

Agenda

- a. Left Join or left Outer Join
- b. Right Join or Right Outer Join
- c. Union Operator
- d. Full Join or Full Outer Join
- e. Self Join
- f. Cross Join

$\Rightarrow \textcircled{A} \text{ left } B \quad | \quad \textcircled{B} \text{ left } A$

Distinct = remove Duplicates

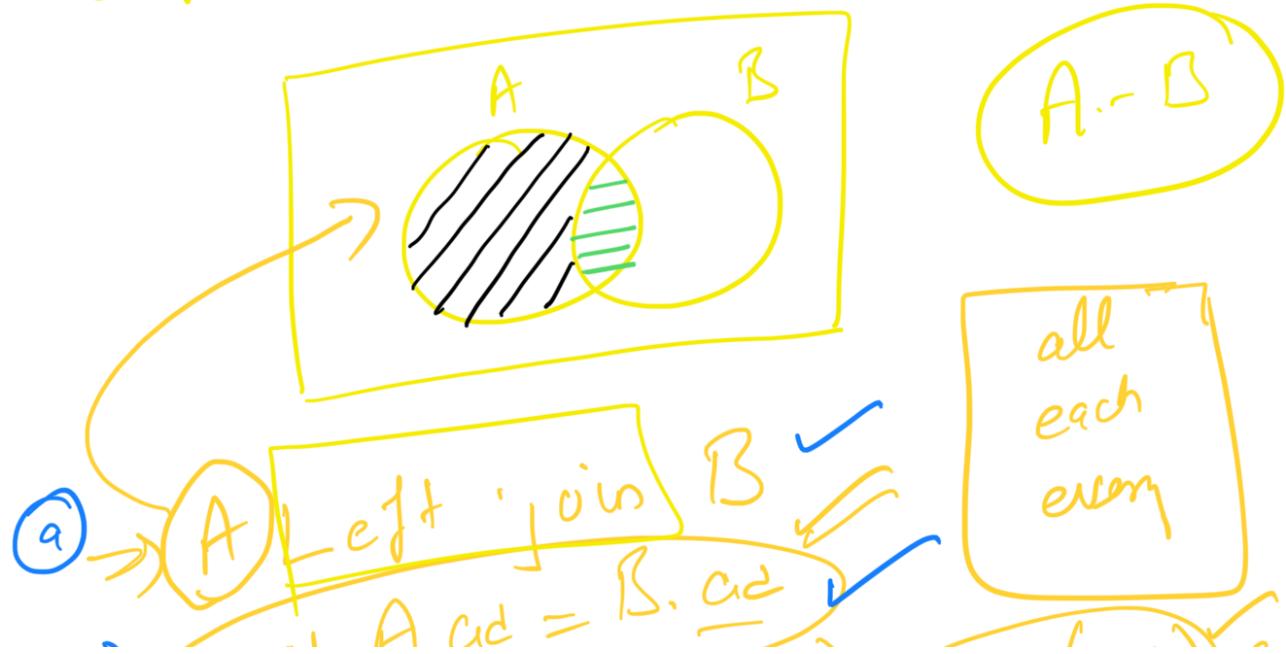
	Sal	eid	ename	dept	deptname
G1	1w	1	Anuraz	10	IT
G2	150	2	Anuraz	10	IT
G3	250	3	c	10	IT
	3w	4	D	20	AD

