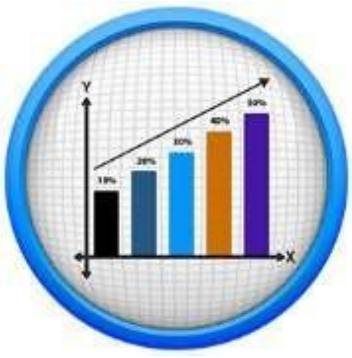
# R Programming for Analytics



# R SOFTWARE PROGRAMING
# WIDELY USED OPEN SOURCE ANALYTICS TOOL

**COMPREHENSIVE COURSE FOR R TOOL AND ASSOCIATED ANALYTICS**

**PREREQUISITES: BASIC COMPUTERS WITH GOOD ANALYTICAL SKIILS** | **DURATION 30 HRS** | **TOOLS: R SOFTWARE +R STUDIO**

## ABOUT THE COURSE

This course provides an in-depth knowledge of R and practical exposure as well as run various Analytics techniques on it. In this course we cover basics of Analytics also so that you become aware of theoretical aspects too.

R is gaining more popularity these days, first because of its open source & low cost, nature, and second because of the fact that big data tools like Hadoop are open source too and integration between these and other open source tools are seamless. And many a times the Analytics tasks are ad-hoc and do not require a commercial tool. This is adding to the popularity of R tool.

## COURSE OUTLINE

### LESSON 1 :INTRODUCTION

Why use R programming
Overview of the CRAN project

### LESSON 2 : R ARCHITECTURE

Installing R and Rstudio
The package sparadigm
The "vector" architecture of R

### LESSON 3 : DATA TYPES AND STRUCTURES

Numeric types
Character types
Factor-an R specific data type
Dates
Boolean types
Vector- fundamental data structure
Matrix
Dataframe
Lists

### LESSON 4 : COMMON DATA OPERATIONS

Importing data
Exporting data
Editing data in spread sheet form
Subsetting
Filtering
Summarization
Cross tabs

### LESSON 5 : FUNCTIONS IN R

String functions
Numeric functions
Data manipulation functions
Aggregation

### LESSON 6 : CONTROL FUNCTIONS

Forloop, Whileloop, Repeat

### LESSON 7 : USERDEFINED FUNCTIONS

Syntax for custom functions
Specifying arguments
Returning objects

### LESSON 8 : PLYR PACKAGE

Data cleaning, preparation and manipulation

### LESSON 9 : GGPLOT 2 PACKAGE

Make visualization of data easy

### LESSON 11 : RESHAPE PACKAGE

Make visualization of data easy

### LESSON 12 : STATISTICS INTRODUCTION

Linear Regression
Logistic Regression
Decision tree
Cluster Analysis