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# 20768 - DEVELOPING SQL DATA MODELS

## CONTEÚDO PROGRAMÁTICO

### **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 Data Warehouse**

- After completing this module, you will be able to:
- Describe the concept of business intelligence
- Describe the Microsoft business intelligence platform

### **Module 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

## **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**

After completing this module, you will be able to:

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

## **Module 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

## **Module 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

### **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**

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

### **Module 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