

# Course Brochure

## SQL Server 2012

### Overview

•Microsoft Sql Server 2008 is basically designed to suit the requirements of Database design and development. Audience gets complete knowledge on SQL commands, constraints, views, sub queries, indexes etc... as well as how to program with T-SQL i.e.. developing stored procedures, triggers, functions, cursors etc... Complete discussion on XML integration, CLR integration, Log on triggers, Ranking functions, new isolation levels etc.. Discusses all the advanced features of SQL Server 2008 and new features of SQL Server 2012

### Pre-requisites

•Basic knowledge of Microsoft Windows operating system.Knowledge of any one language like C is added advantage.Knowledge of databases is another added advantage.

### Applications

## COURSE CONTENTS

### Basics

- ❖ Database
- ❖ DBMS
- ❖ RDBMS
- ❖ Oracle and SQL Server

### SQL Server Environment

- ❖ SQL Server 2005 and 2008, 2012
- ❖ New Features in SQL Server 2005 and 2008, 2012
- ❖ SQL Server Management Studio Enhancements in SSMS - 2008
- ❖ SQL Server Business Intelligence Development Studio (BIDS)

### SQL Language

- ❖ DDL
- ❖ DML (INSERT, UPDATE, DELETE, MERGE)
- ❖ TCL
- ❖ DDL
- ❖ DCL

### Data Integrity

- ❖ Domain Integrity
- ❖ Entity Integrity
- ❖ Referential Integrity

### Database Design

- ❖ Normalization
- ❖ De Normalization
- ❖ Database Diagrams (E-R)

### Joins and Sub Queries

- ❖ SQL Operators
- ❖ Simple Queries
- ❖ Built in Functions
- ❖ Joins
- ❖ Sub-Queries
- ❖ Advanced Queries

### Views

- ❖ Create View
- ❖ Advantage of Views
- ❖ Updatable Views
- ❖ Non Updatable Views
- ❖ Indexed View

### Introduction to T-SQL

- ❖ Anonymous Block
- ❖ Stored Block

### Anonymous block(including 2008 features)

### Structured Exception Handling

### Cursors

- ❖ Declaring Cursors
- ❖ Modifications Thorough Cursors
- ❖ Types of Cursors
- ❖ Advantages of Cursors

### Stored block

### Stored Procedures

- ❖ System Stored Procedure
- ❖ User Stored Procedures
- ❖ Advantages of Procedures
- ❖ Passing In/Out Parameters
- ❖ Altering Procedure
- ❖ Extended Stored Procedures

## COURSE CONTENTS

### User Defined Functions

- ❖ Scalar UDF
- ❖ Inline UDF
- ❖ Multi Statement Table UDF
- ❖ Table Variables, Temporary Tables

### Triggers

- ❖ DML Triggers (After | Instead of )
- ❖ DDL Triggers
- ❖ Magic Tables
- ❖ Advantages of Triggers

### Transactions and Locks

- ❖ Implicit Transactions
- ❖ Explicit Transactions
- ❖ TCL Commands
- ❖ Lock Types
- ❖ Isolation Levels
- ❖ Dead Locks
- ❖ MS-DTC

### Indexes

- ❖ Clustered Index
- ❖ Non Clustered Index
- ❖ Creating Index
- ❖ Advantages of Indexes

### XML Integration

- ❖ FOR XML
- ❖ OPEN XML
- ❖ XML Data Type

### .NET 2.0 (CLR) Integration

- ❖ CLR Objects
- ❖ CLR Stored Procedures
- ❖ CLR User Defined Functions

### Security

- ❖ Windows Authentication
- ❖ SQL Server Authentication
- ❖ Creating Login
- ❖ Database Permissions
- ❖ Introduction to Roles, Schema
- ❖ Dropping Login

### Database Maintenance

- ❖ Backup Database
- ❖ Restore Database
- ❖ Deployment of Database
- ❖ Generating T-SQL Scripts and Batches
- ❖ System Databases and System Tables

### SQL Server Agent

- ❖ Jobs
- ❖ Schedules
- ❖ Alerts
- ❖ Operators

### Data Transformation Services

- ❖ BCP
- ❖ DTS Packages / SSIS Packages

### Introduction to DBA Concepts

- ❖ Replication
- ❖ Performance Monitoring
- ❖ Service Broker

### Features of 2012

- ❖ Column store indexes
- ❖ Sequence objects
- ❖ Pagination
- ❖ Error handling