visualisations1

MN

03/05/2022

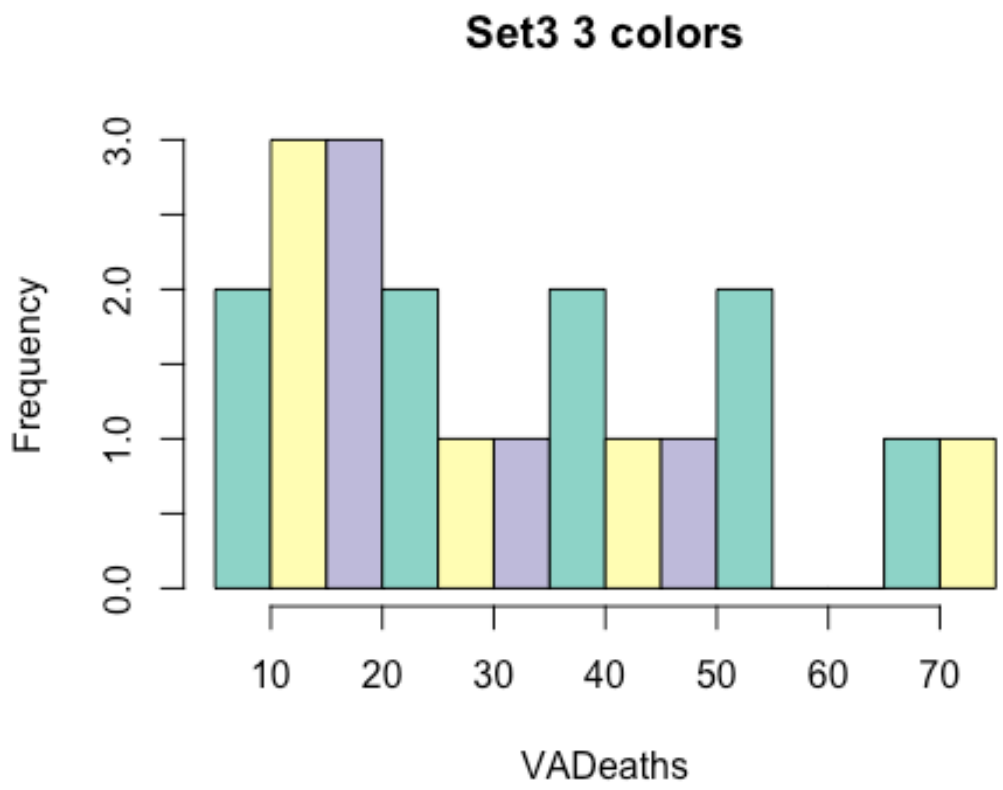
Visualisation

Basic plots * Histogram * Bar / Line Chart * Box plot * Scatter plot

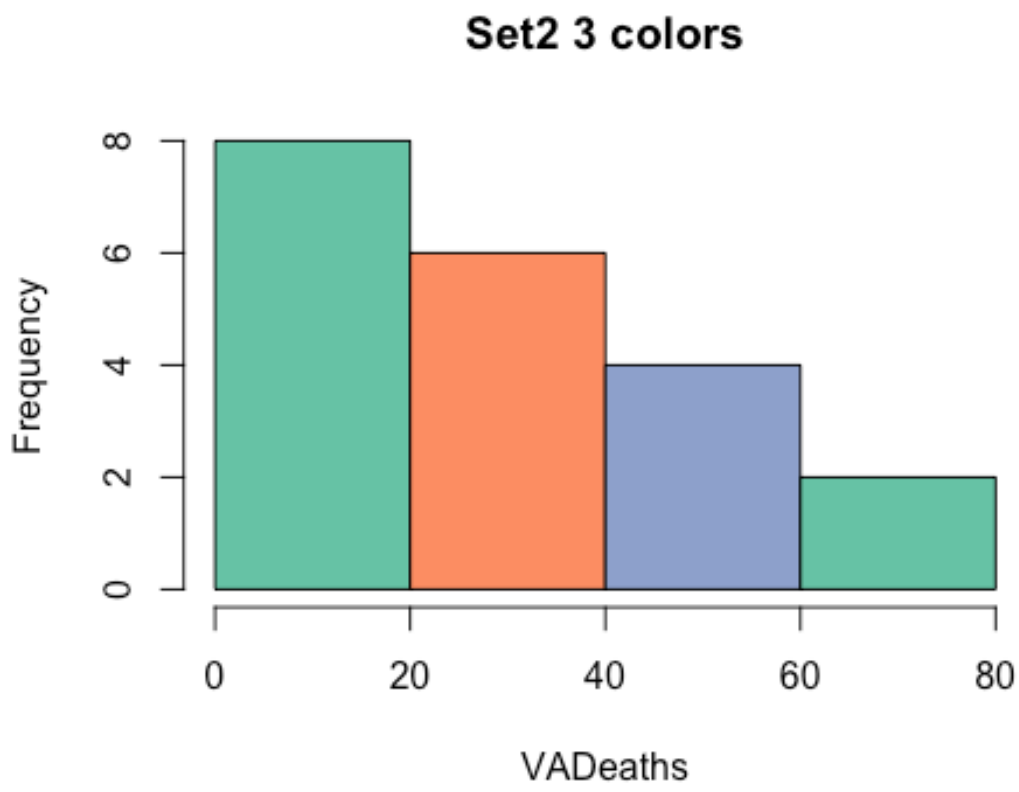
Histogram

