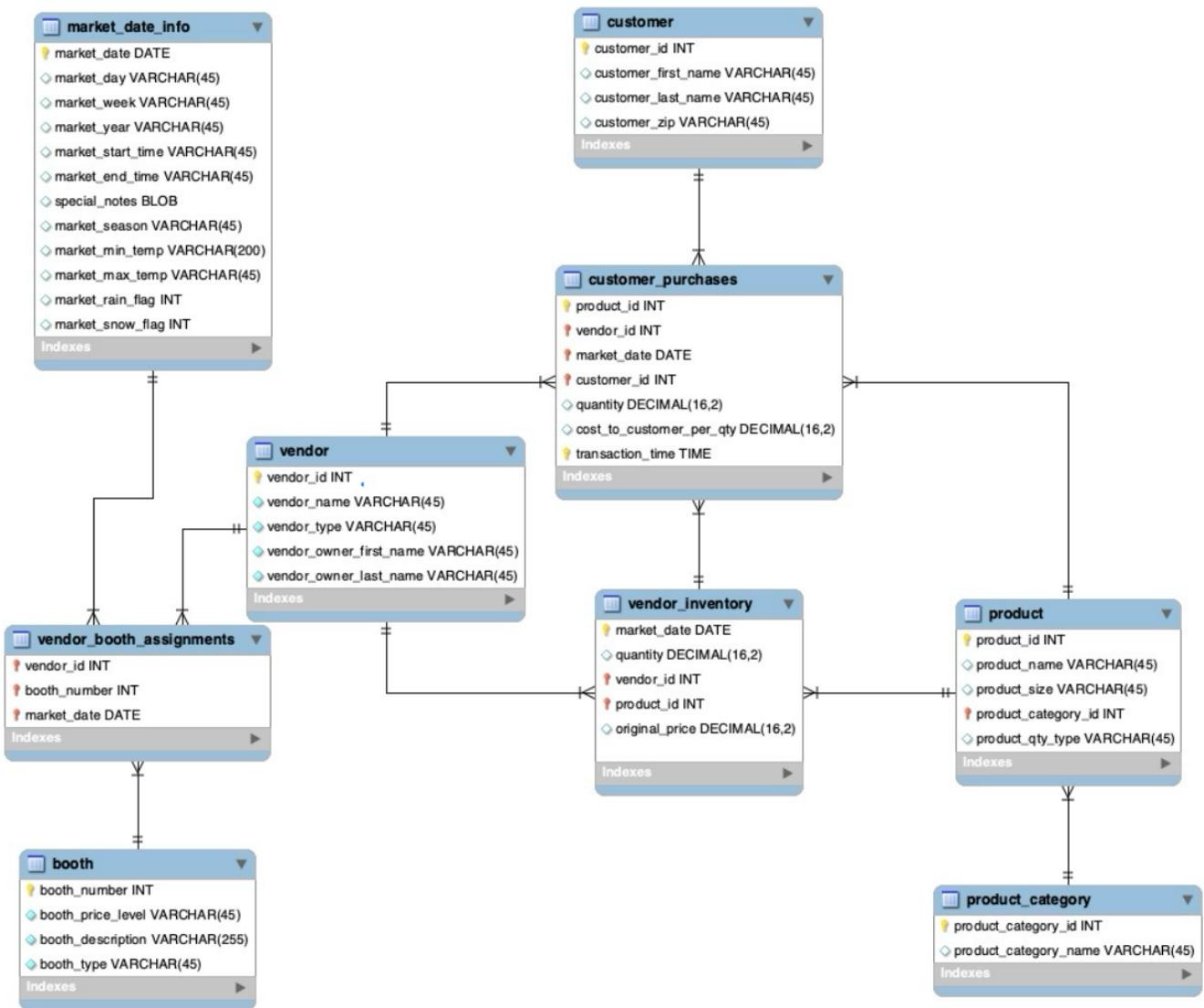
