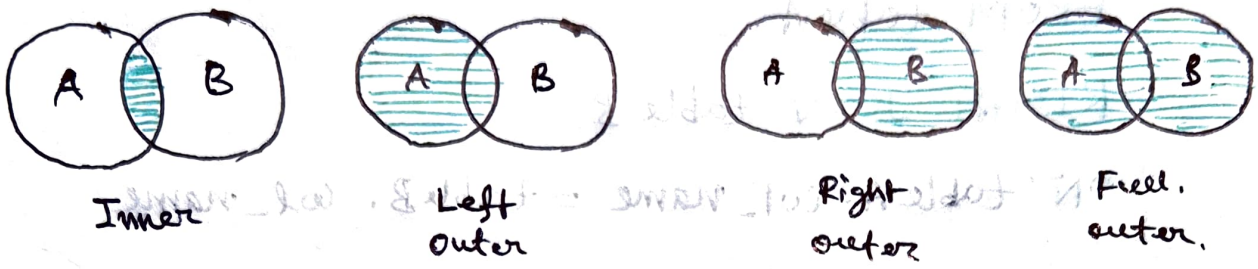
Joins in SQL

Join is used to combine rows from two or more tables, based on a related column between them.

Types of Joins



Inner Joins

Returns records that have matching values in both tables.

```
SELECT column(s)
FROM tableA (AS A)
INNER JOIN tableB (AS B)
ON tableA.col_name = tableB.col_name;
```

→ Alias → Referring small names for ease

(A.col_name = B.col_name;) # Alias.

Left Joins :-

Returns all records from the left table, and the matched records from the right table.

```
SELECT column(s)
FROM tableA
LEFT JOIN tableB
ON tableA.col_name = tableB.col_name;
```

D. Dubey

Right Join :-

Returns all the records from the right table, and the matched record from the Left table.

```
SELECT column(s)
FROM tableA
RIGHT JOIN tableB
ON tableA.col_name = tableB.col_name
```

Full Join :-

Returns all records when there is a match in either left or right table.

```
LEFT JOIN
UNION
RIGHT JOIN
```

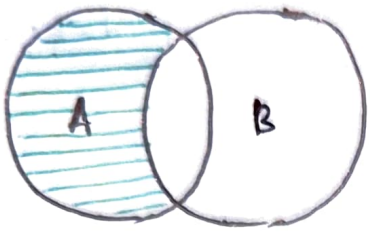
Left and right Join both the table and union/Join them (only unique).

```
SELECT * FROM student AS a
LEFT JOIN course AS b
ON a.id = b.id
UNION
SELECT * FROM student AS a
RIGHT JOIN course AS b
ON a.id = b.id;
```

Table-1 → student AS a
Table-2 → course AS b
* → All

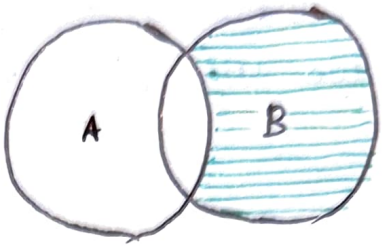
D. Dutta

Left Exclusive and Right Exclusive Joins :→



LEFT Exclusive

Only the Data present in (A) not common in (B)



RIGHT Exclusive

Only the Data present in (B) not common in (A)

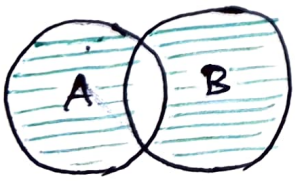
```
SELECT * FROM student AS a
LEFT/RIGHT JOIN course AS b
ON a.id = b.id
WHERE b.id IS NULL
WHERE a.id IS NULL
```

According to Join →

Left Exclusive →

Right Exclusive →

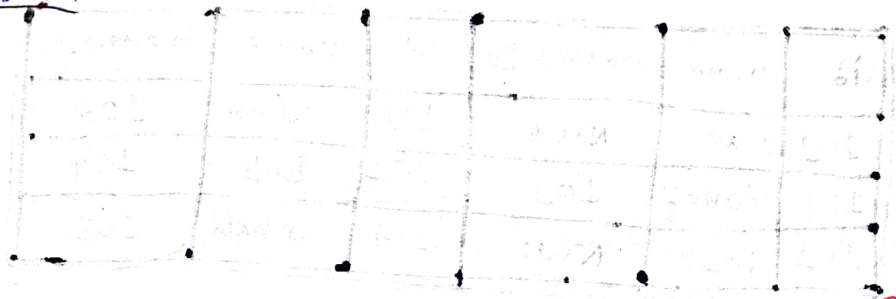
Full Exclusive Joins :→



→

```
LEFT Exclusive JOIN
UNION
RIGHT Exclusive JOIN
```

Only the Data in (A) and (B) no common Data.



D.Dutta

SELF JOIN

In a single table if there are two types of data, in that case we use SELF JOIN to get relavant data.

Example:

id	name	manager_id
101	adam	103
102	bob	104
103	casey	null
104	donald	103

```
SELECT a.name AS manager_name, b.name
FROM employee AS a
JOIN employee AS b
ON a.id = b.manager_id;
```

⇒

manager_name	name
casey	adam
donald	adam
casey	donald

If we SELECT * FROM employee AS a ...

id	name	manager_ID
103	casey	Null
104	donald	103
103	casey	Null

Id	name	manger_ID
101	adam	103
102	bob	104
104	donald	103

D.Durga