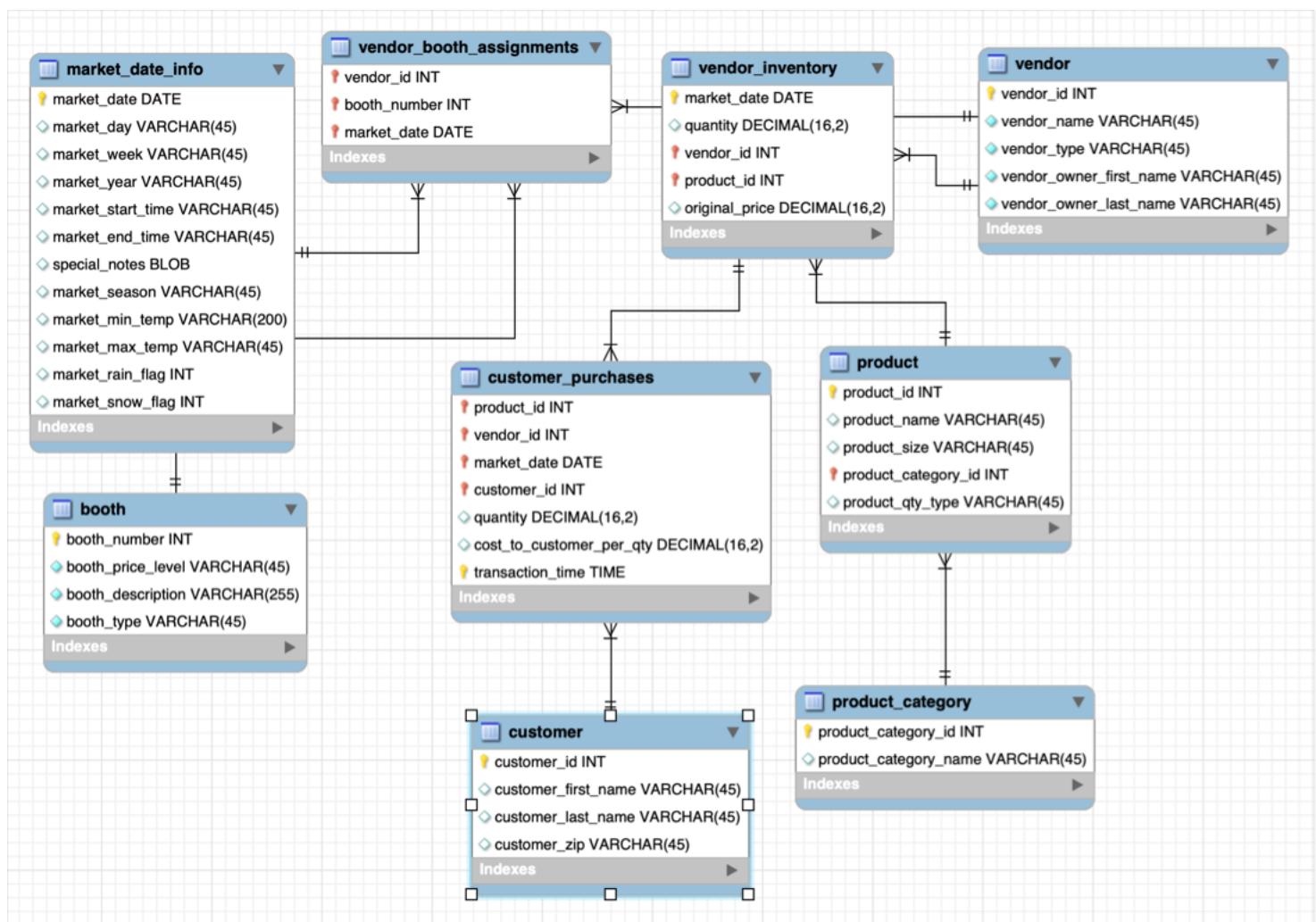
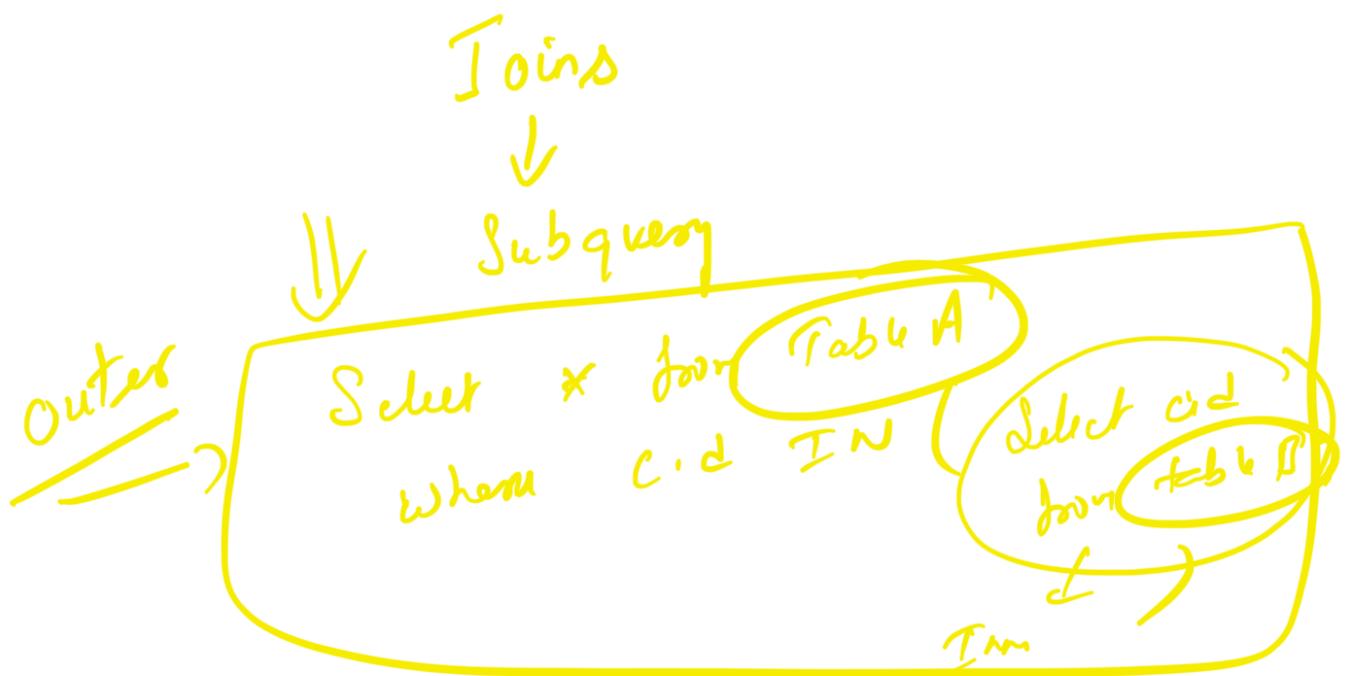


