Designing Self-Service Business Intelligence and Big Data Solutions

Duración: 5 Días      Código del Curso: M20467      Version: C

Temario:

This training course teaches database and business intelligence (BI) professionals how to plan and design a BI solution that is based on Microsoft SQL Server 2014 and other Microsoft BI technologies.

Dirigido a:

This course is not designed for students who are new to SQL Server 2014 BI technologies; it is targeted at BI professionals with experience of implementing solutions with SQL Server database Engine, SQL Server Integration Services, SQL Server Analysis Services, and SQL Server Reporting Services.

Objetivos:

- After completing this course, students will be able to:
  - Plan a BI solution.
  - Plan SQL Server BI infrastructure.
  - Design a data warehouse.
  - Design an extract, transform and load (ETL) solution.
  - Design analytical data models.

- Plan a BI delivery solution.
- Design a Reporting Services solution.
- Design a Microsoft Excel-based reporting solution.
- Plan a SharePoint Server BI solution.
- Monitor and optimize a BI solution.
- Operate a BI solution.

Prerequisitos:

In addition to their professional experience, students who attend this training should already have the following technical knowledge:

- A basic understanding of dimensional modeling (star schema) for data warehouses
- Basic server hardware knowledge
- The ability to create Integration Services packages that include control flows and data flows
- The ability to create a basic multidimensional cube with Analysis Services
- The ability to create a basic tabular model with PowerPivot and Analysis Services
- The ability to create Reporting Services reports with Report Designer
- The ability to implement authentication and permissions in the SQL Server database engine, Analysis Services, and Reporting Services
- Familiarity with SharePoint Server and Microsoft Office applications – particularly Excel
Contenido:

Module 1: Planning a BI Solution

This module enables students to plan the components of a BI Solution.

Lessons
- Elements of a BI Solution
- Planning a BI Project
- The Microsoft BI Platform
- Considerations of BI Infrastructure
- Planning Data Warehouse Hardware
- Data Warehouse Design Overview
- Designing Dimension Tables
- Design FACT tables
- ETL Overview
- Planning for Data Extraction
- Planning for Data Transformations
- Planning for Data Loading
- Introduction to Analytical data Models
- Designing Analytical Data Models
- Considerations for BI delivery
- Common Reporting Scenarios
- Choosing a Reporting Tool
- Planning a Reporting Solution
- Designing Reports
- Planning Report Consistency
- Using Excel for Data Reporting and Analysis
- PowerPivot in Excel
- Power View in Excel
- Introduction to SharePoint Server as a BI Platform
- Planning Security for a SharePoint Server BI Solution
- Planning Reporting Services Configuration
- Planning PowerPivot Configuration
- Planning for PerformancePoint Services
- Overview of BI Monitoring
- Monitoring and Optimizing the Data Warehouse
- Monitoring and Analyzing Analysis Services
- Monitoring and Optimizing Reporting Services
- Overview of BI Operations
- ETL Operations
- Data Warehouse Operations
- Analysis Services Operations
- Reporting Services Operations

Lab : Planning BI Solutions

After completing this module, you will be able to:
- Describe the components of a BI Solution.
- Describe the components of a BI Infrastructure and where you would use them.
- Plan for the hardware requirements of a data warehouse implementation.
- Design a data warehouse.

Module 5: Designing Analytical Data Models

This module describes how to design analytical data models for specific BI scenarios.

Lessons
- Elements of a BI Solution
- Planning a BI Project
- The Microsoft BI Platform
- Considerations of BI Infrastructure
- Planning Data Warehouse Hardware
- Data Warehouse Design Overview
- Designing Dimension Tables
- Design FACT tables
- ETL Overview
- Planning for Data Extraction
- Planning for Data Transformations
- Planning for Data Loading
- Introduction to Analytical data Models
- Designing Analytical Data Models
- Considerations for BI delivery
- Common Reporting Scenarios
- Choosing a Reporting Tool
- Planning a Reporting Solution
- Designing Reports
- Planning Report Consistency

Lab : Designing and Excel Reporting Solution

After completing this module, you will be able to:
- Describe the components of a BI Solution.
- Describe the components of a BI Infrastructure and where you would use them.
- Plan for the hardware requirements of a data warehouse implementation.
- Design a data warehouse.
- Describe the features of an analytical data model.
- Design an analytical data model.
- Describe the components of a BI delivery solution.
- Plan for a reporting Services solution.
- Describe key features of excel reporting solutions.
- Describe the components of a SharePoint Server BI solution.
- Describe the options for monitoring and optimizing a BI solution.
- Be able to monitor and optimize a BI solution.
- Describe the components to be managed in a BI Solution.
- Be able to manage the components of a BI solution.
- Describe the components of an ETL solution.
- Design an ETL solution.