- plot that breaks the data into bins (or breaks) and shows frequency distribution of these bins

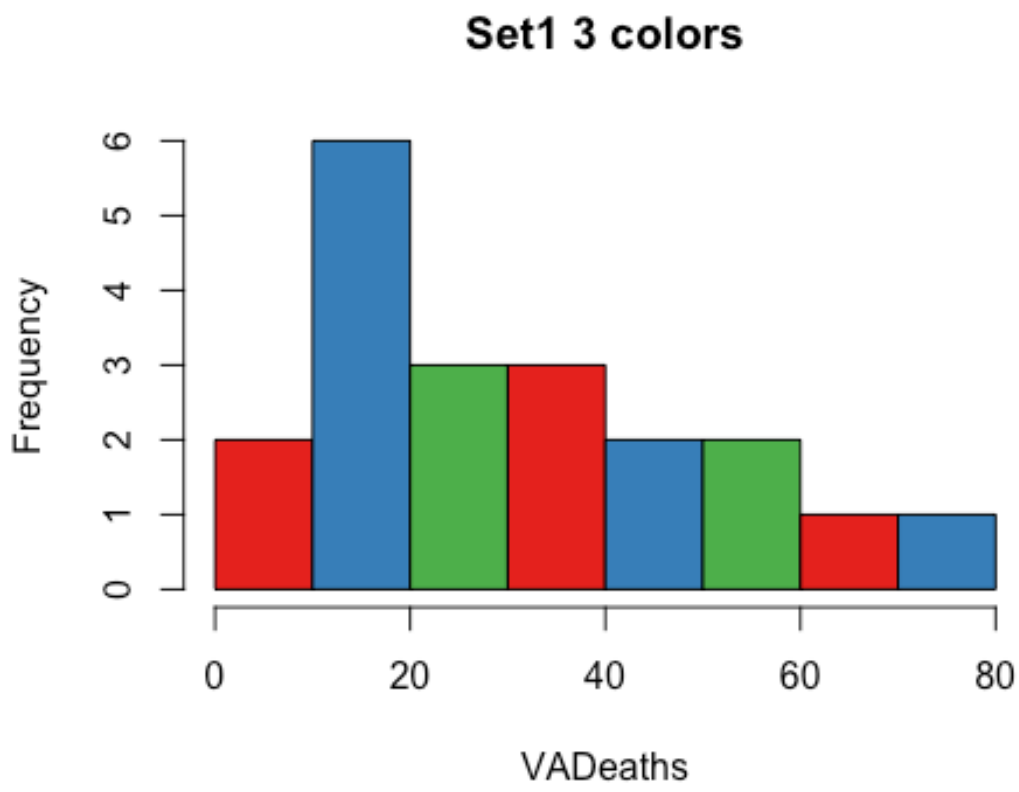
```
library(RColorBrewer)
data(VADeaths)
hist(VADeaths,breaks=10, col=brewer.pal(3,"Set3"),main="Set3 3 colors")
```