Agenda:

- a. Need of Joins
- b. Types of Joins
 - a. Inner Join
 - b. Cross Join
 - c. Full Outer Join
 - d. Left Join
 - e. Right Join
 - f. Self Join
- c. Aggregation Function
- d. Group By
- e. Having Clause





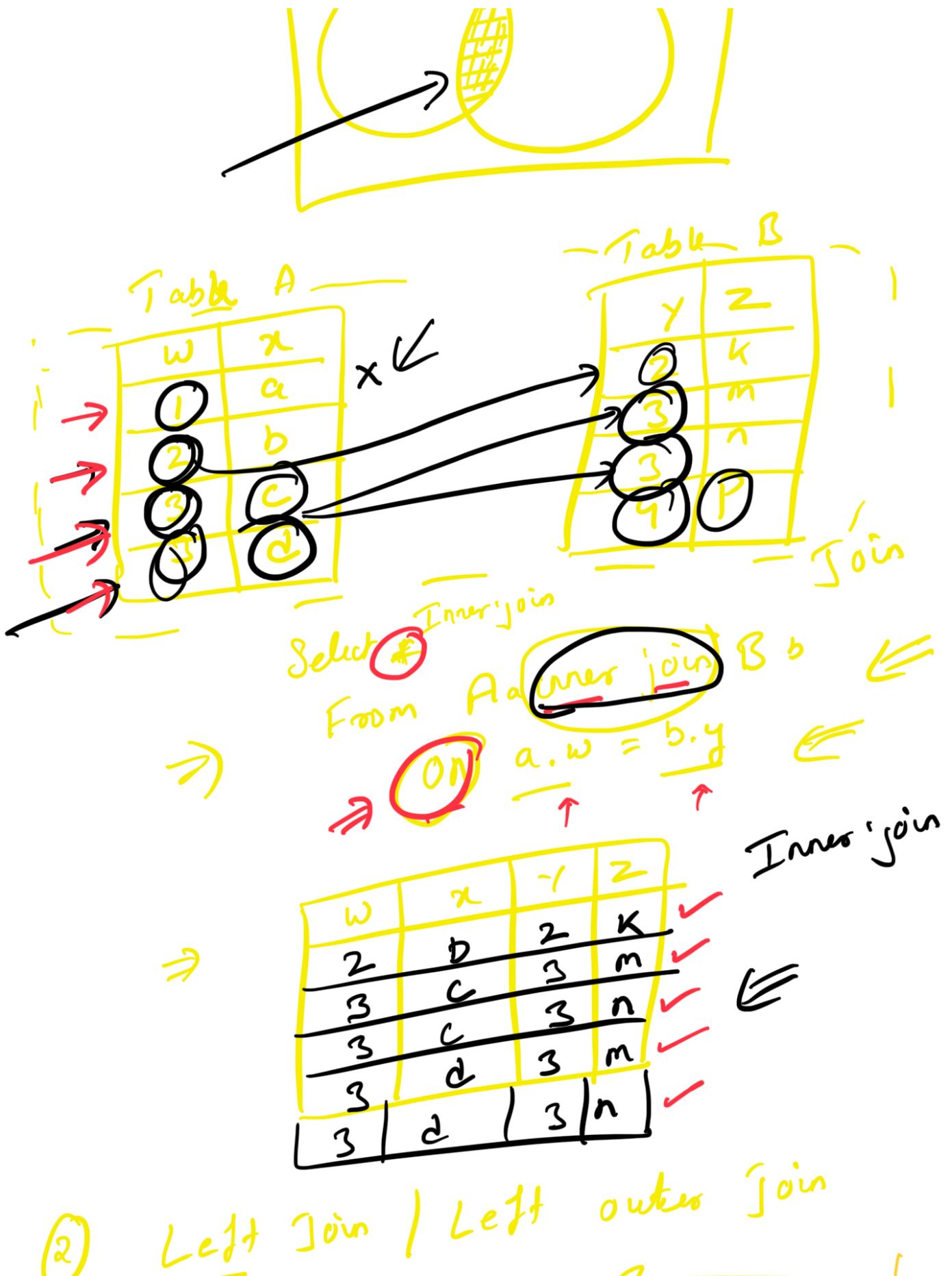
Qn. get me 3 columns from Table A
and 3 cols from Table B ;