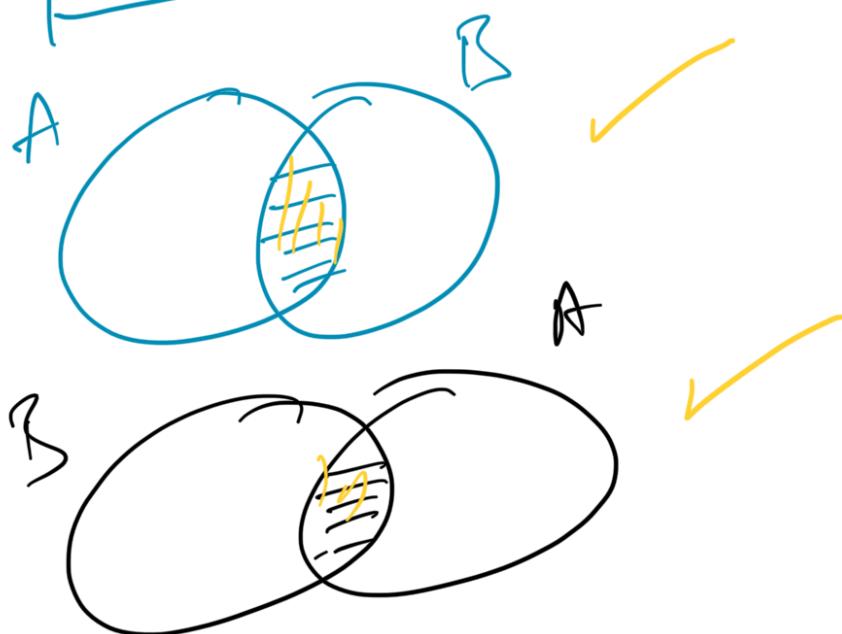
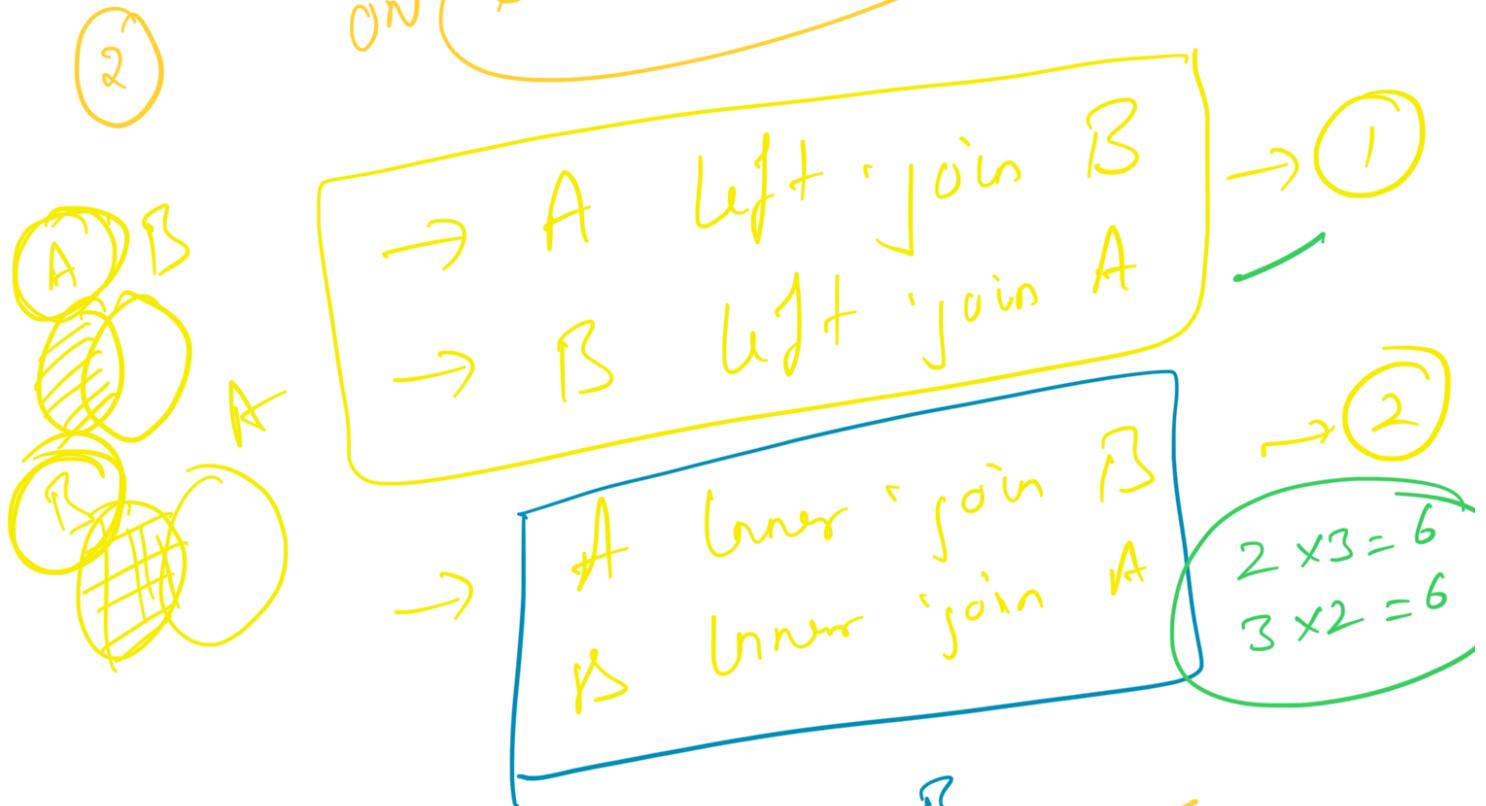