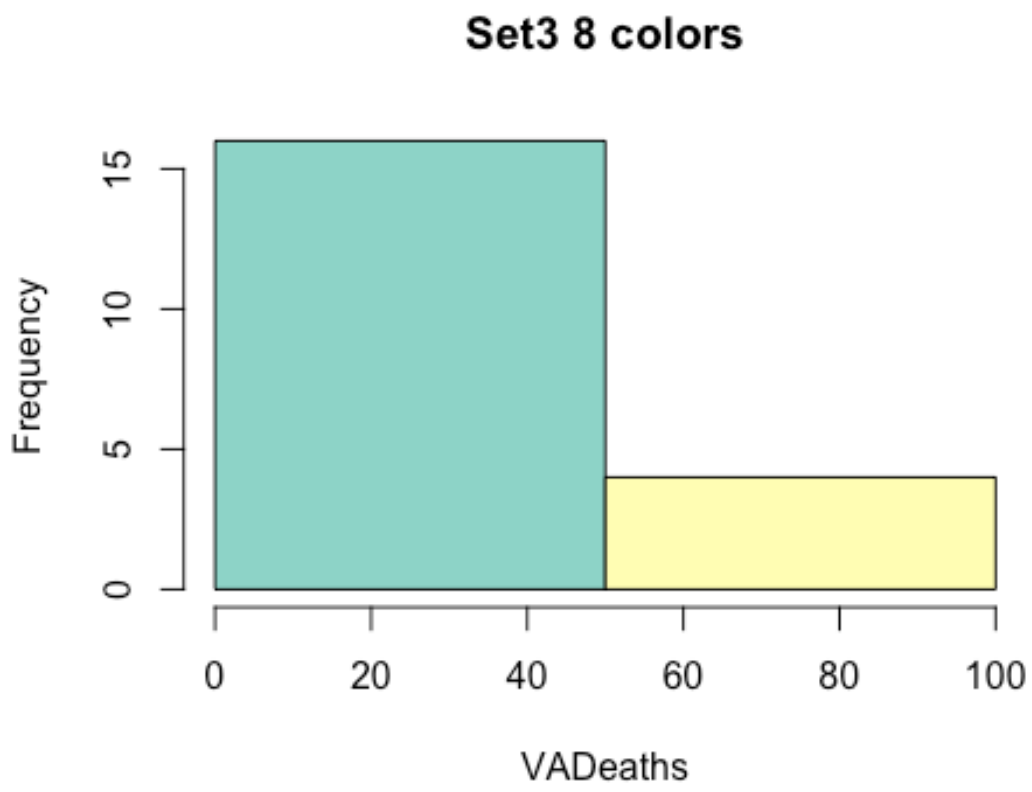

```
hist(VADeaths,breaks=3 ,col=brewer.pal(3,"Set2"),main="Set2 3 colors")
```



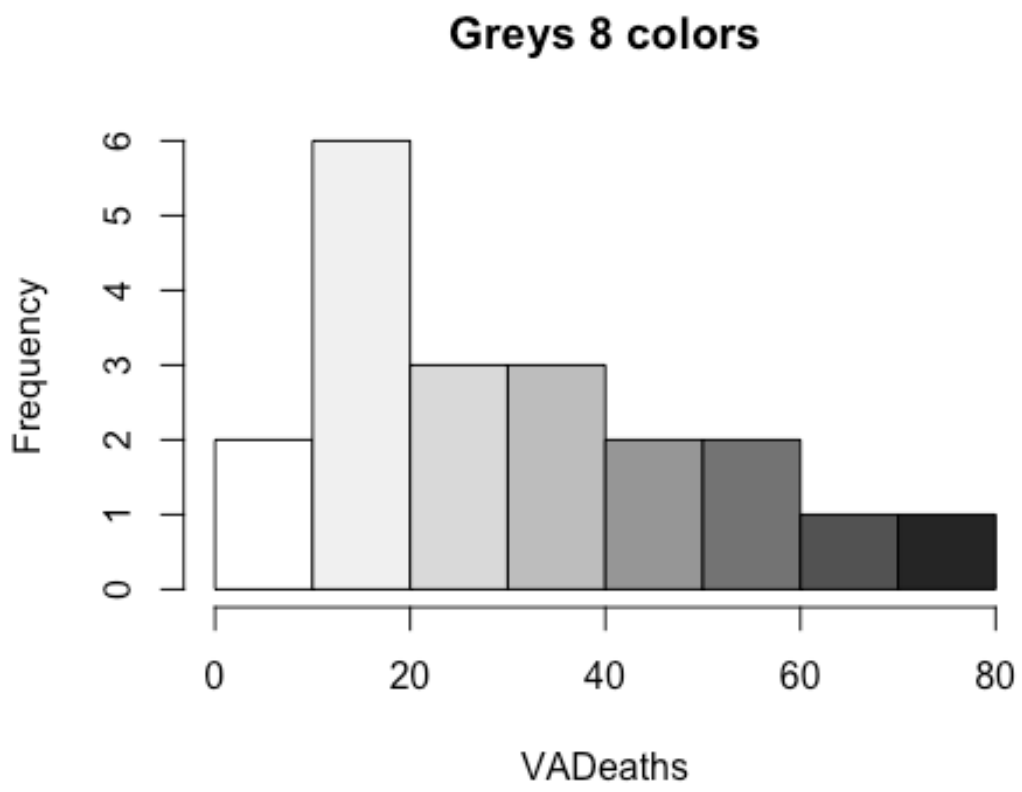

```
hist(VADeaths,breaks=7, col=brewer.pal(3,"Set1"),main="Set1 3 colors")
```