Module 9: Planning a SharePoint Server BI Solution

This module introduces the use of SharePoint Server as a BI solution.

Lessons
- Elements of a BI Solution
- Planning a BI Project
- The Microsoft BI Platform
- Considerations of BI Infrastructure
- Planning Data Warehouse Hardware
- Data Warehouse Design Overview
- Designing Dimension Tables
- Design FACT tables
- ETL Overview
- Planning for Data Extraction
- Planning for Data Transformations
- Planning for Data Loading
- Introduction to Analytical data Models
- Designing Analytical Data Models
- Considerations for BI delivery
- Common Reporting Scenarios
- Choosing a Reporting Tool
- Planning a Reporting Solution
- Designing Reports
- Planning Report Consistency
- Use PowerPivot in Excel to create reports.
- Use Power View in excel to create reports.
Module 6: Planning a BI Delivery Solution

OVERVIEW OF BI MONITORING

Describe key features of Excel reporting

This module describes how to choose an appropriate delivery solution for a given BI solution.

Describe the components of a SharePoint Server BI solution.

Describe the options for monitoring and optimizing a BI solution.

Be able to monitor and optimize a BI solution.

Describe the components to be managed in a BI Solution.

Be able to manage the components of a BI solution.

Identify the components of a BI Solution.

Plan a BI Project.

Module 2: Planning SQL Server Business Intelligence Infrastructure

This module describes how to use plan appropriate BI Infrastructure given a set of BI Parameters.

LESSONS

Elements of a BI Solution
Planning a BI Project
The Microsoft BI Platform
Considerations of BI Infrastructure
Planning Data Warehouse Hardware
Data Warehouse Design Overview
Designing Dimension Tables
Design FACT tables
ETL Overview
Planning for Data Extraction
Planning for Data Transformations
Planning for Data Loading
Introduction to Analytical data Models
Designing Analytical Data Models
Considerations for BI delivery
Common Reporting Scenarios
Choosing a Reporting Tool
Planning a Reporting Solution
Designing Reports
Planning Report Consistency
Using Excel for Data Reporting and Analysis
PowerPivot in Excel
Power View in Excel
Introduction to SharePoint Server as a BI Platform
Planning Security for a SharePoint Server BI Solution
Planning Reporting Services Configuration
Planning PowerPivot Configuration
Planning for PerformancePoint Services
Lab : Implementing a SharePoint Server BI Solution
Lab : Implementing PerformancePoint Services

Lab : Designing Analytical Data Model
Lab : Designing Dimensions and Hierarchies

After completing this module, you will be able to:

Describe the components of a BI Solution.

Describe the components of a BI Infrastructure and where you would use them.

Plan for the hardware requirements of a data warehouse implementation.

Design a data warehouse.

Describe the features of an analytical data model.

Design an analytical data model.

Describe the components of a BI delivery solution.

Plan for a reporting Services solution.

Describe key features of Excel reporting solutions.

Describe the components of a SharePoint Server BI solution.

Describe the options for monitoring and optimizing a BI solution.

Be able to monitor and optimize a BI solution.

Describe the components to be managed in a BI Solution.

Be able to manage the components of a BI solution.

Module 6: Planning a BI Delivery Solution

After completing this module, you will be able to:

Describe the components of a BI Solution.

Describe the components of a BI Infrastructure and where you would use them.

Plan for the hardware requirements of a data warehouse implementation.

Design a data warehouse.

Describe the features of an analytical data model.

Design an analytical data model.

Describe the components of a BI delivery solution.

Plan for a reporting Services solution.

Describe key features of Excel reporting solutions.

Describe the components of a SharePoint Server BI solution.

Describe the options for monitoring and optimizing a BI solution.

Be able to monitor and optimize a BI solution.

Describe the components to be managed in a BI Solution.

Be able to manage the components of a BI solution.

