

Course Outline

20467 – Designing Business Intelligence Solutions with Microsoft SQL Server 2014

General Description

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.

Prerequisites

This course requires that you meet the following prerequisites:

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

Outcomes

At the end of the course, students will be able to:

- 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.

Course Details

Course code: 20467D
Duration: 5 days
Starting time: 9am
Finishing time: 4.30pm

Booking guidelines

Contact our learning consultants on 1300 86 87246 and we will assist you with your booking.



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Course Outline

➤ **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

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.

➤ **Module 2: Planning BI Infrastructure**

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

Lessons

- Considerations of BI Infrastructure
- Planning Data Warehouse Hardware
- Lab : Planning BI Infrastructure

After completing this module, you will be able to:

- Describe the components of a BI Infrastructure and where you would use them.
- Plan for the hardware requirements of a data warehouse implementation.

➤ **Module 3: Designing a Data Warehouse**

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

Lessons

- 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:

- Design a data warehouse.
- Design dimension tables.
- Design Fact tables.

- 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

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

Lab : Designing an ETL Solution

After completing this module, you will be able to:

- Describe the components of an ETL solution.
- Design an ETL solution.

➤ **Module 5: Designing Analytical Data Models**

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

.Lessons

- Introduction to Analytical data Models
- Designing Analytical Data Models

Lab : Designing Analytical Data Model

Lab : Designing Dimensions and Hierarchies

After completing this module, you will be able to:

- Describe the features of an analytical data model.
- Design an analytical data model.

➤ **Module 6: Planning a BI Delivery Solution**

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

Lessons

- Considerations for BI delivery
- Common Reporting Scenarios
- Choosing a Reporting Tool

Lab : Planning a BI Delivery Solution

After completing this module, you will be able to:

- Describe the components of a BI delivery solution.
- Describe some common reporting scenarios.
- 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.

Lessons

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

Lab : Designing a Reporting Services Solution

After completing this module, you will be able to:

- Plan for a reporting Services solution.
- Design reports for a reporting services solutions.
- 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

- 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:

- Describe key features of excel reporting solutions.
- Use PowerPivot in Excel to create reports.
- Use Power View in excel to create reports.

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➤ **Module 9: Planning a SharePoint Server BI Solution**

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

Lessons

- 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:

- Describe the components of a SharePoint Server BI solution.
- Plan security for a SharePoint Server BI solution.
- Plan reporting solutions for a SharePoint Server BI solution.
- Describe the components of a PerformancePoint Solution.
- Implement PerformancePoint services.

➤ **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

- 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

After completing this module, you will be able to:

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

Lessons

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

Lab : Operating a BI Solution

After completing this module, you will be able to:

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