Joining Tables

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In DBMS, a **join** statement is mainly used to **combine** two or more tables based on a specified common field between them.

PostgreSQL supports **inner join**, **left join**, **right join**, **full outer join**, **cross join**, **natural join**, and a special kind of join called **self-join**.

INNER JOIN clause

Inner Join clause creates a new table (**not physical**) by combining rows that have matching values in two or more tables. This join is based on a logical relationship (or a common field) between the tables and is used to retrieve data that appears in both tables.

```
SELECT *
FROM table1 INNER JOIN table2
ON table1.column_name = table2.column_name;
```

LEFT JOIN clause

The LEFT JOIN clause returns all records from the **left table** , and the matching records from the **right table**.

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

RIGHT JOIN clause

The **RIGHT JOIN** clause returns all records from the **right table**, and the matching records from the **left table**.

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

NATURAL JOIN clause

A NATURAL JOIN is a JOIN operation that creates an implicit join clause for you based on the common columns in the two tables being joined. Common columns are columns that have the same name in both tables. A NATURAL JOIN can be an INNER join, a LEFT OUTER join, or a RIGHT OUTER join. **The default is INNER join.**

```
select * from table_one natural join table_two;
```

Interview Questions