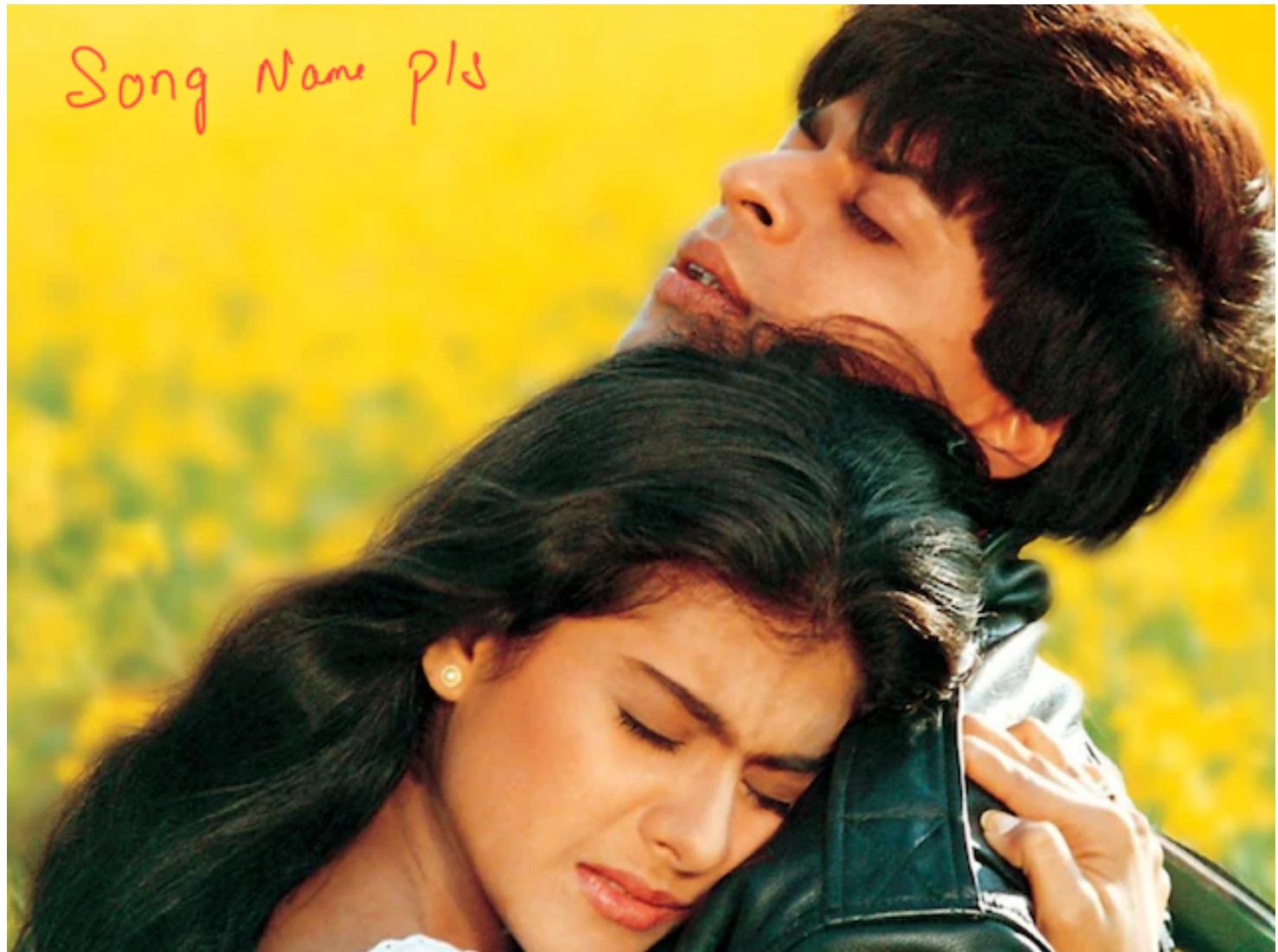