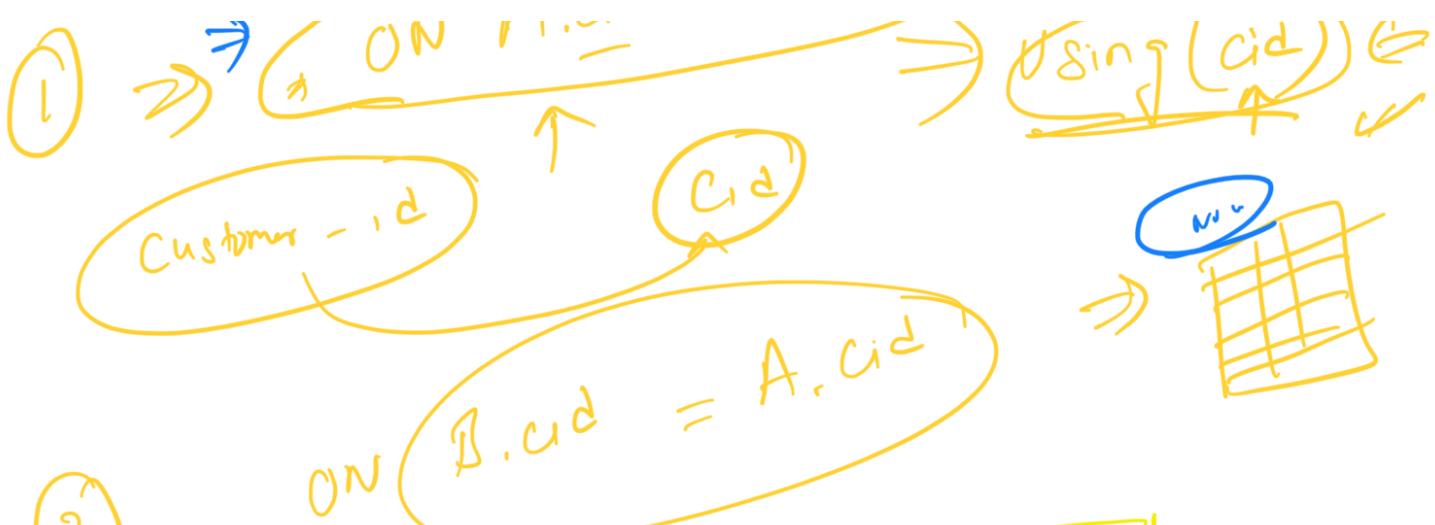
$\textcircled{A}_1 = \boxed{5w \mid IT}$

