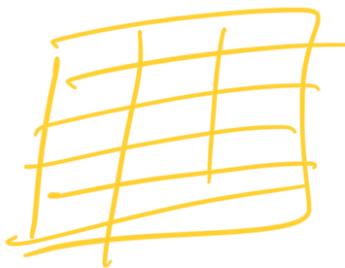


## Agenda

- a. Select Statement Syntax 
- b. Limit Clause 
- c. OFFSET 
- d. Order By Clause 
- e. Inline Calculations
- f. Concat/ Substring in String
- g. Where Clause

→ RDBMS



SQL

char → words → sentences

Qn. 1

old are ' how you ?

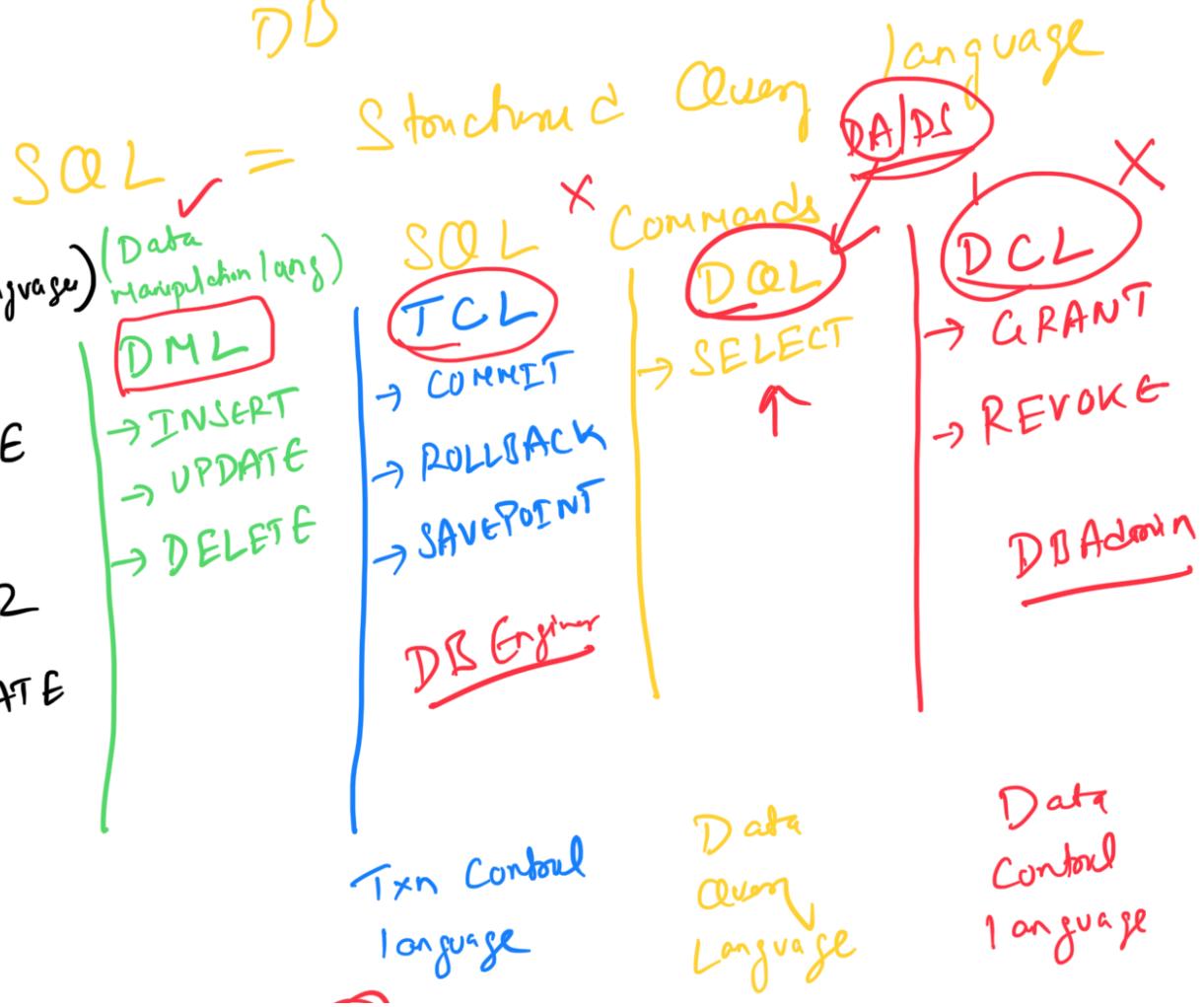
Grammar → Set of rules



DB

✓  
DDL  
→ CREATE  
→ DROP  
→ ALTER  
→ TRUNCATE

(Data Manipulation lang)  
DML  
→ INSERT  
→ UPDATE  
→ DELETE





Syntax:

