



T-SQL for Microsoft SQL Server 2008

In this course, you will learn to...

- Understand the differences between the available editions of SQL Server 2008.
- Create a SQL Server database based on sound design principles.
- Create constraints, triggers, and indexes.
- Use Transact-SQL INSERT, UPDATE and DELETE statements.
- Configure and use SQL Server Management Studio (SSMS).
- Use Transact-SQL with data types, delimiters and variables.
- Understand the differences between views, stored procedures, triggers, and user-defined functions.
- How to write and use stored procedures to provide a safe, controlled, efficient way to execute Transact-SQL code to access and update data and database objects.
- Discover how transactions can protect the integrity of your data and ways to handle errors that occur when code executes.
- Understand the complex data types in SQL Server, such as for spatial and hierarchical data, and how they support complex data operations.
- How to partition data to store data in ways that improves the efficiency of queries.
- Investigate the XML data type and its properties and methods, and how it supports both free form and relational data.

Prerequisites: To get the most out of the Microsoft T-SQL Server 2008 course, you should have a solid understanding of relational databases. No particular programming experience is required, but the course is taught from a developer's perspective.

A Tour of SQL Server 2008

- SQL Server 2008 Editions, Components, and Tools
- Using SQL Server Management Studio (SSMS)
- Working with Tables, Queries, and Views
- Business Intelligence Services

Designing and Creating a Database

- Relational Database Design Principles
- Implementing the Design

Working with SQL Server Management Studio

- Getting Started with Management Studio
- Exploring the Object Explorer
- Working with the Query Editor
- Using SQL Server Books Online



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Transact-SQL Programming

- Overview of Transact-SQL
- Using Built-In Functions
- Controlling Flow
- Ranking Results

Transactions and Error Handling

- Transaction Concepts
- Applications and Transactions
- Creating Explicit Transactions
- Using TRY/CATCH Error Handling

Data Selection Queries

- Understanding Transact-SQL
- The SELECT Statement
- The WHERE Clause
- Using ORDER BY to Sort Data
- The GROUP BY Clause
- Joining Tables

Advanced Data Types

- Introduction
- The HierarchyID Data Type
- Sparse Columns and Column Sets
- FILESTREAM Storage
- Spatial Data

Complex Querying

- Working with NULL Values
- Ranking Grouped Data
- Writing Correlated Subqueries
- Using Common Table Expressions

Modifying Data

- Modifying Data with Transact-SQL
- Inserting Data
- Updating Data
- Deleting Data
- Understanding Transaction Isolation



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Working with XML

- The XML Data Type
- XML Schema Collections
- Querying XML
- Best Practices

Creating Views

- What Is a View?
- Creating Views
- Updating Data Using a View
- Using Computed Columns
- Indexed Views
- Partitioned Views

Implementing SQL Server Partitions

- Overview of Table-Based Partitions
- Creating Partitioned Tables
- Querying Partitions
- Managing Partitions

Creating User-Defined Functions

- User-Defined Function Overview
- Scalar Functions
- Inline Table-Valued Functions
- Multi-Statement Table-Valued Functions
- Using Functions, Views, and Stored Procedures

Creating Stored Procedures and Triggers

- Creating Stored Procedures
- Creating Triggers

Advanced Query Techniques

- Full-Text Search
- Advanced T-SQL Techniques
- Executing Dynamic SQL

Advanced Techniques

- Complex Data and Structures
- Writing More Efficient Queries
- Working with Complex Queries
- Maintaining Query Files