

Querying Data with SQL



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Course Outline

- Module 1: Introduction to SQL
- Module 2: More SQL: Intermediate Functions
- Module 3: SQL: Output Control
- Module 4: SQL: Table Modification
- Module 5: SQL: Common Table Expression

Module 1

Introduction to SQL



Introduction to SQL

Instructor DEMO

- Getting started with MySQL
- Creating a Schema
- Creating a Table
- Select statement
 - From
 - Where
 - Multi-Relation queries
 - Renaming
 - As Keyword

Module 2

More SQL: Intermediate Functions



More SQL: Intermediate Functions

Instructor DEMO

- Insert Query
- Update
- Delete
- Truncate
- Common Data types
- Create table
- Integrity Constraints
 - Primary Key
 - Foreign Key
 - Unique
 - Not Null
 - Check


More SQL: Intermediate Functions

Instructor DEMO

- Auto Generated Key
- Conditional table creation
- Dropping tables
- Alter table
- String Operations
 - String Matching : - % and _
 - || - concat

Module 3

SQL: Output Control



SQL: Output Control

Instructor DEMO

- Set Operations
 - Union
 - Intersect
 - Except
- Bag Operations
 - Union All
 - Intersect All
 - Except All

SQL: Output Control

Instructor DEMO

- Output redirection
- Output control
 - Order by (ASC/DESC)
 - Limit/ Offset
- Create view

Module 4

SQL: Table Modification



SQL: Table Modification

Instructor DEMO

- Join query
 - INNER JOIN
 - LEFT OUTER JOIN
 - RIGHT OUTER JOIN
 - FULL OUTER JOIN
 - CROSS JOIN
- Aggregates
 - AVG
 - MIN
 - MAX
 - SUM
 - COUNT

SQL: Table Modification

Instructor DEMO

- Group by
- Having
- Nested Queries
 - ALL
 - IN
 - ANY
 - EXISTS

Module 5

SQL: Common Table Expression



SQL: Common Table Expression

Instructor DEMO

- Windows functions
 - Aggregation function
 - Special window function
 - ROW NUMBER
 - RANK
 - OVER Keyword
 - PARTITION BY
 - ORDER BY
- Common table expressions (CTEs)