

Course Overview

In this 2-day course (formerly called Access Level 3), you will learn advanced techniques for designing tables and working with queries and forms. You will learn the three table relationships in more depth, plus learn the rules (Normal Forms) for proper table design. Two query wizards will uncover problematic data. You will also import data, then split a table containing duplicate data into more than one table. Additionally, you will create advanced queries and learn the four sequential steps of a query. Finally, you will create forms for a single table, then use main/sub forms to handle tables in a one-to-many relationship and a many-to-many relationship.

Course Preparation

Prerequisite Course: Access Comprehensive Introduction (formerly called Access Level 1&2) or equivalent experience. You should come to this class with a working knowledge of creating basic tables, setting single and multiple field primary keys, creating table relationships in the Relationships window, creating multi-table queries that use Group By to perform math calculations, and creating reports.

Course Topics

Creating Table Relationships

- Naming Conventions
- Reviewing One-to-Many Relationships
- Reviewing Many-to-Many Relationships
- Reviewing One-to-One Relationships
- Creating Table Relationships
- Enforcing Referential Integrity
- Using Cascade Update
- Using Cascade Delete

Theory of Table Design

- History of Relational Database Design
- About Primary and Foreign Key Fields
- First Normal Form
- Second Normal Form
- Third Normal Form
- Additional Design Considerations

Using Query Wizards to Find Problems

- Finding Duplicate Values
- Finding Unmatched Records

Joining Tables in a Query

- About Table Joins
- Querying on Unjoined Tables
- Creating an Inner Join
- Creating an Outer Join
- Creating a Self-Join
- Using the SUM Function
- Using Functions with Dates
- Calculating Employee Vested Status

Importing and Exporting Data

- Importing from another Access Database
- Importing Data from Excel
- Exporting Data to Excel
- Exporting Data to Word

Using Action Queries

- Action Queries vs. Select Queries
- Creating a Make Table Query

- Creating a Delete Query
- Creating an Append Query
- Creating an Update Query

Splitting a Table to Eliminate Duplicate Data

- Splitting a Table into Two Tables
- Creating New ID Numbers to Link the Tables
- Linking the Two Tables by the New ID Numbers

Using Functions in Queries

- Calculating Price Increases
- Rounding Numbers
- Calculating Employee Vested Status
- Calculating Monthly Income
- Using Criteria with Calculations
- Understanding the Sequence of a Query
- Finding Help on Functions

Working with Single-Table Forms

- Creating a Form using the Form Wizard
- Viewing Data through a Form
- Modifying a Form using Design View
- Changing the Tab Order
- Generating the Next ID Number without AutoNumber
- Creating a Combo Box (Dropdown List) from a Table
- Creating a Combo Box from a Query
- Creating an Option Group (Radio Buttons)

Working with Multi-Table Forms

- Creating a Form for a One-to-One Relationship
- Creating Tabs on a Form
- Main/SubForms for a One-to-Many Relationship
- Improving SubForm Appearance
- Main/Subforms for a Many-to-Many Relationship

Customizing Forms

- Creating Command Buttons
- Using the IIF Function on a Form
- Modifying Text Box Properties
- Modifying Form Properties