



## Module 1: Introduction to SQL Server

- The Basic Architecture of SQL Server
- RDBMS Concepts
- SQL Server Versions
- Getting Started with SQL Server Management Studio
- Basics of Databases & Tables
- In-Build Databases in SQL

## Module 2: Basic Queries in SQL

- How to retrieve data from SQL
- Understanding the Order of Operations in SELECT statements
- Fetching Duplicates with DISTINCT
- Using Column and Table Aliases
- Writing Simple CASE Expressions
- Writing Order By / Group By

## Module 3: Sorting and Filtering Data

- Sorting Data
- Filtering Data with Predicates
- Filtering Data with TOP and OFFSET-FETCH
- Working with Unknown Values

## Module 4: Grouping and Aggregating Data

- Using Aggregate Functions
- Using the GROUP BY Clause
- Filtering Groups with HAVING

## Module 5: Working with SQL Server Data

- Introducing SQL Server Data Types
- Working with Character Data
- Working with Date and Time Data

## Module 6: Adding Tables

- Creating tables
- Altering tables
- Adding new columns
- Altering existing columns
- Data type Decrease/Increase
- Simple insert
- Columns by insert

## Module 7: SQL – Constraints

- Not Null Constraint
- Default Constraint
- Unique Key Constraint
- Primary Key Constraint
- Foreign Key Constraint
- Index Constraint

## Module 8: SQL Joins

- Understanding Joins
- Querying with Inner Joins
- Querying with Outer Joins
- Querying with Left and Right Joins
- Querying with Cross Joins and Self Joins

## Module 9: SQL Views

- What are SQL Views
- How to create views
- How Views are differ from Tables
- How to create Views from Joins

## Module 10: SQL String Functions

- LEFT, Right Functions
- UCASE, LCASE Functions
- Length, Locate, Format, Concate etc.



## Module 11: SQL Date / Time Functions

- DATE\_ADD, CURRENT\_DATE() , CURRENT\_TIME(), Now() etc
- Datedif function
- DATE\_FORMAT, DAYOFWEEK,
- MONTH, YEAR, LAST\_DAY
- EXTRACT, Function

## Module 12: Programming with T / PL SQL

- T-SQL Programming Elements
- Declaring Variables and Delimiting Batches
- Using Control-Of-Flow Elements
- Using Variables in a Dynamic SQL Statement
  
- Create and submit batches of T-SQL code for execution by SQL Server.
- Write code that declares and assigns variables.
- Describe the control-of-flow elements in T-SQL.
- Write T-SQL code using IF...ELSE blocks.
- Write T-SQL code that uses WHILE.

## Module 13: SQL Procedures

- Querying Data with Stored Procedures
- Types of Procedure in SQL
- Passing Parameters to Stored procedures
- Creating Simple Stored Procedures

## Module 14: SQL Triggers & Cursors

- Types of Trigger I SQL
- How to use Triggers
- What are Cursors
- Eliminate Cursors with temp tables

## Module 15: Implementing Transactions

- Transactions and the database engines
- ACID Concepts
- Controlling transactions
- Transactions - Real time Scenarios

Interview Preparations

Training Certification