

Developing Microsoft SQL Server Databases

20464C



Delivery Type: Classroom

Duration: 5 days

Overview:

This 5-day instructor-led course introduces SQL Server 2014 and describes logical table design, indexing and query plans. It also focusses on the creation of database objects including views, stored procedures, along with parameters, and functions. Other common aspects of procedure coding, such as indexes, concurrency, error handling, and triggers are also covered in this course. Also this course helps you prepare for the Exam 70-464.

Note: This course is designed for customers who are interested in learning SQL Server 2012 or SQL Server 2014. It covers the new features in SQL Server 2014, but also the important capabilities across the SQL Server data platform.

Audience Profile:

The primary audience for this course is IT Professionals who want to become skilled on SQL Server 2014 product features and technologies for implementing a database.

Course Completion:

After completing this course, students will be able to:

- ✓ Introduce the entire SQL Server platform and its major tools. It will cover editions, versions, basics of network listeners, and concepts of services and service accounts.
- ✓ Determine appropriate data types to be used when designing tables, convert data between data types, and create alias data types.
- ✓ Be aware of good design practices regarding SQL Server tables and

- be able to create tables using T-SQL. (Note: partitioned tables are not covered).
- ✓ Implement PRIMARY KEY, FOREIGN KEY, DEFAULT, CHECK and UNIQUE constraints, and investigate cascading FOREIGN KEY constraints.
 - ✓ Determine appropriate single column and composite indexes strategies.
 - ✓ Create tables as heaps and tables with clustered indexes. Also consider the design of a table and suggest an appropriate structure.
 - ✓ Read and interpret details of common elements from execution plans.
 - ✓ Design effective non-clustered indexes.
 - ✓ Design and implement views
 - ✓ Design and implement stored procedures.
 - ✓ Work with table types, table valued parameters and use the MERGE statement to create stored procedures that update data warehouses.
 - ✓ Design and implement functions, both scalar and table-valued. (Also describe where they can lead to performance issues).
 - ✓ Perform basic investigation of a deadlock situation and learn how transaction isolation levels affect application concurrency.
 - ✓ Use both traditional T-SQL error handling code and structured exception handling.
 - ✓ Design and implement DML triggers
- ✓ Learn appropriate uses for SQL CLR integration and implement an existing .NET assembly within SQL Server.
 - ✓ Store XML data and schemas in SQL Server.
 - ✓ Perform basic queries on XML data in SQL Server.
 - ✓ Work with the GEOGRAPHY and GEOMETRY data types
 - ✓ Implement and query a full-text index.

Prerequisites:

- ✓ Knowledge of writing T-SQL queries.
- ✓ Knowledge of basic relational database concepts.