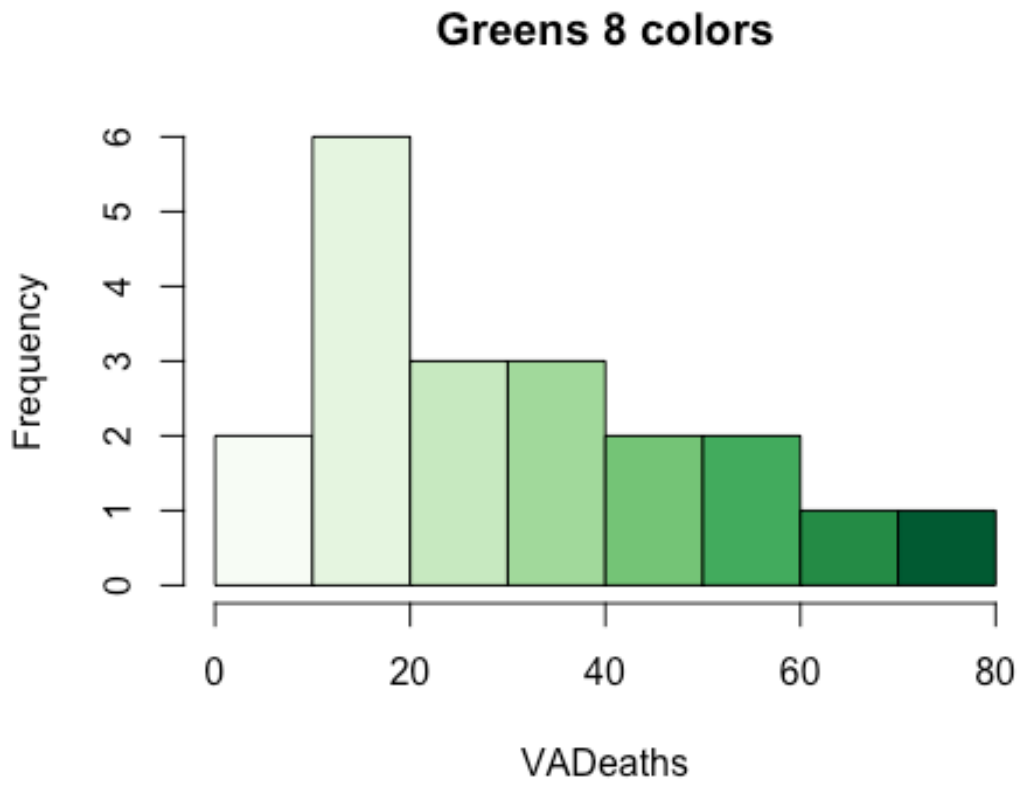

```
hist(VADeaths,,breaks= 2, col=brewer.pal(8,"Set3"),main="Set3 8 colors")
```




```
hist(VADeaths,col=brewer.pal(8,"Greys"),main="Greys 8 colors")
```

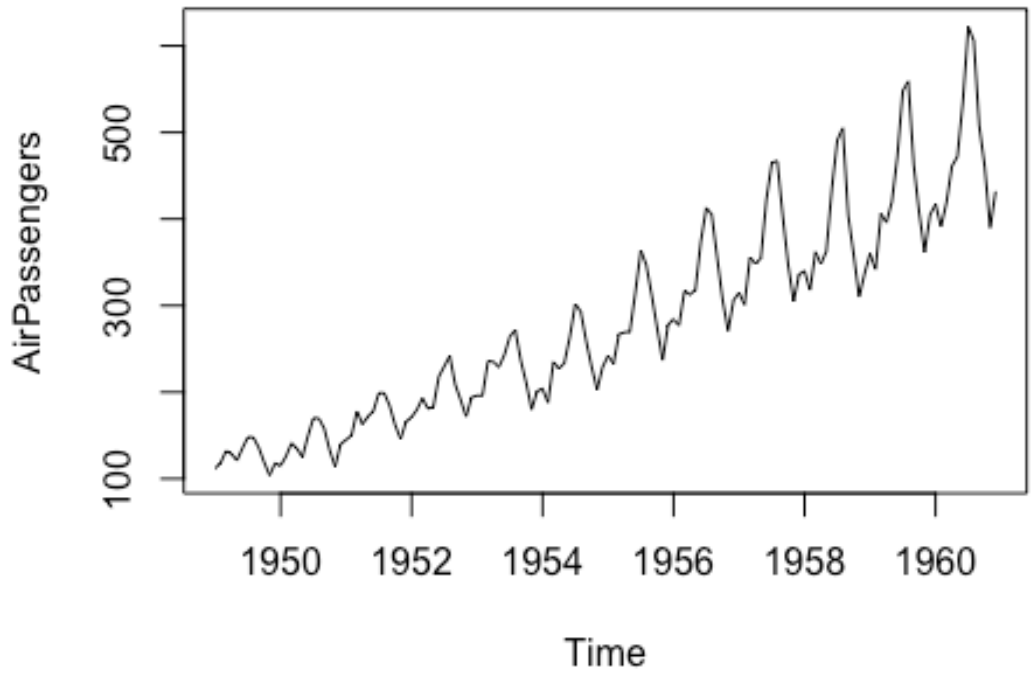



```
hist(VADeaths,col=brewer.pal(8,"Greens"),main="Greens 8 colors")
```



