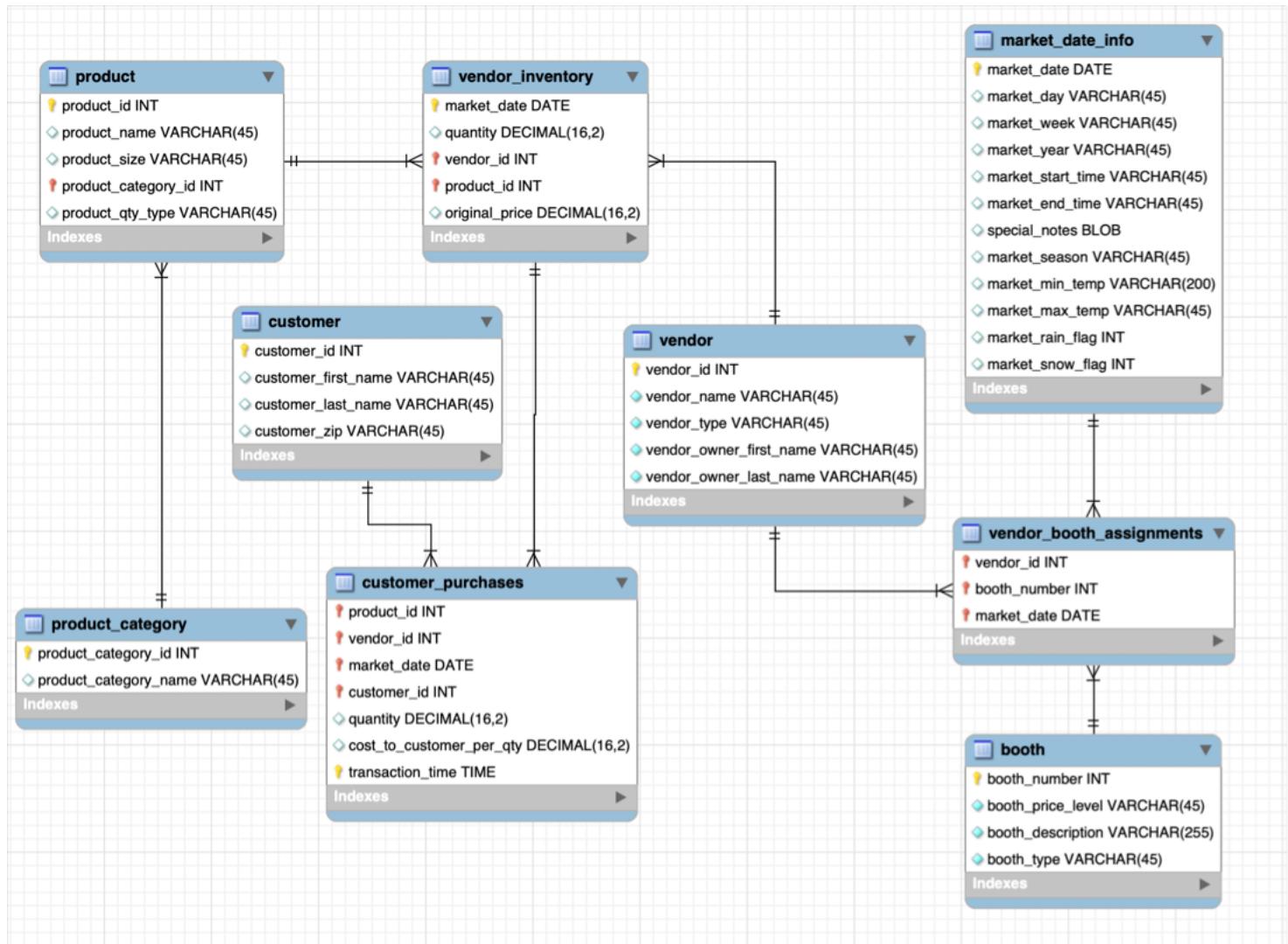


# Agenda

- a. Having Clause
- b. Need of Joins
- c. Types of Joins
  - i. Inner Join
  - ii. Left Join
  - iii. Right Join
  - iv. Full Join



