COURSE SYLLABUS

SQL Level III (Self-Paced)

Take your SQL skills to the next level in this advanced course, where you'll explore subqueries, views, variables, functions, stored procedures, and more. Deepen your understanding of SQL techniques to prepare for roles in data analysis, data science, and database management.

> Group classes (Live Online) and onsite training are available for this course. For more information, email onsite@graduateschool.edu or visit: https://sdfm.graduateschool.edu/courses/sql-level-iii-self-paced



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Course Outline

Advanced Query Techniques

Subqueries

- Subqueries: Queries within queries
- Single-Value vs Multi-Value vs Table-Value Subqueries

Aggregate Window Functions

Using OVER and PARTITION BY to apply Aggregate Functions

Conditionals with CASE

- Adding If-Else Logic with CASE
- Simple CASE vs Searched CASE
- IIF (Inline IF)

String Functions

- Manipulating text using string functions
- Using SUBSTRING, LEFT/RIGHT, CHARINDEX, UPPER, etc.
- Combining with Inline IF statements (IIF)

Self Join

- How a Self Join is different from other types of joins
- Using a Self Join

Views, Functions, & Stored Procedures

Using Views

- What are Views?

- The Advantages & Disadvantages of using Views
- How to Use & Query a View

User-Defined Functions with Parameters

- Using Scalar-Value (Single-Value) Functions
- Using Table-Value Functions

Executing Stored Procedures

- The difference between Views, Functions, and Stored Procedures
- Using Stored Procedures