Line Plots

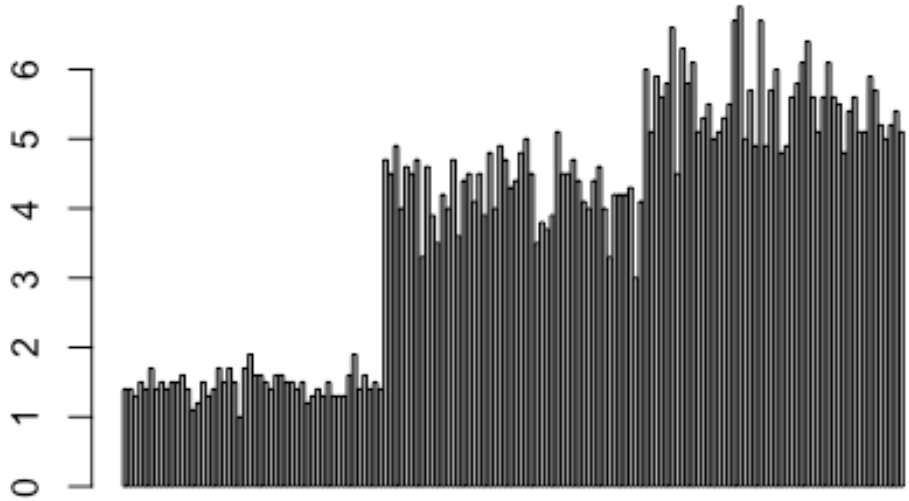
```
plot(AirPassengers,type="l")  #Simple Line Plot
```



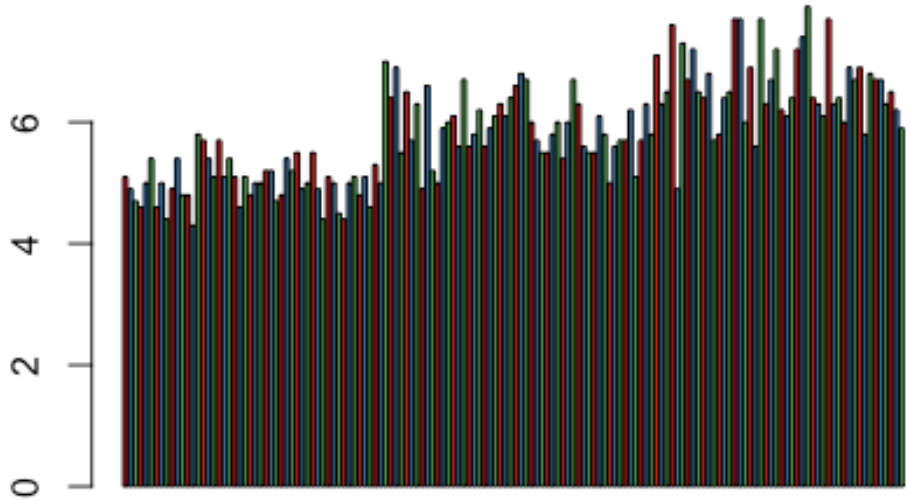
##

BarPlots

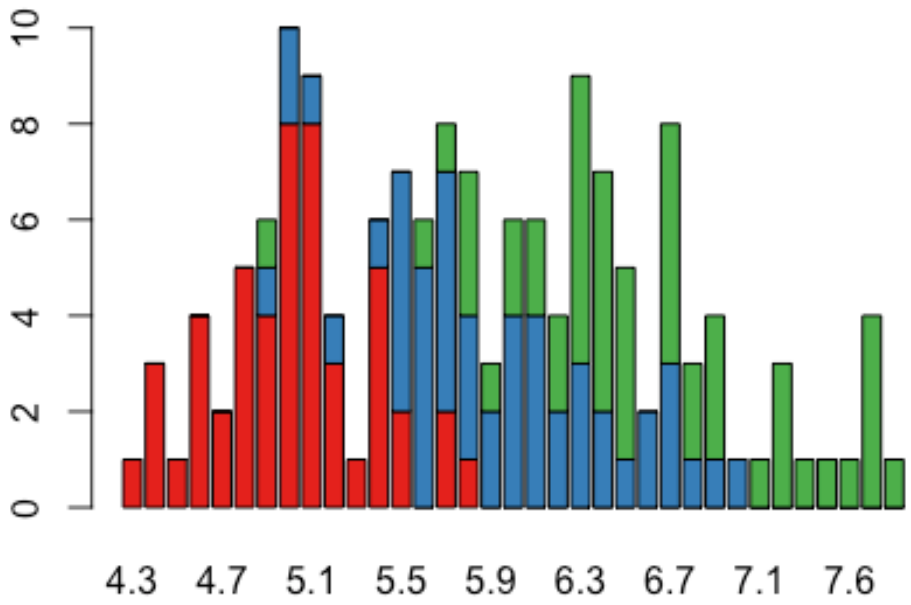
```
barplot(iris$Petal.Length) #Creating simple Bar Graph
```




```
barplot(iris$Sepal.Length,col   = brewer.pal(3,"Set1"))
```



