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Learning Style: Virtual Classroom

Technology: Microsoft

Difficulty: Intermediate

Course Duration: 3 Days

Developing SQL Data Models (MS-20768)



If you are joining this preparation course with no Master Subscription plan, a Free Voucher for Official Exam you will receive (not includes purchases utilizing the SATV / Vouchers of Training) for the Exam of 70-768. No Exam Voucher includes in this course if your enrollment is within the Master Subscription plan, but you have the option to request the purchase of Voucher for Official Exam separately.

About this course:

The main target of the MS instructional course is to enable the understudy to get ready for the certification exam of MS 70-768: Developing SQL Data Models. It further aims at showing understudies for creating the data models of SQL alongside this, it likewise instructs how to apply multidimensional, tabular information models

and making oversight enterprise BI solutions, measures, cubes, dimensions, and lastly, measure groups. It will likewise give a complete perspective on data modeling and SQL (Structured Query Language). The data modeling is the technique of verifying a mind-boggling software framework structure as a normal diagram. This diagram is created utilizing text and symbols to represent the flow information required. This diagram can be used as a blueprint for a legacy application restructuring or for growing new programming. Then again, SQL is a language of programming for executing different projects, working on the information and overseeing relational databases.

The normal pay for Data Engineer with SQL Skills is \$82,958 every year.

Course Objectives:

The participants of this course will figure out how to:

- Utilize Analysis Services to build up a multidimensional database.
- Groups estimation in a cube and execute activities.
- Cube customization.
- To query a tabular model with the use of DAX.
- Execute dimensions in the cube.
- BI solution's component, structure, and nature description.
- Predict analysis with the utilization of data mining.
- Use MDX syntax.
- Execute a tabular database.

Audience:

The professional who needs to finish the role of BI developer for creating enterprise solutions of BI is the primary participants of the course.

The initial tasks contain:

Use the Analysis Services of SQL Server to make tabular semantic models for analysis.

Use Analysis Services of SQL to execute multidimensional databases.

Prerequisites:

The participants of the course should have information to:

Use Transact-SQL for questioning information.

Course Outline:

Module 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 BI Solution

- Exploring a Data Warehouse
- Exploring a data model

After completing this module, students will be able to:

- Describe BI scenarios, trends, and project roles.
- Describe the products that make up the Microsoft BI platform.

Module 2: Creating Multidimensional Databases

This module describes how to create multidimensional databases using SQL Server Analysis Services.

Lessons

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

Lab : Creating a multidimensional database

- Creating a Data Source
- Creating and Modifying a data Source View
- Creating and Modifying a Cube

After completing this module, you will be able to:

- Describe considerations for a multidimensional database.
- Create data sources and data source views.
- Create a cube
- Implement security in a multidimensional database.
- Configure SSAS to meet requirements including memory limits, NUMA and disk layout.
- Monitor SSAS performance.

Module 3: Working with Cubes and Dimensions

This module describes how to implement dimensions in a cube.

Lessons

- Configuring Dimensions
- Defining Attribute Hierarchies
- Sorting and Grouping Attributes
- Slowly Changing Dimensions

Lab : Working with Cubes and Dimensions

- Configuring Dimensions
- Defining Relationships and Hierarchies
- Sorting and Grouping Dimension Attributes

After completing this module, you will be able to:

- Configure dimensions.
- Define attribute hierarchies.
- Implement sorting and grouping for attributes.
- Implement slowly changing dimensions.

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

- Configuring Measures
- Defining Dimension Usage and Relationships
- Configuring Measure Group Storage

After completing this module, you will be able to:

- Configure measures.
- Configure measure groups.

Module 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

- Querying a cube using MDX
- Creating a Calculated Member

After completing this module, you will be able to:

- Use basic MDX functions.
- Use MDX to add calculations to a cube.
- Use MDX to query a cube.

Module 6: Customizing Cube Functionality

This module describes how to customize a cube.

Lessons

- Introduction to Business Intelligence
- The Implementing Key Performance Indicators
- Implementing Actions
- Implementing Perspectives
- Implementing Translations

Lab : Customizing a Cube

- Implementing a KPI
- Implementing an action
- Implementing a perspective
- Implementing a translation

After completing this module, you will be able to:

- Implement KPIs in a Multidimensional database
- Implement Actions in a Multidimensional database
- Implement perspectives in a Multidimensional database
- Implement translations in a Multidimensional database

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

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

Lessons

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

Lab : Working with an Analysis Services Tabular Data Model

- Creating an Analysis Services Tabular Data Model
- Configure Relationships and Attributes
- Configuring Data Model for an Enterprise BI Solution.

After completing this module, students will be able to:

- Describe tabular data models
- Describe how to create a tabular data model
- Use an Analysis Services Tabular Model in an enterprise BI solution

Module 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

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

After completing this module, students will be able to:

- Describe the key features of DAX
- Create calculated columns and measures by using DAX

Module 9: Performing Predictive Analysis with Data Mining

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

Lessons

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

Lab : Using Data Mining

- Creating a Data Mining Structure and Model
- Exploring Data Mining Models
- Validating Data Mining Models
- Consuming a Data Mining Model
- Using the Excel Data Mining add-in

After completing this module, students will be able to:

- Describe considerations for data mining
- Create a data mining model
- Validate a data mining model
- Connect to a data-mining model
- Use the data mining add-in for Excel