DELL Technologies

D-DS-FN-23

Dell Data Science Foundations
Certification Description

DELL Technologies

Proven Professional

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Certification Overview
This certification enables the learner to immediately participate in big data and other analytics projects. The certification validates the practical foundation skills required by a Data Scientist.

Certification Requirements
To successfully complete this certification, a candidate must:

1. Have a sufficient knowledgebase/skill set through hands-on product experience and/or by consuming the recommended training.

2. Pass the Dell Data Science Foundations exam.

Note: These details reflect certification requirements as of February 3, 2024

The Proven Professional Program periodically updates Certifications to reflect technical currency and relevance. Please check the Proven Professional website regularly for the latest information.

Dell Technologies Partners: Achieving a certification validates capability; however, it does not imply authorization to deliver services. Services Competencies provide partners with the ability to deliver services under their own brand or co-deliver with Dell Technologies. Tiered partners are eligible to obtain Services Competencies upon completing the specific requirements outlined in the [Services Competencies Matrix](#). Only partners that have met these requirements should be delivering their own services in lieu of Dell Technologies Services.

Dell Technologies
1 Dell Way
Round Rock Texas 78682

Exam Overview

This exam focuses on the practice of data analytics, the role of the Data Scientist, the main phases of the Data Analytics Lifecycle, analyzing and exploring data with R, statistics for model building and evaluation, the theory and methods of advanced analytics and statistical modeling, the technology and tools that can be used for advanced analytics, operationalizing an analytics project, and data visualization techniques.

Exam Topics

Topics likely to be covered on this exam include:

Big Data, Analytics, and the Data Scientist Role (5%)
- Define and describe the characteristics of Big Data
- Describe the business drivers for Big Data analytics and data science
- Describe the Data Scientist role and related skills

Data Analytics Lifecycle (8%)
- Describe the data analytics lifecycle purpose and sequence of phases
- Discovery - Describe details of this phase, including activities and associated roles
- Data preparation - Describe details of this phase, including activities and associated roles
- Model planning - Describe details of this phase, including activities and associated roles
- Model building - Describe details of this phase, including activities and associated roles

Initial Analysis of the Data (15%)
- Explain how basic R commands are used to initially explore and analyze the data
- Describe and provide examples of the most important statistical measures and effective visualizations of data
- Describe the theory, process, and analysis of results for hypothesis testing and its use in evaluating a model

Advanced Analytics - Theory, Application, and Interpretation of Results for Eight Methods (40%)
Describe theory, application, and interpretation of results for the following methods:
- K-means clustering
- Association rules
- Linear regression
- Logistic Regression
- Naïve Bayesian classifiers
- Decision trees
- Time Series Analysis
- Text Analytics

Advanced Analytics for Big Data - Technology and Tools (22%)
- Describe the technological challenges posed by Big Data
- Describe the nature and use of MapReduce and Apache Hadoop
- Describe the Hadoop ecosystem and related product use cases
- Describe in-database analytics and SQL essentials
- Describe advanced SQL methods: window functions, ordered aggregates, and MADlib

Operationalizing an Analytics Project and Data Visualization Techniques (10%)
- Describe best practices for communicating findings and operationalizing an analytics project
- Describe best practices for building project presentations for specific audiences
- Describe best practices for planning and creating effective data visualizations

The percentages after each topic above reflects the approximate distribution of the total question set across the exam.

Duration

90 minutes

Recommended Training

The following training is recommended for candidates preparing to take this exam.

Please complete one of the following courses

Course Title	Course Number	Mode	Available
Data Science and Big Data Analytics v2 - Classroom	ES712OCMDSBDA	Instructor-Led	7/16/18
Data Science and Big Data Analytics v2 - Virtual Classroom	ES722OCMDSBDA	Virtual Instructor-Led	7/16/18
Data Science and Big Data Analytics v2 - On-Demand Course	ES732OCMDSBDA	On-Demand	9/12/18

Please complete one of the following courses

Course Title	Course Number	Mode	Available
Data Science and Big Data Analytics v2 - Classroom	ES742OCMDSALN	On-Demand Lab	9/12/18
Data Science and Big Data Analytics v2 - Virtual Classroom	ES742OCMDSALE	On-Demand Lab	9/12/18

The course material is supplemented by the textbook.   Text book is optional.

Course Title	Mode	Available
Data Science and Big Data Analytics: Discovering, Analyzing, Visualizing and Presenting Data Purchasing Options available at: http://www.wiley.com/WileyCDA/WileyTitle/productCd-111887613X.html	Book	1/27/15

Note: These exam description details reflect contents as of February 3, 2024.

Dell Technologies believes the information in this document is accurate as of its publication date. The information is subject to change without notice.