1.Pie chart

```
pie(X, Labels, Radius, Main, Col, Clockwise)

x <- c(20, 65, 15, 50)

labels <- c("India", "America", "Shri Lanka", "Nepal")

pie(x,labels)
```

2.title and color

```
x <- c(20, 65, 15, 50)

labels <- c("India", "America", "Shri Lanka", "Nepal")

pie(x,labels,main="Country Pie chart",col=rainbow(length(x)))
```

3.Slice Percentage & Chart Legend

```
x <- c(20, 65, 15, 50)

labels <- c("India", "America", "Shri Lanka", "Nepal")
```

```
pie_percent<-round(100*x/sum(x), 1)

pie(x, labels = pie_percent, main = "Country Pie Chart",col = rainbow(length(x)))

legend("topright", c("India", "America", "Shri Lanka", "Nepal"), cex = 0.8,

fill = rainbow(length(x)))
```

6.R BAR Chart

```
barplot(h,x,y,main, names.arg,col)

H<- c(12,35,54,3,41)

barplot(H)
```

7.Labels, Title & Colors

```
H <- c(12,35,54,3,41)

M<-c("Feb","Mar","Apr","May","Jun")

barplot(H,names.arg=M,xlab="Month",ylab="Revenue",col="Green",

    main="Revenue Bar chart",border="red")
```

8.Group Bar Chart & Stacked Bar Chart

```
library(RColorBrewer)

months <-c("Jan","Feb","Mar","Apr","May")

regions <-c("West","North","South")

Values <-matrix(c(21,32,33,14,95,46,67,78,39,11,22,23,94,15,16), nrow = 3, ncol = 5, byrow = TRUE)

barplot(Values, main = "Total Revenue",
```

```
names.arg = months, xlab = "Month", ylab = "Revenue", ccol =c("cadetblue3","deeppink2","goldenrod1"))

legend("topleft", regions, cex = 1.3, fill = c("cadetblue3","deeppink2","goldenrod1"))
```

9.R Boxplot

```
boxplot(x, data, notch, varwidth, names, main)

boxplot(mpg ~ cyl, data = mtcars, xlab = "Quantity of Cylinders",

    ylab = "Miles Per Gallon", main = "R Boxplot Example")
```

10. Boxplot using notch

```
boxplot(mpg ~ cyl, data = mtcars,

    xlab = "Quantity of Cylinders",

    ylab = "Miles Per Gallon",
```

```
    main = "Boxplot Example",

    notch = TRUE,

    varwidth = TRUE,

    ccol =c("green","yellow","red"),

    names = c("High","Medium","Low")

)
```

11.Violin Plots

```
library(vioplot)

x1 <- mtcars$mpg[mtcars$cyl == 4]

x2 <- mtcars$mpg[mtcars$cyl == 6]

x3 <- mtcars$mpg[mtcars$cyl == 8]

vioplot(x1, x2, x3, names = c("4 cyl", "6 cyl", "8 cyl"), col = "green")
```

12.Histogram

```
hist(v,main,xlab,ylab,xlim, ylim,breaks,col,border)

v <- c(12,24,16,38,21,13,55,17,39,10,60)

hist(v,xlab = "Weight",ylab="Frequency",col = "green",border = "red")
```

13.Use of xlim & ylim parameter

```
v <- c(12,24,16,38,21,13,55,17,39,10,60)

hist(v,xlab = "Weight",ylab="Frequency",col = "green",border = "red",xlim = c(0,40), ylim = c(0,3), breaks = 5)
```

14.R Line Graphs

```
v <- c(13, 22, 28, 7, 31)

windows()

plot(v, type = "o", col = "blue", xlab = "Index", ylab = "Value", main = "Line Graph")
```

15.Line Chart Title, Color, and Labels

```
v <- c(13,22,28,7,31)

plot(v,type = "o",col="green",xlab="Month",ylab="Temperature")
```

16.Line Charts Containing Multiple Lines

```
v <- c(13,22,28,7,31)

w <- c(11,13,32,6,35)

x <- c(12,22,15,34,35)

plot(v,type = "o",col="green",xlab="Month",ylab="Temperature")

lines(w, type = "o", col = "red")
```

```
lines(x, type = "o", col = "blue")
```

17. Line Graph using ggplot2

```
library(ggplot2)

data_frame<-data.frame(dose=c("D0.5", "D1", "D2"),

len=c(4.2, 10, 29.5))

head(data_frame)

ggplot(data=data_frame, aes(x=dose, y=len, group=1))
+geom_line()+geom_point()

ggplot(data=df, aes(x=dose, y=len, group=1))
+geom_line(linetype = "dashed")+geom_point()

ggplot(data=df, aes(x=dose, y=len, group=1))
+geom_line(color="red")+geom_point()
```

18.R Scatterplots

```
data <- mtcars[, c('wt', 'mpg')]

windows()

plot(x = data$wt, y = data$mpg,

    xlab = "Weight",

    ylab = "Mileage",

    xlim = c(2.5, 5),

    ylim = c(15, 30),

    main = "Weight v/s Mileage")
```

19. Scatterplot using ggplot2

```
library(ggplot2)

windows()

ggplot(mtcars, aes(x = drat, y = mpg))
+geom_point()
```

20.Scatterplot with groups

```
library(ggplot2)

windows()
```

```
ggplot(mtcars, aes(x = drat, y = mpg)) +

geom_point(aes(color=factor(gear)))
```

21.Changes in axis

```
library(ggplot2)

windows()

ggplot(mtcars, aes(x = log(mpg), y = log(drat)))
+geom_point(aes(color=factor(gear)))
```

22.Scatterplot with fitted values

```
library(ggplot2)

windows()

ggplot(mtcars, aes(x = log(mpg), y = log(drat)))
+geom_point(aes(color = factor(gear))) +
stat_smooth(method = "lm",col = "#C42126",se = FALSE,size = 1)
```

23.Adding title

```
library(ggplot2)

windows()

new_graph<-ggplot(mtcars, aes(x = log(mpg), y = log(drat)))
+geom_point(aes(color = factor(gear))) +
stat_smooth(method = "lm",col = "#C42126",se = FALSE,size = 1)

new_graph+

labs(

    title = "Scatterplot with more information"

)
```

24.Adding a sub-title

```
library(ggplot2)

new_graph<-ggplot(mtcars, aes(x = log(mpg), y = log(drat)))
+geom_point(aes(color = factor(gear))) +
```

```
stat_smooth(method = "lm",col = "#C42126",se = FALSE,size = 1)

new_graph + labs(

    title =

    "Relation between Mile per hours and drat",

    subtitle =

    "Relationship break down by gear class",

    caption = "Authors own computation"

)
```

25.Changing name of x-axis and y-axis

```
library(ggplot2)

windows()

new_graph <-ggplot(mtcars, aes(x = log(mpg), y = log(drat))) +

  geom_point(aes(color = factor(gear))) +
```

```
  stat_smooth(method = "lm", col = "#C42126", se = FALSE, size = 1)

new_graph + labs(

    x = "Log of Drat Definition",

    y = "Log of Mile per Hours",

    color = "Gear",

    title = "Relation between Mile per Hours and Drat",

    subtitle = "Relationship Breakdown by Gear Class",

    caption = "Authors Own Computation"

)
```