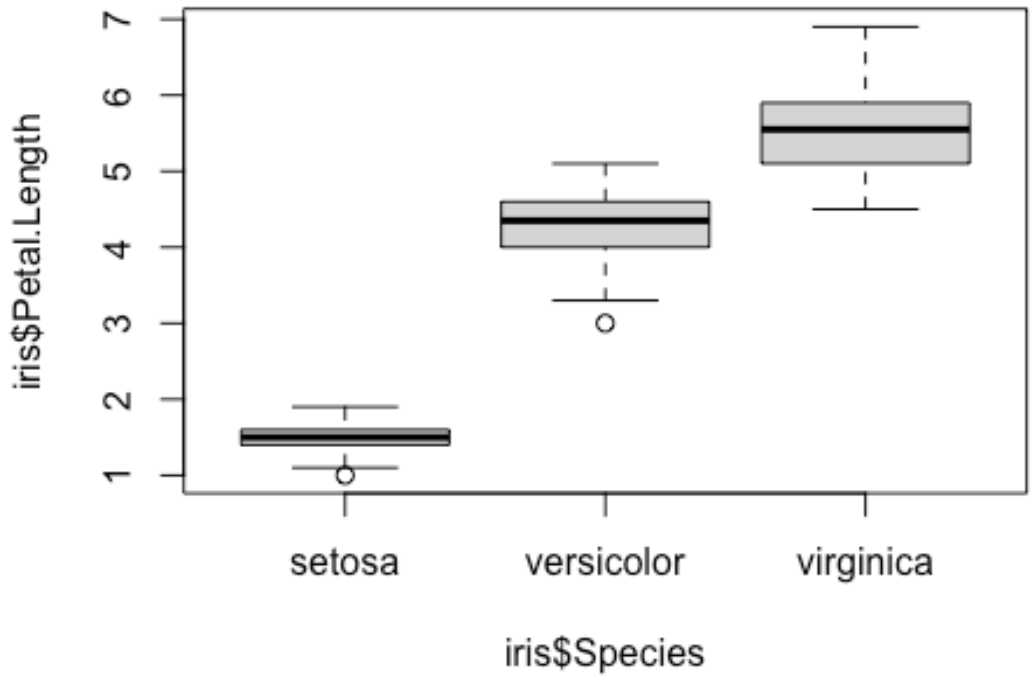

```
barplot(table(iris$Species,iris$Sepal.Length),col  = brewer.pal(3,"Set1"))
#Stacked Plot
```



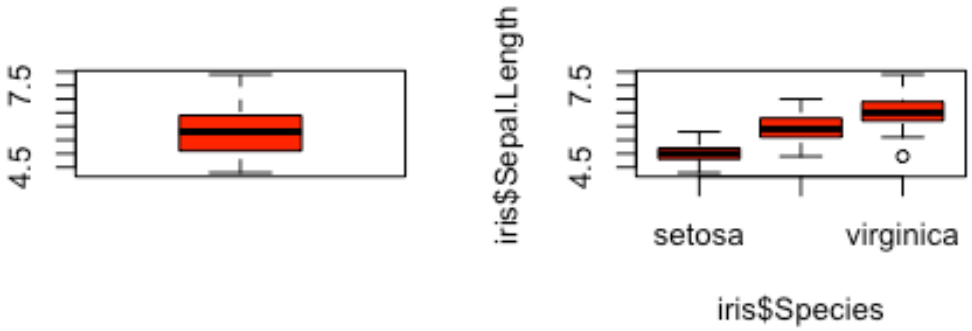
Boxplot

- the 25th percentile, the median, the 75th percentile and the maximum.
- useful for visualising the spread of data