$\textcircled{A}_2 = \boxed{3w \mid AD}$

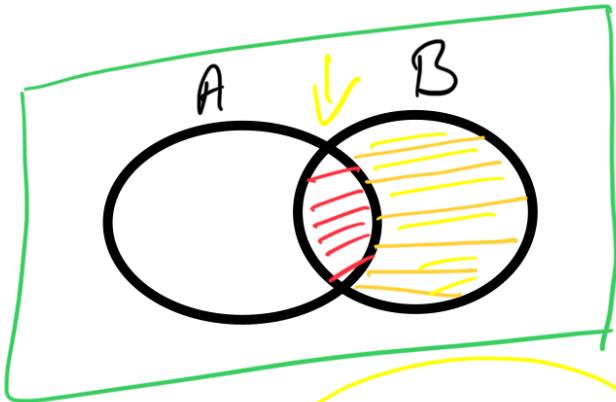
distinct name

① Left join | left outer join





② Right join | Right outer Join



$B - A$

Syntax:

A Right join B

ON $a.\text{Ad} = b.\text{Ad}$

$\Gamma a.w = b.y$

Table A

w	x	y	z
1	a	2	k
2	b	3	m
3	c	3	n
3	d	9	p

Table B

y	z
2	k
3	m
3	n
9	p

Right join

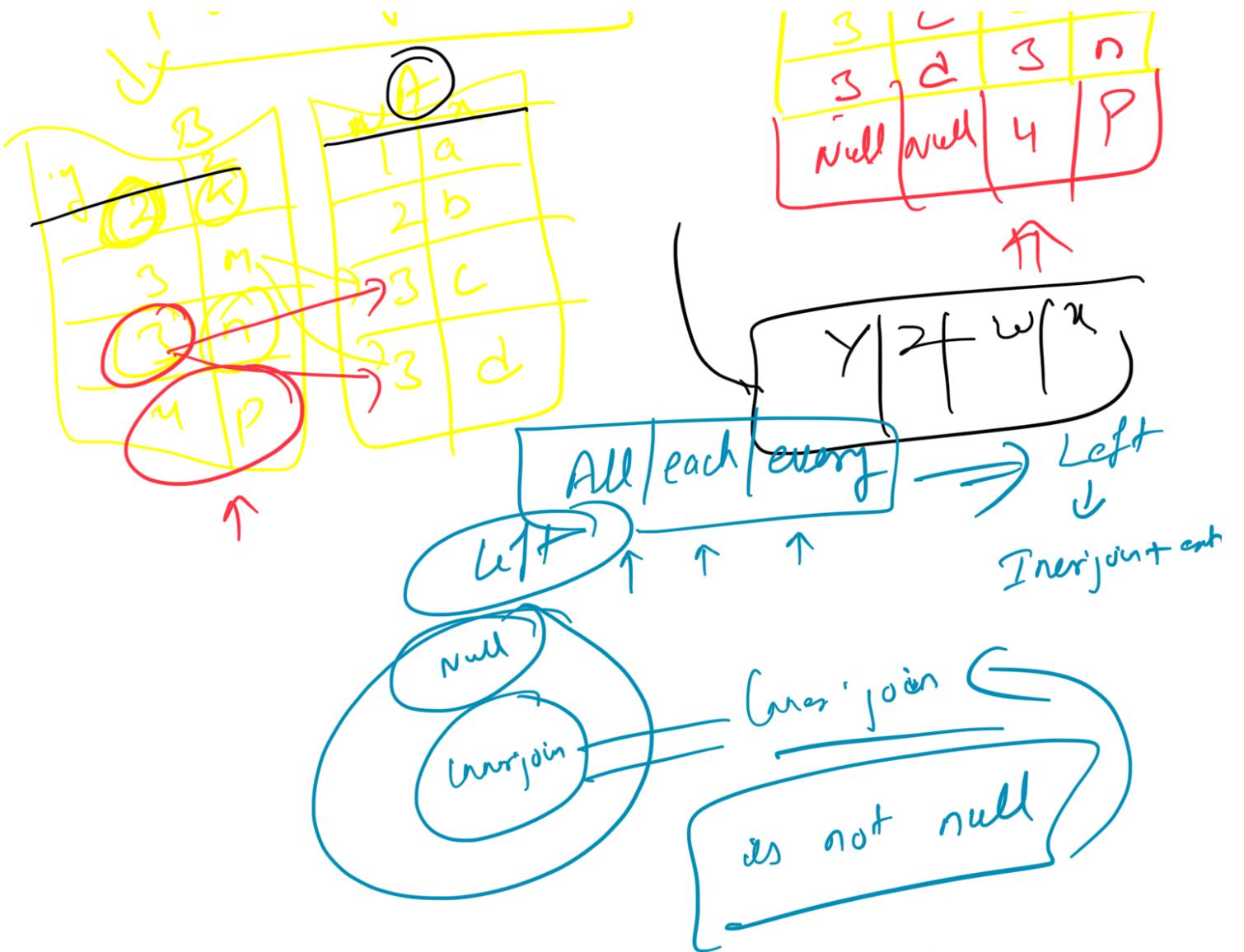
w	x	y	z
2	b	2	k
3	c	3	m
3	d	3	n
3	c	3	n
3	d	3	n
3	d	3	n
arwell	null	4	p

Do we need right join at all?

