#----------------------Assignment 4.1------------------

# Histogram for all variables in a dataset mtcars.

# Write a program to create histograms for all columns.

mtcars

str(mtcars)

# all variables are numeric

setwd("E:/Data Analytics with RET/Assignment")

par(mfrow=c(3,4)) # set the graph area

lapply(mtcars[2:11], hist) # apply histogram plot function to all column of mtcars

# 2. Check the probability distribution of all variables in mtcars

par(mfrow=c(3,4)) # set the graph area

# writing a function to plot probability

prob <- function(prob){

x <- sort(prob)

hx <- dnorm(prob)

p <- plot(x, hx, type="l")

}

lapply(mtcars[2:11], prob) # applying the function to all the columns

# 3. Write a program to create boxplot for all variables.

par(mfrow=c(3,4))

lapply(mtcars[2:11], boxplot) # applying the function to all the columns