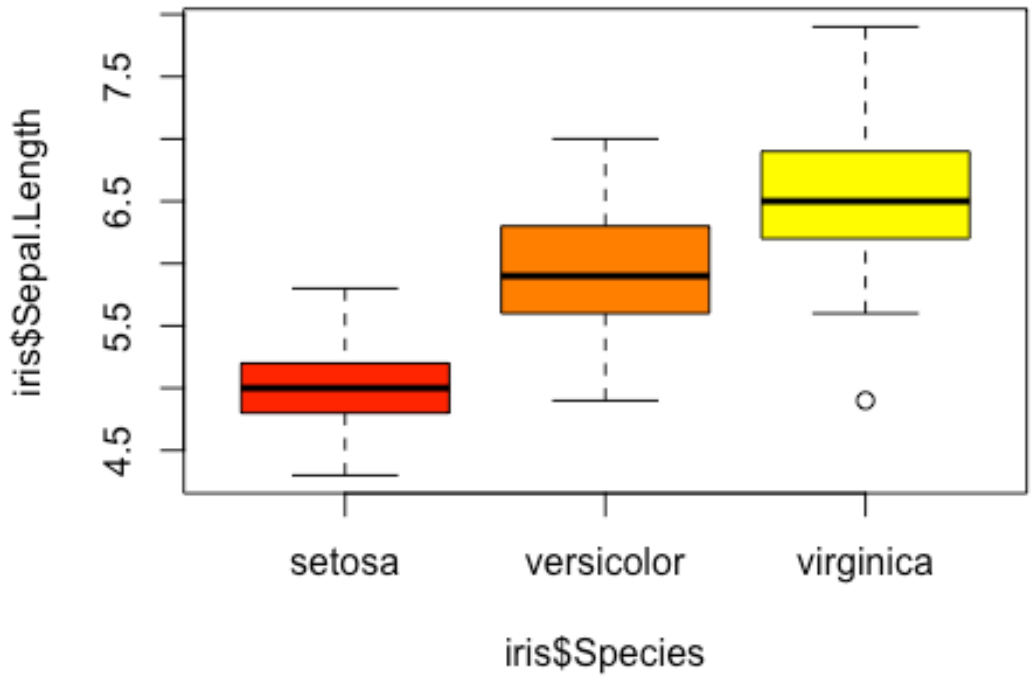
```
boxplot(iris$Petal.Length~iris$Species) #Creating Box Plot between two
variable
```



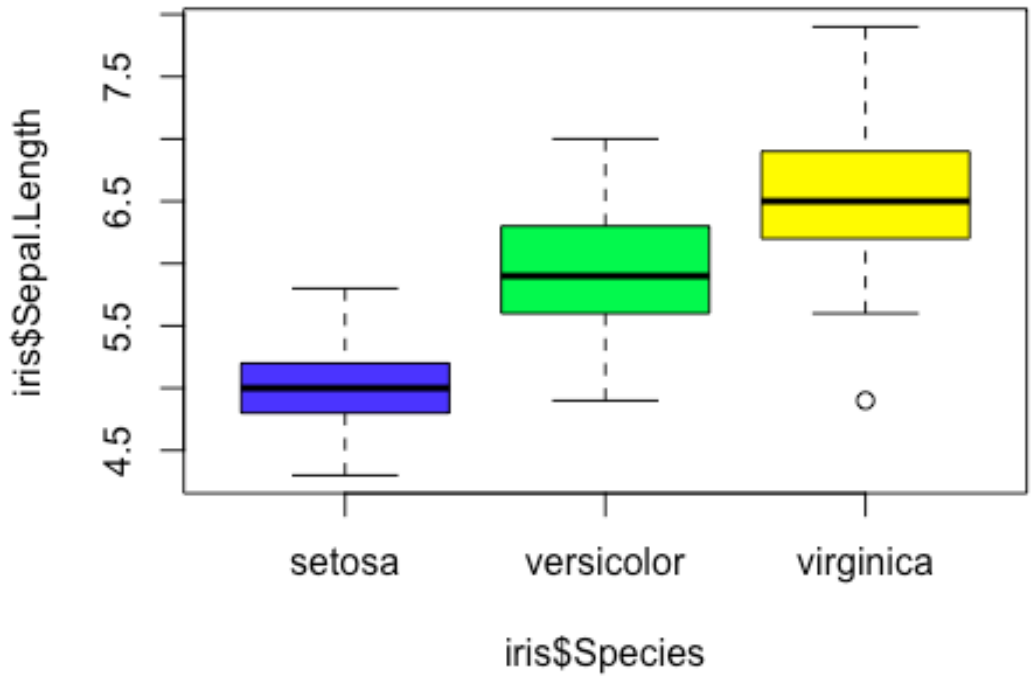

```
data(iris)
par(mfrow=c(2,2))
boxplot(iris$Sepal.Length,col="red")
boxplot(iris$Sepal.Length~iris$Species,col="red")
```




```
boxplot(iris$Sepal.Length~iris$Species,col=heat.colors(3))
```