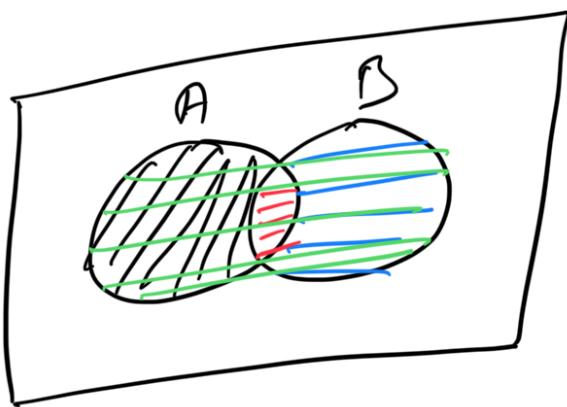
No need

Select
B Right join A
on $b.y = a.x$

w	x	y	z
2	b	2	k
3	c	3	m
3	d	3	m
3	d	3	n



③ $15^{\text{th}} - 16^{\text{th}}$ → From day
 Sales Report
 Profit ✓
 Full Data = Full join or full outer join



$A \cup B$
 full outer join
 ...

In BigQuery Syntax:

Aa [Full join] FSb

on a.Ac = b.Bc

$a.w = b.y$

Table A

w	x
1	a
2	b
3	c
3	c

Table B

y	z
2	k
3	m
3	n
4	p

full

join

w	x	y	z
1	a	null	null
2	b	2	k
3	c	3	m
3	c	3	n
3	d	3	m
3	e	3	n
null	null	4	p

LJ + RJ + IJ = FJ ↑

Mysql \Rightarrow Full join [full outer join] X

Left join
UNION
Right join

1 UNION 2

id	Name	Job
1	A	101
2	B	200

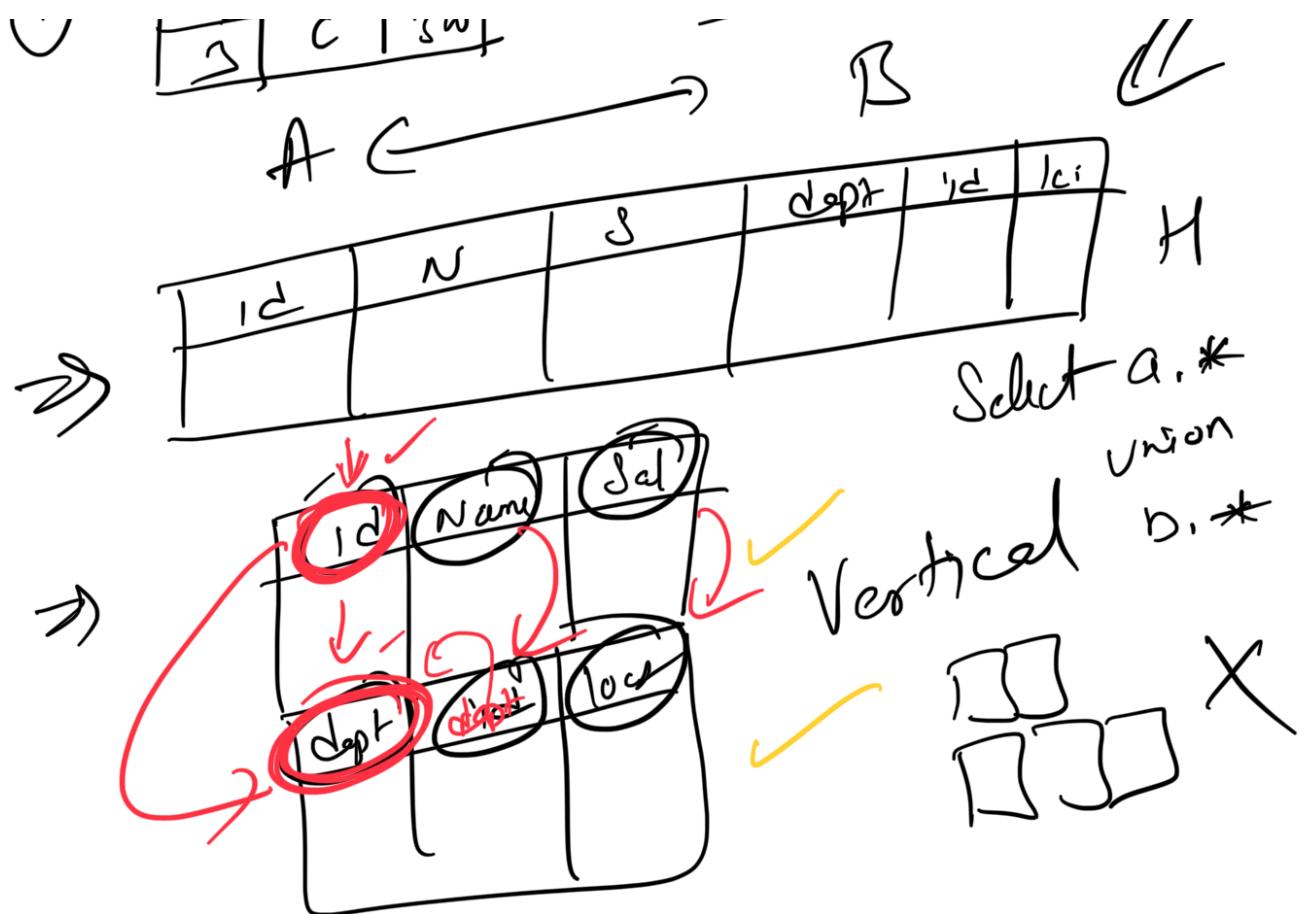
A U B

dept	IT	AD	IT
101	1	2	1
102	AD	2	