① SELECT [columns to return]  
 ② FROM [table name]  
 ③ WHERE [conditional filter]  
 ④ GROUP BY [columns]  
 ⑤ HAVING [conditional filter  
rows after group]  
 ⑥ ORDER BY [columns to sort on]  
 ⑦ LIMIT [first x no. of rows to  
be selected]  
 ⑧ OFFSET

Interview Question:

PK



employee

400

eid	ename	esal	ecode
1	A	100	IT
2	B	200	IT
3	C	300	IT
4	D	400	HR
5	E	500	AD

limit 1  
offset 3;

⇒ Get me second lowest salary from employee?  
(but use limit + choose)

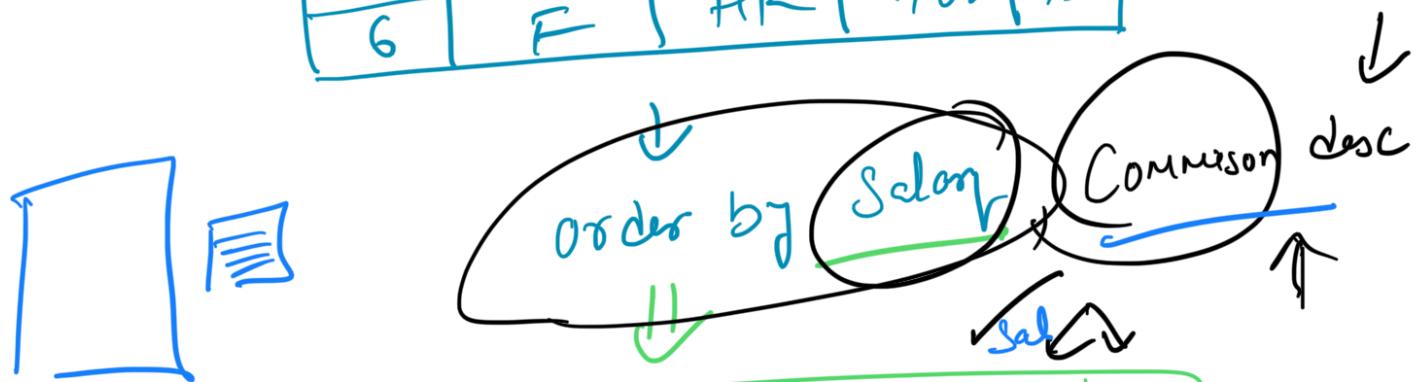
Answer = Select \*  
from employee  
LIMIT 1  
OFFSET 1 ;

⇒ 4<sup>th</sup> lowest salary ?

X 0		100	
X 1		400	
→ 2	3	300	
		200	
		700	

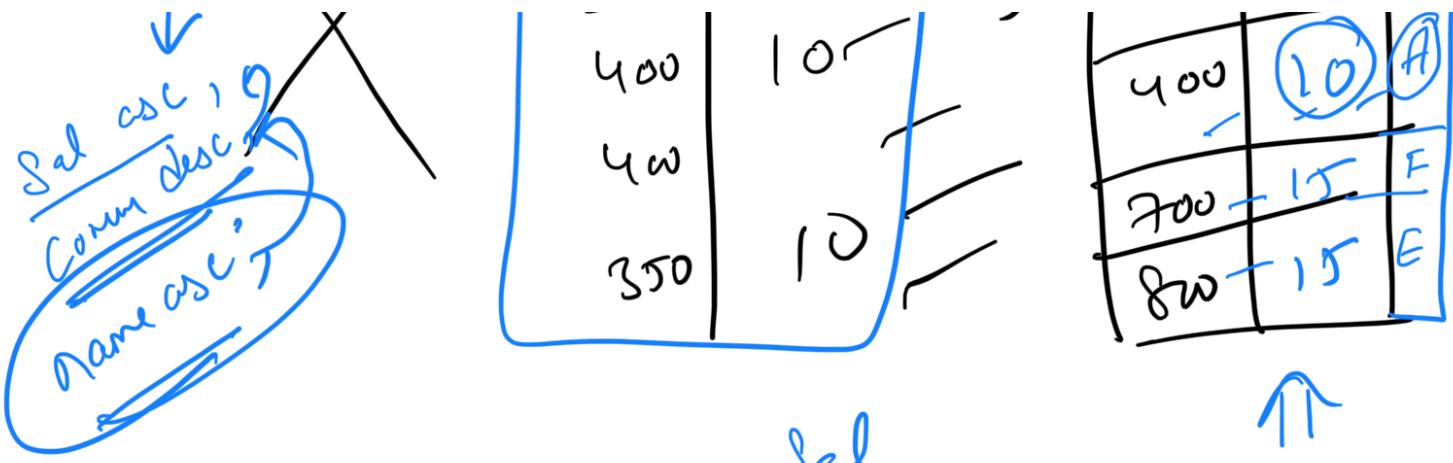
Select \* from employee  
1. + 2 offset 2 ;

