

Developing SQL Data Models

MOC 20768

In diesem Kurs lernen Sie das Implementieren von multidimensionale Datenbanken mithilfe der SQL Server Analysis Services (SSAS) und durch das Erstellen von tabellarische semantische Datenmodelle für die Analyse mit SSAS.

Zielgruppe

Dieser Kurs eignet sich für Datenbank Profis, welche die Rolle eines BI Entwicklers ausfüllen müssen, um Enterprise BI Lösungen zu erstellen. Sie sollten diese Verantwortungsbereiche abdecken:

- Implementieren multidimensionaler Datenbanken mithilfe der SQL Server Analysis Services
- Erstellen von tabellarischen semantischen Datenmodellen für die Analyse mithilfe der SQL Server Analysis Services

Dieser Kurs eignet sich ebenfalls für "Power" Informationsarbeiter / Datenanalysten

Kerninhalte

- Beschreiben der Komponenten, Architektur und Natur einer BI-Lösung
- Erstellen einer multidimensionale Datenbank mit Analysedienstleistungen
- Implementieren von Dimensionen in einem Cube
- Implementieren von Maßnahmen und Maßnahmengruppen in einem Cube
- Anwenden der MDX Syntax
- Anpassen eines Cubes
- Implementieren einer tabellarischen Datenbank
- Anwenden von DAX zur Abfrage eines tabellarischen Modells
- Anwenden von Data Mining für die prädiktive Analyse

Voraussetzungen

- Grundlagenkenntnisse des Microsoft Windows Betriebssystems und seiner Kernfunktionalität
- Erfahrung in der Arbeit mit Transact-SQL
- Erfahrung in der Arbeit mit relationalen Datenbanken

Hinweis

Für diesen Kurs können Sie Voucher aus dem Microsoft Software Assurance Programm (SA-Voucher) einlösen.

Dauer

3 Tage

Kursmodule**Modul 1: Introduction to Business Intelligence and Data Modeling**

This module introduces key BI concepts and the Microsoft BI product suite.

Lessons

- Introduction to Business Intelligence
- The Microsoft business intelligence platform

Lab: Exploring a Data Warehouse

After completing this module, you will be able to:

- Describe the concept of business intelligence
- Describe the Microsoft business intelligence platform

Modul 2: Creating Multidimensional Databases

This module describes the steps required to create a multidimensional database with analysis services.

Lessons

- Introduction to multidimensional analysis
- Creating data sources and data source views
- Creating a cube
- Overview of cube security

Lab: Creating a multidimensional database

After completing this module, you will be able to:

- Use multidimensional analysis
- Create data sources and data source views
- Create a cube
- Describe cube security

Module 3: Working with Cubes and Dimensions

This module describes how to implement dimensions in a cube.

Lessons

- Configuring dimensions
- Define attribute hierarchies
- Sorting and grouping attributes

Lab: Working with Cubes and Dimensions

After completing this module, you will be able to:

- Configure dimensions
- Define attribute hierarchies.
- Sort and group attributes

Module 4: Working with Measures and Measure Groups

This module describes how to implement measures and measure groups in a cube.

Lessons

- Working with measures
- Working with measure groups

Lab: Configuring Measures and Measure Groups

After completing this module, you will be able to:

- Work with measures
- Work with measure groups

Modul 5: Introduction to MDX

This module describes the MDX syntax and how to use MDX.

Lessons

- MDX fundamentals
- Adding calculations to a cube
- Using MDX to query a cube

Lab: Using MDX

After completing this module, you will be able to:

- Describe the fundamentals of MDX
- Add calculations to a cube
- Query a cube using MDX

Modul 6: Customizing Cube Functionality

This module describes how to customize a cube.

Lessons

- Implementing key performance indicators
- Implementing actions
- Implementing perspectives
- Implementing translations

Lab: Customizing a Cube

After completing this module, you will be able to:

- Implement key performance indicators
- Implement actions
- Implement perspectives
- Implement translations

Modul 7: Implementing a Tabular Data Model by Using Analysis Services

This module describes how to implement a tabular data model in PowerPivot.

Lessons

- Introduction to tabular data models
- Creating a tabular data model
- Using an analysis services tabular model in an enterprise BI solution

Lab: Working with an Analysis services tabular data model

After completing this module, you will be able to:

- Describe tabular data models
- Create a tabular data model
- Be able to use an analysis services tabular data model in an enterprise BI solution

Modul 8: Introduction to Data Analysis Expression (DAX)

This module describes how to use DAX to create measures and calculated columns in a tabular data model.

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

After completing this module, you will be able to:

- Describe the fundamentals of DAX
- Use DAX to create calculated columns and measures in a tabular data model

Modul 9: Performing Predictive Analysis with Data Mining

This module describes how to use data mining for predictive analysis.

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 a data mining model

Lab: Perform Predictive Analysis with Data Mining

After completing this module, you will be able to:

- Describe data mining
- Use the data mining add-in for Excel
- Create a custom data mining solution
- Validate a data mining solution
- Connect to and consume a data mining solution