
Designing Business Intelligence Solutions with Microsoft® SQL Server®

Duration: 5 Days **Course Code: M20467** **Version: A**

Overview:

This five-day instructor-led course teaches students how to implement self-service Business Intelligence (BI) and Big Data analysis solutions using the Microsoft data platform. The course discusses the rationale for self-service BI, and describes how to use Microsoft SQL Server Reporting Services, Microsoft Excel, Microsoft SharePoint Server, and Microsoft Office 365 Power BI to create self-service data models and reports. The course then goes on to describe how to use Windows Azure HDInsight to perform Big Data analysis.

Note: This course is designed for customers who are interested in learning SQL Server 2012 or SQL Server 2014. It covers the new features in SQL Server 2014, but also the important capabilities across the SQL Server data platform.

Target Audience:

The primary audience for this course is database and business intelligence (BI) professionals who are familiar with data warehouses and enterprise BI solutions built with SQL Server technologies. Experienced data analysts who want to learn how to use Microsoft technologies for self-service analysis and reporting will also benefit from attending this course.

Objectives:

- Describe key features and benefits of self-service BI.
 - Use SQL Server Reporting Services to implement a self-service reporting solution.
 - Use PowerPivot in Microsoft Excel to create analytical data models.
 - Use Power Query in Microsoft Excel to import data into a data model.
 - Use Power View in Microsoft Excel to create interactive data visualizations.
 - Use Power Map in Microsoft Excel to create geographic data visualizations.
 - Use Microsoft SharePoint Server to implement collaborative self-service BI solutions.
 - Provision and use a Windows Azure HDInsight cluster for Big Data analysis.
 - Use Pig and Hive to analyze big data in Windows Azure HDInsight.
 - Design and implement Big Data processes to support self-service BI.
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Prerequisites:

- Knowledge of data warehousing and data modeling principles.
- Familiarity with Microsoft Excel and Microsoft SharePoint Server 2013.

Testing and Certification

This course maps to skills and knowledge measured by Microsoft Exam 70-467, and in conjunction with on-the-job experience, can help prepare you for the exam.

Content:

Module 1: Planning a BI Solution

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

- Elements of a BI Solution
- Planning a BI Project
- The Microsoft BI Platform

Lab : Planning BI Solutions

After completing this module, you will be able to:

- Describe the components of a BI Solution.
- Identify the components of a BI Solution
- Plan a BI Project.
- 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.
- Design dimension tables.
- Design Fact tables.
- Design a logical schema for a data warehouse.
- Describe the components of an ETL solution.
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- Describe the components of a BI delivery solution.
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- Describe the components of a PerformancePoint Solution.
- Implement PerformancePoint services.
- 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.

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- 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 5: Designing Analytical Data Models

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

- Introduction to Analytical data Models
- Designing Analytical Data Models

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

- Using Excel for Data Reporting and Analysis
- PowerPivot in Excel
- Power View in Excel

Lab : Designing and Excel Reporting Solution

After completing this module, you will be able to:

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- Be able to manage the components of a BI solution.

Module 9: Planning a SharePoint Server BI Solution

Module 2: Planning BI Infrastructure

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

- Considerations of BI Infrastructure
- Planning Data Warehouse Hardware

Lab : Planning BI Infrastructure

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- Be able to manage the components of a BI solution.

Module 3: Designing a Data Warehouse

Lab : Designing Analytical Data Model Designing Dimensions and Hierarchies

After completing this module, you will be able to:

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Module 6: Planning a BI Delivery Solution

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

- Considerations for BI delivery

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

- 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

After completing this module, you will be able to:

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- Be able to monitor and optimize a BI solution.
- Describe the components to be managed in a BI Solution.

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

- Data Warehouse Design Overview
- Designing Dimension Tables
- Design FACT tables

Lab : Designing a Data Warehouse Logical Schema

After completing this module, you will be able to:

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Module 4: Designing an ETL solution

- Common Reporting Scenarios
- Choosing a Reporting Tool

Lab : Planning a BI Delivery Solution

After completing this module, you will be able to:

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Module 7: Designing a Reporting Services Solution

This module describes how to design a reporting services solution.

- Be able to manage the components of a BI 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.

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

Lab : Monitoring and Optimizing a BI Solution

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- Describe the options for monitoring and optimizing a BI solution.
- Be able to monitor and optimize a BI

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

- ETL Overview
- Planning for Data Extraction
- Planning for Data Transformations
- Planning for Data Loading

Lab : Designing an ETL Solution

- Planning a Reporting Solution
- Designing Reports
- Planning Report Consistency

Lab : Designing a Reporting Services Solution

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- 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.

Design reports for a reporting services solutions.

- Plan for consistency of reporting

solution.

- Describe the components to be managed in a BI Solution.
- Be able to manage the components of a BI solution.

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.

- Overview of BI Operations
- ETL Operations
- Data Warehouse Operations
- Analysis Services Operations
- Reporting Services Operations

Lab : Operating a BI Solution

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- Implement PerformancePoint services.
- Describe the options for monitoring and optimizing a BI solution.

Module 8: Designing an Excel Based reporting 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.

Additional Information:

This course will be delivered with digital courseware. In order to have the best learning experience you are asked to bring your own second screen to view the courseware. A second screen includes: tablets and laptops.

Further Information:

For More information, or to book your course, please call us on 00 966 92000 9278

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