



Power BI and Big Data with SQL Server 2014

Course ISI-1426 2 Days Instructor-led, Hands-on

Introduction

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.

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.

At Course Completion

After completing this course, students will be able to:

- Use Power Query in Microsoft Excel to import data into a data model.
- Use Power Map in Microsoft Excel to create geographic data visualizations.
- 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.

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.

Course Materials

The student kit includes a workbook and other necessary materials for this class.

Contact ISInc for more information at 916.920.1700 or by visiting our website at <http://www.isinc.com>



Course Outline

Module 1: 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 2: 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 3: Introduction to Big Data and Windows 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

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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 4: 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 5: Implementing Big Data Processing Solutions with Windows 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