Module - 5

R barplot

Plot can create R using barplot()

eg: max.temp = c(22, 27, 26, 24, 23, 26, 28)

barplot(max.temp),

main = "maximum temperature",
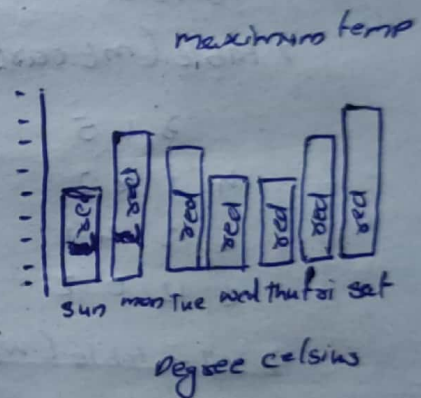
x lab = "degree celsius",

ylab = "Day",

names-arg = c("sun", ... "sat"))

or

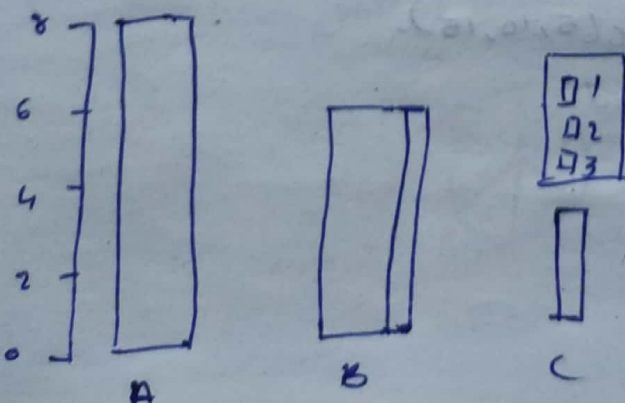horiz=TRUE or False,

density = 10,

border = "blue",

maximum temp

sun mon Tue wed thu fri sat

Degree celsius

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

Y = table (x)

barplot (height = y, names.arg = LETTERS [1:3],

Space = 5, width = c(5, 8, 2), legend.text = T)

```r
> data ("mtcars")
> names (mtcars)
> "mpg" "cyi" "disp" "hp" "drat" "wt" "qsec" "vs" "am" "gear"

> mtcars $cyl
  6 6 4 6 8 6 8 4 4 6 6 8 8 8 8 8 8 4 4 4 4 8 8 8 8 4 4 4 8 6 8 4

> mtcars $ gear
  4 4 4 3 3 3 3 4 4 4 4 3 3 3 3 3 3 4 4 4 3 3 3 3 4 5 5 5 5 5 5 4

> table (mtcars$ cyl)

  4 6 8
  11 7 14

> table (mtcars $ gear)

  3 4 5
  15 12 5

> table (mtcars $ cyl, mtcars $ gear)

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

> Y1 = table (mtcars $ cyl, mtcars $ gear)
> barplot (Y1, beside = T)
```
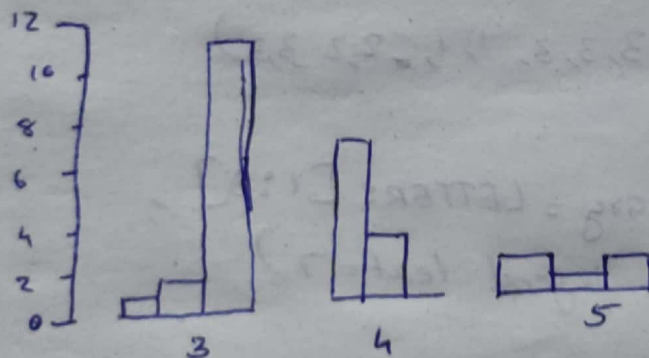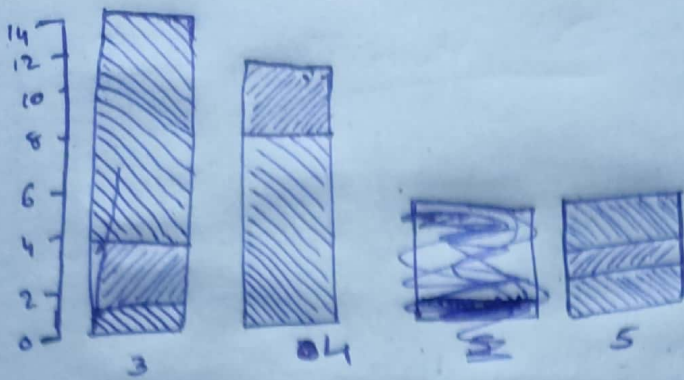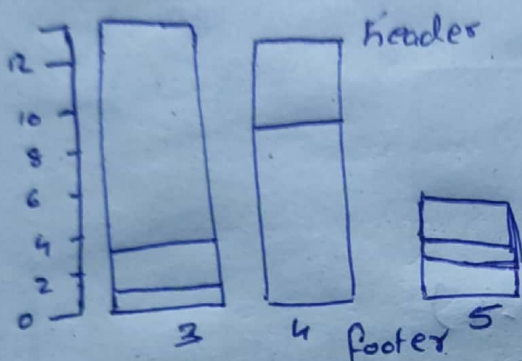


```r
> barplot (Y1, las=1, density= c(5,10,15),
  angle = c (45,50,75). col="red"
```
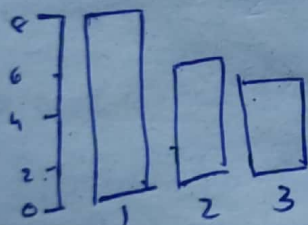
barplot (y1, main = "header", sub = "footer", border = T)

