

Fundamentals of SQL Querying

Duration: 2 Day(s)

Course Overview

In Fundamentals of SQL Querying, students will compose SQL queries to retrieve desired information from a database.

Review this course online at <https://www.alta3.com/courses/MSFTSQL1>

Objectives

- Connect to SQL Server and execute queries.
- Perform complex data retrieval using functions and conditions.
- Organize and present data efficiently.
- Generate reports and save query outcomes.

Who Should Attend

- Database Administrators
- Data Analysts
- Report Developers
- IT Support Specialists

Prerequisites

To be successful in this course, students should have a solid understanding of the Windows operating system, including how to launch an application and create and save files. In addition, students should have taken the Microsoft Access Level 1 course or have equivalent experience with basic database concepts.

Course Outline

Lesson 1: Executing a Simple Query

1. Connect to the SQL Database
2. Query a Database
3. Save a Query
4. Modify a Query
5. Execute a Saved Query

Lesson 2: Performing a Conditional Search

6. Search Using a Simple Condition
7. Compare Column Values
8. Search Using Multiple Conditions
9. Search for a Range of Values and Null Values
10. Retrieve Data Based on Patterns

Lesson 3: Working with Functions

- 11. Perform Date Calculations
- 12. Calculate Data Using Aggregate Functions
- 13. Manipulate String Values

Lesson 4: Organizing Data

- 14. Sort Data
- 15. Rank Data
- 16. Group Data
- 17. Filter Grouped Data
- 18. Summarize Grouped Data
- 19. Use PIVOT and UNPIVOT Operators

Lesson 5: Retrieving Data from Tables

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

Lesson 6: Presenting Query Results

- 25. Save the Query Result
- 26. Generate an XML Report

Appendix A: The OGCBooks Database