Welcome to

INTERNSHIP STUDIO

Module 03 | Lesson 06

Analyzing Data with SQL

Joins in SQL

Introduction to Joins

- Joins in SQL allow you to combine data from multiple tables based on common columns.

- By joining tables, you can retrieve related information and create meaningful connections between datasets.

Types of Joins

- Inner Join: Returns only the matching rows from both tables based on the common column(s).
- Left Join: Retrieves all rows from the left table and the matching rows from the right table.
- Right Join: Retrieves all rows from the right table and the matching rows from the left table.
- Full Join: Retrieves all rows from both tables, combining data where possible.

Inner Join

internship studio

- Inner join returns only the rows that have matching values in both tables.
- Syntax:

```
SELECT column(s)
FROM table1
INNER JOIN table2
ON table1.column = table2.column;
```

Inner Join- Example

internship studio

- Example: Retrieve the ID and Major from both tables where there is a match based on the ID column.

- Syntax:

```
SELECT table1.ID, table1.Major, table2.Major
FROM table1
INNER JOIN table2
ON table1.ID = table2.ID;
```

Left Join

internship studio

- Left join returns all rows from the left table and the matching rows from the right table.

- Syntax:

```
SELECT column(s)
FROM table1
LEFT JOIN table2
ON table1.column = table2.column;
```

Left Join- Example

internship studio

- Example: Retrieve all rows from the left table and matching rows from the right table based on the ID column.

- Syntax:

```
SELECT table1.ID, table1.Major, table2.Major
FROM table1
LEFT JOIN table2
ON table1.ID = table2.ID;
```

Right Join

internship studio

- Right join returns all rows from the right table and the matching rows from the left table.

- Syntax:

```
SELECT column(s)
FROM table1
RIGHT JOIN table2
ON table1.column = table2.column;
```

Right Join- Example

internship studio

- Example: Retrieve all rows from the right table and matching rows from the left table based on the ID column.

- Syntax:

```
SELECT table1.ID, table1.Major, table2.Major
FROM table1
RIGHT JOIN table2
ON table1.ID = table2.ID;
```

SUMMARY

You got this

- Joins in SQL are powerful techniques to combine data from multiple tables based on common columns.
- Different join types, such as inner join, left join, right join, and full join, offer flexibility in data retrieval.
- Understanding how to perform joins allows for comprehensive analysis and extraction of meaningful insights from complex datasets.

Next session

Demonstration on Workbench