Plan security for a SharePoint Server BI solution.
Module 10: Monitoring and Optimizing a BI Solution

Overview of BI Monitoring
Monitoring and Optimizing the Data Warehouse
Monitoring and Analyzing Analysis Services
Monitoring and Optimizing Reporting Services
Overview of BI Operations
ETL Operations
Data Warehouse Operations
Analysis Services Operations
Reporting Services Operations

Lab: Planning BI Infrastructure

After completing this module, you will be able to:

- Describe the components of a BI Solution.
- Describe the components of a BI Infrastructure and where you would use them.
- Plan for the hardware requirements of a data warehouse implementation.
- Design a data warehouse.
- Describe the features of an analytical data model.
- Design an analytical data model.
- Describe the components of a BI delivery solution.
- Plan for a reporting Services solution.
- Describe key features of excel reporting solutions.
- Describe the components of a SharePoint Server BI solution.
- Describe the options for monitoring and optimizing a BI solution.
- Be able to monitor and optimize a BI solution.
- Describe the components to be managed in a BI Solution.
- Be able to manage the components of a BI solution.

Module 3: Designing a Data Warehouse

This module describes how to design a data warehouse given a set of user requirements.

Lessons
- Elements of a BI Solution
- Planning a BI Project
- The Microsoft BI Platform
- Considerations of BI Infrastructure
- Planning Data Warehouse Hardware
- Data Warehouse Design Overview
- Designing Dimension Tables
- Design FACT tables
- ETL Overview
- Planning for Data Extraction
- Planning for Data Transformations
- Planning for Data Loading
- Introduction to Analytical data Models
- Designing Analytical Data Models
- Considerations for BI delivery
- Common Reporting Scenarios
- Choosing a Reporting Tool
- Planning a Reporting Solution
- Designing Reports
- Planning Report Consistency
- Using Excel for Data Reporting and Analysis
- PowerPivot in Excel
- Power View in Excel
- Introduction to SharePoint Server as a BI Platform
- Planning Security for a SharePoint Server BI Solution
- Planning Reporting Services Configuration
- Planning PowerPivot Configuration
- Planning for PerformancePoint Services
- Overview of BI Monitoring
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- Monitoring and Analyzing Analysis Services
- Monitoring and Optimizing Reporting Services
- Overview of BI Operations
- ETL Operations
- Data Warehouse Operations
- Analysis Services Operations
- Reporting Services Operations

Lab: Planning a BI Delivery Solution

After completing this module, you will be able to:

- Describe the components of a BI Solution.
- Describe the components of a BI Infrastructure and where you would use them.
- Plan for the hardware requirements of a data warehouse implementation.
- Design a data warehouse.
- Describe the features of an analytical data model.

Plan reporting solutions for a SharePoint Server BI solution.

Describe the components of a PerformancePoint Solution.

Module 10: Monitoring and Optimizing a BI Solution

At the conclusion of this module you will be able to optimize and monitor a BI solution.

Lessons
- Elements of a BI Solution
- Planning a BI Project
- The Microsoft BI Platform
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- ETL Operations
- Data Warehouse Operations
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- Reporting Services Operations

Lab: Monitoring and Optimizing a BI Solution
<table>
<thead>
<tr>
<th>Lab: Designing a Data Warehouse Logical Schema</th>
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<td>After completing this module, you will be able to:</td>
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### Lessons

- Elements of a BI Solution
- Planning a BI Project
- The Microsoft BI Platform
- Considerations of BI Infrastructure
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- Monitoring and Optimizing Analysis Services
- Monitoring and Optimizing Reporting Services
- Overview of BI Operations
- ETL Operations
- Data Warehouse Operations
- Analysis Services Operations
- Reporting Services Operations

After completing this module, you will be able to:

- Describe the components of a BI Solution.
- Describe the components of a BI Infrastructure and where you would use them.
- Plan for the hardware requirements of a data warehouse implementation.
- Design a data warehouse.
- Describe the features of an analytical data model.
- Choose an appropriate delivery solution for a given scenario.

Module 7: Designing a Reporting Services Solution

This module describes how to design a reporting services solution.

