



BUILDING TRAINING SOLUTIONS
FOR THE IT WORLD

Maintaining a Microsoft SQL Server 2005 Database

Days: 5
Format: Instructor-Led
Class Code 2780
Certification Exams: None
Certification Track: None

Recommended Course Sequence

Knowledge of prerequisites
noted below.

*Course content is subject to change
without notice.*

Course Description:

This five-day instructor-led course provides students with the knowledge and skills to maintain a Microsoft SQL Server 2005 database. The course focuses on teaching individuals how to use SQL Server 2005 product features and tools related to maintaining a database.

Target Student:

This course is intended for IT Professionals who want to become skilled on SQL Server 2005 product features and technologies for maintaining a database.

Delivery Method:

Instructor led, group-paced, classroom-delivery learning model with structured hands-on activities.

Prerequisites:

Before attending this course, students must have:

- Basic knowledge of the Microsoft Windows operating system and its core functionality.
- Working knowledge of Transact-SQL.
- Working knowledge of relational databases.
- Some experience with database design.

In addition, it is recommended, but not required, that students have completed:

- Course 2778: Writing Queries Using Microsoft SQL Server 2005 Transact-SQL.
- Course 2779: Implementing a Microsoft SQL Server 2005 Database.

At Course Completion:

After completing this course, students will be able to:

- Install and configure SQL Server 2005.
- Manage database files.
- Backup and restore databases.
- Manage security.
- Monitor SQL Server.
- Transfer data into and out of SQL Server.
- Automate administrative tasks.
- Replicate data between SQL Server instances.
- Maintain high availability.

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Course Outline

Module 1: Installing and Configuring SQL Server 2005

This module explains how to plan for and install SQL Server 2005, how to manage a SQL Server 2005 installation, and how to use the SQL Server 2005 administrative tools.

Lessons
<ul style="list-style-type: none">■ Preparing to Install SQL Server■ Installing SQL Server 2005■ Managing a SQL Server 2005 Installation
Lab : Installing and Configuring SQL Server 2005
<ul style="list-style-type: none">■ Performing an Installation■ Managing SQL Server

Module 2: Managing Databases and Files

This module explains how to manage databases and files.

Lessons
<ul style="list-style-type: none">■ Planning Databases■ Creating Databases■ Managing Databases
Lab : Managing Databases and Files
<ul style="list-style-type: none">■ Plan how to implement a database that meets an organization's requirements.■ Create a SQL Server database.■ Manage a SQL Server database

Module 3: Disaster Recovery

This module explains how to plan and implement a backup and restore strategy.

Lessons
<ul style="list-style-type: none">■ Planning a Backup Strategy■ Backing Up User Databases■ Restoring User Databases■ Performing Online Restore Operations■ Recovering Data from Database Snapshots■ System Database and Disaster Recovery
Lab : Disaster Recovery
<ul style="list-style-type: none">■ Implementing a Backup Strategy■ Restoring and Recovering a Database■ Performing Piecemeal Backup and Restore Operations■ Restoring the master Database

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Module 4: Managing Security

This module explains how to manage principals, securables, and permissions, and how to implement cryptography in a SQL Server database.

Lessons
<ul style="list-style-type: none">■ Overview of SQL Server Security■ Protecting the Server Scope■ Protecting the Database Scope■ Managing Keys and Certificates in SQL Server
Lab : Managing Security
<ul style="list-style-type: none">■ Creating Logins and Assigning Server-Scope Permissions■ Creating and Managing Users■ Using a Certificate to Protect Data

Module 5: Monitoring SQL Server

This module explains how to monitor SQL Server performance and activity.

Lessons
<ul style="list-style-type: none">■ Viewing Current Activity■ Using System Monitor■ Using SQL Server Profiler■ Using DDL Triggers■ Using Event Notifications
Lab : Monitoring SQL Server
<ul style="list-style-type: none">■ Monitoring SQL Server Performance■ Tracing SQL Server Activity■ Implementing DDL Triggers

Module 6: Transferring Data

This module explains how to transfer and transform data.

Lessons
<ul style="list-style-type: none">■ Overview of Data Transfer■ Introduction to SQL Server Integration Services■ Using SQL Server Integration Services■ Features of SQL Server Integration Services
Lab : Transferring Data
<ul style="list-style-type: none">■ Creating an SSIS Package■ Deploying an SSIS Package■ Using SSIS to Extract Data, Perform Lookups, Sort, and Split Data

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Module 7: Automating Administrative Tasks

This module explains how to use the SQL Server Agent to automate administrative tasks.

Lessons
<ul style="list-style-type: none">■ Automating Administrative Tasks in SQL Server 2005■ Configuring the SQL Server Agent■ Creating Jobs and Operators■ Creating Alerts■ Managing Multiple Servers■ Managing SQL Server Agent Security
Lab : Automating Administrative Tasks
<ul style="list-style-type: none">■ Configuring SQL Server Agent■ Creating Operators and Jobs■ Creating Alerts

Module 8: Implementing Replication

This module explains the purpose of replication, introduces the concepts underpinning replication, and describes how to implement replication in several common scenarios.

Lessons
<ul style="list-style-type: none">■ Overview of Replication■ Implementing Replication■ Configuring Replication in Some Common Scenarios
Lab : Implementing Replication
<ul style="list-style-type: none">■ Creating a Publication■ Creating a Subscription■ Implementing HTTP Merge Replication

Module 9: Maintaining High Availability

This module explains how to implement high availability technologies with SQL Server 2005.

Lessons
<ul style="list-style-type: none">■ Introduction to High Availability■ Implementing Server Clustering■ Implementing Database Mirroring■ Implementing Log Shipping■ Implementing Peer-to-Peer Replication
Lab : Maintaining High Availability
<ul style="list-style-type: none">■ Configuring Database Mirroring to Support Failover■ Implementing Distributed High Availability