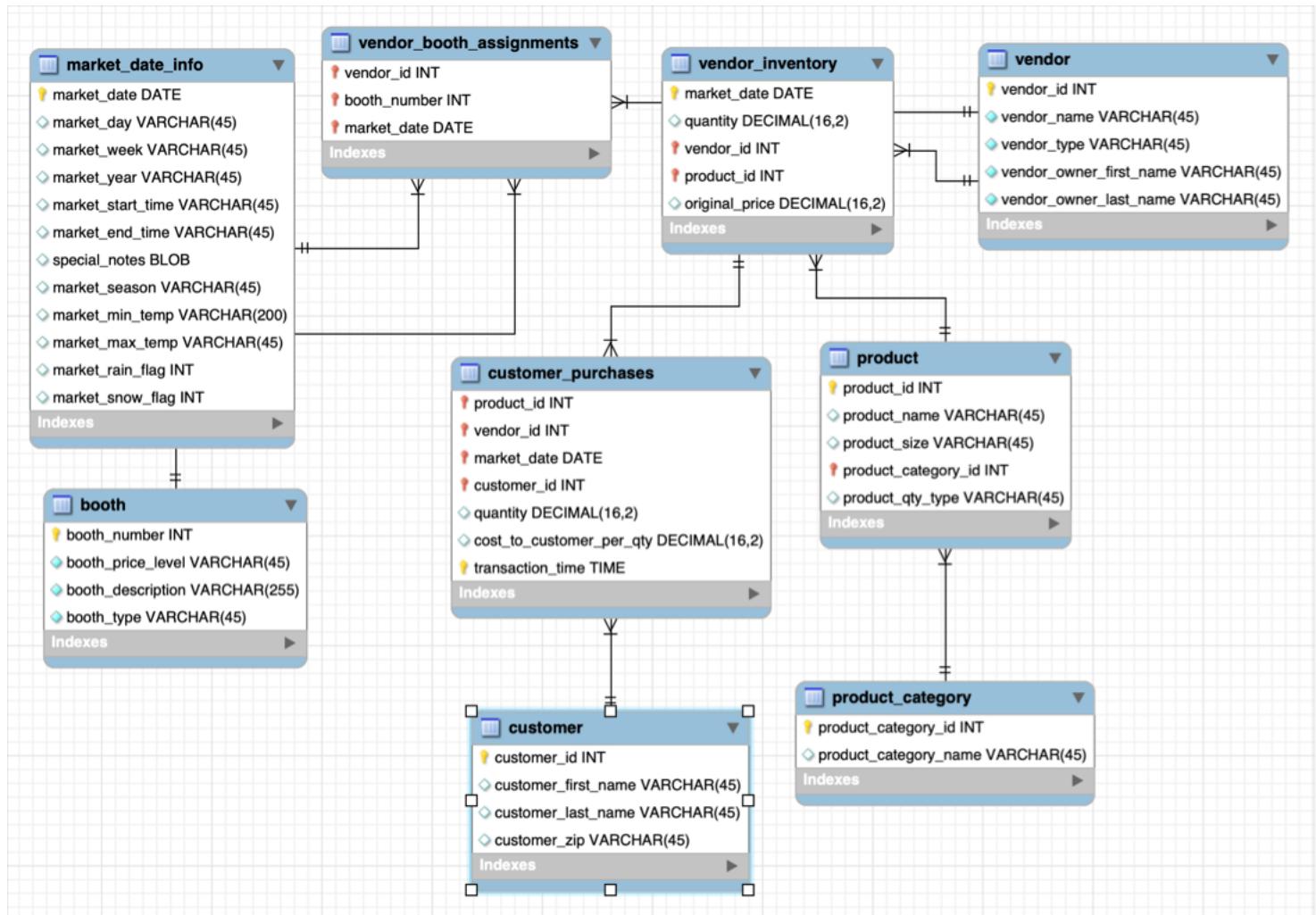
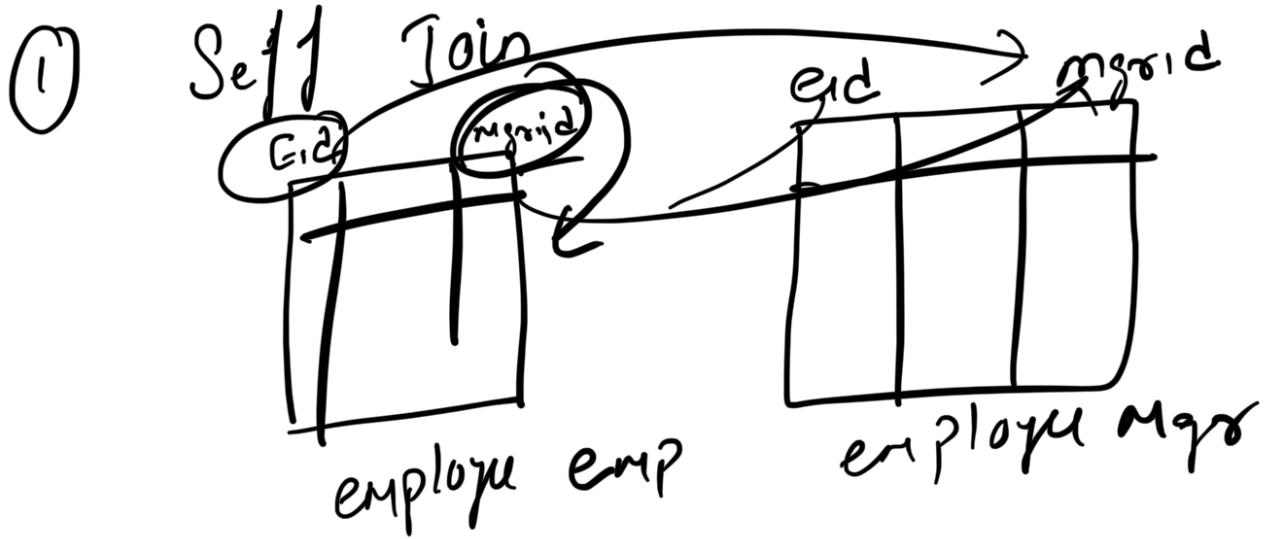


