

# SQL Server 2005

## Introduction

- What's new in SQL Server 2005
- Editions of SQL Server 2005
- Hardware specifications

## Tools and Utilities

- SQL Server Books Online
- SQL Server Management Studio
- Business Intelligence Development Studio

## Creating and Managing Databases

- Creating User-defined Databases
- Modifying a Database

## SQL- The Structured Query Language

### Tables

- Types of Tables
- Creating and Using tables
- Partitioned Tables

### Retrieving Data

- SELECT Statement
- FROM and WHERE Clauses
- Using GROUP BY Clause
- Using HAVING Clause
- ORDER BY Clause
- Copying data from one table to other table

### Data Integrity

- What is Data Integrity
- Types of integrity constraints
- Enabling and Disabling a Constraint
- Rules and Defaults

### Joins

- What is a Join
- Types of Joins
- Alternate syntax for joins
- Complex Joins

### Built-In Functions

- Aggregate Functions
- Numeric Functions
- Date and Time Functions
- String Functions
- CAST and CONVERT

## Retrieving Data Advanced

- What is Sub Query?
- Types of Sub Queries
- Joins vs Sub queries
- Operators
- LIKE, IN, ANY, BETWEEN, EXISTS
- Performance Considerations

## Indexes

- SQL Server Storage
- What is an Index?
- Types of Indexes
- Creating an Index
- Maintaining Indexes

## Views

- What is a View?
- Considerations while creating a View
- Indexed (Materialized) Views
- Partitioned Views

## Normalization

- What is Normalization?
- Normal Forms
- Advantages and Disadvantages
- Denormalization

## T-SQL Programming

### Introduction

- Fundamentals
- Control-of-flow Language Statements
- IF...ELSE
- WHILE
- CASE
- Scripts and Batches

### Cursors

- What is a Cursor?
- Types of Cursor
- Statements in the usage of a Cursor
- @@FETCH\_STATUS

### Transactions

- ACID Properties
- Types of Transactions
- COMMIT, ROLLBACK, SAVE

### Stored Procedures

- Definition
- Types of Stored Procedures

- Creating a Stored Procedure
- Parameterization
- Executing a Stored Procedure
- Error Handling
- Debugging a Stored Procedure

## Triggers

- Definition
- Creating a Trigger
- Types of Triggers
- DDL, DML Triggers
- INSTEAD OF Triggers
- Setting Triggering order
- Performance Considerations

## User-Defined Functions

- What is a UDF
- Creating and using UDF's
- UDF's returning a table

## Security

- Security Basics
- Authentication Modes
- Server and Database Roles
- Creating a login
- Providing permissions on a database
- Providing permissions on database objects

## Performance Tuning

- When to Tune?
- Index choices
- Strategies in Tuning
- Hardware Considerations

## Working with Distributed Data

- What is a Distributed Query
- Accessing Remote Data using a Distributed Query

# SQL Server 2008

## XML Integration

- XML Datatype
- Using XML Schema collections
- Retrieving data in XML Format

## SQL Server Replication services

- Replication Basics
- Replication Models
- Replication Topology

- Setting up Replication in Management Studio

## SQL Server integration services

- Creating a Basic Report
- Adding Grouping, Sorting to the report data
- Using a dynamic query in a report

## SQL Server Reporting Services

- Creating a Basic Report
- Adding Grouping, Sorting to the report data
- Using a dynamic query in a Report

## What's New and Enhanced in Transact-SQL

### Introduction to SQL Server 2008

### Database Testing Concepts

- What is a Database Application
- Testing the Application vs Testing the Database
- Common problems in RDBMS that affects the application
- Knowledge requirements for Database Testing
- RDBMS basics for Testing
- Data Normalization Bugs
- SQL essentials
- Database Testing Workshop

## INTERVIEW BASED FAQ's