✓ Group By  
md c.d

	M2	C1.C	T	
G1	C1 17/01	1	10	1 10
G1	C2 17/01	2	15	2 30
G1	C3 17/01	3	10	4 40
G2	C4 18/01	4	20	3 60
G2	C5 18/01	5	30	4 115

$$\begin{array}{r} 17101 \\ \times 5 \\ \hline 85505 \end{array}$$

Select MC, C1C, Sum (qfz \* cost)

c) Sum ( $q_1 f_1 + \dots + q_n f_n$ )

Group by Md (Cic)

$$\begin{array}{l} 1 = 10 \\ 2 = 30 \\ 3 = 40 \end{array}$$

→

Group by Category

Md	cd	gf	Lor
17/01	1 -	1	10
17/01	2 -	2	20
17/01	3 -	3	30
18/01	4 -	1	15
18/01	5 -	2	10

↓ , safety \* (ost) oft total - Preis

Select mc, ui, Cid  
 from table  
group by Md, Cid; \*

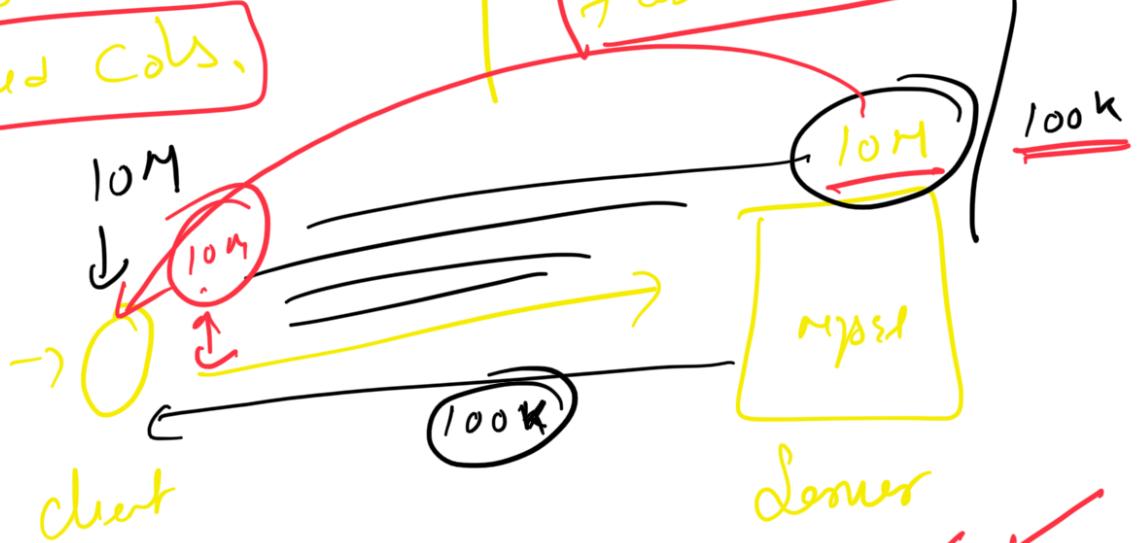
S records

Having  
 → Having clause always  
 do filter on  
 Group by level

Where  
 → Where clause will  
 do filtering at  
 table level.

→ where clause  
 will always run on  
table cols.

→ derived cols.



- ① Select \* from table;
- ② Select \* from table where a = 10;

→ ① Select sum() as sum from table  
Group by a having b = 10;

→ ① no of Purchase = Count(1) -  
 → ② txn - amount = Cost \* quantity  
where online calculation

