

SQL : Left Join and Right Join

1. Introduction to Joins

What are Joins?

In SQL, a JOIN clause is used to combine rows from two or more tables based on a related column between them. Joins are crucial for querying data spread across multiple tables.

Types of Joins

- **INNER JOIN:** Returns records that have matching values in both tables.
- **LEFT JOIN (or LEFT OUTER JOIN):** Returns all records from the left table, and the matched records from the right table.
- **RIGHT JOIN (or RIGHT OUTER JOIN):** Returns all records from the right table, and the matched records from the left table.
- **FULL JOIN (or FULL OUTER JOIN):** Returns all records when there is a match in either left or right table.

2. What is a LEFT JOIN?

A LEFT JOIN (or LEFT OUTER JOIN) returns all records from the left table, and the matched records from the right table. If there is no match, the result is NULL from the right table.

3. Basic Syntax of LEFT JOIN

The basic syntax for a LEFT JOIN is as follows:

```
SELECT columns
FROM table1
LEFT JOIN table2
ON table1.column = table2.column;
```

- **SELECT columns:** Specifies the columns to be included in the result set.
- **FROM table1:** Specifies the left table.