

SQL Introduction

Length: 1 Day

Summary: At the end of this course, students will have learned how to:

- Identify relational database concepts
- Explain the first 3 normal forms
- Use tools to access SQL Server Data
- Write basic SELECT statements
- Restrict results with the WHERE clause
- Use column aliases
- Sort results with the ORDER BY clause
- Combine related data using INNER and OUTER JOINS
- Use CROSS JOINS and self-joins
- Use the UNION operator
- Understand how to summarize data
- Use aggregate functions
- Use GROUP BY
- Use COMPUTE BY
- How data modification works
- How to modify data with INSERT, UPDATE, and DELETE

COURSE CONTENT

MODULE 1: UNDERSTANDING RELATIONAL DATABASES

- SQL Server and Transact-SQL
- Relational Database Concepts
- Accessing Relational Data

LAB: UNDERSTANDING RELATIONAL DATABASES

- Identifying Entities, Attributes, and Relationships

MODULE 2: RETRIEVING SIMPLE DATA

- Simple SELECT Statements
- Restricting Rows
- Formatting Output

LAB: WRITING SIMPLE QUERIES

- Writing SELECT Statements.
- Using the WHERE Clause
- Formatting Results

MODULE 3: COMPLEX DATA RETRIEVAL

- Using INNER JOINS
- Using OUTER JOINS
- Other Methods of Combining Data

LAB: USING JOINS

- Inner Joins
- Outer Joins
- Other Types of Joins

MODULE 4: SUMMARIZING DATA

- Using Aggregates
- Summarizing Results Sets

LAB: SUMMARIZING DATA

- Using simple aggregate functions
- Using GROUP BY
- Using COMPUTE BY

MODULE 5: MODIFYING DATA

- Inserting Data
- Deleting Data
- Updating Data

LAB: DATA MODIFICATION

- Using the INSERT Statement
- Using the DELETE Statement
- Using the UPDATE Statement