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

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