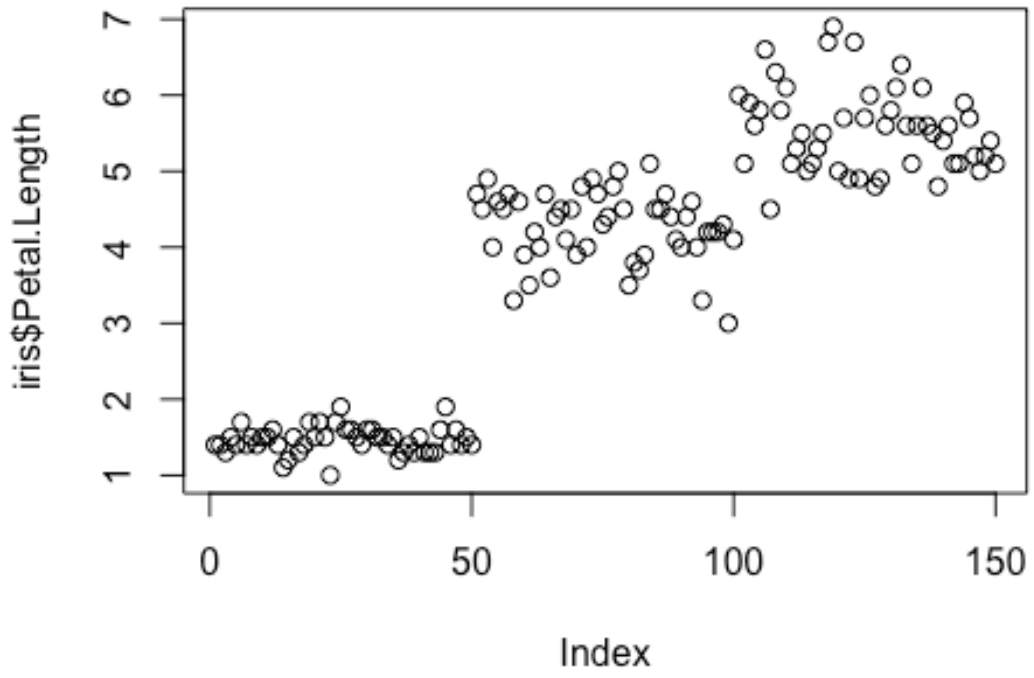

```
boxplot(iris$Sepal.Length~iris$Species,col=topo.colors(3))
```



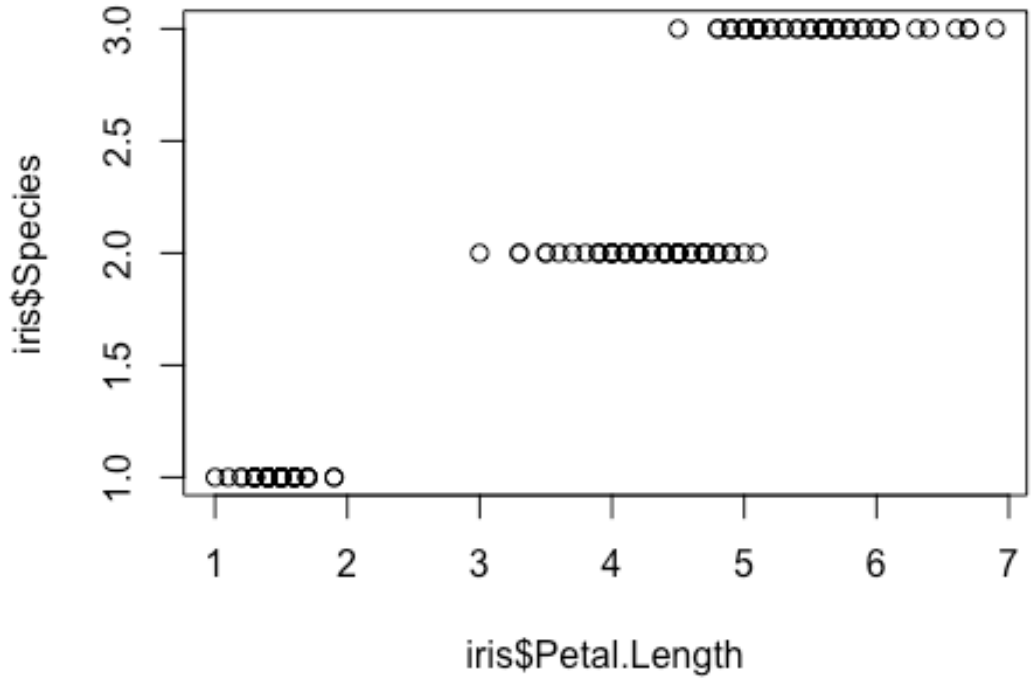
Scatter plot

Help visualise multiple variables

```
plot(x=iris$Petal.Length) #Simple Scatter Plot
```




```
plot(x=iris$Petal.Length,y=iris$Species) #Multivariate Scatter Plot
```


iris$Species
1.0
1.5
2.0
2.5
3.0
1
2
3
4
5
6
7
iris$Petal.Length