

SIX MONTH TRAINING IN DATA SCIENCE WITH R **PROGRAMMING**



Module 1 Basic of R Language

Introduction to R

- Overview and history of R
- Introduction of R Studio
- Installing and configuration of R
- Introduction to R Console

Programming in R

- Programming Structure of R
- R data type and objects
- R language Operators
- Various operators
- Branching & Looping

Function In R language:

- R important built-in functions
- General functions
- Math functions
- Statistical functions
- Write function in R
- When should we write function?
- Functions with condition

Vector, Array and Matrix:

- Introduction to vector
- Types of vector
- Matrix create, print, add columns, slice
- Array in R

Factor In R:

- Introduction to Factor



- Types of Factor

Data Frames and List

- What is a Data Frame?
- How to create a data frame
- Append a Column to Data Frame
- Select a column of a data frame
- Subset a data frame
- List Using vector array and matrix

Package in R :

- Package Introduction
- Installing package
- Loading package manually
- Data Reshaping in R

Module 2 ~ R Charts, Graphs and Interfaces

Graphs in R

- History and Graphical representation of data
- Different chart Functions
- Different type of charts and graphs
- Pie charts,Boxplots,Bar charts
- Histograms, Lines Graphs and Scatter plots

Interfaces in R

- Data import in R
- Data import form excel format
- Csv file format
- Execl format
- Binary files
- Xml and json files
- Web Data



Exporting data in R

- Writing data in tag delimited text file
- Exporting data in excel file
- Export data in stata binary format
- Export data in SAS format

Module 3 Data Manipulation and Modeling

Data Manipulation with R

- Feature Engineering
- Label Encoding
- One Hot Encoding
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Predictive Modeling using Machine Learning in R

- Linear Regression
- Decision Tree
- Random Forest
- Multipul Regression
- Logistic Regerssion

Module 4 Project Work

- Case study using R
- Project work using shiny web & dashboard