Q1

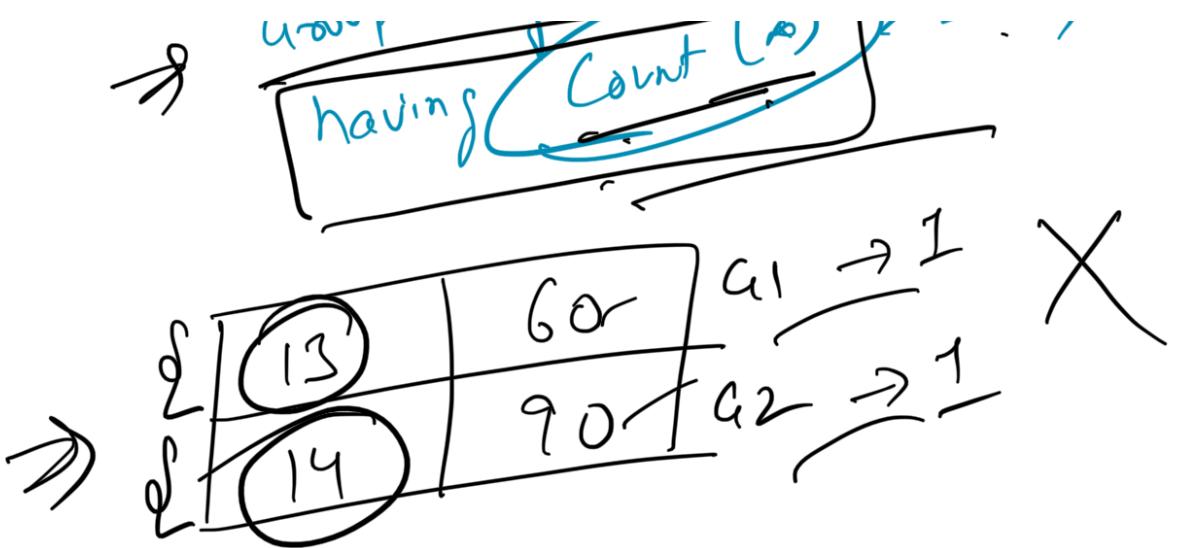
Count (+)  
= 3

Q2

= 9

date	ad	CP	qty	Cost
12/01	-1	10	1	⇒ 10,
12/01	2	40	2	⇒ 80 (60)
12/01	3	30	3	⇒ 90 $\frac{1}{3}$
13/01	1	10	10	⇒ 100 90
13/01	2	4	20	⇒ 80

→ Select (qty \* cost) as amount  
 → from CP  
 , and by M2  
 ;



$\Rightarrow$

Group by M.D.

① Group by M.D.

	qty	Cost
12/01	1	10
12/01	2	20
12/01	3	30
12/01	4	40

② avg (qty \* cost)