Joins

① Inner Join

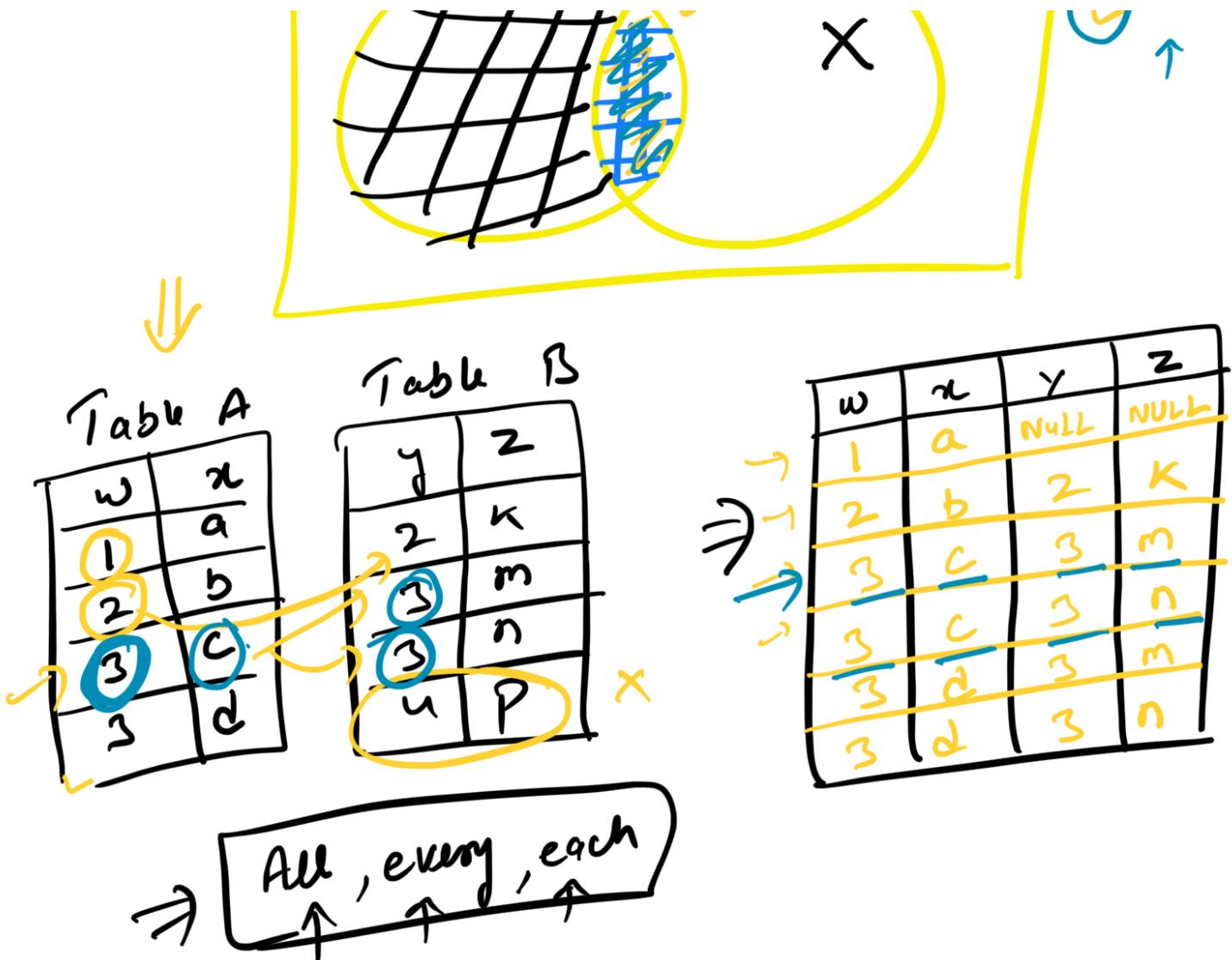




②

