



COMPUTER TRAINING

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SQL SERVER

Course No. F1038

5 Days

Target Audience:

This course provides students with the knowledge and skills to implement and maintain a Microsoft SQL Server 2008 database. It is intended for IT Professionals who administer and maintain SQL Server databases.

Pre-requisites:

Before attending this course, students must have the following pre-requisites:

- Basic knowledge of the Microsoft Windows operating system and its core functionality.
- Working knowledge of Transact-SQL.
- Working knowledge of Relational databases.
- Core Windows Server skills.
- Database design skills.

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

- Course 2778: Writing Queries Using Microsoft SQL Server 2008 Transact-SQL.

Purpose:

After completing this course, students will be able to install and configure SQL Server 2008; manage database files; backup and restore databases; manage security; transfer data into and out of SQL Server; automate administrative tasks; replicate data between SQL Server instances; maintain high availability; monitor SQL Server.

ADDITIONAL CERTIFICATION EXAM PACKAGE AVAILABLE FOR ONLY £225 plus VAT *

Package includes Exams 70-432 and 70-433, and the Transcender practice tests.

* Only available for students who have attended or are due to attend Course F1038.

Fast Track: Implementing and Maintaining a Microsoft SQL Server 2008 Database

At the end of the course the delegate will be able to complete the following:

Managing Databases and Files

- This module introduces students to database planning and creation, and using database options to control database behavior.
- Lab: Managing Databases and Files

Skills:

- Plan a database implementation that meets an organization's requirements.
- Create a SQL Server database.
- Manage a SQL Server database.

Creating Data Types and Tables

- This module teaches students about the system-supplied data types in SQL Server 2008.
- Lab: Creating Data Types and Tables

Skills:

- Create new data types.
- Create new tables.
- Create partitioned tables.

Creating and Tuning Indexes

- This module teaches students how to plan, create, and optimize indexes to attain optimal performance benefits.
- Lab: Creating and Tuning Indexes

Skills:

- Plan indexes.
- Create indexes.
- Optimize indexes.

Implementing Data Integrity by Using Constraints and Triggers

- This module teaches students about implementing data integrity in SQL Server 2008 by using constraints and by using triggers.
- Lab: Implementing Data Integrity by Using Constraints and Triggers

Skills:

- Describe the options for enforcing data integrity in SQL Server 2008.
- Implement data integrity in SQL Server 2008 databases by using constraints.
- Implement data integrity in SQL Server 2008 databases by using triggers.

Managing Transactions and Locks

- This module teaches students to use transactions and SQL Server locking mechanisms to meet the performance and data integrity requirements of their applications.
- Lab: Managing Transactions and Locks

Skills:

- Describe how SQL Server 2008 transactions use locks.
- Execute and cancel a transaction.
- Describe concurrency issues and SQL Server 2008 locking mechanisms.
- Manage locks.

Implementing Views

- This module introduces students to the different types of views available in Microsoft SQL Server 2008 which provide a convenient way to access data through a query.
- Lab: Implementing Views

Skills:

- Describe the purpose of views.
- Create and manage views.
- Explain how to optimize query performance by using views.

Implementing Stored Procedures

- This module teaches students the design and implementation of stored procedures to enforce business rules or data consistency, or to modify and maintain existing stored procedures written by other developers.
- Lab: Implementing Stored Procedures

Skills:

- Implement stored procedures.
- Create parameterized stored procedures.
- Work with execution plans.
- Handle errors in stored procedures.

Implementing Functions

- This module teaches students the design and implementation of user-defined functions that enforce business rules or data consistency, or to modify and maintain existing functions written by other developers.
- Lab: Implementing Functions

Skills:

- Create and use functions.
- Work with functions.
- Control execution context.

Managing Security

- This module introduces students to protecting SQL Server. Students will learn about the SQL Server security model and how to use SQL Server security features to control access to databases and their contents.
- Lab: Managing Security

Skills:

- Describe how SQL Server manages security.
- Protect SQL Server at the server level.
- Protect SQL Server databases.
- Use keys and certificates to protect SQL Server objects.
- Audit SQL Server security.



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Disaster Recovery

- This module introduces students to disaster recovery techniques for SQL Server. They will learn how to perform different types of backup and restore operations, including online restores and backup and restores of system databases.
- Lab: Disaster Recovery

Skills:

- Plan a backup strategy for a database.
- Back up user databases.
- Restore user databases from backups.
- Restore data in a user database while it is online.
- Recover data for a user database from a database snapshot.
- Restore and recover system databases.

Automating Administrative Tasks

- This module teaches students how to automate routine administrative tasks using jobs, operators, and alerts.
- Lab: Automating Administrative Tasks

Skills:

- Define SQL Server administrative tasks and schedule those tasks to run automatically.
- Configure SQL Server Agent to support automatic task scheduling.
- Script tasks by using SQL Server jobs, and define operators for managing those jobs.
- Define alerts to warn operators about events raised by SQL Server.
- Define and manage administrative tasks that span multiple servers.
- Configure SQL Server Agent security.

Implementing Replication

- This module introduces the techniques for configuring SQL Server replication.
- Lab: Implementing Replication

Skills:

- Describe replication and its components.
- Configure and implement replication.
- Use replication to meet the requirements of some common scenarios.

Maintaining High Availability

- This module introduces students to concepts and methods for maintaining high availability with SQL Server.
- Lab: Maintaining High Availability

Skills:

- Describe the factors affecting database availability.
- Describe how to implement log shipping to support fast recovery of a standby SQL Server database.
- Describe how to use SQL Server mirroring to implement a software solution for fast failover.
- Explain how to implement clustering to support fast failover of computers running SQL Server instances.
- Describe how to implement distributed high availability solutions.

Monitoring SQL Server

- This module introduces students to monitoring SQL Server performance and activity.
- Lab: Monitoring SQL Server

Skills:

- Examine the current activity in a SQL Server instance.
- Use SQL Server Profiler to trace server and database activity.
- Use DDL triggers to monitor changes to the structure of database objects.
- Use event notifications to capture and monitor significant events for a SQL Server instance.

Additional Reading: Using XML

- This module teaches students how to work with XML, including use of the FOR XML clause, the OPENXML function, XQuery expressions, and the xml native data type.
- Lab: Using XML

Skills:

- Use the xml data type.
- Retrieve XML by using the FOR XML clause.
- Shred XML by using the OPENXML function.
- Use XQuery expressions.
- Create XML indexes.
- Implement data integrity in SQL Server 2008 databases by using XML schemas.

Additional Reading: Using Service Broker

- This module teaches students how to use Service Broker to create secure, reliable, and scalable applications.

Skills:

- Describe Service Broker functionality and architecture.
- Create Service Broker objects.
- Send and receive Service Broker messages.

Additional Reading: Transferring Data

- This module introduces students to transferring data to and from SQL Server using UI and command-line tools. Students will also learn about transferring and transforming data with SQL Server Integration Services.

Skills:

- Use UI and command-line tools to import and export data.
- Describe the features of SQL Server Integration Services.



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Cost:

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Numbers:

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