Agenda

- a. Subquery
 - b. Joins
 - c. Need of Joins
 - d. Types of joins
 - 1. Inner Join
 - 2. Left Join
 - 3. Right Join
 - 4. Full Outer Join
 - 5. Self Join
 - 6. Cross Join



Song Name Pls



Case Statement

Syntax:

Case

when [first conditional statement]

then [value]

when [second condition]
then [value]

Else

[End or alias ,



if clause

↳ if (condition, true-value, false-value)

Why Jobs ?

① SO you will be bound to
show the cols only from OO.

② * SO are always less performant.

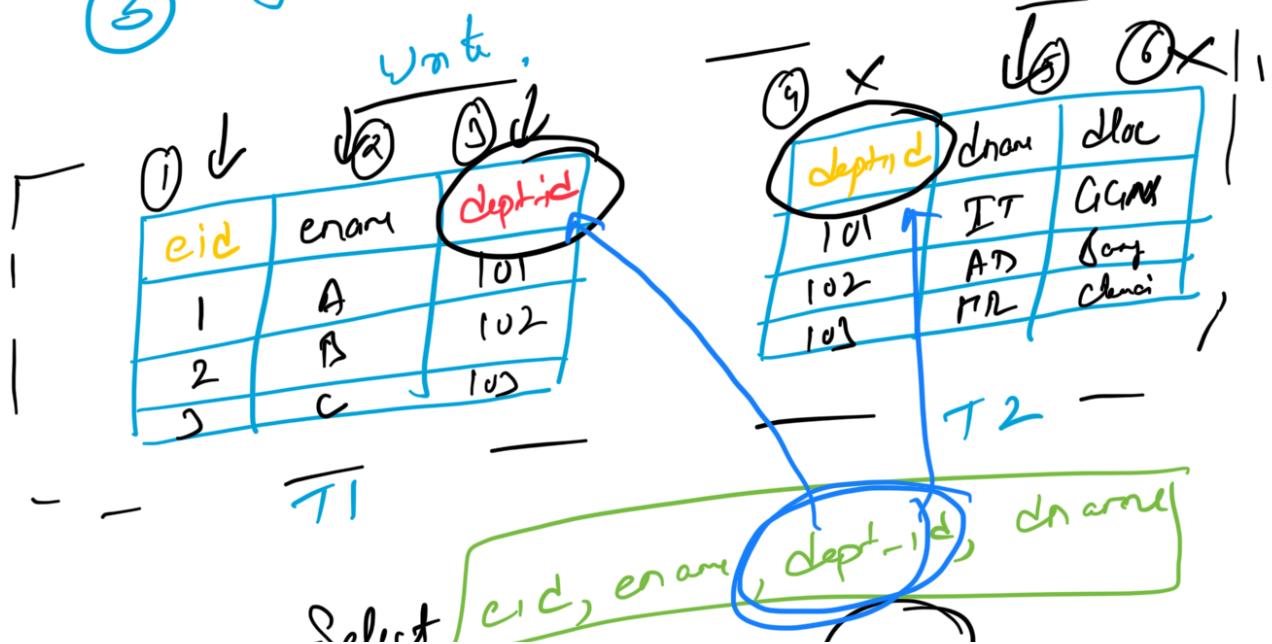
OO_C I_O → fast
, OO_I

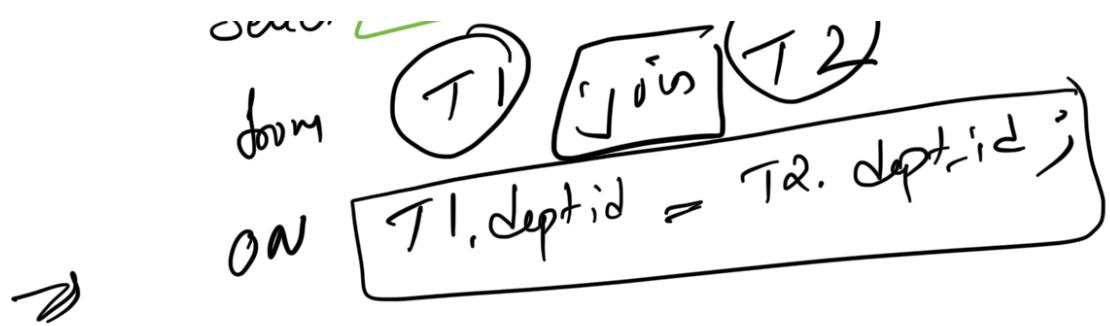


- ③ SO with more levels are always difficult to read & manage.