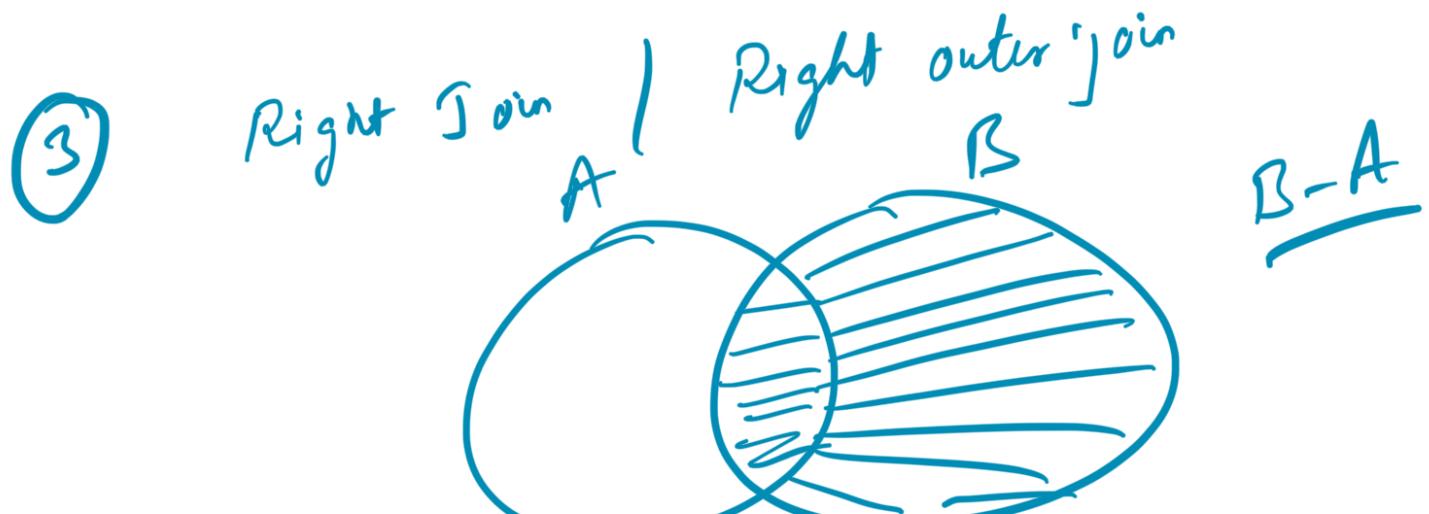
Left Join | Left outer Join

