



20466: Implementing Data Models and Reports with SQL Server® 2012/2014

Duration: 5 Days

Method: Instructor-Led Training (ILT)

Certification: Microsoft Certified Solutions Expert (MCSE): Data Management and Analytics
— **Exam:** 70-466 Implementing Data Models and Reports with Microsoft SQL Server

Course Description

The focus of this course is on creating managed enterprise BI solutions. It describes how to implement multidimensional and tabular data models, deliver reports with Microsoft® SQL Server Reporting Services, create dashboards with Microsoft SharePoint® Server PerformancePoint Services, and discover business insights by using data mining.

Target Audience

This course is intended for:

- Database professionals who need to fulfill a Business Intelligence Developer role to create analysis and reporting solutions.
- Persons interested in taking the certification exam.

Prerequisites

To attend this course, participants must have:

- At least 2 years' experience of working with relational databases, including:
 - Designing a normalized database.
 - Creating tables and relationships.
 - Querying with Transact-SQL.
 - Some basic knowledge of data warehouse schema topology (including star and snowflake schemas).
- Some exposure to basic programming constructs (such as looping and branching).
- An awareness of key business priorities such as revenue, profitability, and financial accounting.



Course Objectives

Upon successful completion of this course, attendees will be able to:

- Describe the components, architecture, and nature of a BI solution.
- Create a multidimensional database with Analysis Services.
- Implement dimensions in a cube.
- Implement measures and measure groups in a cube.
- Use MDX Syntax.
- Customize a cube.
- Implement a Tabular Data Model in SQL Server Analysis Services.
- Use DAX to enhance a tabular model.
- Create reports with Reporting Services.
- Enhance reports with charts and parameters.
- Manage report execution and delivery.
- Implement a dashboard in SharePoint Server with PerformancePoint Services.
- Use Data Mining for Predictive Analysis.

Course Topics

Module 1: Introduction to Business Intelligence and Data Modeling

- Introduction to Business Intelligence
- The Microsoft Enterprise BI Platform

Module 2: Creating Multidimensional Databases

- Introduction to Multidimensional Analysis
- Creating Data Sources and Data Source Views
- Creating a Cube
- Overview of Cube Security

Module 3: Working with Cubes and Dimensions

- Configuring Dimensions
- Defining Attribute Hierarchies
- Sorting and Grouping Hierarchies

Module 4: Working with Measures and Measure Groups

- Working with Measures
- Working with Measure Groups

Module 5: Introduction to MDX

- MDX Fundamentals
- Adding Calculations to a Cube
- Using MDX to Query a Cube



Course Topics *Continued*

Module 6: Customizing Cube Functionality

- Implementing Key Performance Indicators (KPI)
- Implementing Actions
- Implementing Perspectives
- Implementing Translations

Module 7: Implementing an Analysis Services Tabular Data Model

- Introduction to Tabular Data Models
- Creating a Tabular Data Model
- Using an Analysis Services Tabular Data Model in an Enterprise BI Solution

Module 8: Introduction to Data Analysis Expression (DAX)

- DAX Fundamentals
- Using DAX to Create calculated Columns and Measures in a Tabular Data Model

Module 9: Implementing Reports with SQL Server Reporting Services

- Introduction to Reporting Services
- Creating a Report with Report Designer
- Grouping and Aggregating Data in a Report
- Showing Data Graphically
- Filtering Reports Using Parameters

Module 10: Automating Report Execution and Delivery

- Managing Report Security
- Managing Report Execution
- Delivering Reports with Subscriptions and Data Alerts
- Troubleshooting Reporting Services

Module 11: Delivering BI with SharePoint PerformancePoint Services

- Introduction to SharePoint Server as a BI Platform
- Planning Security for a SharePoint Server BI Solution
- Planning for PerformancePoint Services

Module 12: Performing Predictive Analysis with Data Mining

- Overview of Data Mining
- Using the Data Mining Add-in for Excel
- Creating a Custom Data Mining Solution
- Validating a Data Mining Model
- Connecting to and Consuming Data Mining Data

LABS INCLUDED

