

Course Description: This instructor-led course provides students with product knowledge and skills needed 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.

Who Should Attend: This course is intended for IT Professionals wanting to become skilled on SQL Server 2005 product features and technologies for maintaining a database.

Prerequisites: Before attending this course, students must have basic knowledge of the Microsoft Windows operating system and its core functionality as well as working knowledge of Transact-SQL and relational databases.

Some experience with database design is also required. In addition, it is recommended, but not required, that students have completed courses in Writing Queries Using Microsoft SQL Server 2005 Transact-SQL and Implementing a Microsoft SQL Server 2005 Database.

Benefits of Attendance: Upon completion of this course, students will be able to:

- Install and configure SQL Server 2005
- Manage database files
- Manage security
- Perform administrative tasks
- Back up databases
- Restore databases
- Monitor SQL Server
- Troubleshoot SQL Server
- Transfer data

Course Outline:

Installing and Configuring SQL Server 2005

Preparing to install SQL Server
Installing SQL Server.
Managing a SQL Server 2005 Installation
Lab 1: Installing SQL Server 2005
Performing an Installation
Managing SQL Server

Managing Databases and Files

Planning databases
Creating databases
Managing databases
Lab 2: Creating and Managing Databases
Creating a Database
Managing Filegroups
Viewing Metadata

Disaster Recovery

Planning a Backup Strategy
Backing Up User Databases
Restoring User Databases
Recovering Data from Database Snapshots
System Database and Disaster Recovery
Lab 4: Implementing a Disaster Recovery Strategy
Implementing a Backup Strategy
Restoring Databases
Rebuild The Master Database

Managing Security

Overview of SQL Server Security
Securing the Server Scope
Securing the Database Scope
Managing Keys and Certificates in SQL Server
Lab 3: Securing SQL Server
Creating Logins
Creating and Managing Users
Using a Certificate to Encrypt Data

Monitoring SQL Server

Viewing Current Activity
Using System Monitor
Using SQL Server Profiler
Using DDL Triggers
Using Event Notifications.
Lab 5: Monitoring SQL Server
Monitoring SQL Server Performance
Tracing SQL Server Activity
Implementing DDL Trigger

Transferring Data

Overview of Data Transfer
Introduction to SQL Server Integration Services
Using SQL Server Integration Services
Lab 6: Transferring Data with SQL Server Integration Services (SSIS)

Create an SSIS Package
Deploying an SSIS Package

Automating Administrative Tasks

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 7: Automating Database Administration
Configuring the SQL Server Agent
Creating Operators and Jobs
Creating Alerts

Maintaining High Availability

Introduction to High Availability
Implementing Server Clustering
Implementing Database Mirroring
Implementing Log Shipping
Lab 8: Configuring Database Mirroring
Setting the Recovery Model
Backing Up and Restoring the Database
Starting Database Mirroring
Performing an Automatic and Manual Failover

Introduction to Replication

Overview of Replication
Replication Scenarios
Lab 9: Implementing Replication
Creating a Publication
Creating a Subscription