



SQL Querying Fundamentals

Course Description:

In this course, you will compose SQL queries to retrieve desired information from a database.

Duration: Instructor-led, group-paced, classroom-delivery learning model with structured hands on activities – 7 hours (1 day)

Target Audience: Individuals with basic computer skills, familiar with concepts related to database structure and terminology, and who want to use SQL to query databases. This group of users includes Advanced Microsoft Access users, Crystal Report users, and IT professionals that need a brief SQL query review.

Upon successful completion of this course, students will be able to:

- connect to the SQL Server database and execute a simple query
- include a search condition in a simple query
- use various functions to perform calculations on data
- organize data obtained from a query before it is displayed on-screen
- retrieve data from tables
- format an output, save a result, and generate a report

Prerequisites: Basic computer skills and familiarity with database terminology and structure are required (Database Concepts). Completion of the Access course series or Crystal Reports would be an advantage.

Course Outline

Executing a Simple Query

- Connect to the SQL Database
- Query a Database
- Save a Query
- Modify a Query
- Execute a Saved Query

Performing a Conditional Search

- Search Using a Simple Condition
- Compare Column Values
- Search Using Multiple Conditions
- Search for a Range of Values and Null Values
- Retrieve Data Based on Patterns

Working with Functions

- Perform Date Calculations
- Calculate Data Using Aggregate Functions
- Manipulate String Values

Organizing Data

- Sort Data
- Rank Data
- Group Data
- Filter Grouped Data
- Summarize Grouped Data
- Use PIVOT and UNPIVOT Operators

Retrieving Data from Tables

- Combine Results of Two Queries
- Compare the Results of Two Queries
- Retrieve Data by Joining Tables
- Check for Unmatched Records
- Retrieve Information from a Single Table Using Joins

Presenting Query Results

- Save the Query Result
- Generate an XML Report