Agenda

- Type of Joins

Students

s_id	name	b_id
1	A	1
2	B	1
3	C	null
4	D	null
5	E	2

Batches

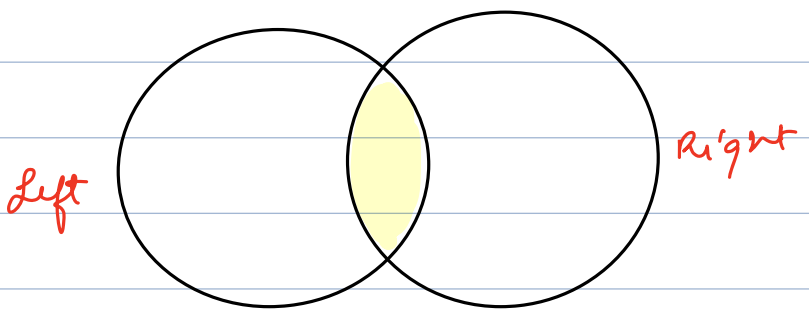
id	name
1	X
2	Y
3	Z

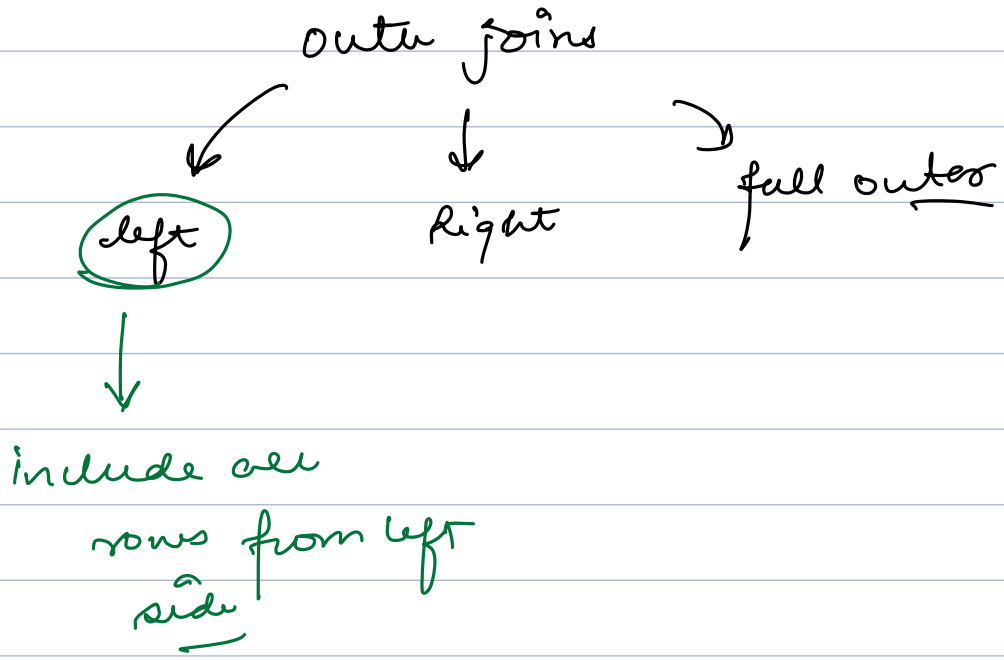
for + Stu → Student Name, Batch Name.

This row is not going to match with any of row

```
select s.name, b.name
from students s
join batches b
on s.b_id = b.id;
```

INNER JOIN





Students

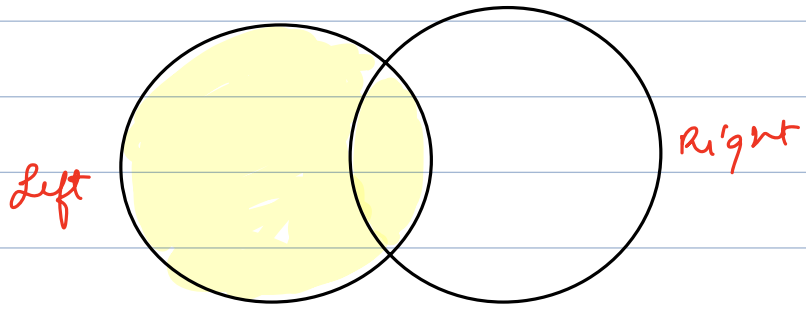
s_id	name	b_id
1	A	1
2	B	1
3	C	null
4	D	null
5	E	2

