

Programming an SQL 2000 Database

Course Level	:	Introduction
Course Duration	:	5 days
Prerequisites	:	A working knowledge of Transact Statements



▼ Course Content

○ Course Objectives

○ SQL Server Overview?

- What is SQL?
- SQL Server Integration
- SQL Server Databases
- SQL Server Security
- Working with SQL Server

○ Overview of Programming SQL Server

- Designing Enterprise Application Architecture
- SQL Server Programming Tools
- The Transact SQL Programming Language
- Additional Language Elements
- Ways to Execute Transact SQL Statements

○ Creating and Managing Databases

- Creating Databases
- Creating Filegroups
- Managing Databases
- Introduction to Data Structures

○ Creating Data Types and Tables

- Creating Data Types and Tables
- Generating Scripts

○ Implementing data Integrity

- Types of Data Integrity
- Enforcing Data Integrity
- Defining Constraints
- Types of Constraints
- Disabling Constraints
- Using Defaults and Rules
- Deciding on a Data Integrity Method

○ Planning Indexing

- Introduction to Indexes
- Index Architecture
- How SQL Retrieves Stored Data
- How to Maintain Index and Heap Structures
- Deciding Which Columns to Index

- Creating and Maintaining Indexes
 - Creating Indexes
 - CREATE INDEX Options
 - Modifying Data
 - Maintaining Indexes
 - Statistics
 - Using an Index to Cover a Query
 - Performance Consideration
 - Using Index Tuning Tools to Improve Query Performance

○ Implementing Views

- What is a View?
- Advantages of Views
- Defining Views
- Partitioned Views and Scaling Out
- Security
- Modifying Data Through Views
- Performance Consideration

○ Implementing User-defined Functions

- Creating, Executing and Altering
- Using User-Defined Functions with MDX
- UDF Permissions
- Dynamic / Static Filters
- Developing for XML

○ Implementing Stored Procedures

- Creating, Executing and Modifying
- Using Parameters
- Executing Extended Stored Procedures
- Handling error messages
- Performance Considerations

○ Implementing Triggers

- Defining
- Performance Considerations

○ Programming Across Multiple Servers

- Security
- Distributed Queries and Transactions
- Partitioned Views

○ Query Performance

- Query Optimizer
- Query Plan Information

○ Analyzing Queries Using SHOWPLAN

- AND / OR
- Join and Evaluation

○ Managing Transactions and Locks