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Learning Style: Virtual Classroom

Technology: Microsoft

Difficulty: Beginner

Course Duration: 1 Day

SQL Querying Fundamentals - Part 1



About This Course:

Over 70% of business decision-makers say their teams struggle with data access—most don’t know how to use SQL effectively. This one-day beginner-level training course provides a hands-on introduction to SQL fundamentals using Microsoft SQL Server.

Course Objectives:

After completing this course, you'll be equipped to use SQL to extract and manipulate data from relational databases. You'll gain practical experience writing queries, formatting results, and applying functions using SQL Server.

- Run basic SQL statements to retrieve data
- Apply conditions and logical filters using WHERE clauses
- Use string, numeric, and date functions for calculated results
- Organize and group query output
- Join tables and identify missing or unmatched records

Audience:

- Individuals with basic computer skills, familiar with concepts related to database structure and terminology, and who want to use SQL to query databases.

Prerequisites:

- Basic computer literacy
- Basic PC operating system navigation skills
- Basic Internet usage skills

Course Outline:

Module 1: Executing Basic SQL Statements

- Connect to a SQL Server database
- Create, modify, and execute queries
- Save and reopen query files

Module 2: Filtering with Conditional Logic

- Limit results using comparison operators

- Combine multiple conditions
- Search for ranges, NULL values, and patterns

Module 3: Using Built-In SQL Functions

- Perform date and time calculations
- Manipulate strings and text fields
- Calculate summaries with aggregate functions

Module 4: Structuring and Summarizing Output

- Sort results and apply custom rankings
- Group data and filter grouped rows
- Pivot and unpivot results for advanced formatting

Module 5: Working Across Tables

- Merge data with inner and outer joins
- Identify records without matches
- Compare and combine multiple result sets

Module 6: Exporting Results and Creating Reports

- Format and save query results
- Generate basic XML output
- Review common reporting use cases