Szkolenie autoryzowane

MS 10977 Updating Your SQL Server Skills to Microsoft SQL Server 2014

About this course

This five-day instructor-led course teaches students how to use the enhancements and new features that have been added to SQL Server and the Microsoft data platform since the release of SQL Server 2008. The course focuses on teaching individuals how to use SQL Server 2014 product features and other Microsoft data platform components.

Audience profile

The primary audience for this course is database and business intelligence (BI) professionals who are familiar with SQL Server 2008 and want to update their skills to SQL Server 2014, and become familiar with related Microsoft data technologies.

After completing this course, students will be able to:

- Describe key features and capabilities of SQL Server 2014.
- Leverage new and enhanced features to develop database in SQL Server 2014.
- Use in-memory database capabilities in SQL Server 2014.
- Manage SQL Server 2014 by using dynamic management views and PowerShell.
- Implement security in SQL Server 2014.
- Implement high-availability and data recovery techniques in SQL Server 2014.
- Use SQL Server 2014 Integration Services.
- Use SQL Server 2014 Data Quality Services.

- Use SQL Server 2014 Master Data Services.
- Manage SQL Server 2012 Agent and Jobs.
- Implement a tabular data model in SQL Server 2014 Analysis Services.
- Implement a Self-Service BI solution with Microsoft Excel 2013.
- Describe key elements of cloud solutions for data.
- Implement a database in Microsoft Azure SQL Database.
- Implement a SQL Server database in a Microsoft Azure virtual machine.
- Implement a Big Data solution with Microsoft Azure HDInsight and the Microsoft Azure Marketplace.

PREREQUISITES:

This course requires that you meet the following prerequisites:

- Experience of building and managing database, data warehouse, and business intelligence (BI) solutions with SQL Server 2008.
- Familiarity with the Windows Server 2012 operating system and networking.
- Familiarity with Microsoft Excel and Microsoft SharePoint Server 2013.

Course Outline

Module 1: Introduction to SQL Server 2014

This module introduces key features of SQL Server 2014.

Lessons

- Overview of SQL Server 2014
- SQL Server 2014 Editions and Components
- Installing SQL Server 2014
- Enhancements to SQL Server Management Studio

Lab : Exploring SQL Server 2014

After completing this module, you will be able to:

- Describe common workloads for SQL Server 2014.
- Describe the SQL Server 2014 Editions and Components.
- Install SQL Server 2014 Components.
- Use new features in SQL Server Management Studio.

Module 2: What's New in SQL Server Database Development

This module describes enhancements to Transact-SQL and other database development features since SQL Server 2008.

Lessons

- Transact-SQL Enhancements
- New and Enhanced Transact-SQL Functions
- Enhancements to Spatial Data Support
- Storing and Querying Documents with SQL Server 2014

Lab : Developing SQL Server 2014 Databases

After completing this module, you will be able to:

- Describe enhancements to Transact-SQL.
- Describe new and enhanced Transact-SQL functions.
- Describe Enhancements to Spatial Data Support.
- Explain how to store and query documents with SQL Server 2014.

Module 3: In-Memory Database Capabilities

This module describes how SQL server 2014 enables you to leverage in-memory technologies to enhance database performance.

Lessons

- The Buffer pool Extension
- Columnstore Indexes
- Memory-Optimized Tables

Lab : Using In-Memory Database Capabilities

After completing this module, you will be able to:

- Use the Buffer Pool Extension to improve performance for read-heavy OLTP workloads.
- Use Columnstore Indexes to improve performance in data warehouse query workloads.
- Use memory-optimized tables to improve performance for latch-bound workloads.

Module 4: Scripting SQL Server 2014

This lesson describes how you can use dynamic management views and PowerShell to script

administrative tasks in SQL server 2014.

Lessons

- New and Enhanced Dynamic Management Views
- Using PowerShell to Manage SQL Server

Lab : Managing SQL Server with Scripts

After completing this module, you will be able to:

- Describe new and enhanced dynamic management views.
- Describe how to use PowerShell to Manage SQL Server.

Module 5: Implementing Security in Microsoft SQL Server 2014

This module describes the enhancements to security features since SQL Server 2008.

Lessons

- Security Management Enhancements
- Contained Databases

Lab : Implementing Security

After completing this module, you will be able to:

- Describe the security enhancements in SQL Server 2014.
- Explain how to use contained databases.

Module 6: High Availability and Data Recovery Enhancements

This module describes enhancements to SQL Server availability and data recovery features since SQL Server 2008.

Lessons

- AlwaysOn High Availability
- Enhancements to Data Recovery

Lab : Using AlwaysOn Availability Groups

After completing this module, you will be able to:

- Describe high availability features in SQL Server 2014.
- Describe data recovery enhancements in SQL Server 2014.

Module 7: New and Enhanced Features in SQL Server Integration Services

This module describes enhancements to SQL Server Integration Services since SQL Server 2008.

Lessons

- Using the CDC Control Task for Incremental Data Loads
- Deploying and Operating SSIS Packages

Lab : Using SQL Server Integration Services

After completing this module, you will be able to:

- Use the CDC Control task to perform incremental data extractions in an ETL solution.
- Deploy and operate an SSIS project.

Module 8: Data Quality Services

This module explains how to use the SQL Server 2014 Data Quality Services (DQS) to provide a computer assisted process for cleansing data values and identifying and removing duplicate data entities.

Lessons

- Introduction to Data Quality
- Using Data Quality Services to Cleanse Data
- Using Data Quality Services to Match Data

Lab : Cleansing Data

Lab : Deduplicating Data

After completing this module, you will be able to:

- Describe how Data Quality Services can help you manage data quality.
- Use Data Quality Services to cleanse your data.
- Use Data Quality Services to match data.

