

## Course: SQL With SSRS & Tableau:

### What are the Course Objectives?

- Understanding high-level Architecture of Database.
- Work independently in Development, Support and Testing Project.
- In-depth knowledge of various advanced concepts. prepare the Complex queries.
- Learn how to retrieve and manipulate data from one or more tables
- Know how to filter data based upon multiple conditions
- Updating and inserting data into existing tables
- Learning how the relationships between tables will affect the SQL.

### Who should go for this Course?

- Any IT experienced Professional.
- Any BCA/BSC, MCA/MS B.Tech/M.Tech / BCom College Students in any stream.
- Fresh Graduates

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#### Course Curriculum

### Section 1:- Introduction to Basic Database Concepts

- ❖ A quick tour of SQL
- ❖ SQL in Perspective
- ❖ Relational Database
- ❖ Retrieving Data

### Section 2 : Normalization

- ❖ First Normal . Form Practically Normalizing Tables
- ❖ Second Normal .
- ❖ Third Normal

### Section 3: Introduction to SQL Server

- ❖ What is SQL Server Version history and different editions?
- ❖ Basic Features Components and Tools
- ❖ Introduction to Management Studio
- ❖ Types of System Databases in SQL

### Section 3: Introduction to SQL

- ❖ DDL, DML, DQL, DCL and TCL
- ❖ Create Database using Management Studio
- ❖ Datatypes in SQL Server

### Section 5: DDL and DML Statements

- ❖ Insert, Create and Marge Table,
- ❖ Insert, Alter and Drop Table,
- ❖ Update and Delete Statement Truncate Statement

## **Section 6 : Aggregate Functions**

- ❖ Using functions in Queries
- ❖ Count, Sum, Min, Max, Avg Group By and Having Clause
- ❖ Using Group By with Rollup and Cube

## **Section 7 : Working with Queries**

- ❖ Select Statement, Distinct
- ❖ Usage of Top , Null Etc... keywords
- ❖ Using String and Arithmetic Operators
- ❖ Where Clause with Operators
- ❖ Sorting data using Order By clause
- ❖ Working with basic of Sub Queries

## **Section 8: Joins and Set Operations**

- ❖ Introduction to Joins
- ❖ Cross Joins
- ❖ Inner Join
- ❖ Left Join
- ❖ Right Join
- ❖ Full (Outer Join)
- ❖ SQL Union Operator and Union All

## **Section 9: Working with Constraints**

- ❖ Unique
- ❖ Not NULL
- ❖ Primary Key
- ❖ Default Foreign Key

## **Section 10 : Implementing Views**

- ❖ Introduction & Advantages of Views
- ❖ Creating, Altering, Dropping Views
- ❖ Advance Options while Creating a View
- ❖ SQL Server Catalogue Views

## **Section 11 : Writing Transact-SQL (T-SQL)**

- ❖ What is T-SQL?
- ❖ Using Statements
- ❖ Working with Temp tables
- ❖ Error Handling
- ❖ Using System Functions

## **Section 12 : Working with Stored Procedures and Functions**

- ❖ Introduction to stored procedures

- ❖ Benefits of Stored Procedures
- ❖ Creating, Executing Modifying, Dropping
- ❖ Input-Output and Optional Parameter
- ❖ User defined Functions

### **Section 13: Implementing Triggers**

- ❖ Introduction to triggers
- ❖ Constraints vs Triggers
- ❖ Create, Alter, Drop triggers
- ❖ for/after/instead of triggers
- ❖ Using Rollback Tran

### **Section 14: Implementing View**

- ❖ Introduction to View
- ❖ Create, Alter, Drop View
- ❖ Updatable View

### **Section 15: Implementing UDF (User Define Function)**

- ❖ Introduction to UDF
- ❖ Create, Alter, Drop UDF
- ❖ Types of UDF.

## **SSRS ( SQL Server Reporting Service)**

1. What is the SSRS
2. What is RDL
3. Type of reports
4. Report lifecycle
5. Report builder
6. Report configuration
7. Report deployed
8. Security management

## **Tableau -**

1. What is tableau
2. Tableau architecture
3. Tableau Download & installed
4. What is data source
5. What is dataset
6. Multiple datasource
7. Filter data
8. Sort Data
9. Chart & Graphs
10. Tableau Calculations