Batches

id	name
1	X
2	Y
3	Z

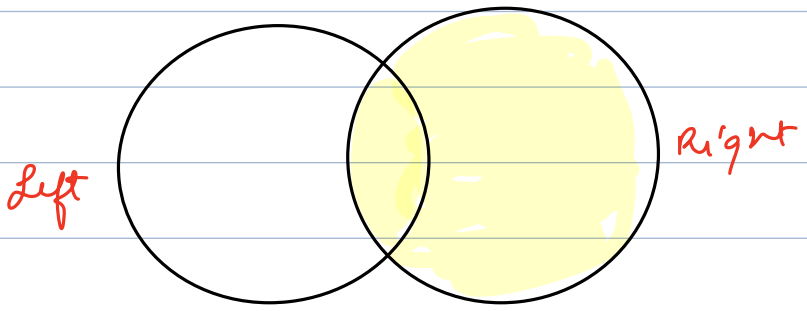
left join

1	A	1	1	X
2	B	1	1	X
3	C	null	null	null
4	D	null	null	null
5	E	2	2	Y

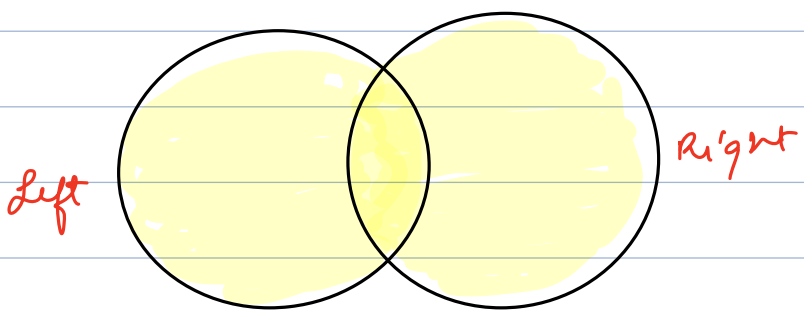


Right Join :-

↳ get all rows of right table



full outer join



customers

id	name
101	A
103	B
104	C

orders

oid	c_id	or_date
1	101	04 Feb
2	102	03 Jn
3	103	08 Ay

A	04 Feb
B	08 Ay

left join

C	NULL

left join

1 John Doe 1

3 Jim Brown null

5 Jack Johnson 2

cross join

↓

when every row of one table is matched to every row of other table.

Students

s_id	name	b_id
1	A	1
2	B	1
3	C	null
4	D	null
5	E	2

Batches

id	name
1	X
2	Y
3	Z

```
Select *
from students s
cross join batches b;
```

Using

Students
b_id

Batches
b_id

join batches
on s.b_id = b.b_id;

col^m
same names

ON S.__ = b.__

using (b_id);

10:38 pm

Natural join

students
b_id b_name
b_stdate

batches
b_id b_name b_startdate

```
Select *
from students s
natural join batches b;
```

↓

it will match on all the columns that have same name!

Implicit Join

```
Select * from
students s, batches b;
```

↓

cross join

```
select *
from A, B
where A.x = B.x;
```

```
select *
from A
join B
on A.x = B.x;
```

complete cross join

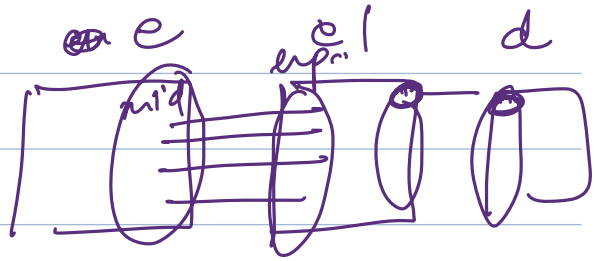
↓

where

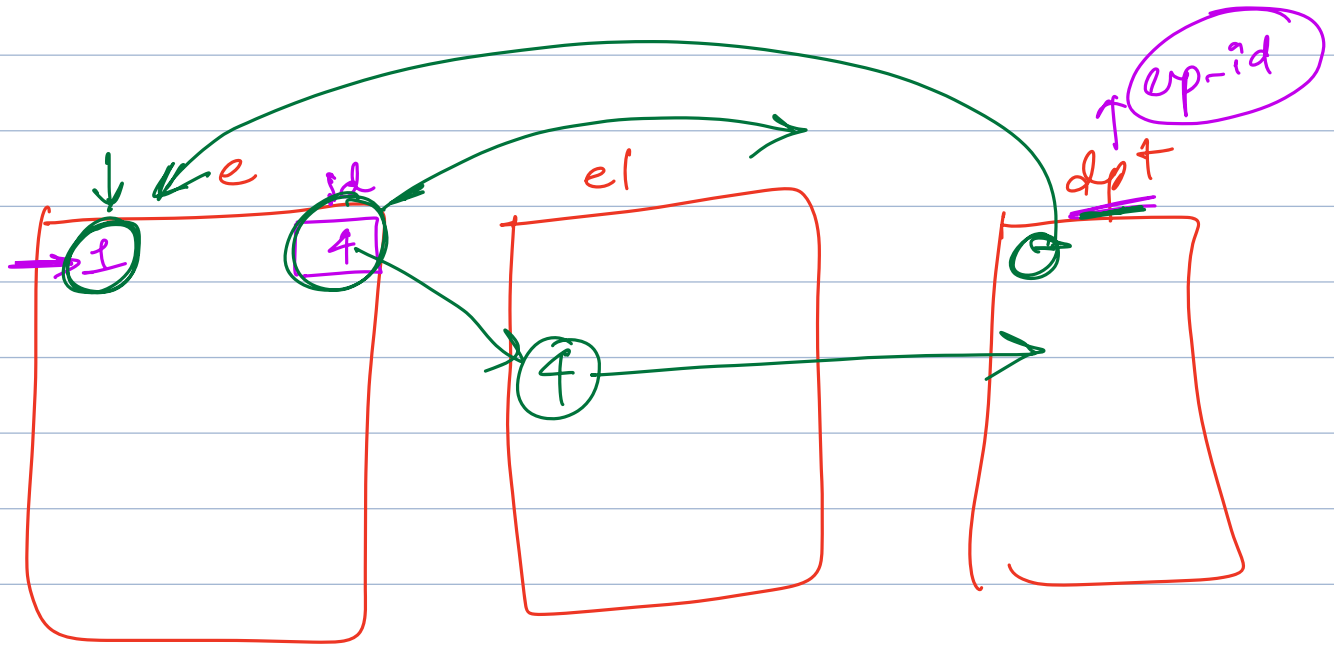
↑

size of intermediatory table will be large

```
join
  ↓
where
  ↓ order by
select
```




```
Select   e.emp_id,
         e.fn
         e.ln
from
         employees  e
join     emp        e1
on       e.m_id = e1.emp_id
join     dept       d
         e1.d_id = d.d_id
join     loc        l
         l.loc_id = d.loc_id
```



e1.emp1

e.emp