

Course Name : SQL Server from Basics to Advanced  
Duration : 12 Hours  
Skill Level : Beginner

**Course Description :**

SQL Server is a relational database management system (RDBMS) developed by Microsoft. In this two days course, candidates will learn how to execute the four main operations (CRUD) using SQL Server, create database objects such as views, indexes, stored procedures, triggers and transactions in SQL. This course is quite practical with so many examples and activities and candidates will learn all the principles in a practical project means candidates will leave the class by a project in their hands on the first day of training.

**Audience :**

- Future Database Administrators (DBA)
- Developers who want to learn about SQL
- BI consultants working on technologies other than SQL Server (Oracle etc)
- Students who want to get started on SQL
- Tech leads (CRM, Web etc) who want to discover SQL.

**Prerequisite :**

- Having NO SQL or database background before taking this course
- General familiarity working with data in spreadsheets is an added advantage.

**Methodology :**

This program will be conducted with interactive lectures, PowerPoint presentation, discussions, and practical exercise and projects. This course can be conducted as instructor-led (ILT) or virtual instructor- led training (VILT).

**Outcome :**

- Start learning from scratch and learn about every MS SQL Server topic with examples.
- Understand the DDL, DML commands.
- Learn Create, Read, Update, Delete (CRUD) commands for tables and databases.
- Use SQL commands to filter, sort and manipulate strings, dates.
- Learn the Normalization, Views, Indexes to for the query optimizations.
- Learn the advance concepts like Stored Procedure, Functions, Triggers.
- Learn the DAX Tables & Filtering.
- The candidates will be able to write efficient SQL queries to successfully handle a variety of data analysis tasks.

**Career Pathway :**

- |                                |  |                               |
|--------------------------------|--|-------------------------------|
| • Database Administrator (DBA) | • Data Application Interface Developer | • Database Migration Engineer |
| • Database Developer           | • BI Application Developer             | • Data Analyst                |
| • Data Scientist               | • Big Data Expert                      | • Big Data Architect          |
| • ETL Developer                | • Cloud database Expert                |                               |

## DAY 1

- Welcome
- What you need to know?
- RDBMS
- Primary Key, Surrogate Key, Natural Key, Composite Key And Foreign Key
- What is SQL Server?
- Install and connect to SQL Server
- Install SQL Server Management Studio
- CREATE DATABASE
- DELETE DATABASE
- DATA TYPES
- CREATE TABLE
- UPDATE TABLE
- DELETE TABLE
- INSERT
- UPDATE
- DELETE
- SELECT
- ORDER BY
- GROUP BY
- WHERE CLAUSE
- LIMIT
- OFFSET
- LIKE
- DISTINCT
- AND, OR, BETWEEN, IN
- INNER JOIN
- LEFT JOIN
- RIGHT JOIN
- FULL OUTER JOIN
- CROSS JOIN
- SELF JOIN
- UNION
- INTERSECT

- EXCEPT
- PIVOT
- TEMPORARY TABLES

## DAY 2

- NORMALIZATION
- VIEWS
- INDEXES
- STORED PROCEDURES
- USER DEFINED FUNCTIONS
- TRIGGERS
- T-SQL
- DAX Tables and Filtering