Course Description:
In this course, you will create advanced queries to manipulate and index tables. You will also create transactions so that you can choose to save or cancel data entry process.

Duration: Instructor-led, group-paced, classroom-delivery learning model with structured hands on activities – 7 hours (1 day)

Target Audience: Individuals with basic computer skills and familiar with concepts related to database structure and terminology.

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

Prerequisites: SQL Querying Fundamentals

Course Outline

Review
- The Relational Database Model
- Inner Joins
- Outer Joins
- Self Joins, Advanced Joins

Working with Views
- Create a View
- Manipulate Data in Views
- Create Aliases
- Modify and Drop Views

Using Subqueries to Perform Advanced Querying
- Search Based on Unknown Values
- Compare a Value with Unknown Values
- Search Based on the Existence of Records
- Generate Output Using Correlated Subqueries
- Filter Grouped Data Within Subqueries
- Perform Multiple-Level Subqueries

Manipulating Table Data
- Insert Data
- Modify and Delete Data

Manipulating the Table Structure
- Create a Table
- Create a Table with Constraints
- Add and Drop Table Columns
- Add and Drop Constraints
- Modify the Column Definition
- Back Up Tables
- Delete Tables

Indexing Data
- Create and Drop Indices

Managing Transactions
- Create Transactions
- Commit Transactions

Stored Procedures and Parameters (*time permitting*)