

# Designing Business Intelligence Solutions with Microsoft SQL Server 2014

## 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 SQL Server Business Intelligence 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.

## **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.