barplot (Y1, ylim= c(0,10), xlim c(0,5)

barplot (y1, main = expression (alph))
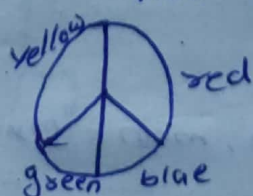

R pie chart

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

Y = table(x)

pie (Y, main = "my plot", labels = c("red", "blue", "green", "yellow")

edges =200, radius. 5, clockwise =T, col =1:4, border = T)

```
library (plot six)

? pie 3D
pie 2D(v)
pie 3D(v, explode=.5)
pie 2D(y, explode = .2)
pie 3D(v, explode = .1)
```
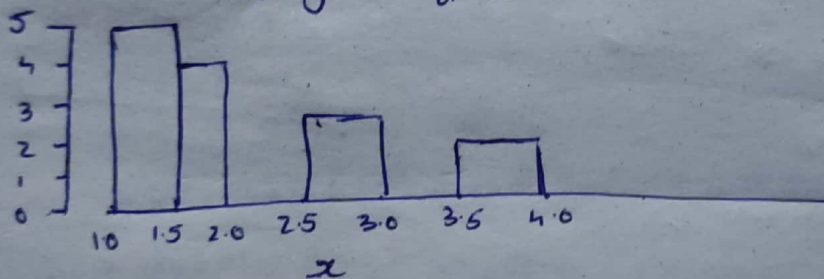

R histogram

```
> z = c(1,1,1,1,1, 2,2,2, 2, 3,3,3, 4,-4)
> x

11111 2222 833 44

> hist (x)
```
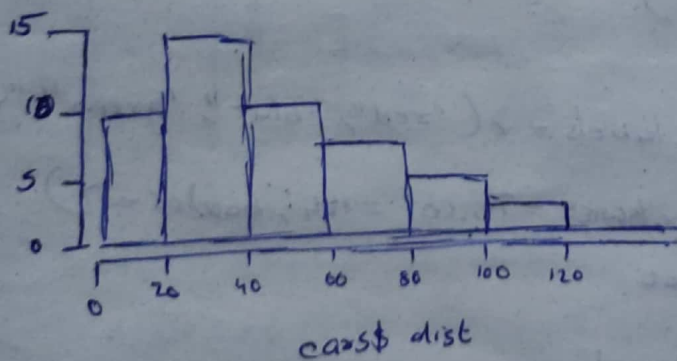

Histogram of x

```
> hist (cars $ dist)
```


Histogram of cars $ dist

cars$ dist

```
> hist (cars $ dist, breaks = 10, main = "my histogram", x lab = " ",

y lab = " ")
```
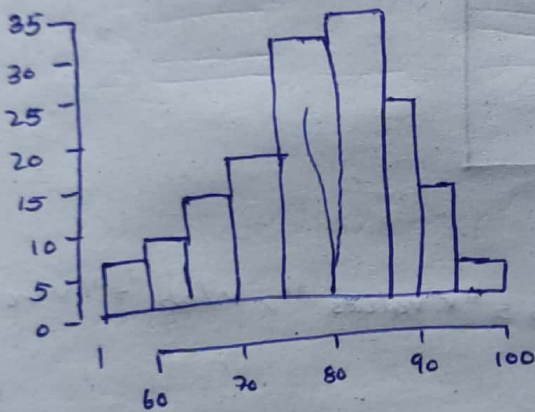
airquality

