

5 Days

Designing Self-Service Business Intelligence and Big Data Solutions

This five-day instructor-led course teaches participants 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 participants 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.

Course Details

Course Outline

Module 1: Introduction to Self-Service Business Intelligence This module introduces self-service BI. Lessons Extending Enterprise BI Microsoft Self-Service BI and Big Data Technologies Lab : Exploring an Enterprise BI Solution Viewing Reports Analyzing Data in a Data Model Analyzing Data from Multiple Sources After completing this module, you will be able to: Describe ways in which an enterprise BI solution can be extended. Identify Microsoft technologies for self-service BI and Big Data analysis.

Module 2: Self-Service Reporting This module describes how to use Report Builder as a tool for self-service Microsoft SQL Server Reporting Services report authoring. Lessons Introduction to Self-Service Reporting Shared Data Sources and Datasets Report Parts Lab : Implementing Self-Service Reporting Using Report Builder Simplifying Data Access for Business Users Using Report Parts After completing this module, you will be able to: Support self-service reporting with Report Builder. Create shared data sources and datasets for self-service reporting scenarios. Use report parts as reusable report elements.

Module 3: Self-Service Data Modeling with PowerPivot This module describes how to use PowerPivot in Microsoft Excel to create self-service data models for analysis. Lessons Creating Data Models in Excel with PowerPivot Using DAX in a PowerPivot Data Model Lab : Self-Service Data Modeling with PowerPivot Creating a Data Model with PowerPivot Enhancing a Data Model Extending a Data Model After completing this module, you will be able to: Use PowerPivot to create tabular data models in Excel. Enhance data models with custom DAX expressions.

Module 4: Importing Data with Power Query This lesson describes how to use Power Query in Microsoft Excel to find and import data. Lessons Introduction to Power Query Using Power Query to Import Data Lab : Using Power Query Importing data with Power Query Merging Queries Adding a Query to a Data Model After completing this module, you will be able to: Enable Power Query and use it to search for data online Use Power Query to import data from multiple data sources into an Excel data model

Module 5: Visualizing Data with Power View in Microsoft Excel This module describes how to use Power View in Microsoft Excel to create interactive data visualizations. Lessons Introduction to Power View Creating Dynamic Data Visualizations Lab : Visualizing Data with Power View Using Power View After completing this module, you will be able to: Describe the features of Power View Use Power View to create interactive data visualizations in Excel

Module 6: Visualizing Geographic Data with Power Map This module describes how to use Power Map in Microsoft Excel to create geographic data visualizations. Lessons Introduction to Power Map Using Power Map Lab : Visualizing Geographic Data with Power Map Creating a Power Map Tour Visualizing Data Over Time After completing this module, you will be able to: Describe the features and usage scenarios of Power Map Use Power Map to create visualizations of geographic data

Module 7: Collaborative BI with Microsoft SharePoint Server This module describes how to use Microsoft SharePoint Server in an enterprise environment to enable users to share PowerPivot workbooks and Power View reports. Lessons Sharing PowerPivot Workbooks Managing PowerPivot Services in SharePoint Server Using Power View in SharePoint Server Lab : Using SharePoint Server for BI Collaboration Sharing a PowerPivot Workbook Managing PowerPivot Data Refresh Using Power View in SharePoint Server After completing this module, you will be able to: Share a PowerPivot workbooks in SharePoint Server Manage PowerPivot services in SharePoint Server Use Power View to create interactive data visualizations in SharePoint Server

Module 8: Introduction to Big Data and Microsoft Azure HDInsight This module introduces Big Data concepts and describes the key features of Windows Azure HDInsight. Lessons Introduction to Big Data Windows Azure HDInsight Lab : Using Windows Azure HDInsight Provisioning a Windows Azure HDInsight Cluster Processing Data with HDInsight Analyzing Big Data in Microsoft Excel After completing this module, you will be able to: Describe key features of Big Data. Use Windows Azure HDInsight to process Map/Reduce jobs

Module 9: Processing Big Data with Pig and Hive This module introduces Pig and Hive, and describes how you can use them to process Big Data in Windows Azure HDInsight. Lessons Processing Big Data with Pig Processing Big Data with Hive Lab : Processing Big Data with Pig and Hive Processing Big Data with Pig Processing Big Data with Hive After completing this module, you will be able to: Use Pig to process Big Data Use Hive to process Big Data

Module 10: Implementing Big Data Processing Solutions with Microsoft Azure HDInsight This module introduces key Windows Azure HDInsight technologies that enable you to design and implement automated, repeatable Big Data processing solutions that support self-service BI. Lessons Automating Big Data Processing Tasks Integrating Windows Azure HDInsight with Enterprise Data Lab : Creating a Big Data Solution Using HCatalog to Abstract Storage Locations Using Oozie to Coordinate a Workflow Using Sqoop to Export Data After completing this module, you will be able to: Design and implement an automated Big Data processing solution Integrate Windows Azure HDInsight with Self-Service BI Solutions

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Who Should Attend

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.

Pre Requisite

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.

Exams

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