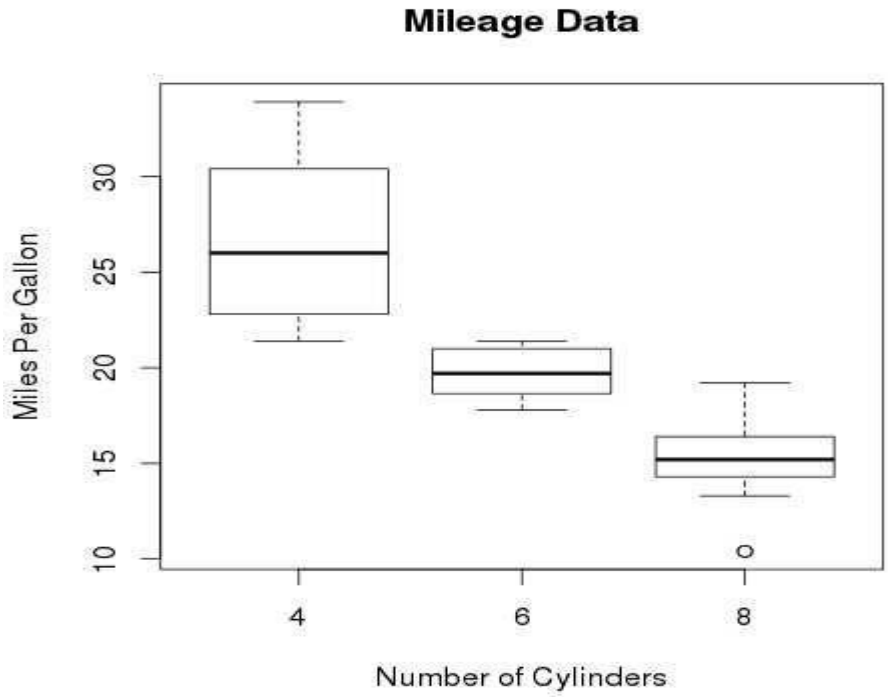
Week 4 – <u>VISUALIZATIONS</u>

a. Find the data distributions using box and scatter plot.

```
Install.packages("ggplot2")
Library(ggplot2)
Input <- mtcars[,c('mpg','cyl')]
input

Boxplot(mpg ~ cyl, data = mtcars, xlab = "number of cylinders",
ylab = "miles per gallon", main = "mileage data")

Dev.off()
```

Output :-

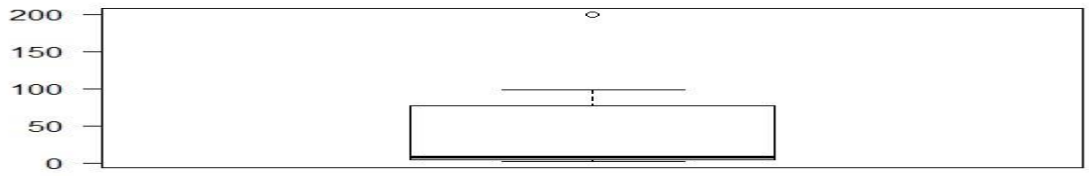
```
mpg  cyl
Mazda rx4         21.0   6
Mazda rx4 wag     21.0   6
Datsun 710        22.8   4
Hornet 4 drive    21.4   6
Hornet sportabout 18.7   8
Valiant           18.1   6
```


Mileage Data
Miles Per Gallon
10
15
20
25
30
4
6
8
Number of Cylinders

b.

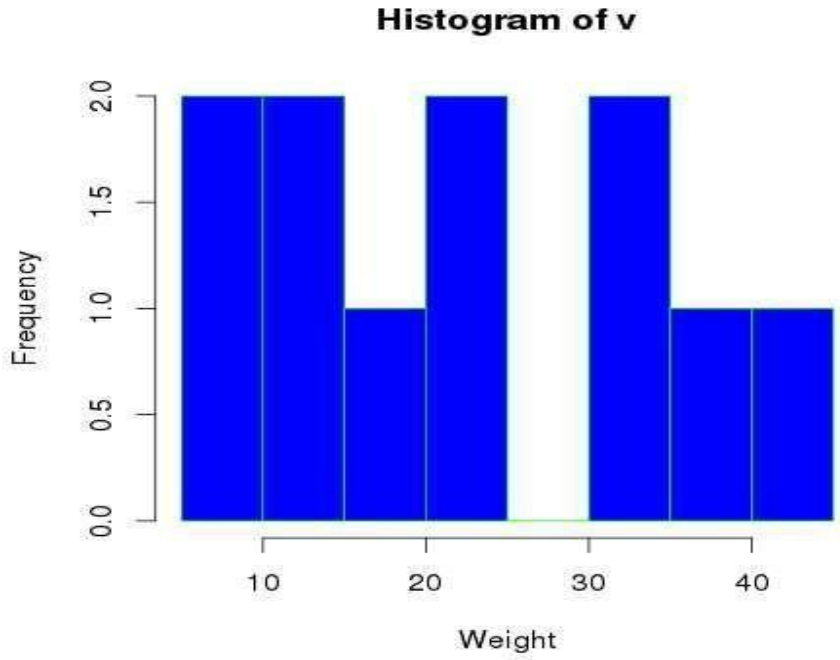
Find the outliers using plot.

```
v=c(50,75,100,125,150,175,200)
boxplot(v)
```



