Enterprise Computing Solutions - Education Services

TRAINING OFFERING

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Designing Business Intelligence Solutions with Microsoft SQL Server

CODE:	LENGTH:	PRICE:
MS-20467	40 Hours (5 days)	$2,975.00

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.
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.

Objectives

After completing this 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.

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.

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.

Programme

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:
Plan a BI Project.
Describe the components of a BI Solution.
Identify the components of a BI Solution.
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.
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.

Session Dates

On request. Please Contact Us

Additional Information

This training is also available as onsite training. Please contact us to find out more.