↓
Joins

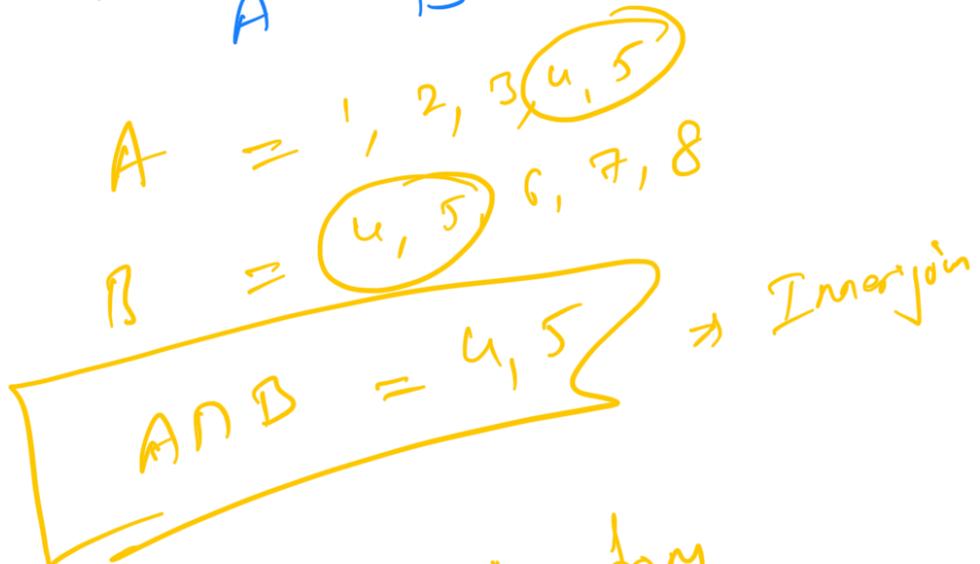
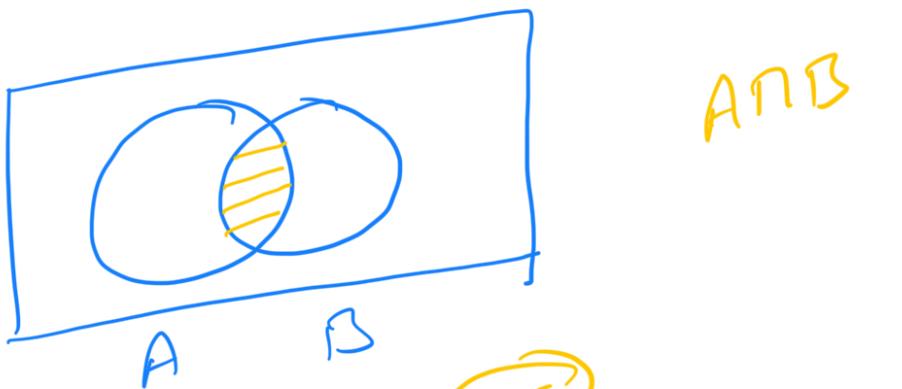
- ① Joins can help you in showcasing cols from multiple tables.
- ② Joins are always performant.
- ③ Joins are easy to maintain &





