

Session 7 – Basic Statistics

Assignment - 1

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# Introduction

This assignment will help you to understand the key concepts learnt in this session.

# Objective

This assignment will test your skills on basic statistics.

# Prerequisites

Not Applicable

# Associated Data Files

Not Applicable

# Problem Statement

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

library(reshape2)

head(melt(mtcars))

library(ggplot2)

ggplot(data = melt(mtcars), mapping = aes(x = value)) +

geom\_histogram(bins = 10) + facet\_wrap(~variable, scales = 'free\_x')

1. Check the probability distribution of all variables in mtcars

library(ggplot2)

mtcars %>%

keep(is.numeric) %>%

gather() %>%

ggplot(aes(value)) +

facet\_wrap(~ key,scales = "free") +

stat\_density()

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

|  |
| --- |
|  |
| library(ggplot2) |
|  | library(reshape) |
|  | m1 <- melt(mtcars) |
|  | ggplot(m1,aes(x = variable,y = value)) + facet\_wrap(~variable) + geom\_boxplot() |
|  |  |

# Expected Output

Not Applicable