SQL Server

# Chapter 1: Introduction to SQL Server

* What is SQL Server
* SQL Server Editions and Versions
* SQL Server Management Studio SSMS Overview
* SQL Server Architecture Overview

# Chapter 2: Installing and Configuring SQL Server

* SQL Server System Requirements
* SQL Server Installation Steps
* SQL Server Configuration Manager
* SQL Server Services

# Chapter 3: Database Fundamentals

* SQL Server Creating Databases
* SQL Server Database Files and Filegroups
* SQL Server Recovery Models
* SQL Server System Databases

# Chapter 4: Tables and Data Types

* SQL Server Creating and Altering Tables
* SQL Server Data Types in SQL Server
* SQL Server Constraints Primary Key, Foreign Key, Unique, Check, Default
* SQL Server Identity Columns

# 5. SQL Basics

* SQL Server SELECT Statements
* SQL Server Filtering, Sorting, and Aliasing
* SQL Server Joins INNER, LEFT, RIGHT, FULL
* SQL Server UNION and INTERSECT

# Chapter 6: Advanced SQL Queries

* SQL Server Subqueries
* SQL Server Common Table Expressions CTEs
* SQL Server Window Functions
* SQL Server Pivoting and Unpivoting Data

# Chapter 7: Stored Procedures and Functions

* SQL Server Creating and Executing Stored Procedures
* SQL Server Input and Output Parameters
* SQL Server Scalar and Table Valued Functions

# Chapter 8: Triggers and Views

* SQL Server Creating Views
* SQL Server Indexed Views
* SQL Server AFTER and INSTEAD OF Triggers

# Chapter 9. Indexing and Performance Tuning

* SQL Server Types of Indexes
* SQL Server Index Fragmentation
* SQL Server Execution Plans
* SQL Server Query Optimization Techniques

# Chapter 10: Transactions and Concurrency

* SQL Server BEGIN, COMMIT, and ROLLBACK
* SQL Server ACID Properties
* SQL Server Isolation Levels
* SQL Server Deadlocks and Blocking

# Chapter 11: Security and User Management

* SQL Server Authentication Modes
* SQL Server Logins and Users
* SQL Server Roles and Permissions
* SQL Server TDE and Always Encrypted

# Chapter 12: Backup and Recovery

* SQL Server Backup Types Full, Differential, Transaction Log
* SQL Server Restoring Databases
* SQL Server Point in Time Recovery

# Chapter 13: SQL Server Agent and Jobs

* SQL Server Creating and Scheduling Jobs
* SQL Server Alerts and Operators
* SQL Server Monitoring Job History

# Chapter 14: Real-Time Project & Best Practices

* SQL Server Designing a Database from Scratch
* SQL Server Implementing Security and Performance Tuning
* SQL Server Backup Strategy Planning
* SQL Server Project Documentation and Review