Types of joins

- ① Inner join / Default join / Natural join



Syntax:-

Select * from

$A \text{ a } [\text{Inner join}] B \text{ b }$

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

w	x	a
---	---	---

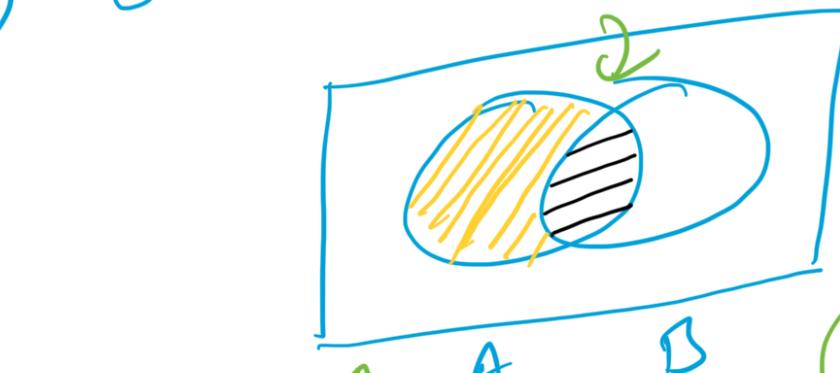
z	y	m
3	2	n

w	x	y	z
3	C	3	4
4	D	4	N

	x	y	z
1	2	3	4
2	5	6	7
3	6	7	8
4	7	8	9

	x	y	z
1	a	5	m
