

SQL Server with Management Studio Training

- **Introducing SQL Server**

Overview of the SQL Server suite of products

- Fundamentals of the relational database engine
- Benefits of the Business Intelligence stack

SQL Server components and tools

- SQL Server Agent and Management Studio
- Integration Services
- Analysis Services
- Reporting Services
- Data Quality Services
- Master Data Services

- **Building the Database**

Constructing a relational database

- Choosing optimal file size and growth parameters
- Working with database schemas

Defining tables

- Specifying appropriate data types
- Indexing tables with Management Studio
- Adding, modifying or removing columns

Safeguarding data with constraints

- Enforcing uniqueness through primary key constraints
- Validating conditions with check constraints
- Protecting relationships with foreign keys

- **Leveraging Server Programmability**

Retrieving data with Transact-SQL

- Employing Query Designer to construct select statements
- Retrieving subsets of data from multiple tables using joins and the where clause criteria
- Analyzing data for aggregate functions

Modifying data with SQL commands

- Inserting new rows into tables
- Updating targeted data
- Deleting specific rows

Introduction of developing programming constructs

- Creating stored procedures for productivity
- Writing user-defined functions to simplify queries
- Deploying triggers to capture change events

- **Administering SQL Server Databases**

Executing the Maintenance Plan Wizard

- Defragmenting data and checking database integrity
- Improving performance by rebuilding indexes

Automating administrative tasks

- Scheduling repeating jobs
- Implementing a backup strategy

Monitoring SQL Server resources

- Displaying current activity and expensive queries

- Running reports with Management Studio

Securing the database infrastructure

- Authenticating SQL Server and Windows logins
- Assigning users to database and server roles
- Granting or revoking permissions

Integrating External Applications

Connecting to Microsoft Office

- Pulling data from SQL Server into Excel
- Creating a front-end interface with Access

Transferring business information

- Importing and exporting data from text files
- Migrating an Access database to SQL Server

- **Implementing Business Intelligence Solutions**

Extracting data with Integration Services

- Transforming and cleaning data
- Loading data into a data warehouse

Information delivery with Reporting Services

- Designing reports quickly with the Report Builder
- Deploying reports for centralized access

Aggregating data with Analysis Services

- Building multidimensional cubes
- Predicting trends with data mining

Developing a Business Intelligence strategy

- Leveraging Excel and Power Pivot
- Transferring data into knowledge with BI functionality