Data Science Using R

Lesson05–Examples in R

Objective

After completing this lesson you will be able to:

- Work on examples using R

Install packages in R

Declare set of Prime numbers

Get mean, standard deviation, plot

Simulate a distribution and stick two plots next to each other

Create a sub-directory

Write the output of 1-Data.R and 2-Distrib.R to the files.

To get and analyze the skewness in the data

Regress miles/gallon as a linear function of weight and plot the regression

Matrix manipulation

Create a matrix with names for rows and columns

Create a data frame in R

Rarely done. All the files are read as data frames.

Manipulate data in this exercise

Open Pfizer data: https://in.finance.yahoo.com/quote/PFE/

Read daily data from 1st June 1972 to Current Date.

Download as csv.

Plot data in this exercise

Open APPLE data:

https://in.finance.yahoo.com/quote/AAPL/

Read daily data from 12th December 1980 to Current Date.
Download as csv.

Use Pfizer Data to demo central limit theorem

Use Pfizer data to overlay plots

Use Pfizer Data to draw 3D pie chart

Use Pfizer Data for time series plot

Use Pfizer Data for Box Plot

Pfizer data to draw histogram with slider

Writing own functions in R

Demonstrate sampling with Pfizer data

Plotting histogram for discrete and continuous distributions

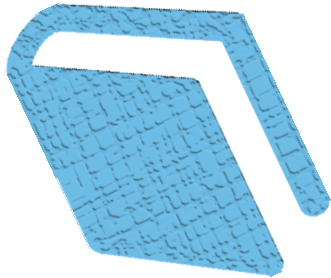Modelling number of 4s hit in a T-20 match

Use Pfizer data to demonstrate central limit theorem

Using New York Flight data to demo ggplot package

Use quandle.com to import financial data

Demonstrate Central limit theorem

Summary

Summary of the topics covered in this lesson:

- Packages in R can be used to manipulate and visualize data of any type.

End of Lesson05–Examples in R