

Implementing Data Models and Reports with SQL Server 2014

Course: 20466

Course Details

Audience(s): IT Professional(s)

Technology: Microsoft SQL Server 2014

Duration: 40 Hours

ABOUT THIS COURSE

The focus of this forty hours instructor-led 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. This course is also designed for customers who are interested in learning SQL Server 2012 or SQL Server 2014. It covers the new features in SQL Server 2014, but also the important capabilities across the SQL Server data platform.

AUDIENCE PROFILE

This course is intended for database professionals who need to fulfill a Business Intelligence Developer role to create analysis and reporting solutions. Primary responsibilities include:

- Implementing analytical data models, such as OLAP cubes.
- Implementing reports, and managing report delivery.
- Creating business performance dashboards.
- Supporting data mining and predictive analysis.

Course Content

Module 1: Introduction to Business Intelligence and Data Modeling

Lessons

- Introduction to Business Intelligence
- The Microsoft Enterprise BI Platform

Lab: Exploring a BI Solution

Module 2: Creating Multidimensional Databases

Lessons

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

Lab: Creating a Multidimensional Database

Module 3: Working with Cubes and Dimensions

Lessons

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

Lab: Working with Cubes and Dimensions

Module 4: Working with Measures and Measure Groups

Lessons

- Working with Measures
- Working with Measure Groups

Lab: Configuring Measures and Measure Groups

Module 5: Introduction to MDX

Lessons

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

Lab: Using MDX

Module 6: Customizing Cube Functionality

Lessons

- Implementing Key Performance Indicators
- Implementing Actions
- Implementing Perspectives
- Implementing Translations

Lab: Customizing a Cube

Module 7: Implementing an Analysis Services Tabular Data Model

Lessons

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

Lab: Implementing an Analysis Services Tabular Data Model

Module 8: Introduction to Data Analysis Expression (DAX)

Lessons

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

Lab: Creating Calculated Columns and Measures by using DAX

Module 9: Implementing Reports with SQL Server Reporting Services

Lessons

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

Lab: Creating a Report with Report Designer

Module 10: Automating Report Execution and Delivery

Lessons

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

Lab: Implementing Report Subscriptions

Module 11: Delivering BI with SharePoint PerformancePoint Services

Lessons

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

Lab: Implementing PerformancePoint Services

Module 12: Performing Predictive Analysis with Data Mining

Lessons

- 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

Lab: Using Data Mining to Support a Marketing Campaign

At This Course Completion

At completing this course the student 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.