2	b	6	n
3	c	7	o
4	d	8	p
null	null	9	q

② Left Join | left outer join



$$A = \{1, 2, 3, 4, 5\}$$

$$B = \{4, 5, 6, 7, 8\}$$

$$B LJA A = \{4, 5, 6, 7, 8\} \xrightarrow{\text{A LJB}} \{1, 2, 3, 4, 5\}$$

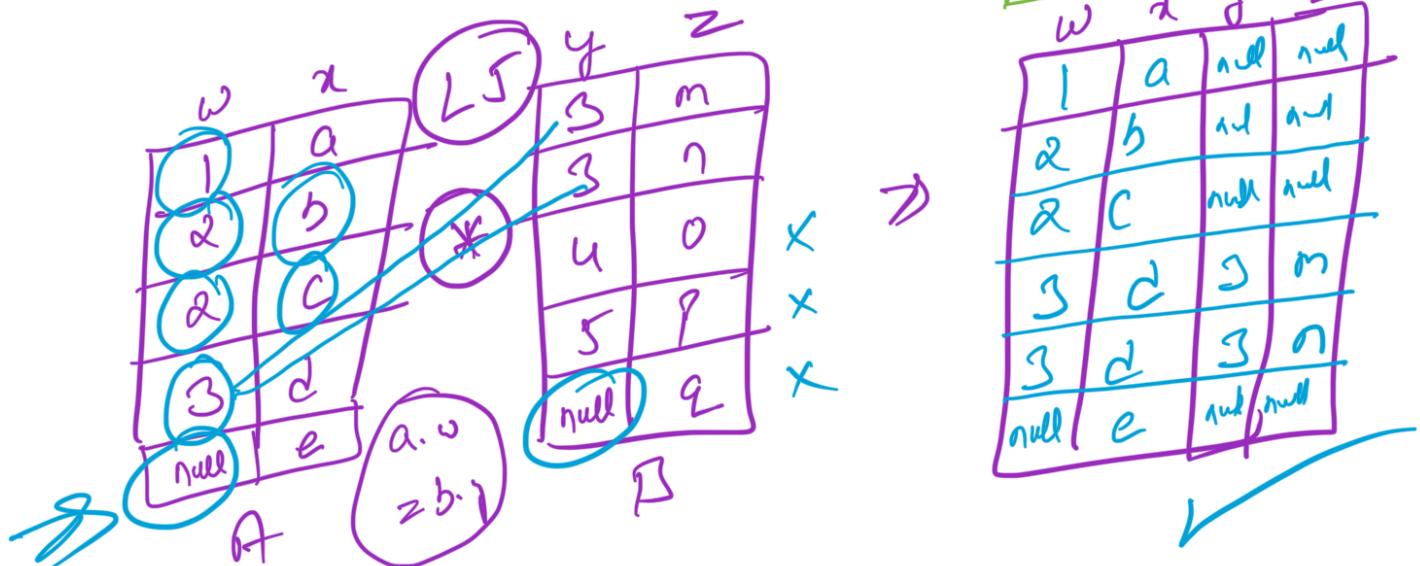
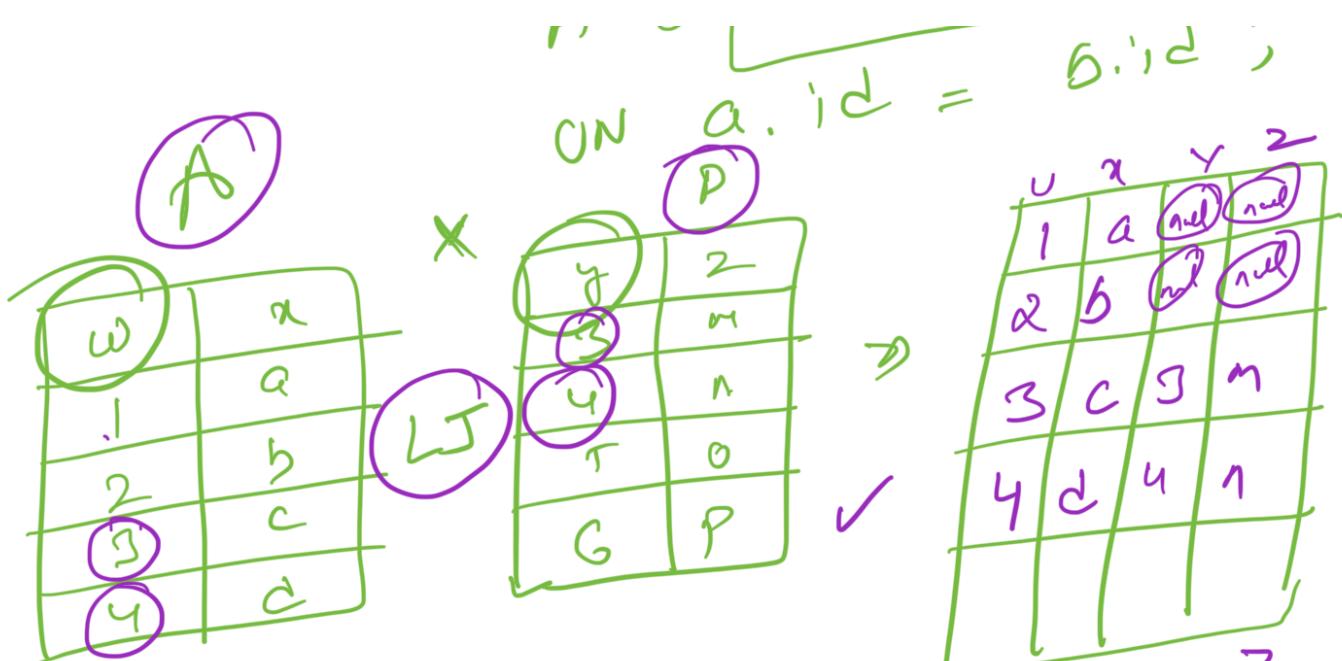
$$\xrightarrow{\text{A - B} + (\text{A} \cap \text{B})}$$

