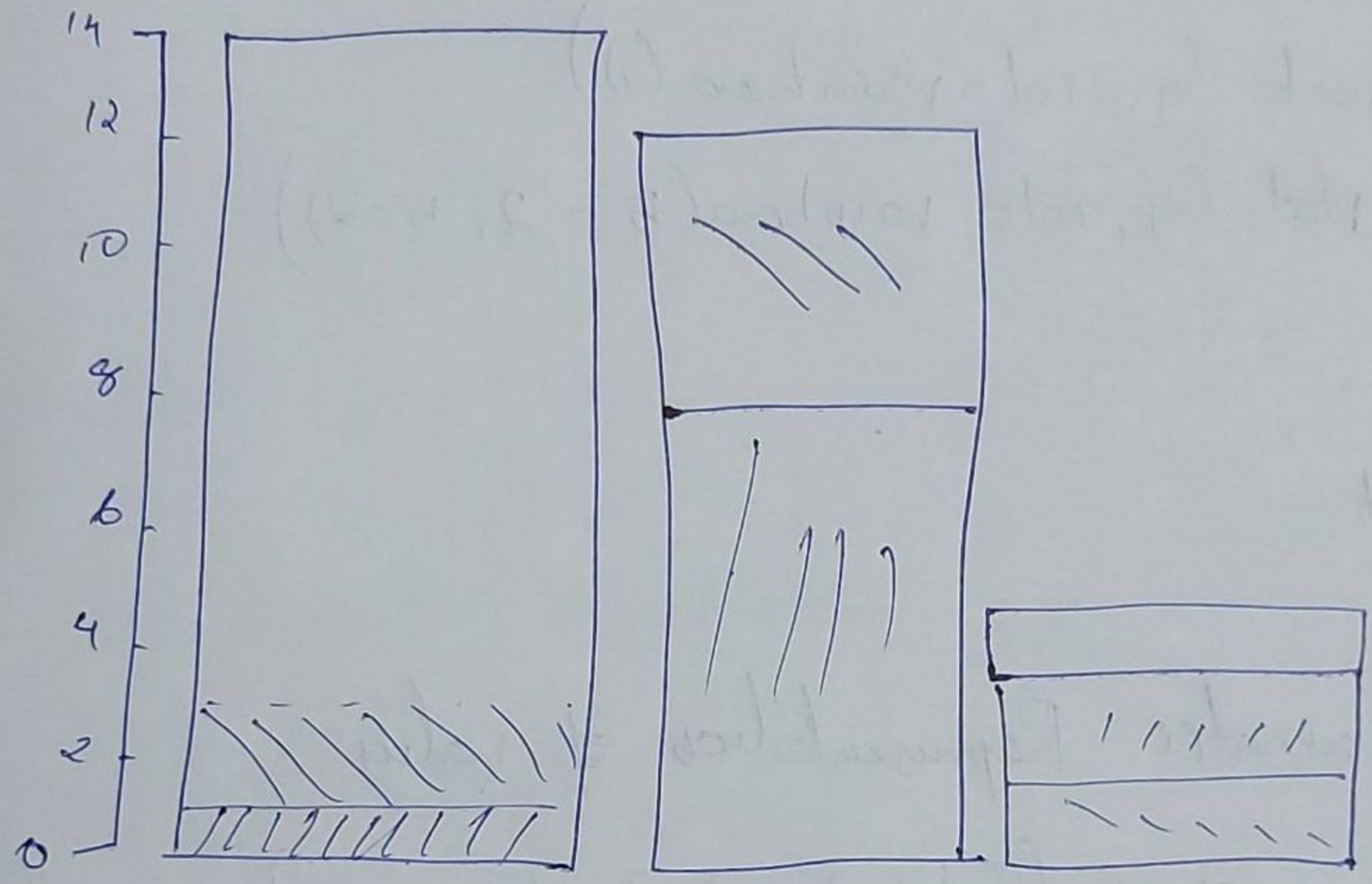
y = table (x)
barplot (height = y, width = c(3,4,5,6))

Stacked Bar plot

Matrix as given as input

```
* > data (mtcars)
> hamy (mtcars)
[1] "mpg" "cyc" "disp" "hp" "drat" "wt" "qsec"
"vs" "am" "gear" "carb"

> mtcars
> mtcars $ cyl
[1] ...
> table (mtcars $ cyl)

4 68
11 7 14
> table (mtcars $ gear)

3 4 5
15 12 5

> table (mtcars $ cyl, mtcars $ gear)
```

3 4 5
4 1 8 9
6 2 4 1
8 12 0 1



density :- used to give line inside bars.

x = c(1, 2, 1, 2, 2, 1, 2, 3, 3, 3, 1)

y = table (x)

barplot (y, legend text - T, las = 1, density = c(5, 10, 15))

* Angle :

used to give angle to lens inside bar.

