



THE DATALOGY
Empowering Minds With Future Tech



18 HOURS - 09 CLASSES - 03 WEEKS

SQL - ZERO TO HERO



SQL BASIC TO ADVANCE





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SQL

PROGRAM OUTLINE

18 HOURS – 9 CLASSES – 3 WEEKS





PROGRAM OUTLINE

- Introduction to SQL Server
- Overview of SQL Server
- What is SQL Server?
- Installation and Setup
- SQL Server Management Studio (SSMS) Interface

BASICS OF SQL

- Introduction to SQL
- SQL Syntax and Structure
- Data Types
- Basic SQL Commands
- SELECT, FROM, WHERE
- INSERT, UPDATE, DELETE
- Filtering and Sorting Data
- WHERE Clause
- ORDER BY Clause





PROGRAM OUTLINE

Advanced SQL Queries

- Aggregate Functions
- COUNT, SUM, AVG, MIN, MAX
- Grouping Data
- GROUP BY Clause
- HAVING Clause
- Joining Tables
- INNER JOIN, LEFT JOIN, RIGHT JOIN, FULL JOIN

DATA MANIPULATION AND TRANSFORMATION

- Subqueries and Nested Queries
- Common Table Expressions (CTEs)
- Window Functions
- ROW_NUMBER(), RANK(), DENSE_RANK(), NTILE()



PROGRAM OUTLINE

DATA TRANSFORMATION TECHNIQUES

- working with complex data types
- Working with Dates and Times
- Date Functions
- String Functions
- CONCAT, SUBSTRING, CHARINDEX, REPLACE

SQL SERVER ADVANCED TOPICS

- Indexing and Performance Tuning
- Creating and Managing Indexes
- Query Optimization
- Stored Procedures and Functions
- Creating and Executing Stored Procedures
- User-Defined Functions





PROGRAM OUTLINE

DATA ANALYSIS AND REPORTING

- Basic Data Analysis Techniques
- Descriptive Statistics
- Using SQL for Data Analysis
- Exploratory Data Analysis (EDA)
- Generating Reports
- Creating Simple Reports in SSMS
- Exporting Data to Excel

HANDS-ON PROJECTS AND CASE STUDIES

- Real-world Data Analysis Projects
- Case Studies





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