Syntax:

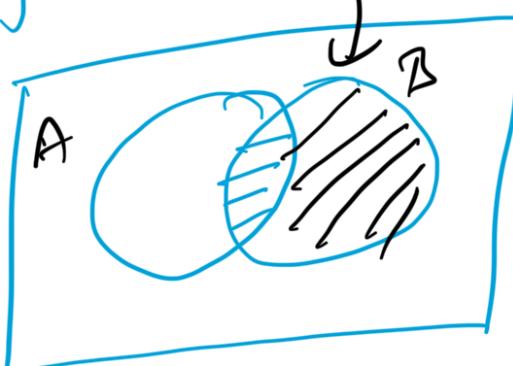
Select * from

A a | Left Join

B b
.



③ Right joins



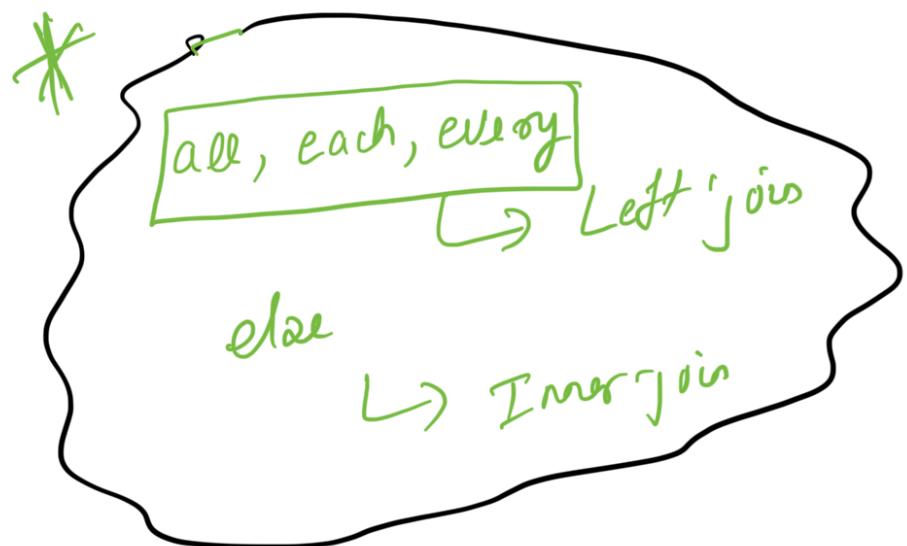
$$A = 1, 2, 3, 4, 5$$

$$B = \underline{4, 5, 6, 7, 8}$$

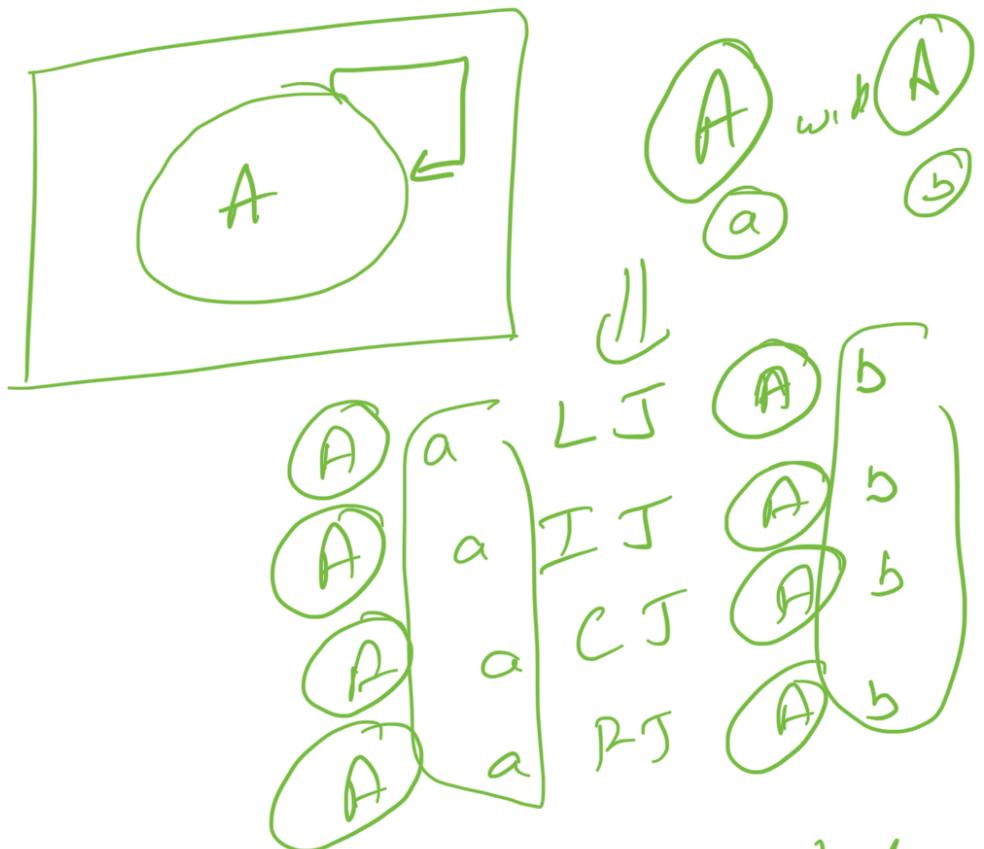
$A \text{ RJ } B \Rightarrow$

$$\underline{4, 5, 6, 7, 8}$$

$B \text{ LJ } A \Rightarrow$



④ Self join :



