

# Deccansoft Software Services

(A premier Training Organization for Microsoft Technologies for the last 19 years)

## SQL Server 2012

### Essential Database Concepts

- What is Data?
- Limitations of File System
- Basic Concepts of DBMS
- Advantage of DBMS over File System
- Levels of Abstraction
- Database Models
- Exploring Relational DBMS
- Client–Server Architecture

### E-R Modeling and Diagram

- Analyzing the Requirement
- Identify Entities and their Relationships
- Drawing E-R Diagram
- Conversion of E.R. Diagrams into Tables

### Normalization

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

### Introduction to SQL Server

- What is SQL Server
- Version history and different editions
- Basic Features
- Components and Tools
- Starting and Stopping SQL Server Instances / Services
- Introduction to Management Studio
- Types of System Databases in SQL Server

### Introduction to SQL

- Basics of SQL
- Types of SQL Statements
- DDL, DML, DQL, DCL and TCL
- Create Database using Management Studio
- Datatypes in SQL Server
- Exploring DDL Statements on Table using Management Studio
- Exploring DML Operations using Management Studio

### DDL and DML Statements

- Why write statements in Frontends?
- Create, Alter and Drop Table
- Insert, Update and Delete Statement
- Truncate Statement

### Working with Queries (DQL)

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

### Aggregate Functions

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

### **Joins and Set Operations**

- Introduction to Joins
- Cross Joins
- Inner Join
- Outer Join
- Self Join
- Co-related Sub Queries
- Set Operations using Unions, Intersect and Except

### **Implementation of Data integrity**

- Entity integrity
- Domain integrity
- Referential integrity
- Types of constraints

### **Working with Constraints**

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

### **Implementing Views**

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

### **Data Control language (DCL)**

- Creating Users & Roles
- Granting & Revoking of Roles & privileges
- Managing using Management Studio

### **Working with Indexes**

- Introduction
- Clustered and Non Clustered Index
- Creating and Dropping Indexes

### **Writing Transact-SQL (T-SQL)**

- What is T-SQL?
- Scripts and Batches
- Declaring Variables

- Using Statements
- Working with Temp tables
- Error Handling
- Using System Functions / Global Variables
- Using Dynamic SQL

### **Working with Stored Procedures and Functions**

- Introduction to stored procedures
- Benefits of Stored Procedures
- Creating, Executing
- Modifying, Dropping
- Input–Output and Optional Parameters
- System defined SP's and Functions.
- User defined Functions

### **Implementing Triggers**

- Introduction to triggers
- Constraints vs Triggers
- Creating, Altering, Dropping triggers
- for/after/instead of triggers
- Using Rollback Tran

### **Working with Cursors**

- Creating Cursors
- Cursors vs. Select
- Types of cursors
- Locks on cursors
- Advantages of cursors

### **Transaction Control Language (TCL)**

- Introduction
- Transactions process & types of transactions (Implicit, explicit)
- Working with Locks, Types of locks

### **Backup and Restore**

- Generating SQL Script
- Executing SQL Script
- Generating Change Script
- Taking database Backup

- Restoring database using backup
- Attaching and Detaching of database

#### **Advance Features**

- Pivot Table
- Common Table Expression
- Ranking Functions
- Using BLOB data type
- Using XML data type

**Address:** Door No: 1-10-75/1/1 to 6, Block No: 402, 4<sup>th</sup> Floor, Saptagiri Towers,  
Begumpet Main Road, Hyderabad 500016 Telangana, India.

**Contact us: 040 - 27841517/ 278152255/ 8008327000**

Website: <http://www.deccansoft.com>

e-mail: [enquiry@deccansoft.com](mailto:enquiry@deccansoft.com)

*We also provide Online Training. For details please visit Our Online Training Portal:*

<http://www.bestdotnettraining.com>

<http://www.bestsharepointtraining.com>