



Course 2734: Updating Your Database Development Skills to Microsoft SQL Server 2005

Introduction

This three-day instructor-led course provides students with the knowledge and skills to upgrade their skills to SQL Server 2005 so that they can design, build, query and develop enterprise SQL Server 2005 databases and servers.

Duration: 3 Days

Audience

This course provides students with the knowledge and skills to upgrade their skills to SQL Server 2005. It is intended for experienced database developers and database administrators, who are responsible for the design, build, query, and develop enterprise SQL Server 2005 databases and servers.

At Course Completion

After completing this course, students will be able to:

- Use the Development Tools provided with SQL Server 2005.
- Use Transact-SQL enhancements to perform database development tasks.
- Develop XML-based Solutions using SQL Server 2005.
- Build Message-Based Services with the Service Broker.
- Implement Web Services using Native HTTP Endpoints.
- Build Notification Services Applications.
- Implement Database Functionality with Managed (.NET) Code.
- Build Client Applications with the .NET Framework.
- Build Administrative Applications with SQL Management Objects (SMO).

Prerequisites

Before attending this course, students must have:

- MCDBA (Microsoft Certified Database Administrator) certification or equivalent knowledge.
- Development experience with Microsoft SQL Server 2000 or Microsoft SQL Server 7.0.
- Knowledge of SQL Server 2000/7.0:
- Database and server architecture.



- Database Security
- Transact SQL
- Query Engine
- DDL
- DML
- Optimization
- Schema and Objects
- Programming Objects
- UDF
- Triggers
- Stored Procedures
- Optimization
- SQL XML
- .NET Development (Visual Basic .NET or C# .NET)
- ADO.NET

Course Outline

Module 1: SQL Server 2005 Overview

The information in this module introduces the main new features and enhancements in SQL Server 2005 and describes the new development tools.

Lessons

- SQL Server 2005 Components and Architecture
- SQL Server Developer Tools
- SQL Server 2005 Security Implementation

Lab 1: Exploring SQL Server 2005

- Using SQL Server Management Studio
- Using Schemas

After completing this module, students will be able to:

- Describe the components and architecture of SQL Server 2005.
- Use SQL Server Management Studio to create a database solution.
- Use security features of SQL Server 2005.

Module 2: Transact-SQL Enhancements in SQL Server 2005

In this module, students learn about the improvements in Transact-SQL in SQL Server 2005.

Lessons

- Data Definition Language Enhancements
- Data Manipulation Language Enhancements
- Structured Exception Handling

Lab 2: Programming with Transact-SQL

- Partitioning a Table
- Using Common Table Expressions
- Using Relational Operators

After completing this module, students will be able to:

- Use new Data Definition Language (DDL) features in SQL Server 2005.
- Use new Data Manipulation Language (DML) features in SQL Server 2005.
- Implement structured exception handling in Transact-SQL.

Module 3: Using XML in SQL Server 2005

In this module, students learn about the XML-related functionality in the SQL Server 2005 database engine will be described.

Lessons

- XML Enhancements in SQL Server 2005
- The xml Data Type
- Using XQuery

Lab 3: Working with XML

- Retrieving XML from Relational Data
- Storing XML Natively in the Databases
- Using XQuery with xml Methods

After completing this module, students will be able to:

- Use enhanced XML features in SQL Server 2005.
- Use the xml data type for typed and untyped XML.
- Use XQuery expressions with XML data.

Module 4: Using Service Broker

The information in this module introduces Microsoft SQL Server™ 2005 Service Broker—a message-based platform for building service-oriented database solutions.

Lessons

- Service Broker Architecture
- Using the Service Broker

Lab 4: Using Service Broker

- Creating Service Broker Objects
- Implementing the Customer Service
- Implementing the E-mail Service

After completing this module, students will be able to:

- Describe the Service Broker architecture.
- Use Service Broker for message-based communication.

Module 5: Using Native HTTP Support

In this module, students learn how to create HTTP endpoints that make database services available to Web services clients.

Lessons

- Native HTTP Support in SQL Server 2005
- Configuring Native HTTP Support

Lab 5: Implementing a Web Service with HTTP Endpoints

- Create an HTTP Endpoint
- Test the HTTP Endpoint
- Secure the HTTP Endpoint

After completing this module, students will be able to:

- Describe the native HTTP support features in Microsoft SQL Server™ 2005.
- Implement a Web service using native HTTP endpoints.

Module 6: Using Notification Services

The information in this module introduces Notification Services and how to develop Notification Services applications.

Lessons

- Notification Services Architecture
- Building Notification Services Solutions

Lab 6: Using Notification Services

- Creating a Notification Services Application
- Creating a Subscription Management Application
- Creating an Event Provider

After completing this module, students will be able to:

- Describe the architecture of a Notification Services solution.
- Design and implement a simple Notification Services solution.

Module 7: Using the .NET CLR in SQL Server 2005

In this module, students learn how to implement managed code in a SQL Server 2005 database.

Lessons

- SQL Server and the .NET CLR
- Implementing Managed Code in SQL Server 2005

Lab 7: Implementing Managed Code in the Database

- Creating a Managed Stored Procedure

- Creating a Managed Function
- Creating a Managed User-Defined Type

After completing this module, students will be able to:

- Identify appropriate scenarios for using managed code in the database.
- Implement managed database objects.

Module 8: Developing Client Applications

The information in this module introduces database developers to client application development techniques that use the data access classes provided in the .NET Framework.

Lessons

- Developing Client Applications with ADO.NET
- Data Binding in the .NET Framework 2.0

After completing this module, students will be able to:

- Use ADO.NET to build a database client application.
- Use data binding in a client application.

Module 9: Using SQL Management Objects

The information in this module introduces the SQL Management Objects (SMO) Application Programming Interface (API) in Microsoft SQL Server™ 2005, which provides classes that you can use to manage SQL Server. SQL Server 2005 also introduces Replication Management Objects (RMO) to allow automation of replication.

Lessons

- Introduction to SQL Management Objects
- Replication Management Objects

Lab 9: Using SQL Management Objects

- Using SMO to Retrieve Server Information
- Using SMO to Create Database Objects
- Using SMO to Modify Database Objects

After completing this module, students will be able to:



- Use SMO to manage SQL Server.
- Use RMO to manage replication.