* Colour

Give colour to bar

barplot (y, col = "red")

> bar (mfrow = c(1, 1))

> barplot (y, col = c(1, 2, 3)

> barplot (y, col = rainbow (1))

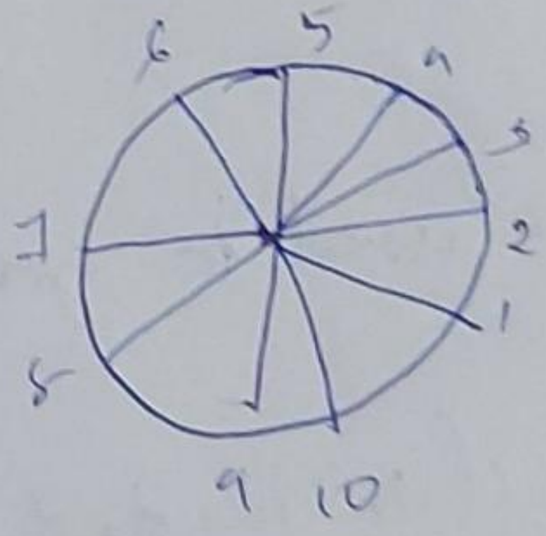
> barplot (y, col = rainbow (5 := 2, h = 2))

Piechart

Diagramatic Representation of values.

eg:- x = c (1,1,1,2,2,3,3,4,4,4)

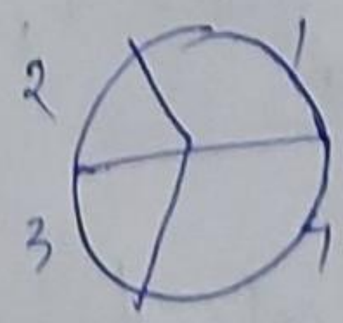
Pie (x)



x = c(1,1,1,2,2,3,3,4,4,4)

> y = table (x)

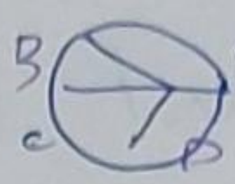
> pie (y)



> pie (y, main = "my first pbt")

* x → a vector of non-ve numerical quantities.

y n → pie (y = labels = LETTERS [1:4])

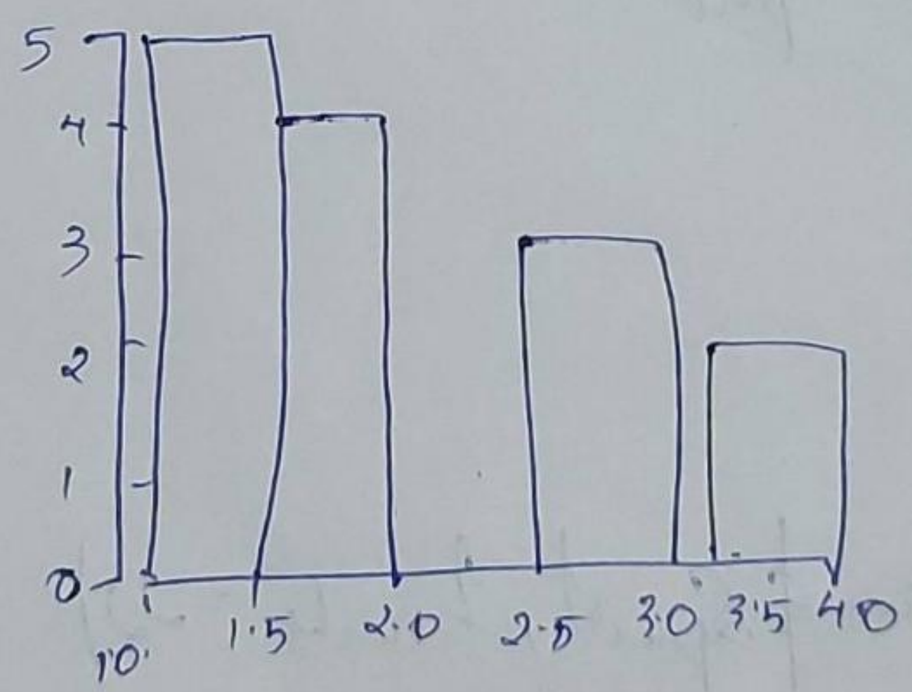


Histogram

Used to plot quantitative data

function hist()

> x = c(1,1,1,1,1,1,2,2,2,2,2,3,3,3,4,4)



For viewing the grouping arrangement use the function hist()

> hist (x, 6)

[1] (,] (,]

>data frame (x, cut (x,b)

>data ("cars")
>head (cars)

Speed dist

1	4	2
2	4	10
3	7	4
4	7	22
5	8	16
6	9	10

> cars$ speed (To display data of speed)

[1] . . . .

> hist (cars $ speed)

Argument

* break

>hist (cars $ speed, breaks = 22)

* main : used to give title

> hist (cars $ speed breaks = 5, main = "Histogram")

* xlab, ylab:

> hist (cars $ speed breaks = 5, main = "Histogram")

ex: air quality

. . .

. . .

. . .

> temp = air quality Temp

> list (temp)

> str Car. quality

str :- structure

* xlim, ylim

used to provide range of axes

* col:

used to define color