Agenda

- a. Self Join
- b. Cross Join
- c. Co related Subquery
- d. Aggregated Functions
- e. Group By
- f. Having Clause
- g. Interview Questions Prep
- g. Window Function need and their usage





① Select
 $\text{emp.ename, emp.eid,}$
 $\text{mgr.ename "Manager-Name"}$

From

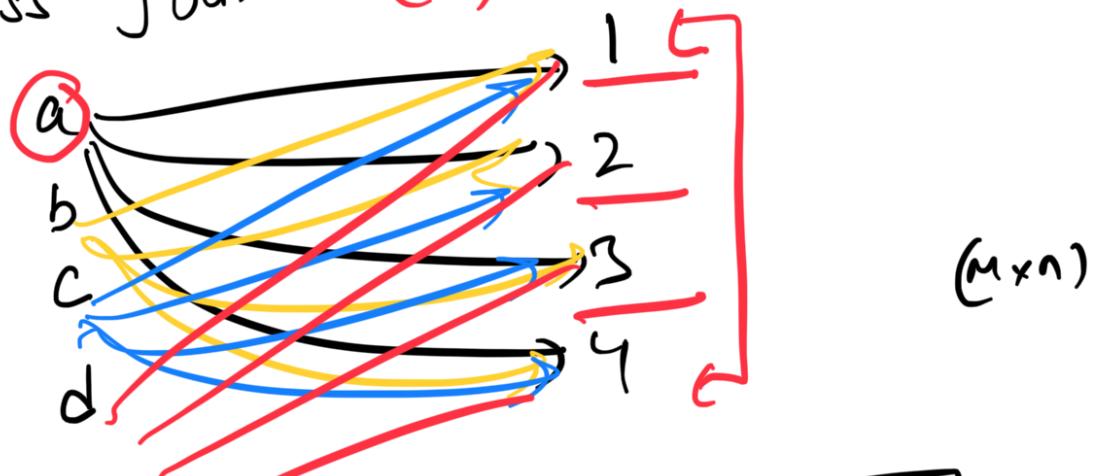
employee emp

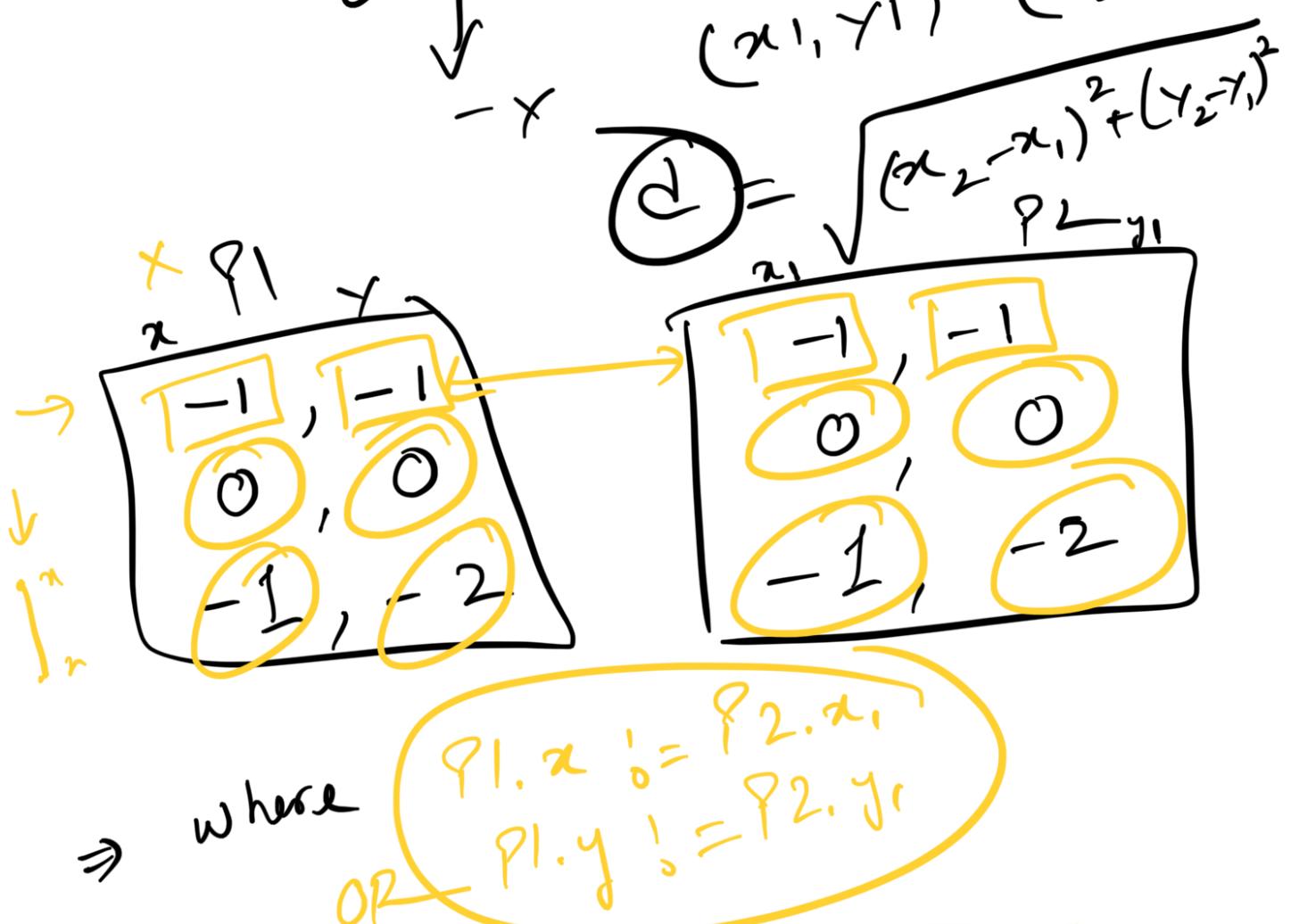
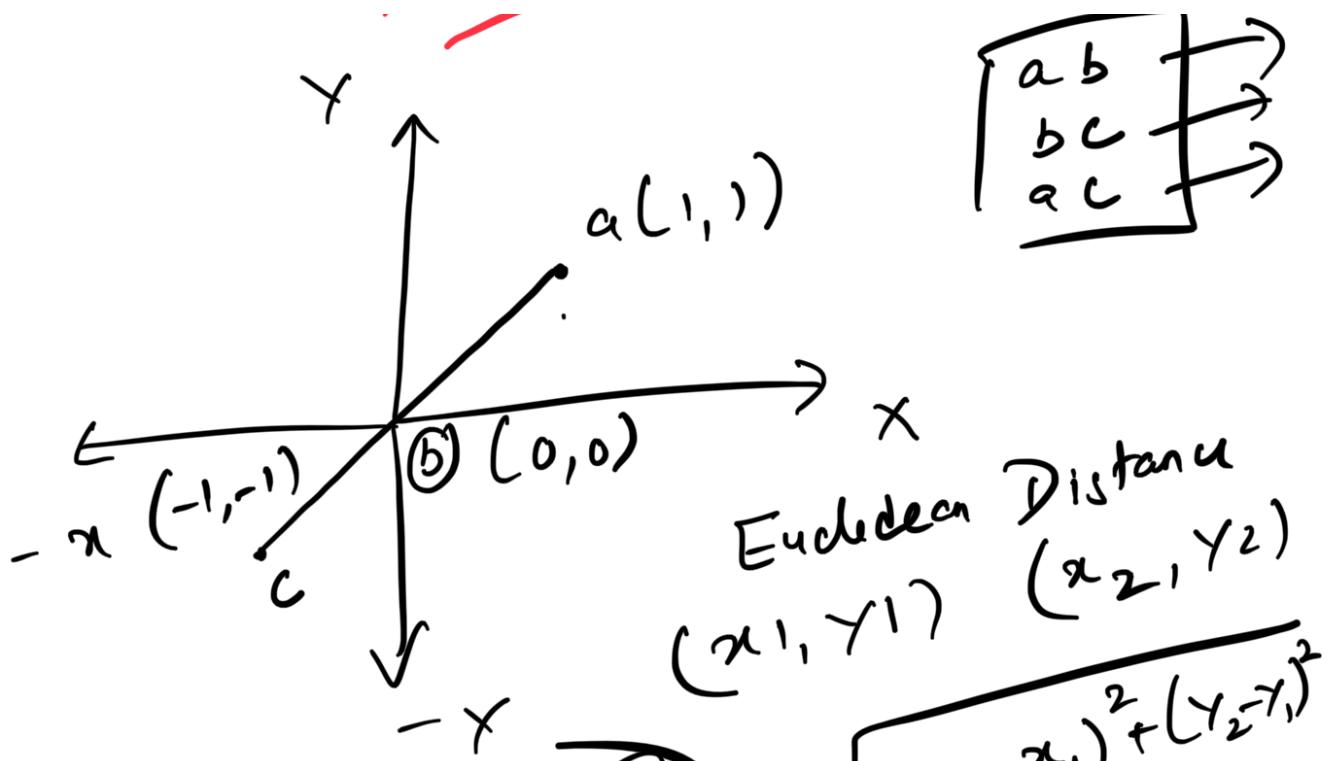
Join employee mgr

