

## **SQL Server 2005&2008 Course Content:35-40hours**

### Course Outline

#### **SQL Server 2005**

- SQL Server 2005 Editions, Components, and Tools
- Using SQL Server Management Studio (SSMS)
- Working with Tables and Queries
- New Transact-SQL Features
- Business Intelligence Services

#### **Installing SQL Server 2005**

- Preparing for Installation
- Upgrading an Earlier Version
- Installation Steps
- Configuring the Server

#### **Designing and Creating a Database**

- Relational Database Design Principles
- Implementing the Design

#### **Data Selection Queries**

- Understanding Transact-SQL
- The SELECT Statement
- The WHERE Clause
- Using ORDER BY to Sort Data
- The GROUP BY Clause
- Joining Tables

#### **Modifying Data**

- Modifying Data

- Inserting Data
- Updating Data
- Deleting Data
- Understanding Transaction Isolation

### **Working with SQL Server Management Studio**

- Getting Started with SSMS
- Exploring the Object Explorer
- Working with the Query Editor

### **Transact-SQL Programming**

- Overview of Transact-SQL
- Using Built-In Functions
- Controlling Flow
- Ranking Results

### **Transactions and Error Handling**

- Transaction Concepts
- Applications and Transactions
- Creating Explicit Transactions
- Using TRY/CATCH Error Handling

### **Creating Views**

- What Is a View?
- Creating Views
- Updating Data Using a View
- Using Computed Columns
- Indexed Views
- Partitioned Views

### **Creating Stored Procedures and Triggers**

- Creating Stored Procedures
- Creating Triggers

### **Creating User-Defined Functions**

- User-Defined Function Overview

- Scalar Functions
- Inline Table-Valued Functions
- Multi-Statement Table-Valued Functions
- Using Functions, Views, and Stored Procedures

### **Using .NET Code in SQL Server 2005**

- Writing SQLCLR Code
- SQLCLR Code Modules
- Managing Code Modules
- SQLCLR Security
- T-SQL vs. .NET Code

### **Advanced Query Techniques**

- Full-Text Search
- Generating XML with FOR XML
- Using APPLY
- Creating Recursive Queries
- Creating Pivot Queries
- Executing Dynamic SQL

### **New Features of SQL Server 2008**

- Overview
- New Features Across the Server
- Deprecated and Discontinued Features
- SQL Server 2008 Feature Pack
- Installing SQL Server 2008

### **T-SQL Enhancements**

- New T-SQL Data Types
- T-SQL Syntax
- Sparse Columns and Column Sets
- Table-Valued Parameters
- Grouping Sets
- MERGE Statement
- Storing and Manipulating Unstructured Data