

Course Description: This three-day instructor-led course provides students with product knowledge and skills needed to implement a Microsoft SQL Server 2005 database. The course focuses on teaching individuals how to use SQL Server 2005 product features and tools related to implementing a database.

Who Should Attend: This course is intended for IT Professionals wanting to become skilled on SQL Server 2005 product features and technologies for implementing a database.

Prerequisites: Before attending this course, students must have basic knowledge of the Microsoft Windows operating system and its core functionality, working knowledge of Transact-SQL and relational databases, and some experience with database design.

In addition, it is recommended, but not required, that students have completed a course in Writing Queries Using Microsoft SQL Server 2005 Transact-SQL.

Benefits of Attendance: Upon completion of this course, students will be able to:

- Create databases and database files
- Create data types and tables
- Use XML-related features in Microsoft SQL Server 2005
- Plan, create, and optimize indexes
- Implement data integrity in Microsoft SQL Server 2005 databases by using constraints, triggers, and XML schemas
- Implement views
- Implement stored procedures and functions
- Implement managed code in the databases

Course Outline:

Creating Databases and Database Files

Creating Databases
Creating Filegroups
Creating Schemas
Creating Database Snapshots
Lab 1: Creating a Database
Creating a Database
Creating Schemas

Creating Data Types and Tables

Creating Data Types
Creating Tables
Creating Partitioned Tables
Lab 2: Creating Data Types and Tables
Creating Data Types
Creating Tables
Creating Partitioned Tables

Using XML

Retrieving XML by Using FOR XML
Shredding XML by Using OPENXML
Using the xml Data Type
Lab 3: Working with XML
Mapping Relational Data and XML
Storing XML Natively in the Database

Creating and Tuning Indexes

Planning Indexes
Creating Indexes
Optimizing Indexes
Creating XML Indexes
Lab 4: Creating Indexes
Creating Indexes
Tuning Indexes
Creating XML Indexes

Implementing Data Integrity

Data Integrity Overview
Implementing Constraints
Implementing Triggers
Implementing XML Schemas
Lab 5: Implementing Data Integrity
Creating Constraints
Creating Triggers
Implementing XML Schemas

Implementing Views

Introduction to Views
Creating and Managing Views
Optimizing Performance by Using Views
Lab 6: Creating Views
Creating Views
Creating Indexed Views
Creating Partitioned Views

Implementing Stored Procedures and Functions

Implementing Stored Procedures
Creating Parameterized Stored Procedures
Creating Functions
Handling Errors
Controlling Execution Context
Lab 7: Creating Stored Procedures and Functions
Creating Stored Procedures
Creating Functions

Implementing Managed Code in the Database

Introduction to the SQL Server Common Language Runtime
Importing and Configuring Assemblies
Creating Managed Database Objects
Lab 8: Implementing Managed Code in the Database
Importing an Assembly
Creating Managed Database Objects

Using Service Broker

Service Broker Overview.
Creating Service Broker Objects
Sending and Receiving Messages
Lab 9: Using Service Broker
Creating Service Broker Objects
Implementing the Initiating Service
Implementing the Target Service