

Wiley International Certifications

Most Powerful Global Proof of Job-Readiness & Professional Competence

Complete training to certification solutions for career enhancement. Innovative scenario based learning with real life case studies, projects/labs. Unique certification evaluating industry relevant skills.



No	Module	Module Objectives
1.	Introduction to Big Data	<ul style="list-style-type: none">• Understand the role and importance of Big Data• Discuss the use and applications of Big Data in various industries• Discuss the major technologies associated with Big Data• Explain the roles of the various components of Hadoop 2 ecosystem• Explain the fundamental concepts of MapReduce and YARN in the Hadoop 2 framework
2	Introduction to analytics and R programming	<ul style="list-style-type: none">• Discuss the importance of advanced analytics• Explain the evolution of analytical methods and tools• Discuss the features of the various analytical tools• Develop scripts in R• Execute scripts in R using the various add-on editors available for R• Perform read and write operations in R• Manipulate data in R
3.	Data Analysis Using R	<ul style="list-style-type: none">• Use R scripts and functions• Use R function environment and methods• Perform the steps to summarize data samples• Use cumulative statistics and summary tables• Create lists, matrices, and data frames in R• Use loops and conditional execution in R• Install RHadoop and create user-defined functions• Implement graphical analysis in R• Perform hypothesis tests in R
4.	Big Data Analytics Methods	<ul style="list-style-type: none">• Apply solution engineering process for Big Data implementation• Explain the necessity to preprocess data• Perform various data cleaning, preprocessing and transformation techniques• Analyze the role of Social Media Analysis in business contexts• Conduct Social Media Analysis

No	Module	Module Objectives
5.	Advanced Analytics Using R	<ul style="list-style-type: none"> • Perform basic mobile analytics • Discuss data visualization and its importance • Use Tableau for data visualization • Describe linear regression analysis and its applications • Apply the knowledge of linear regression analysis in R • Understand nonlinear regression in terms of its applications • Apply nonlinear regression analysis in R • Explain the technique of cluster analysis • Implement clustering techniques in R • Explore the basic concepts used in building decision trees • Build decision trees in R • Integrate R with Hadoop for statistical analysis
6.	Machine Learning Concepts	<ul style="list-style-type: none"> • Discuss the techniques and business applications of machine learning • Understand the use of graphical models • Implement graphical models in R • Understand Bayesian networks representation reasoning and interpretation • Use Bayesian networks to solve predictive problems • Explore artificial neural networks, their structure, and learning rules • Illustrate training of artificial neural networks • Implement neural networks in R • Implement dimensionality reduction by using factor analysis and principal component analysis • Identify the most impacting factors/dimensions from a given list of predictors • Explain support vector machines Implement support vector machines in R
7.	Big Data Analytics - Technology and Tools	<ul style="list-style-type: none"> • Analyze Hadoop's data storage model with HDFS and HBase • Develop MapReduce 2 programs • Analyze the role of YARN in Hadoop 2 • Discuss the Hive data storage principle • Perform operations with data in Hive • Implement Advance Query features of Hive • Explain the Functions, File formats and Records formats supported by the Hive environment • Use Pig to automate the design and implementation of MapReduce applications