

Customised IT and Soft Skills training to suit your needs

Introduction to SQL 2008 Course Content

Module 1: Getting Started with Databases and T-SQL

The student will be introduced to how client/server architecture works, and examine the various database and business tasks that can be performed by using the components of SQL Server. The student will also be introduced to SQL Server database concepts such as relational databases, normalization, and database objects. In addition, the student will learn how to use T-SQL to query databases and generate reports.

Lessons and Activities

- Overview of SQL Server
- Overview of SQL Server Databases
- Overview and Syntax Elements of T-SQL
- Working with T-SQL Scripts
- Using T-SQL Querying Tools
- Exploring the Components and Executing Queries in SQL Server Management Studio
- Generating a Report from a SQL Server Database Using Microsoft Office Excel

Module 2: Querying and Filtering Data

The students will be introduced to the basic Transact-SQL (T-SQL) statements that are used for writing queries, filtering data, and formatting result sets.

Lessons and Activities

- Using the SELECT Statement
- Filtering Data
- Working with NULL Values
- Formatting Result Sets
- Performance Considerations for Writing Queries - indexes

Module 3: Grouping and Summarizing Data

The students will learn to group and summarize data when generating reports in Microsoft SQL Server by using aggregate functions and the COMPUTE clause.

Lessons and Activities

- Summarizing Data by Using Aggregate Functions
- Summarizing Grouped Data
- Ranking Grouped Data
- Creating Crosstab Queries

Module 4: Joining Data from Multiple Tables

The students will learn to write joins to query multiple tables, as well as limiting and combining result sets.

Lessons and Activities

- Querying Multiple Tables by Using Joins
- Applying Joins for Typical Reporting Needs
- Combining and Limiting Result Set

Module 5: Working with Subqueries

The students will be introduced to basic and correlated subqueries and how these compare with joins and temporary tables. The students will also be introduced to using common table expressions in queries.

Lessons and Activities

- Writing Basic Subqueries
- Writing Correlated Subqueries
- Comparing Subqueries with Joins and Temporary Tables
- Using Common Table Expressions

Module 6: Modifying Data in Tables

The students will be able to modify the data in tables by using the INSERT, DELETE, and UPDATE statements. In addition, students will examine how transactions work in a database, the importance of transaction isolation levels, and how to manage transactions.

Lessons and Activities

- Inserting Data into Tables
- Deleting Data from Tables
- Updating Data in Tables
- Overview of Transactions