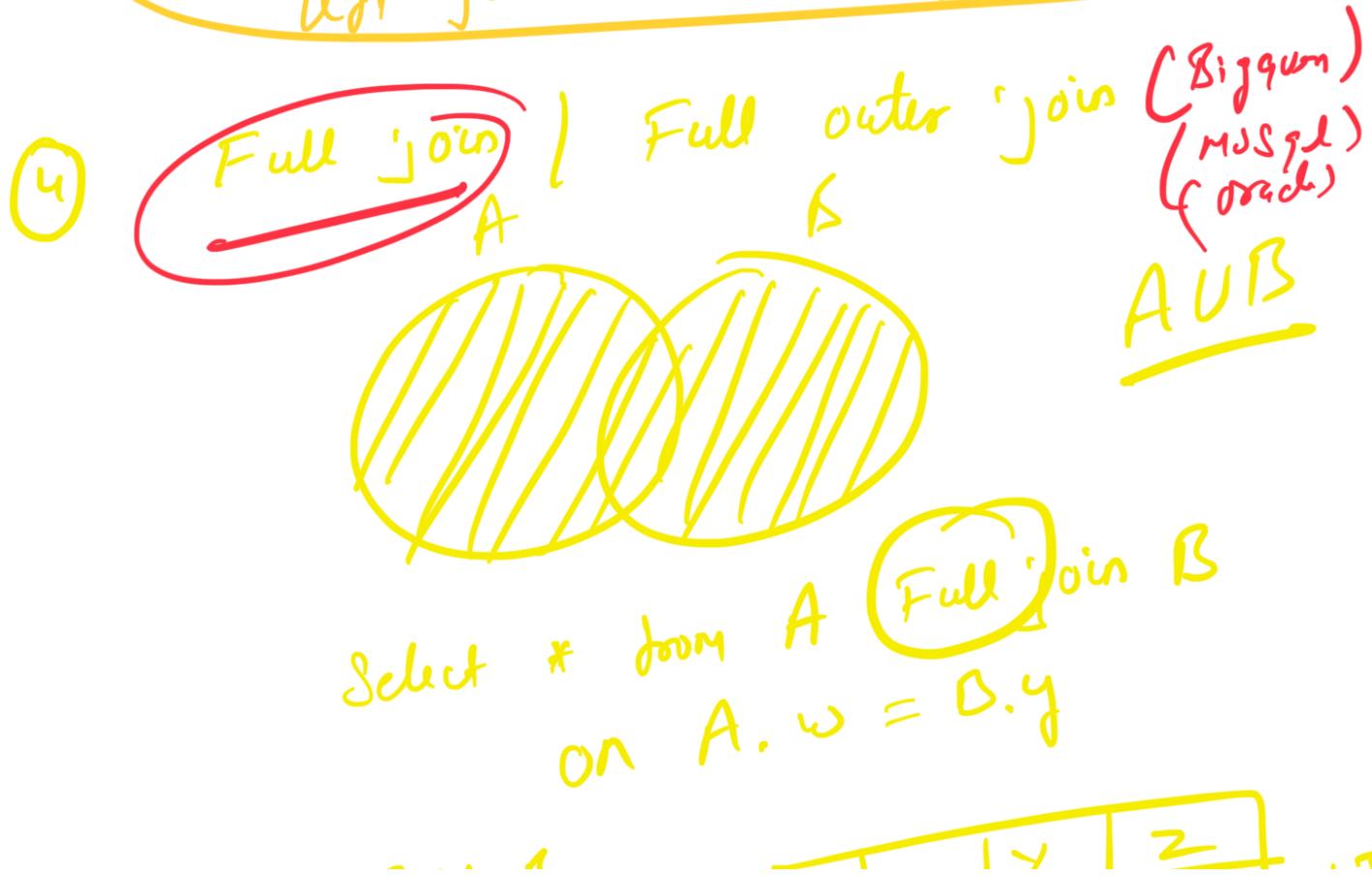
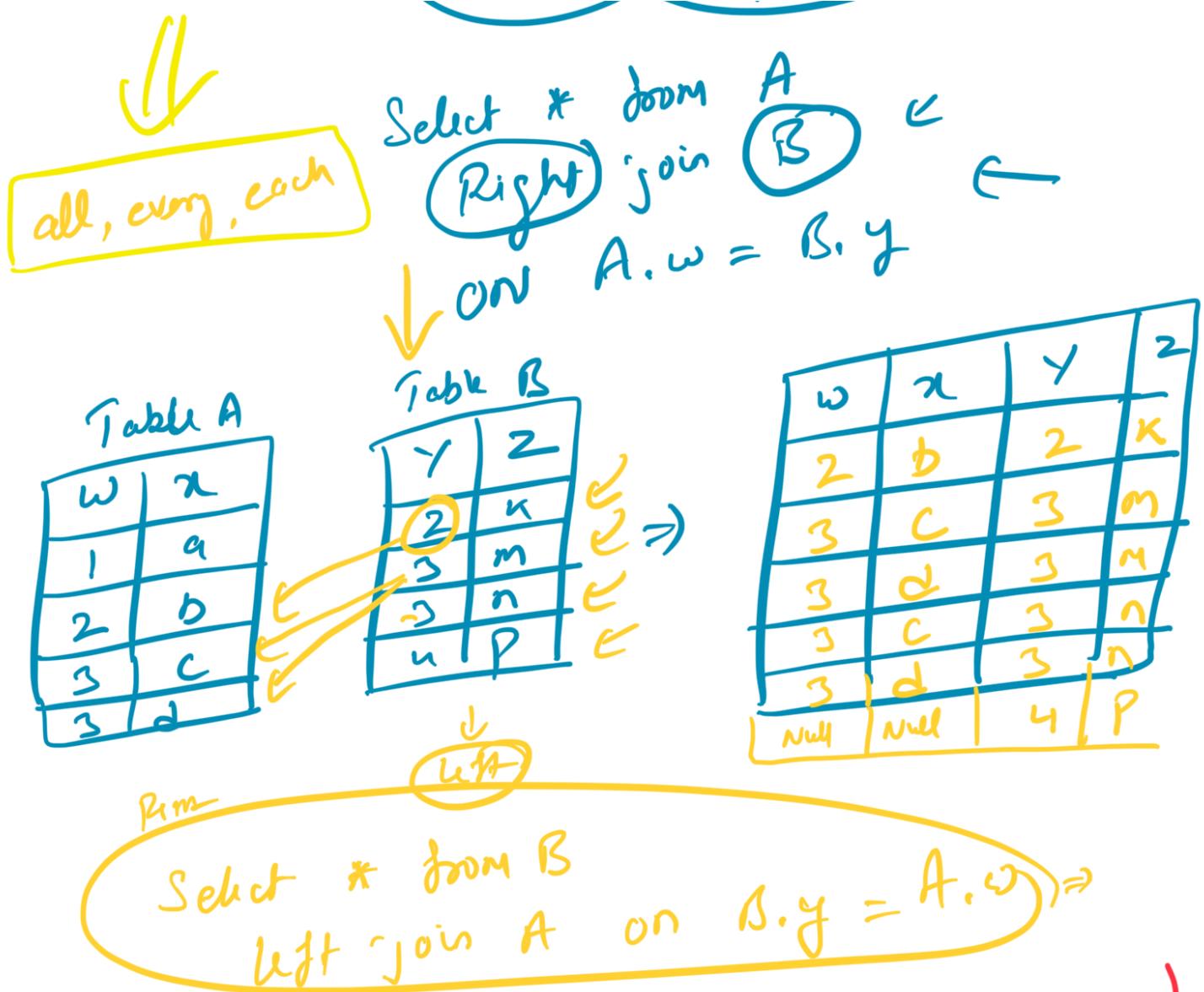


