

Data Science Certification Course using R is a two-day course which is designed to provide delegates with the knowledge and skills required to perform various data analytics methods and techniques using R. During the training program, the delegates will master concepts like data exploration, predictive analysis, data structures, data virtualisation, clustering and more.

Data Science Certification Course using R enables the delegates to become an expert in data analytics using R programming language. The delegates will learn how to Implement various real-life projects in the domains of finance, retail, insurance, healthcare and many more. The course also provides comprehensive knowledge of R language, R-studio and R packages. The delegates will be able to use various graphics in data virtualisation.

Moreover, the course also includes statistical concepts including cluster analysis, linear and logistic regression, forecasting and more. During the training, our instructor will guide delegates how to execute projects with the help of CloudLab. R CloudLab ensures that the delegates have achieved practical understanding required to work effectively with new skills.

We at Silicon Beach Training offer training in various modes including online, onsite and classroom. We include examples and practical exercises in the course to ensure that the delegates gain a deep understanding of the subject. Along with this, we provide 24\*7 help and support to help the delegate in case of any query related to course or training sessions.

## Prerequisites

Data Science Certification Course using R course doesn't have any prerequisites. This course is best for professionals who are new to data science and want to make a career in this field.

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## Course Objectives

Data Science Certification Course using R allows delegates to:

- Master the concepts and terminologies used in R programming language
- Get to know about the statistical concepts
- Learn how to define and use various apply and DPLYR functions
- Get to know about the rules of association and Apriori algorithm
- Discover various clustering methods including DBSCAN, K-means, hierarchical clustering and more
- Discover the data structure of R and learn how the data can be imported/exported in R
- Learn R installation, R-studio and R packages

Data Science Certification Course using R is a two-day course, and it includes the following topics:

## Introduction to Business Analytics

- What is Business Analytics?
- Business Decisions and Analytics
- Business Analytics Types
- Business Analytics Applications
- Overview of Data Science

## **Introduction to R Programming**

- Importance of R programming
- Define Data Types in R
- Define Variable in R
- Define Operators in R
- Define Conditional Statement in R
- Define Loops in R
- Define R script
- Define Functions in R

## **Overview of Data Structures**

- Identify Data Structures
- Assigning values to Data Structures
- What is Data Manipulation?
- Assigning values and applying functions

## **Overview of Data Virtualisation**

- Introduction to Data Virtualisation
- Data virtualisation using R
- Define ggplot2
- File formats of graphics outputs

## **Statistics for Data Science-I**

- Introduction to Hypothesis
- Types of Hypothesis
- What is Data Sampling?
- Confidence and Significance levels

## **Statistics for Data Science-II**

- Hypothesis Test
- Parametric Test
- Non-Parametric Test
- Hypothesis Tests about Population Means
- Hypothesis Tests about Population Variance
- Hypothesis Tests about Population Proportions

## **Introduction to Regression Analysis**

- Overview of Regression Analysis

- Types of Regression Analysis Models
- Define Linear Regression
- Simple Linear Regression
- Non-Linear Regression
- Regression Analysis with Multiple Variables
- Define Cross-Validation
- Non-Linear to Linear Models
- Principal Component Analysis
- Factor Analysis

## Introduction to Classification

- Classification and its types
- Logistic Regression
- Support Vector Machines
- K-Nearest Neighbours
- Naïve Bayes Classifier
- Decision Tree Classification
- random Forest Classification
- Evaluating Classifier Models

## Introduction to Clustering

- Introduction to Clustering
- Clustering Methods
- Demo K-means clustering
- Demo Hierarchical clustering
- Association Rule

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