, emp.mgrid = mgr.emp-id

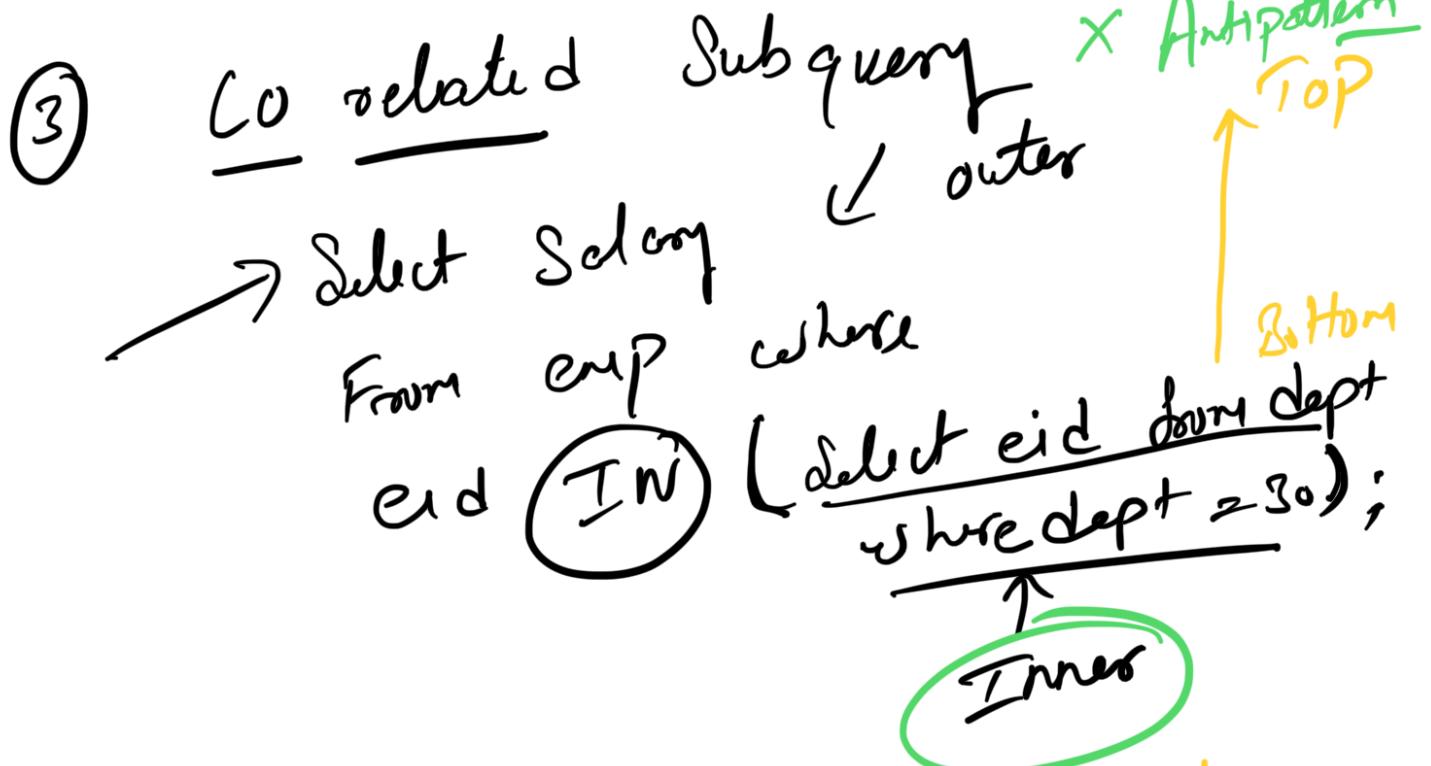
② + where emp.Salary > mgr.Salary

② Cross Join (X)





	0, 1	-1, -1
-1, -2	0, 1	0, 0
-1, 1	-2	
1, -2		



ii) Employee

eid	ename	address
1	A	D
2	B	L
3	C	M
4	D	Tn
5	E	Ba
6	F	Gu

Dept

D_id	cid	Dname
1	1	IT
2	2	AD
3	3	MR&R
4	4	Testing

Qn.1 Find all employees working in department?

① In join - @ ✓

An.1 ~~Subquery~~: Select * from emp
where eid in (select eid
from dept);

✓ Correlated ↗

Select * from Emp
exists (Select * from dept
where dept.eid = emp.eid)
EMP
1, 2, 3, 4

③ Join

Select * from emp e
inner join Dept d
on e.eid = d.eid;



Qn. Find all employees whose salary is
above Average for their department?

Aggregation

① Sum ② Count ③ min ④ max ⑤ Avg
↓ . 9 ↓

Count = ?
 Select Count(*) from Product ? = 110
 Count(1) → Count("vignesh")
 Ans = a = 110 ✓
 b = 110 ✓
 R, S, K, A

A vertical oval on the left contains the following values:
 ✓
 ✓
 ✓
 ✓
 ✓
 ✓
 ✓

Count(*) = 7
 Count(1) = 7
 Count("vignesh") = 7
 23 → 1 null

→ Count(Product-name) = ?

