

KOENIG SOLUTIONS • COURSE OUTLINE

SQL Querying: Fundamentals

Learn to query SQL Server databases, filtering, summarising and joining data across tables to retrieve the results you need.

6

MODULES

19

TOPICS

COURSE OVERVIEW

This course covers connecting to a SQL Server database and executing queries with the SELECT statement, then filtering data through conditional searches, the WHERE clause, and pattern matching with LIKE. It covers working with date, aggregate and string functions, followed by organising data using ORDER BY, RANK, GROUP BY, HAVING, ROLLUP, CUBE, and PIVOT operators. It closes with retrieving data from multiple tables using UNION, INTERSECT, EXCEPT and JOIN clauses.

WHO THIS COURSE IS FOR

Database Developers

Report Writers

Data Analysts

Application Developers

Database Administrators

LEARNING OBJECTIVES

- Connect to a SQL Server database using SQL Server Management Studio
- Query a database using the SELECT statement
- Filter data with the WHERE clause using one or more conditions
- Search for a range of values using BETWEEN and IN
- Search text data based on patterns using the LIKE operator
- Summarise data using aggregate functions such as COUNT, SUM, AVG
- Sort, rank and group data using ORDER BY, RANK and GROUP BY
- Retrieve data from multiple tables using JOIN, UNION and INTERSECT

6 Modules, 19 Topics

01

Executing a Simple Query

TOPICS

- Connect to the SQL Database using SQL Server Management Studio
- Query a Database using the SELECT Statement
- Save a Query Script to a File
- Modify and Execute a Saved Query

02

Performing a Conditional Search

TOPICS

- Use the WHERE Clause to Search and Filter Data using One or More Conditions
- Use the WHERE Clause to Search for a Range of Values with BETWEEN and IN Clauses

03

How to Handle NULL Values in Data

TOPICS

- Search Text Data Based on Patterns using the LIKE Operator

04

Working with Functions

TOPICS

- Format and Manipulate Dates using Date Functions
- Summarize Data using Aggregate Functions Like COUNT, SUM, AVG, MIN, MAX
- Use Functions to Manipulate String Values

05

Organizing Data

TOPICS

- Sort Data using the ORDER BY Clause
- Rank Data with the RANK and DENSE_RANK Clauses
- Group Data with the GROUP BY Clause
- Filter Grouped Data using the HAVING Clause
- Summarize Grouped Data using ROLLUP and CUBE Clauses
- Use PIVOT and UNPIVOT Operators

06

Retrieving Data from Multiple Tables

TOPICS

- Combine the Results of Two Queries with the UNION Statement
- Compare the Results of Two Queries with the INTERSECT and EXCEPT Statements
- Query Data from Multiple Tables using the JOIN Clause

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Hands-on exercises throughout the course
- Delivery by certified instructors and subject matter experts
- Course completion certificate from Koenig

Who We Are

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