⑤ Cross join / Cartesian product

Metric Multiplication

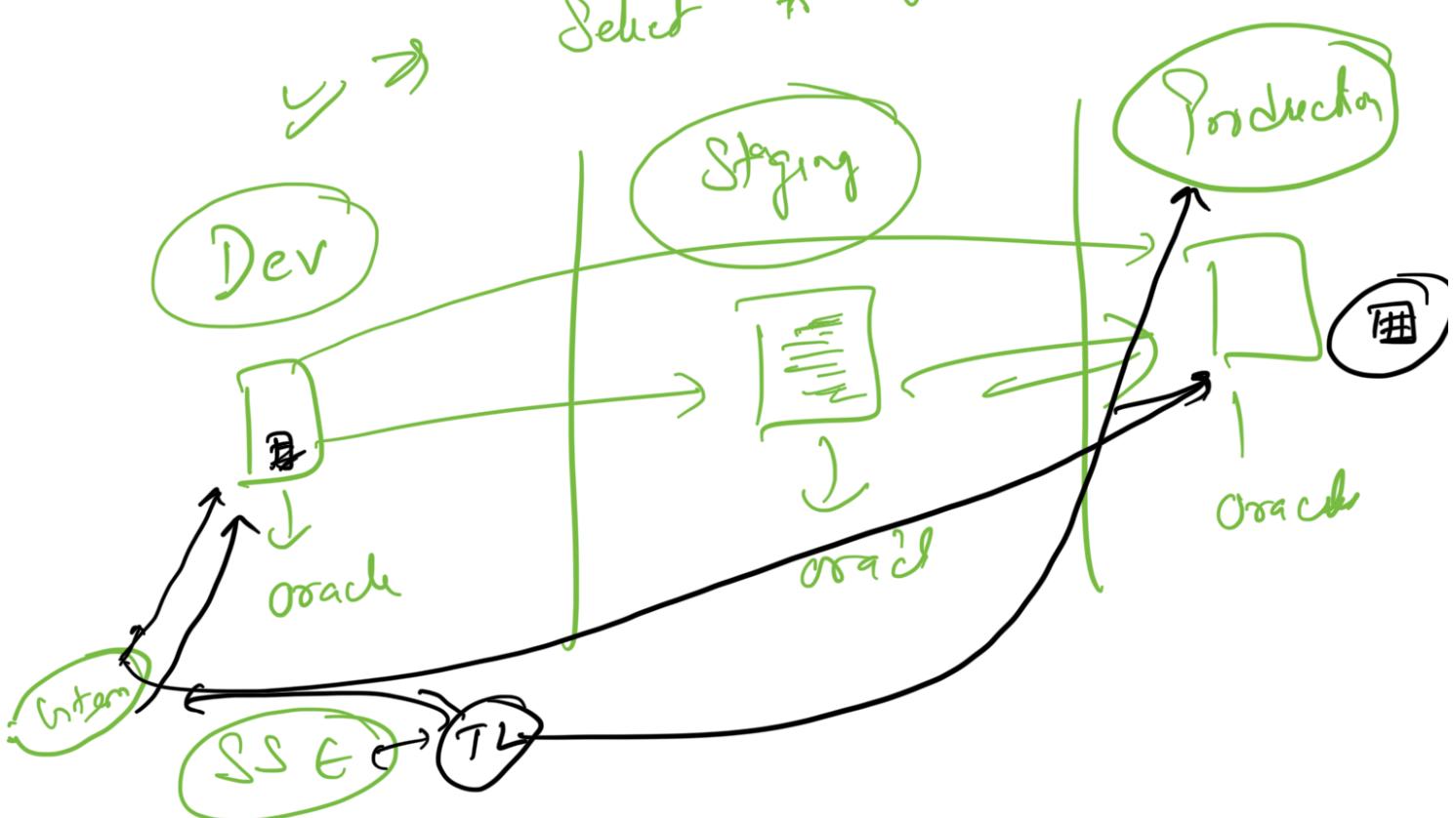
$1 \times 1 \times \dots \times 1$

$$\begin{matrix} 3 \\ 2 \end{matrix} \times \begin{matrix} A \\ B \end{matrix} = \begin{matrix} 1, 2, 3 \\ 4, 5, 6 \end{matrix}$$

$$A \times B = \begin{cases} 4, 6 \\ 8, 10, 12 \\ 12, 15, 18 \end{cases}$$

Syntax:-

- ✓ $\text{Select } * \text{ from } A \text{ Cross join } B;$
- ✓ $\text{Select } * \text{ from } A, B;$



* ⑥ Full join | Full outer join