103	IT	3	

Deptnan

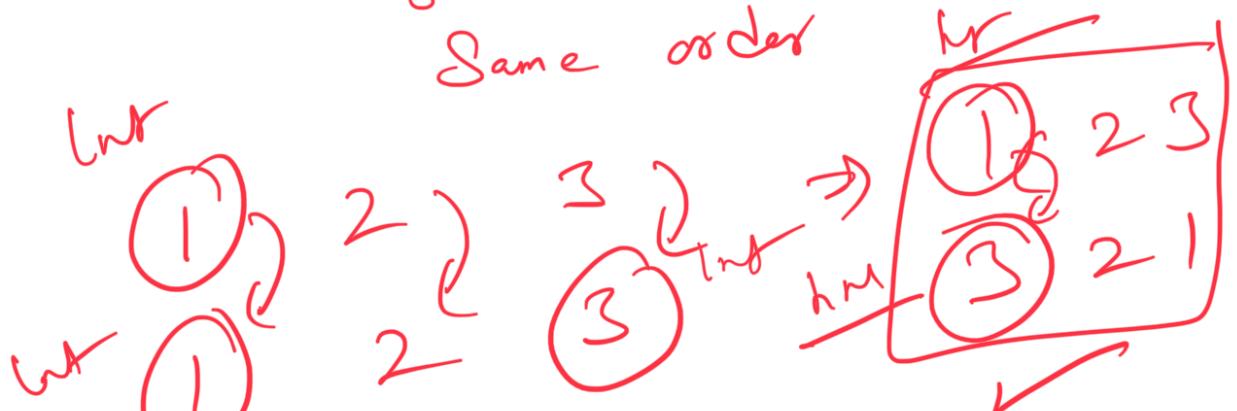
V

II

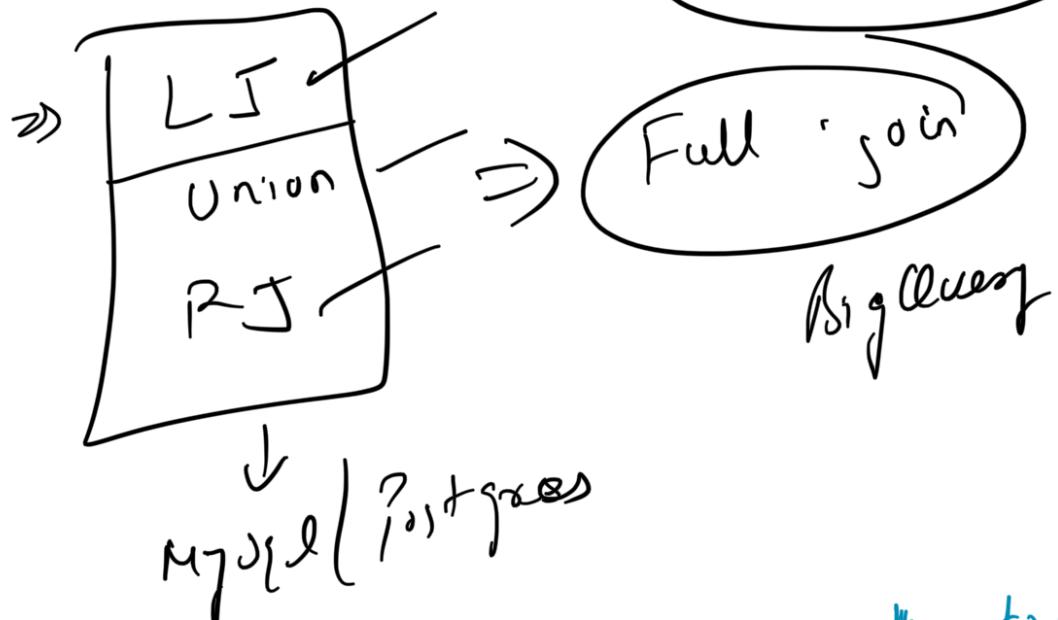
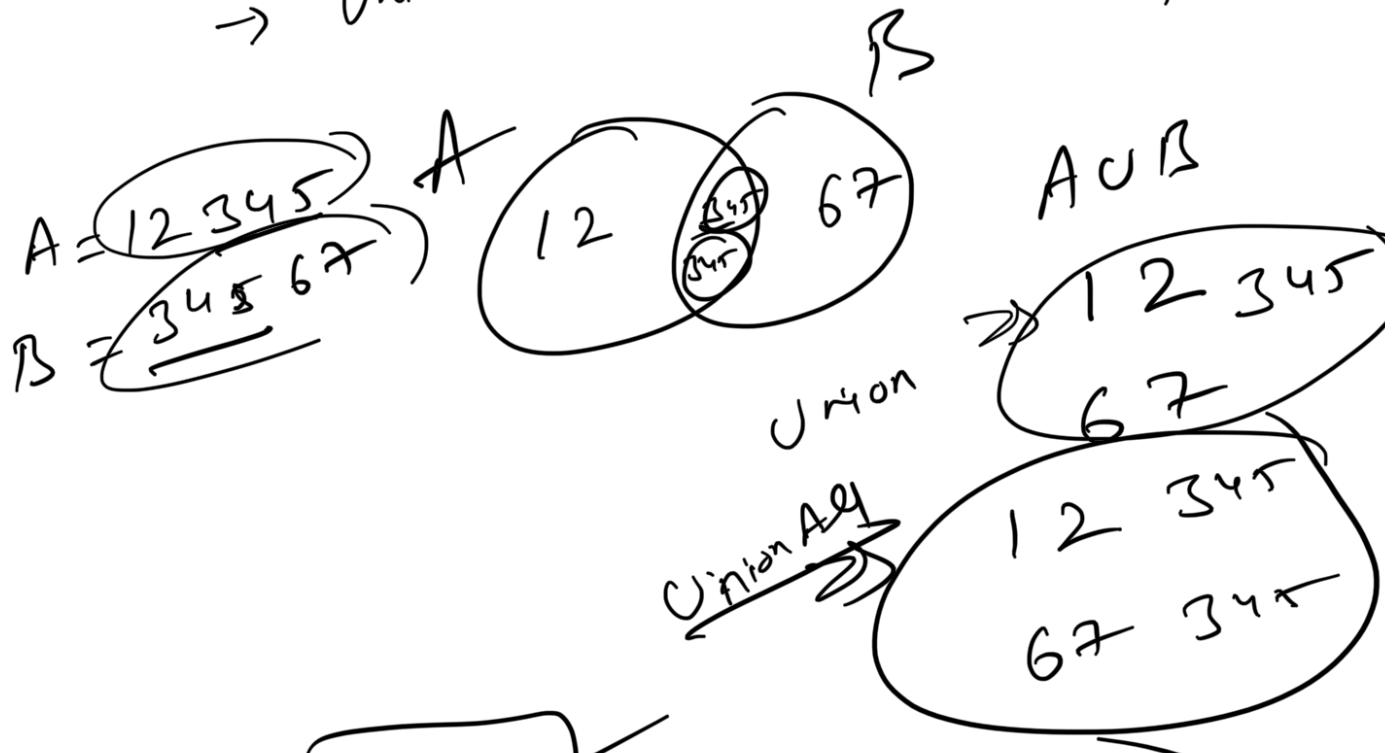


Union Rules :-

- ① Every Select statement within UNION must have same no. of columns
- ② Columns must also have similar data types.
- ③ The columns in every SELECT statement must also be in same order



