
Implementing Data Models and Reports with Microsoft® SQL Server 2014®

Duration: 5 Days Course Code: 466 Version: C

Overview:

The focus of this five-day 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.

Target Audience:

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

Objectives:

- 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.
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Prerequisites:

- 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 is desirable.
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Content:

Module 1: Introduction to Business Intelligence and Data Modeling

- Elements of an Enterprise BI Solution
- The Microsoft Enterprise BI Platform
- Planning an Enterprise BI Project

Lab : Exploring a BI Solution

- Exploring the Data Warehouse Exploring the Analysis Services Data Model
- Exploring Reports

Module 2: Creating Multidimensional Databases

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

Lab : Creating a Multidimensional Database

- Creating a Data Source
- Creating and Modifying a Data Source View
- Creating and Modifying a Cube
- Adding a Dimension

Module 3: Working with Cubes and Dimensions

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

Lab : Defining Dimensions

- Configuring Dimensions and Attributes
- Creating Hierarchies
- Creating a Hierarchy with Attribute Relationships
- Creating a Ragged Hierarchy
- Browsing Dimensions and Hierarchies in a Cube

Module 4: Working with Measures and Measure Groups

- Working with Measures
- Working with Measure Groups

Lab : Configuring Measures and Measure Groups

- Configuring Measures
- Defining a Regular Relationship
- Configuring Measure Group Storage

Module 5: Introduction to MDX

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

Lab : Using MDX

- Creating Calculated Members
- Querying a Cube by Using MDX

Module 6: Enhancing a Cube

- Working with Key Performance Indicators
- Working with Actions
- Working with Perspectives
- Working with Translations

Lab : Customizing a Cube

- Implementing an Action
- Implementing Perspectives
- Implementing a Translation

Module 7: Implementing an Analysis Services Tabular Data Model

- Introduction to Analysis Services Tabular Data Models
- Creating a Tabular Data Model
- Using an Analysis Services Tabular Data Model in the Enterprise
- Lab : Implementing an Analysis Services Tabular Data Model
- Creating an Analysis Services Tabular Data Model Project
- Configuring Columns and Relationships
- Deploying an Analysis Services Tabular Data Model

Module 8: Introduction to DAX

- DAX Fundamentals
- Enhancing a Tabular Data Model with DAX

Lab : Using DAX to Enhance a Tabular Data Model

- Creating Calculated Columns
- Creating Measures
- Creating a KPI
- Implementing a Parent-Child Hierarchy

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
- Publishing and Viewing a Report

Lab : Creating a Report with Report Designer

- Creating a Report
- Grouping and Aggregating Data
- Publishing a Report

Module 10: Enhancing Reports with SQL

Lab : Enhancing a Report

- Adding a Chart to a Report
- Adding Parameters to a Report
- Using Data Bars and Sparklines
- Using a Map

Module 11: Managing Report Execution and Delivery

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

Lab : Configuring Report Execution and Delivery

- Configuring Report Execution
- Implementing a Standard Subscription
- Implementing a Data-Driven Subscription

Module 12: Delivering BI with SharePoint PerformancePoint Services

- Introduction to SharePoint Server as a BI Platform
- Introduction to PerformancePoint Services
- PerformancePoint Data Sources and Time Intelligence
- Reports, Scorecards, and Dashboards

Lab : Implementing a SharePoint Server BI Solution

- Creating a SharePoint Server Site for BI
- Configuring PerformancePoint Data Access
- Creating PerformancePoint Reports
- Creating a PerformancePoint Scorecard
- Creating a PerformancePoint Dashboard

Module 13: Performing Predictive Analysis with Data Mining

- Overview of Data Mining
- Creating a Data Mining Solution
- Validating a Data Mining Model
- Consuming Data Mining Data

Lab : Using Data Mining to Support a Marketing Campaign

- Using Table Analysis Tools
- Creating a Data Mining Structure
- Adding a Data Mining Model to a Data Mining Structure
- Validating a Data Mining Model
- Using a Data Mining Model in a Report

Server Reporting Services

- Showing Data Graphically
- Filtering Reports by Using Parameters

Further Information:

For More information, or to book your course, please call us on Head Office +254 713 027 191

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