$$\begin{array}{c}
 1, 2, 3, 4, 5 \\
 \hline
 8
 \end{array}
 \Rightarrow \begin{array}{l}
 \text{Count} = 5 \\
 \text{Sum} = 15 \\
 \text{Avg} = 3
 \end{array}$$

$$\begin{array}{l}
 \text{Min} = 1 \\
 \text{Max} = 5
 \end{array}$$

An = Select eid, name from
n inner >
 → Outer
 → Inner

Ans (Salary)
 employees where salary > arg(salary)
 Select arg(salary)
 From dept where
 Emp. dept_id = dept.dept_id

Group By

employee

	eid	ename	sal	Dept_id	Address
G1	1	A	100	IT	Delhi
G2	2	B	200	AD	Delhi
	3	C	250	IT	Bang
	4	D	300	AD	Chennai
	5	E	200	FN	B
	6	F	300	FN	C

Dept wise Sum of Salary

IT 350
 AD 500
 FN 500

Select dept_id, sum(sal), ename
 From employee -
 Group by dept_id

$$\Rightarrow \text{Ump} = \underline{\text{Cov}}$$

employee

Window Function

Group by

HR = 800
IT = 600
AD = 500

	id	name	Salary	DeptId	Output
200	1	A	200	HR	1900
450	2	B	250	HR	1900
800	3	C	350	HR	1900
1000	4	D	250	IT	1900
1400	5	E	350	IT	1900
1900	6	F	500	AD	1700

① Aggregation



② Analytical



Select
ename,
eid,
Sum()
From Employees;

as output



a2

