Basic Relational Database Essentials

Learn the basics of working with relational databases within the SQL Server Management Studio (SSMS) 2012 environment. In this course, students will use the tools in SSMS to diagram an existing database and to create and run some very simple SELECT and CREATE TABLE structured query language commands. Students will learn the basic terminology that applies to all relational databases. Students will get hands-on practices performing these tasks.

Who should take this course?

This course is designed for students interested in becoming familiar with relational databases and the basic terminology that applies to them. Students will become familiar with three basic windows in SSMS: Object Explorer, Query Editor, and Results Pane. In addition, students will learn the role that structured query language commands play in communicating between the user and the relational database. This course is a prerequisite to three courses, Database Design, Structured Query Language: (SQL) Level 1, and Beginning SQL Server (using 2012), which are required for the Database Administrator and Database Business Intelligence Developer certificate programs.

Course Objectives

- Create a database diagram using the Object Explorer window in SQL Server Management Studio (SSMS).
- Describe terms that apply to relational databases, including tables, components of a table, and relationships between tables.
- Create and run a simple structured query language (SQL) command to retrieve data from a table.
- Create and run a simple SQL command to create a table.

Course Details

- Length: 3 hours
- Format: Classroom
- Prerequisites: Windows and basic computer proficiency

The above prerequisites are considered to be the basic skills and knowledge needed prior to taking this class. Instructors will assume your readiness for the class materials and will NOT use class time to discuss prerequisite materials.
Course Contents

Create a database diagram using the Object Explorer window in SQL Server Management Studio (SSMS)
  - Connect to SQL Server and open SSMS.
  - Open Object Explorer window to view databases.
  - Create a database diagram.

Describe terms that apply to relational databases, including tables, components of a table, and relationships between tables.
  - View tables in a relational database and apply terminology to the parts of a table, including the primary key, rows, fields, and data types of fields.
  - Describe the referential integrity constraint as it applies to a one-to-many relationship between a pair of tables.

Create and run a simple structured query language (SQL) command to retrieve data from a table.
  - Open a new Query Editor window in SSMS.
  - Set the database context to the Query Editor window.
  - Create and run a simple SELECT command to retrieve data from a table.
  - Describe how to execute SQL commands in the Query Editor window and see the results in the Results pane.

Create and run a simple SQL command to create a table.
  - Create a simple CREATE TABLE command to create a new table in an existing database.
  - View the table and its fields in the Object Explorer window in SSMS.