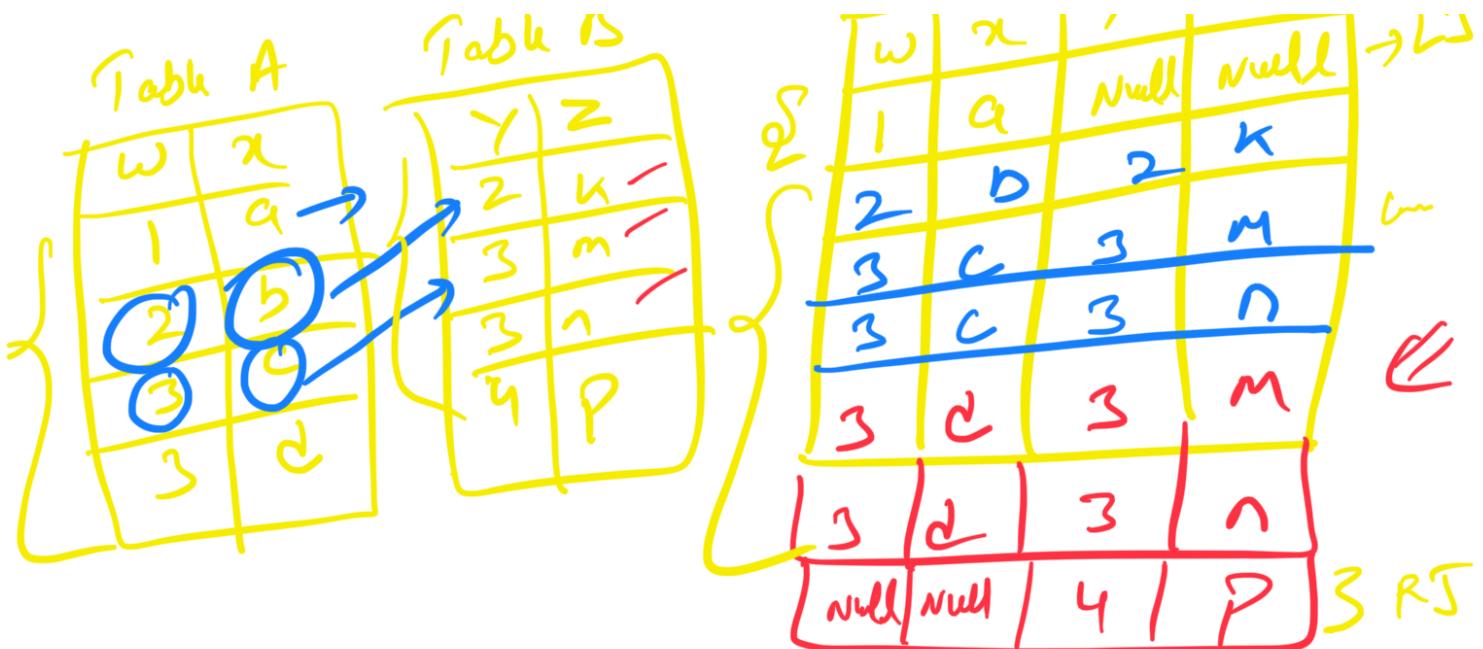


⇒ Syntax:

```
Select * from A
Left Join B
ON A.w = B.y
```







Mysql

Left join union Right join

LJ

Select * from A leftjoin B
on A.w = B.y

{
 join allows
 duplicates}

RS

Select * from A Right join B