	qty	cost
13/01	1	10
13/01	2	20

$\Downarrow$

having Count(\*) = 1

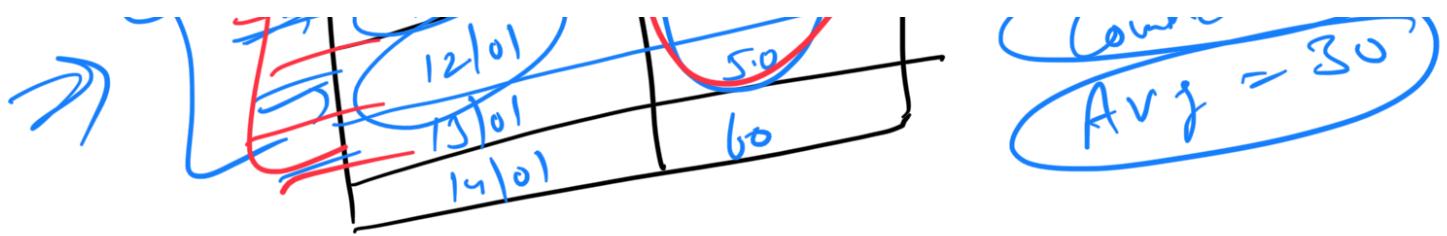
12/01	60	25
13/01		

Count

Count(\*) ≥ 3

Count(\*) = 4

12/01	10	20
12/01	30	40
12/01		



Avg  $\leftarrow$  Ans

Level 3 :- Joins

Need of Joins

Employee		
eid	name	sal
1	A	100
2	B	1000
3	C	150
4	D	200

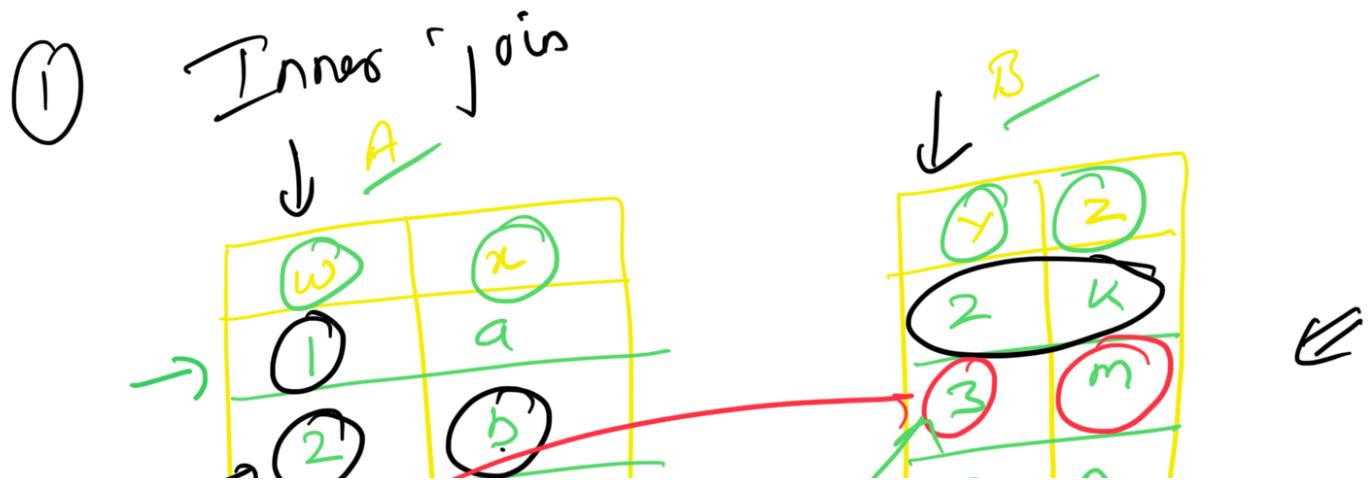
Department		
deptid	deptno	deptname
d01	1	IT
d02	2	AD
d03	3	HR
d04	4	TR

