# Data Analyst

**Certification Exam: 1DO-622**

## Exam Objectives

### Domain 1: Fundamentals of Data Analysis

1.1: Describe the importance of obtaining good data, including capturing, using and analyzing institutional knowledge (i.e., tribal knowledge).
1.2: Explain the benefits of centralizing an organization's data in one application (e.g. Salesforce, Netsuite)
1.3: Compare and contrast structured and unstructured data.
1.4: Identify typical sources of business data, including mobile platforms, traditional e-commerce sites, social media, sales, accounting, marketing, customers and partners.
1.5: Explain the fundamentals of Search Engine Optimization (SEO), including analyzing multiple channels (e.g., e-mail, X, Facebook, LinkedIn and offline channels).

### Domain 2: Introduction to Big Data

2.1: Describe the term Big Data
2.2: Explain the importance of IT data management, including ethics and security.
2.3: Describe various IT business environments and the nature of working with cloud-based data.
2.4: Explain how to work with cloud-native data.
2.5: Explain how to work with in-house data.
2.6: Determine when it makes sense to migrate in-house data to the cloud and how to do it.
2.7: Describe typical databases used for data analysis, including Oracle, MS-SQL, MySQL, and Access.
2.8: Given a scenario, analyze data to make business decisions such as building a case for change; exploring, generating, and testing business assumptions; and using historical data to analyze trends.

### Domain 3: Working with Data Sources

3.1: Explain how to obtain data by working with various organization departments, including customer service, marketing, sales.
3.2: Describe the purpose of Customer Relationship Management (CRM).
3.3: Given a scenario, determine how to integrate CRM and customer service.
3.4: Explain how to obtain data from e-mail and user forums.
3.5: Describe how to access and obtain data from knowledge bases, including NetSuite, Facebook, X, LinkedIn, enterprise resource management systems, and accounting sources.
3.6: "Determine how to obtain data from CRM and business-to-business frameworks."
3.7: Given a scenario, analyze transaction, payment and inventory data from various data sources.
3.8: Given a scenario, make business decisions using multiple data sources.

### Domain 4: Tools for Capturing and Analyzing Data

4.1: Describe various tools to capture data required for data analysis, including Tableau Public, Google Fusion Tables, OpenRefine.
4.2: "Explain how to capture and analyze data from Hadoop based environments."
4.3: "Describe how the R Project enables data analysts to statistically explore data sets and create graphical displays."
4.4: "Describe additional software for data capture and analysis, including Rapid Miner and KNIME."

### Domain 5: Analyzing and Reporting Data

5.1: "Analyze network traffic from typical sources, such as Web logs, marketing, technical support, customer relations, sales."
5.2: "Given a scenario, determine relationships between organizational efforts and business outcomes, such as the progress of efforts against business goals."
5.3: "Given a scenario, identify the best methods to capture and report specific data."
5.4: "Create a dashboard for data analysis and reporting, including executive summaries."
5.5: Create reports and charts for reporting data using office tools, including word processors, spreadsheets, databases, web-based software.
5.6: "Create presentations for reporting data using tools such as PowerPoint and Webcasts."

 

5.7: "Create a list of Frequently Asked Questions (FAQ) to accompany a presentation."
5.8: Explain the need for ethics in presenting data to avoid personal or organizational bias.
5.9: Describe how ethics are a vital part of the Data Analyst responsibilities.

 