on A.w = B.y

UNION ALL ← Duplicates



C.C Customer

.! A

order

by c.c

ip14

ipad

+ laptop

2 B

3 C

4 D

5 E

Left join

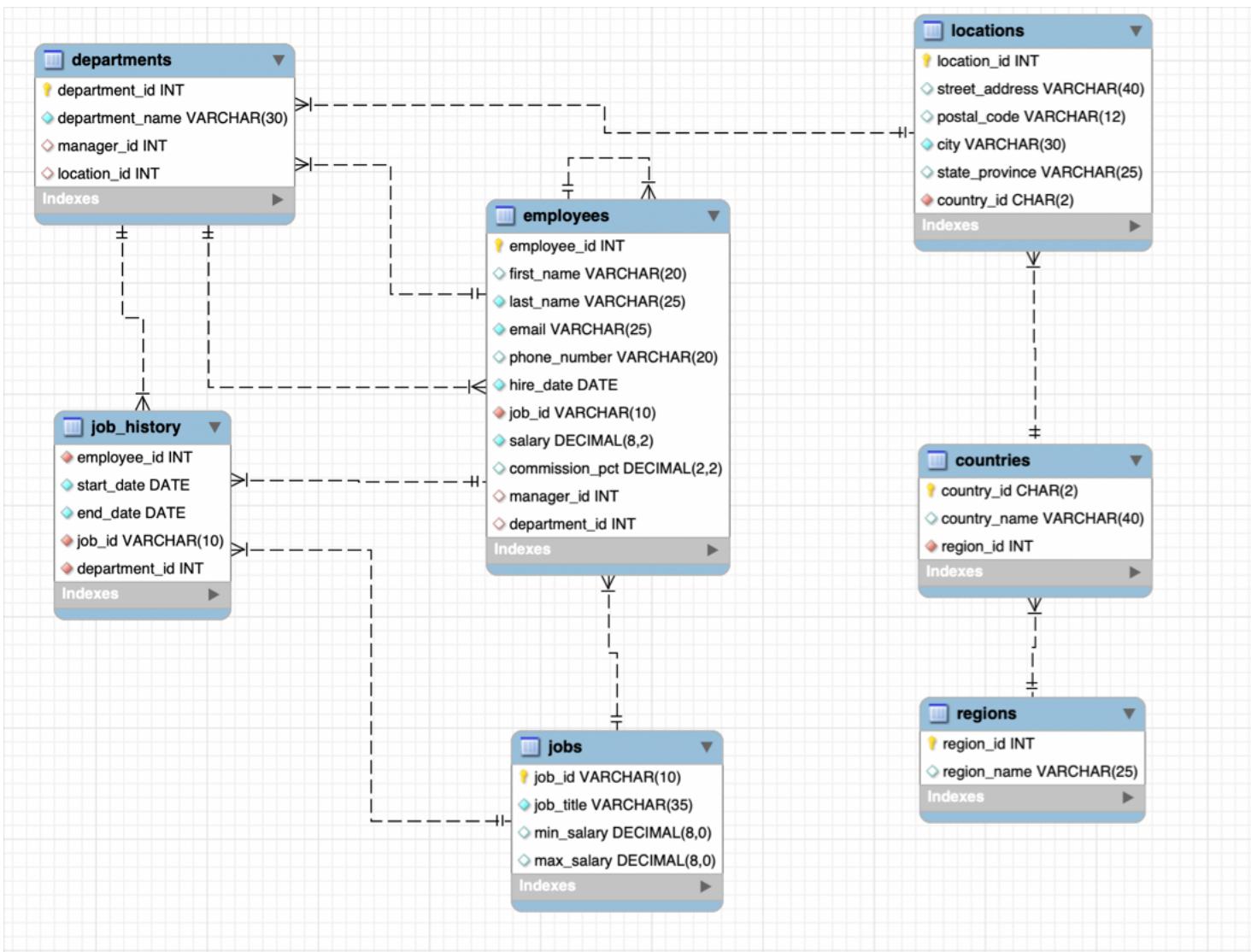
id	name	category
003	2	None
004	3	Pencil
005	4	Screen
006	4	tab