- Elements of a BI Solution
- Planning a BI Project
- The Microsoft BI Platform
- Considerations of BI Infrastructure
- Planning Data Warehouse Hardware
- Data Warehouse Design Overview
- Designing Dimension Tables
- Design FACT tables
- ETL Overview
- Planning for Data Extraction
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- Designing Analytical Data Models
- Considerations for BI delivery
- Common Reporting Scenarios
- Choosing a Reporting Tool
- Planning a Reporting Solution
- Designing Reports
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- Using Excel for Data Reporting and Analysis
- PowerPivot in Excel
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- Introduction to SharePoint Server as a BI Platform
- Planning Security for a SharePoint Server BI Solution
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- Overview of BI Monitoring
- Monitoring and Optimizing the Data Warehouse
- Monitoring and Optimizing Analysis Services
- Monitoring and Optimizing Reporting Services
- Overview of BI Operations
- ETL Operations
- Data Warehouse Operations
- Analysis Services Operations
- Reporting Services Operations

Module 11: Operating a BI Solution

At the conclusion of this module you will be able to plan management and maintenance operations of a BI solution.

- Elements of a BI Solution
- Planning a BI Project
- The Microsoft BI Platform
- Considerations of BI Infrastructure
- Planning Data Warehouse Hardware
- Data Warehouse Design Overview
- Designing Dimension Tables
- Design FACT tables
- ETL Overview
- Planning for Data Extraction
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- Introduction to Analytical data Models
- Designing Analytical Data Models
- Considerations for BI delivery
- Common Reporting Scenarios
- Choosing a Reporting Tool
- Planning a Reporting Solution
- Designing Reports
- Planning Report Consistency
- Using Excel for Data Reporting and Analysis
- PowerPivot in Excel
- Power View in Excel
- Introduction to SharePoint Server as a BI Platform
Design a logical schema for a data warehouse.

Module 4: Designing an ETL Solution

This lesson describes how to design an extract, transform and load (ETL) solution.

Lessons
- Elements of a BI Solution
- Planning a BI Project
- The Microsoft BI Platform
- Considerations of BI Infrastructure
- Planning Data Warehouse Hardware
- Data Warehouse Design Overview
- Designing Dimension Tables
- Design FACT tables
- ETL Overview
- Planning for Data Extraction
- Planning for Data Transformations
- Planning for Data Loading
- Introduction to Analytical data Models
- Designing Analytical Data Models
- Considerations for BI delivery
- Common Reporting Scenarios
- Choosing a Reporting Tool
- Planning a Reporting Solution
- Designing Reports
- Planning Report Consistency
- Using Excel for Data Reporting and Analysis
- PowerPivot in Excel
- Power View in Excel
- Introduction to SharePoint as a BI Platform
- Planning Security for a SharePoint BI Solution
- Planning Reporting Services Configuration
- Planning PowerPivot Configuration
- Planning for PerformancePoint Services
- Overview of BI Monitoring
- Monitoring and Optimizing the Data Warehouse
- Monitoring and Analyzing Analysis Services
- Monitoring and Optimizing Reporting Services
- Overview of BI Operations
- ETL Operations
- Data Warehouse Operations
- Analysis Services Operations
- Reporting Services Operations

Lab : Designing an ETL Solution

After completing this module, you will be able to:
- Describe the components of a BI Solution.
- Data Warehouse Design Overview
- Designing Dimension Tables
- Planning Data Warehouse Hardware
- Overview of BI Operations
- ETL Operations
- Data Warehouse Operations
- Analysis Services Operations
- Reporting Services Operations

Lab : Designing a Reporting Services Solution

After completing this module, you will be able to:
- Describe the components of a BI Solution.
- Design an analytical data model.
- Design a data warehouse.
- Plan for the hardware requirements of a data warehouse implementation.
- Design a data warehouse.
- Describe the features of an analytical data model.
- Describe the components of a BI delivery solution.
- Plan for a reporting Services solution.
- Describe key features of excel reporting solutions.
- Describe the components of a SharePoint Server BI solution.
- Describe the options for monitoring and optimizing a BI solution.
- Be able to monitor and optimize a BI solution.
- Describe the components to be managed in a BI Solution.
- Design reports for a reporting services solution.
- Plan for consistency of reporting

Module 8: Designing an Excel Based reporting Solution

In this module students will learn how to design a reporting solution using Excel.

Lessons
- Elements of a BI Solution
- Planning a BI Project
- The Microsoft BI Platform
- Considerations of BI Infrastructure
- Planning Data Warehouse Hardware
- Data Warehouse Design Overview
- Designing Dimension Tables
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<td>Reporting Services Operations</td>
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</table>

**Más información:**

Para más información o para reservar tu plaza llámanos al (34) 91 425 06 60  
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