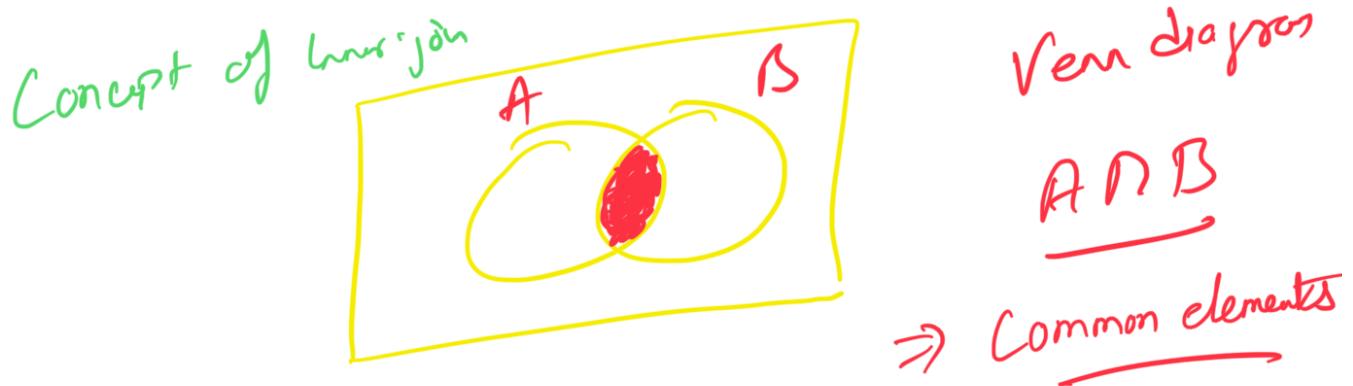
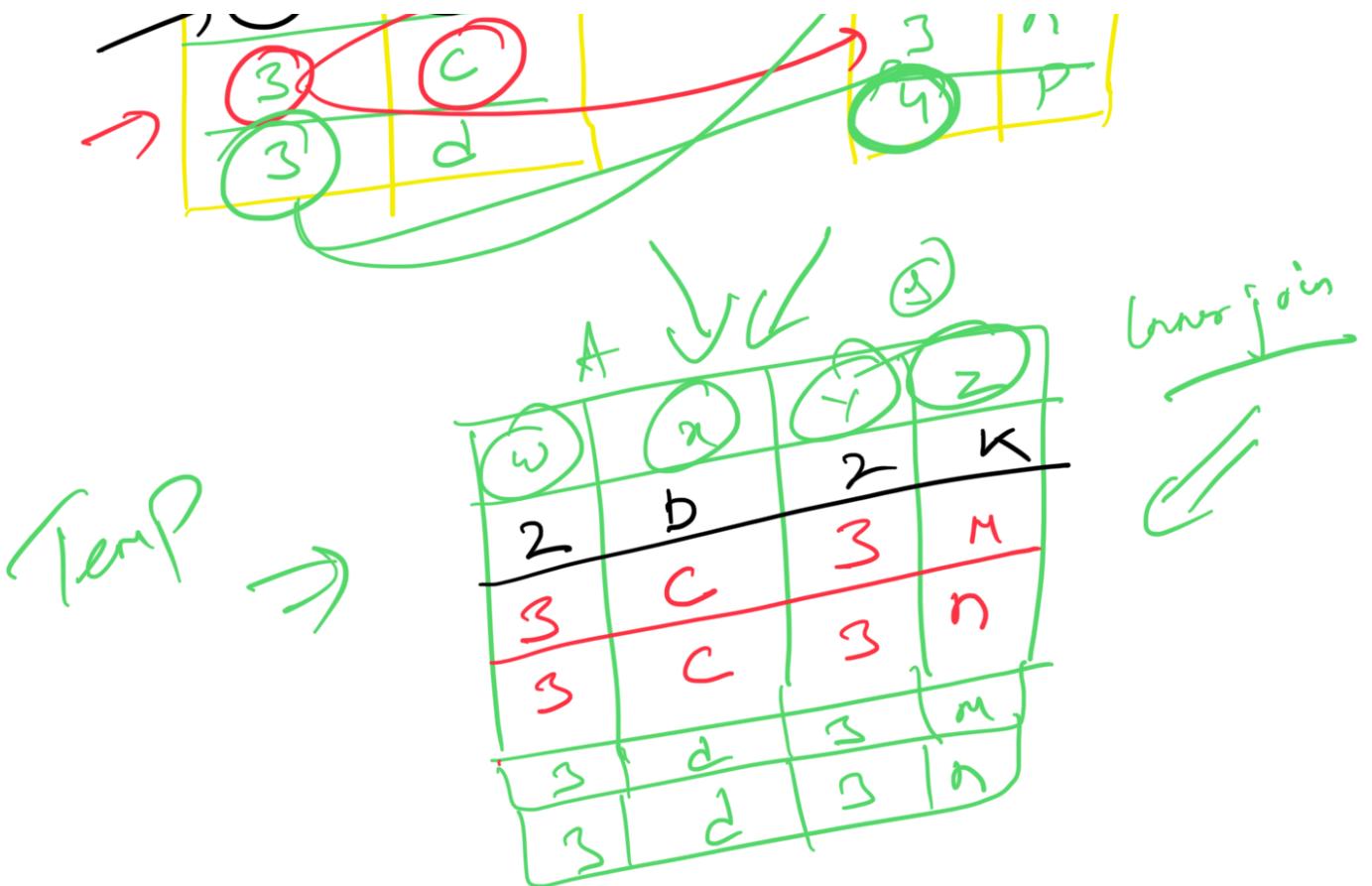
- ① Get me the employee detail who works in IT dept?  
Select \* from employee where eid = 00  
✓ (Select eid from dept where dept = 'IT')
- ② (Qn1) + dept\_name  
① No data of IQ



$\textcircled{1} + \textcircled{2} + \textcircled{3} \Rightarrow \underline{\text{Joins}}$

- $\textcircled{1}$  Innerjoin
- $\textcircled{2}$  Leftjoin
- $\textcircled{3}$  Rightjoin
- $\textcircled{4}$  Fulljoin





