

Advanced Querying for SQL Databases

Module 01 : Introduction

- Benefits of Advanced Querying SQL Databases
- Overview of T-SQL
- Tools required for Advanced Querying SQL Databases

Module 02 : Basic Querying with T-SQL

- Introduction to Basic Querying
- Retrieving Data from Tables
- Sorting Data
- Filtering Data

Module 03 : Joins and Subqueries

- Combining Data from Multiple Tables
- Inner Joins
- Outer Joins
- Self Joins
- Subqueries

Module 04 : Aggregating Data

- Grouping Data
- Aggregate Functions
- Working with NULL Values

Module 05 : Table Expressions

- Understanding Common Table Expressions (CTEs)
- Recursive CTEs
- Derived Tables
- Temporary Tables

Module 06 : Advanced Querying Techniques

- Using Window Functions
- Ranking Functions
- Pivoting and Unpivoting Data
- Creating Temporary Tables and Table Variables

Module 07 : Stored Procedures, Functions, and Triggers

- Creating and Using Stored Procedures
- Creating and Using User-defined Functions
- Creating and Using Triggers

Module 08 : Error Handling in T-SQL

- Understanding Error Handling in T-SQL
- Using Try-Catch Blocks

Module 09 : Transactions in T-SQL

- Understanding Transactions
- Managing Transactions

Module 10 : Indexes and Performance Tuning

- Understanding Indexes
- Creating Indexes
- Query Execution Plans
- Performance Tuning Techniques