id	name	category
1	A	1
1	A	1
2	B	2
3	C	3
4	D	4
4	D	4
5	E	None

Qn.1

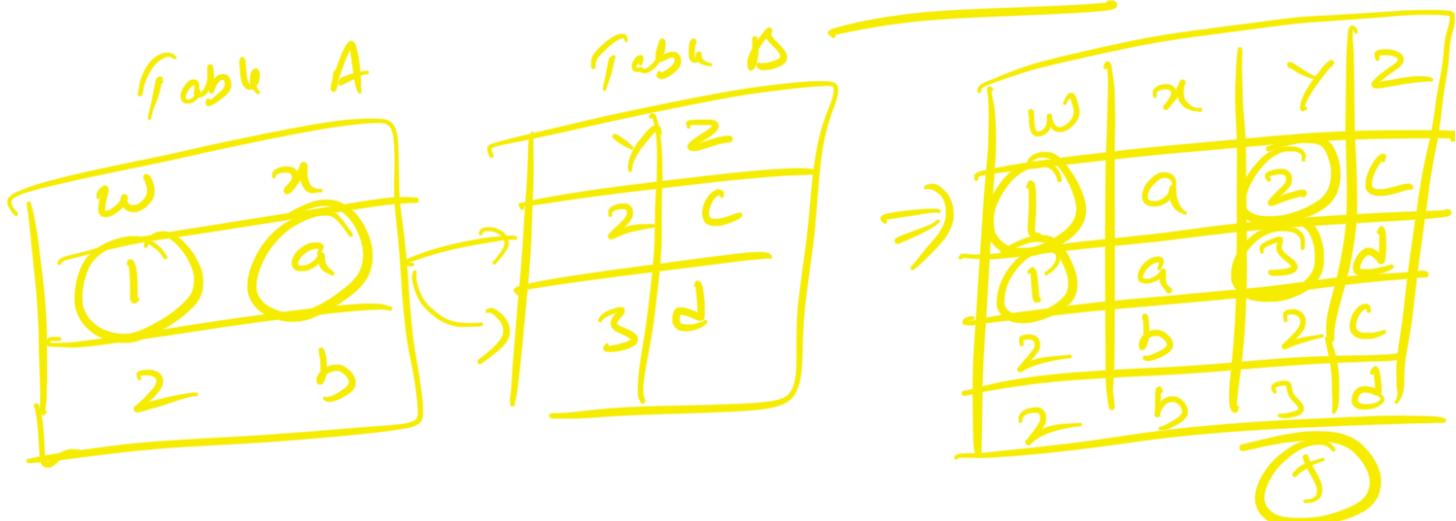
Europe Region

order by sal desc, emp-id
 emp-id, full-name, sal, ph-no, dept-id
 dept-name, street-add, city, country-name
 region-id, region-name



⑤ Cross join \Rightarrow Cartesian Product

Syntax : From A \Rightarrow Form A, B
CROSS JOIN B \Downarrow



⑥

Self join
Select * from A \times join B

Employees
A B

Aggregation Functions

- ① Sum
- ② Count
- ③ Min
- ④ Max

Arg