Module 9: Master Data Services

This module introduces Master Data Services and describes its key configuration options and how to import and export data.

Lessons

- Introduction to Master Data Services
- Implementing a Master Data Services Model
- Using the Master Data Services Add-in for Excel

Lab : Implementing Master Data Services

After completing this module, you will be able to:

- Describe key Master Data Services concepts.
- Implement a Master Data Services model.
- Use Master Data Services tools to manage master data.
- Use Master Data Services tools to create a master data hub.

Module 10: SQL Server 2014 Reporting Services

This module describes new and enhanced features in SQL Server Reporting Services.

Lessons

- Reporting Services Overview
- Reporting Services and Microsoft SharePoint Server
- Introduction to Data Alerts

Lab : Using SQL Server 2014 Reporting Services

After completing this module, you will be able to:

- Describe the key capabilities of Reporting Services.
- Install and configure Reporting Services in SharePoint Mode.
- Use data alerts to notify users of changes to report data.

Module 11: Implementing an Analysis Services Tabular Data Model

This module describes Analysis Services tabular data models and explains how to develop a tabular data model by using the SQL Server Data Tools for BI add-in for Visual Studio.

Adres korespondencyjny:
DAGMA Szkolenia IT | ul. Bażantów 6a/3 | Katowice (40-668)
tel. 32 793 11 80 | szkolenia@dagma.pl
szkolenia.dagma.eu

D3

DAGMA Sp. z o.o. z siedzibą w Katowicach (40-478), ul. Pszczyńska 15
Sąd Rejonowy Katowice-Wschód w Katowicach Wydział VIII Gospodarczy
KRS pod numerem 0000130206, kapitał zakładowy 75 000 zł
Numer NIP 634-012-60-68, numer REGON: 008173852
DAGMA Sp. z o.o. posiada status dużego przedsiębiorcy
w rozumieniu art. 4c ustawy o przeciwdziałaniu nadmiernym
opóźnieniom w transakcjach handlowych.

Lessons

- Introduction to Analysis Services Tabular Data Model Projects
- Creating a Tabular Model
- Using an Analysis Services Tabular Data Model in the Enterprise

Lab : Working with an Analysis Services Tabular Data Model

After completing this module, you will be able to:

- Describe Analysis Services tabular data model projects.
- Implement an Analysis Services tabular data model.
- Use an Analysis Services tabular data model.

Module 12: Self-Service BI with Microsoft Excel

This module introduces the self-service BI capabilities that can be delivered through Microsoft Excel 2013 and related technologies.

Lessons

- PowerPivot for Excel
- PowerPivot for SharePoint Server
- Power Query
- Power View
- Power Map
- Collaborative Analysis with Power BI for Office 365

Lab : Self-Service BI with Excel

After completing this module, you will be able to:

- Use PowerPivot to create tabular data models in Excel.
- Share a PowerPivot workbooks in SharePoint Server.
- Use Power Query to discover and import data from multiple data sources into Excel.
- Use Power View to create interactive data visualizations in Excel and SharePoint Server.
- Use Power Map to create visualizations of geographic data.
- Use Power BI for Office 365 to create a cloud-based collaborative solution for self-service BI.

Module 13: Introduction to Cloud Data Solutions

This module introduces some of the key Microsoft technologies that you can use to implement a cloud solution for data.

Lessons

- Overview of Cloud Computing
- Microsoft Azure Services for Data

Lab : Using Microsoft Azure

After completing this module, you will be able to:

- Describe key features and benefits of cloud computing.
- Describe Microsoft Azure service for data.

Module 14: Microsoft Azure SQL Database

This module introduces Microsoft Azure SQL Database, a Platform-as-a-Service (PaaS) solution for cloud-based relational database storage.

Lessons

- Introduction to Microsoft Azure SQL Database
- Microsoft Azure SQL Database Security
- Implementing and Managing Databases

Lab : Using Microsoft Azure SQL Database

After completing this module, you will be able to:

- Describe key features and benefits of Microsoft Azure SQL Database.
- Implement security for Microsoft Azure SQL Database.
- Implement and manage databases in Microsoft Azure SQL Database.

Module 15: SQL Server in Microsoft Azure Virtual Machines

This module explores how you can use Microsoft Azure virtual machines in which SQL Server is installed to create a cloud-based solution for data.

Lessons

- Introduction to Microsoft Azure Virtual Machines
- Microsoft Azure Virtual Machine Connectivity and Security
- Creating Databases in a Microsoft Azure Virtual Machine

Lab : Using Microsoft Azure Virtual Machines

After completing this module, you will be able to:

- Describe considerations for using Virtual Machines in Microsoft Azure.
- Create and configure Microsoft Azure virtual machines.
- Create databases in Microsoft Azure virtual machines.

Module 16: Implementing Big Data Solutions

This module describes the main features of big data, and the Microsoft technologies that you can use to build big data analytical solutions. In particular, the module focuses on Microsoft Azure HDInsight and the Microsoft Azure Marketplace as core elements of the Microsoft solution for big data.

Lessons

- Introduction to Big Data
- Microsoft Azure HDInsight
- Consuming HDInsight Results in Excel
- Obtaining Data from the Microsoft Azure Marketplace

Lab : Creating a Big Data Solution

After completing this module, you will be able to:

- Describe key features of big data.
- Process big data with Microsoft Azure HDInsight.
- Consume big data processing results from Microsoft Azure HDInsight in Microsoft Excel.

Tagi: