SQL: Advanced Querying (Fourth Edition)

Course Specifications

Course number: 085072
Course length: 1.0 day(s)

Course Description

Course Objective: You will work with advanced queries to manipulate and index tables. You will also create transactions so that you can choose to save or cancel data entry process.

Target Student: Students should have basic computer skills, SQL skills, and be familiar with concepts related to database structure and terminology.

Prerequisites: To ensure your success, we recommend you first take the following Element K courses, or have equivalent skills and knowledge:

- SQL: Fundamentals of Querying (Fourth Edition)
- Windows XP Professional: Level 1 and Windows XP Professional: Level 2 or Windows XP: Introduction

Course Objectives

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

- use subqueries to generate query output.
- manipulate table data by inserting and updating records in a table and deleting records from a table.
- manipulate the table structure.
- create views, manipulate data through views, modify the view structure, and drop views.
- create indices on table columns and drop inefficient indices.
- mark the beginning of a transaction, create a savepoint within a transaction, rollback a transaction, and commit a transaction.

Course Content

Lesson 1: Using Subqueries to Perform Advanced Querying
- **Topic 1A:** Search Based on Unknown Values
- **Topic 1B:** Compare a Value with Unknown Values
- **Topic 1C:** Search Based on the Existence of Records
- **Topic 1D:** Generate Output Using Correlated Subqueries
- **Topic 1E:** Filter Grouped Data Within Subqueries
- **Topic 1F:** Perform Multiple-Level Subqueries

Lesson 2: Manipulating Table Data
- **Topic 2A:** Insert Data
- **Topic 2B:** Modify and Delete Data

Lesson 3: Manipulating the Table Structure
- **Topic 3A:** Create a Table
- **Topic 3B:** Create a Table with Constraints
- **Topic 3C:** Add and Drop Table Columns

Topic 3D: Add and Drop Constraints
Topic 3E: Modify the Column Definition
Topic 3F: Back Up Tables
Topic 3G: Delete Tables
Lesson 4: Working with Views
Topic 4A: Create a View
Topic 4B: Manipulate Data in Views
Topic 4C: Create Aliases
Topic 4D: Modify and Drop Views
Lesson 5: Indexing Data
Topic 5A: Create Indices
Topic 5B: Drop Indices
Lesson 6: Managing Transactions
Topic 6A: Create Transactions
Topic 6B: Commit Transactions
Appendix A: Structure of the Bookstore Database