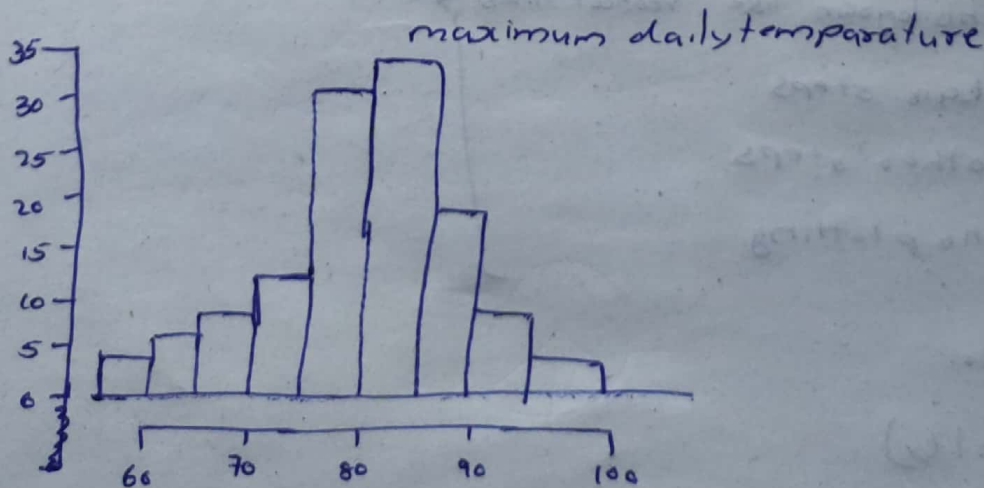temp = airquality $ temp

hist [temp]

histogram of temp

> str (airquality)

*main, xlab and ylab ,x lim and y lim ,col

* freq = FALSE

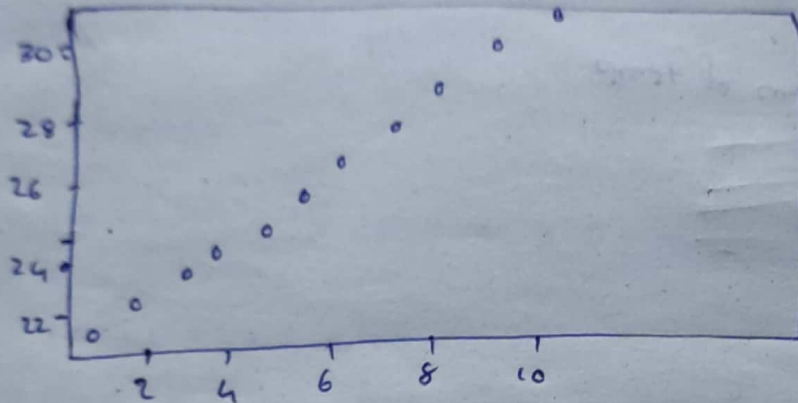hist(temp, main= "maximum daily temparature",
xlab = " Temp in degree f ", col = rainbow (20))

maximum daily temparature

temp degree f

R scatter plot

```
> x = 11:10
> y = 21:80
> plot (x,y)
> plot (x,y, main = "scatterplot", xlab = "x values", ylab="y value
    col = 1:10
```



```
plot (x,y ,main= " scatterplot", xlab = "x values ", ylab = "y values",
    col = 1:10, type= "p" )
```

```
"p " → for points
"l" → for lines
"b"→ for    both
"c" → for lines part alone of "b"
"b" → for both over plotted
"h" → for histogram like vertical lines
"s" → for stair steps
"S" → for other steps
"h" → for no plotting
```
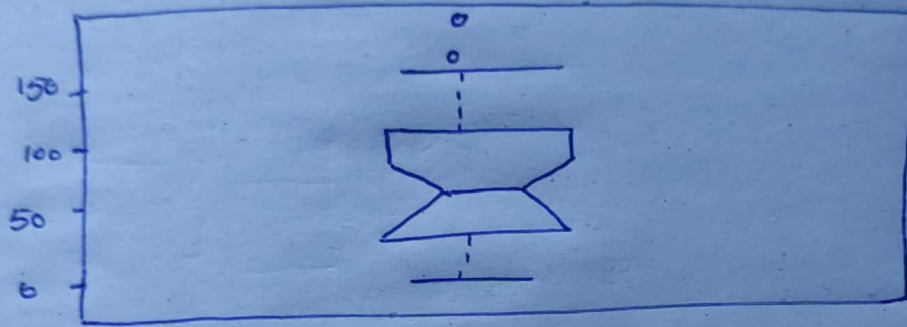
R box plots

```
> str (airquality)
```

> bar plot (airquality $ozone)
> barplot (air quality $ ozone , main = "mean ozone in parts
per billion", xlab = "parts per billion", ylab = "ozone", col = "red",
notch = T)

mean ozone in parts per billion

parts per billion