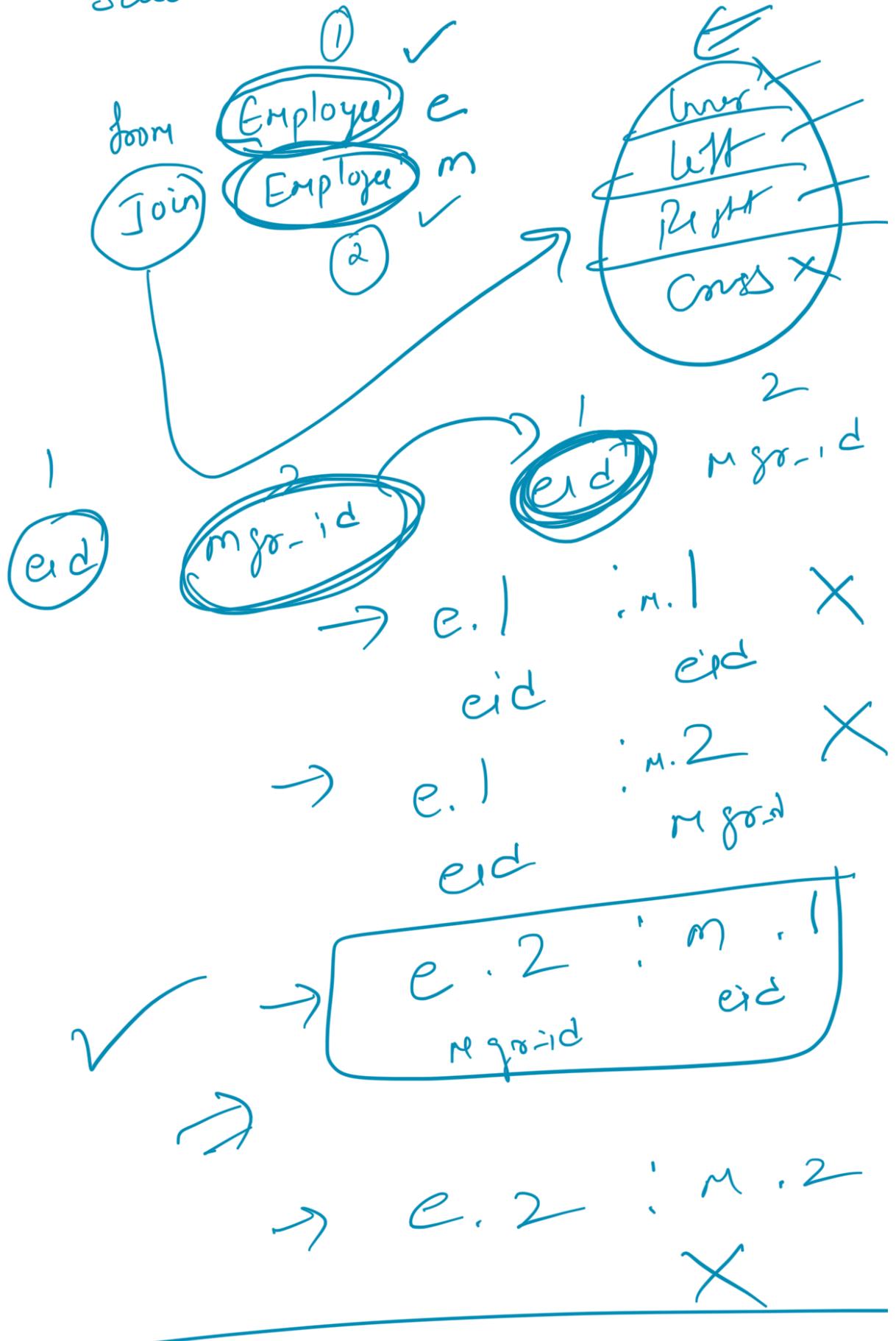
$\rightarrow \text{Union}^0 = \text{No Duplicates}$
 $\rightarrow \text{Union All} = \text{Duplicates}$

④ **Self joins** = which joins with itself



Select



Doubt clearing Session
 → all sessions \Rightarrow left join
 → did not show any ad

by Session "1" 2

Ads

Sid	Cid	St	et	
1	1	1	5	5
2	2	10	12	23
3	2	13	20	15
4	3	2	8	17
5	2	2	8	12

Sid	Cid	St	et	
1	1	1	5	5
2	2	10	12	23
3	2	13	20	15
4	3	2	8	17
5	2	2	8	12

Select *

From Playback P
 left join a Ads
 and a.ts between P.St and P.et
 ON P.Cid = a.Cid

S,d	C,d	St	est	ad_id	C,d	T,S
1	1	1	5	1	1	5
2	1	15	23	1	1	17
3	2	10	12	2	2	17
4	2	17	28	2	2	17
5	2	2	8	3	2	20

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