Assignment 4.1

1. Histogram for all variables in a dataset mtcars. Write a program to create histograms for all columns.

Ans:

str(mtcars)

library(ggplot2)

library(tidyr)

ggplot(gather(mtcars), aes(value)) +

geom\_histogram(bins = 10) +

facet\_wrap(~key, scales = 'free\_x')

2. Check the probability distribution of all variables in mtcars

Ans:

par(mfrow = c(2, 1))

hist(cars\_auto$mpg, main = "Distribution mpg - automatic transmission", xlab = "mpg")

abline(v = mean(cars\_auto$mpg), col = "red")

hist(cars\_manu$mpg, main = "Distribution mpg - manual transmission", xlab = "mpg")

abline(v = mean(cars\_manu$mpg), col = "red")

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

Ans:

str(mtcars)

library(ggplot2)

library(tidyr)

ggplot(gather(mtcars), aes(value)) +

geom\_boxplot(bins = 10) +

facet\_wrap(~key, scales = 'free\_x')