Plot the histogram, bar chart and pie chart on sample data.

```
v <-  c(9,13,21,8,36,22,12,41,31,33,19)

hist(v,xlab = "Weight",col = "blue",border = "green")
```



c.

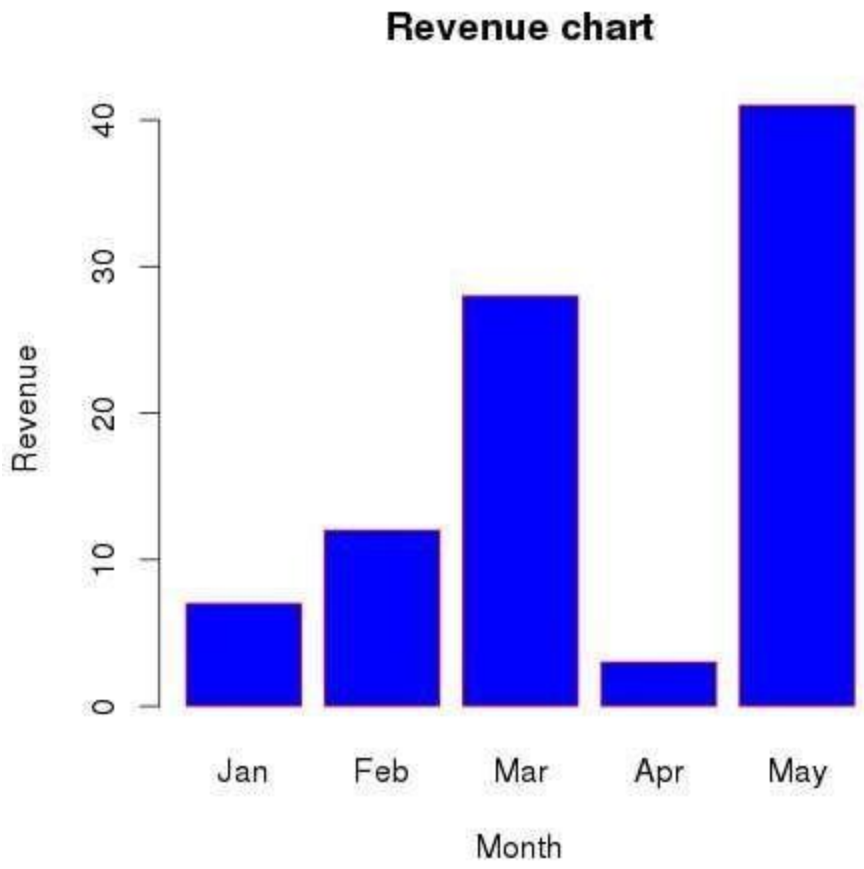
Histogram

```
library(graphics)


# Create the histogram.

dev.off()
```

Output:-

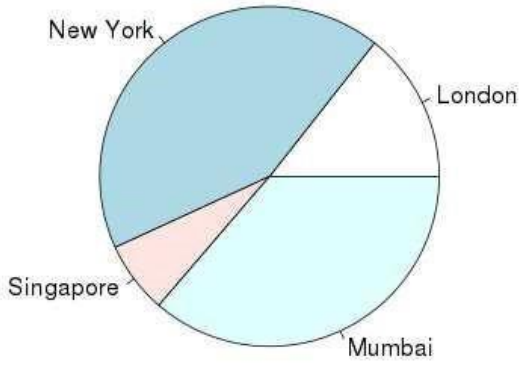
Bar chart

```
  library(graphics)
H <-
c(7,12,28,3,41)
M <- c("Jan","Feb","Mar","Apr","May")
# Plot the bar chart.
barplot(H,names.arg = M,xlab = "Month",ylab = "Revenue",col = "blue",main = "Revenue chart",border
= "red")
dev.off()
```



Pie Chart

```
library(graphics) x <- c(21, 62, 10, 53) labels<-
c("London", "NewYork", "Singapore", "Mumbai") # Plot
the Pie chart.
pie(x,labels)
dev.off()
```


New York
London
Singapore
Mumbai