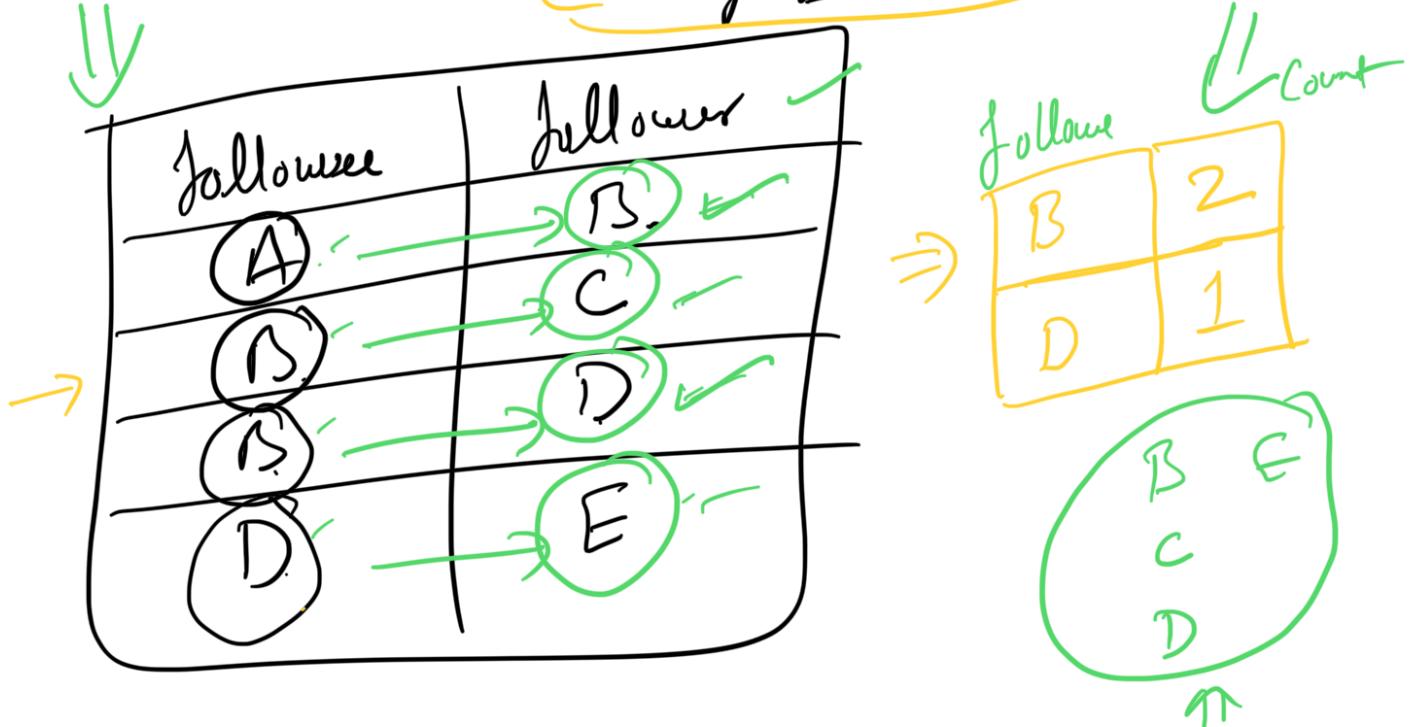
Syntax:

Select

From A  $\xrightarrow{\checkmark}$   $\text{inner join } B \checkmark$

ON A.w = B.y ;

Doubt  $\rightarrow$   
 follower  $\rightarrow$  follows at least 1 user and  
 $\rightarrow$  is followed by at least 1 user  
 ask = second degree users and their  
no of followers



Select follower from follow



$\rightarrow$  ~~1 (9000)~~  $\leftarrow$   
 Select max(salary) from  
 employee where id = (Select max(salary) from  
 employee where salary < (Select max(salary)  
 from employee))

$\approx = 9000$   
 $\approx \checkmark 17000$   
 $\approx \cancel{24000} =$

Ques. 01 of values rounded to 2 decimals.

Ans.

6	A
2	B
2	A

→

215	6
209	2
208	2
210	6
208	6
209	7
209	6
211	7
208	7
210	2
207	2
210	2

→

215	66.66
209	100

→

2	x10 <sup>2</sup>
3	x10 <sup>2</sup>

↓

209	2
209	7
209	6

$\Rightarrow$    
 Select contest\_id,  
 Row\_number() over(partition by contest\_id order by count(distinct user\_id) desc) as r\_id  
 From

$\leftarrow 10^2$   
 $\downarrow 2$   
 $\textcircled{3}$   $\textcircled{7}$

group by =  
order by

U