

# Microsoft® SQL Server™ 2005

with Andy Baron and Don Kiely

## LEVEL 1 – Fundamentals of Microsoft SQL Server 2005

In level 1 you will learn about the features that are available in SQL Server: how to design and create a database; and how to build basic queries using Transact-SQL, the language of SQL Server. Then, you'll learn how to build effective views, stored procedures, triggers, and user-defined functions, using Transact-SQL. You'll learn about the new enhancements to the Transact-SQL programming language including improved support for error handling and hierarchical queries, and how programmers can now use .NET languages like C# and Visual Basic to build database objects.

### A Tour of 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

### Database Design

- 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
- Using SQL Server Books Online

### 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 Functions 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

#### This course includes 90+ hours of total training time...

- 30+ hours of media run time
- 1100+ pages of printable courseware
- Step-by-step hands-on lab exercises
- Pre/post exams
- Sample code

#### YOUR CHOICE OF FORMATS:

CD-ROM	20 CDs
DVD-ROM	2 DVDs

## LEVEL 2 – Advanced Queries, Performance, and Business Intelligence

SQL Server 2005 includes a rich set of tools that go beyond the basics of querying and manipulating data. You'll learn how to take advantage of the new, user-friendly management console that integrates both authoring and administrative tasks. You'll learn how to take advantage of SQL Server's tools for analyzing and turning your databases. Secure your SQL Server database using authentication, authorization, and data encryption. You'll also learn about integration services, data replication, and Microsoft's new Business Intelligence (BI) suite.

### Advanced Queries

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

### Understanding and Implementing Security

- Security Overview
- Authentication
- Authorization
- Permissions
- Data Encryption
- Security Epilog

### Analyzing and Tuning Performance

- Evaluating Performance
- Monitoring with SQL Server Profiler
- Tuning Queries
- Indexes and Partitions
- Using the Database Engine Tuning Advisor
- Understanding SQL Server Performance Problems

### Automating Administrative Tasks

- SQL Server Agent
- Maintenance Plans
- SQL Management Objects (SMO)

### Programming Replication

- Overview of SQL Server Replication
- Replication Programming Interfaces
- Configuring Replication
- Synchronizing Data

### Using Integration Services

- Importing and Exporting Data
- Integration Services Tools
- Building a Package
- Troubleshooting a Package

### Analysis Services

- Understanding Analysis Services
- Creating a Unified Dimensional Model
- Data Mining

### Introduction to Reporting Services

- Understanding Reporting Services
- Configuring Reporting Services
- Building a Simple Report
- Creating, Publishing and Viewing Reports
- Using and Managing Published Reports