id	Name	Dept	Sal	App
1	A	IT	400	10
2	B	IT	350	10
3	C	IT	400	10
4	D	IT	360	12
5	E	HR	800	15
6	F	HR	700	15



2	B	IT	350	10	✓
4	D	IT	360	12	✓
1	A	IT	400	10	✓
3	C	IT	400	20	✓
6	F	HR	700	15	
5	E	HR	800	15	✓





↑

Sal

100	700
700	600
300	400
400	300
600	100

1  
2  
3  
4

Order by Sal desc  
Unit 1 offset 1

No records

1	
2	
3	
4	
5	

Unit 5 offset 5;

Day 4:

orders by

Sort asc ✓ D

desc ↘ TPR

PK ord	Sal	Comm	N
1	100	20	A
2	200	5	B
3	100	15	C
4	300	25	D
5	100	17	E
6	300	15	F

order by

salary desc

Sal
4
6
2
-1
-3
-5



order by  
Comm

order by Sal desc, Comm ;

1) Round (17.3333, 2)

17.3333

2)

Sal	Comm
300	25
300	15
200	5
100	17
100	20
100	15

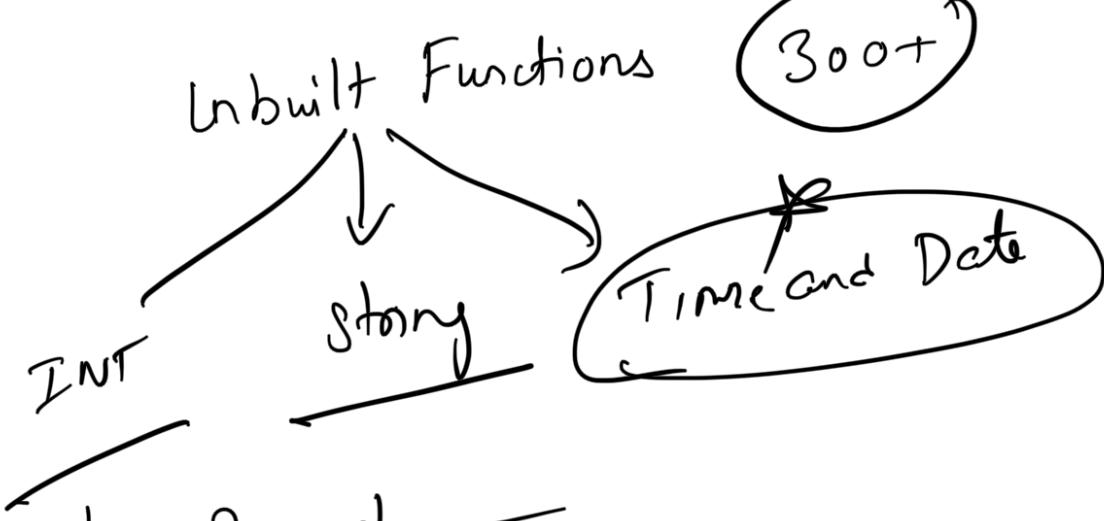
U

↓

17.34

② Round (17.3333 -1)

10, 100, 1000



- ↳ Round —
- ↳ Cast —
- ↳ Greatest —
- ↳ Floor —
- ↳ Ceil — Next value

Select (Ceil, 17.01) = 18

(Ceil, 17.5) = 18

(Ceil, 17.9) = 18

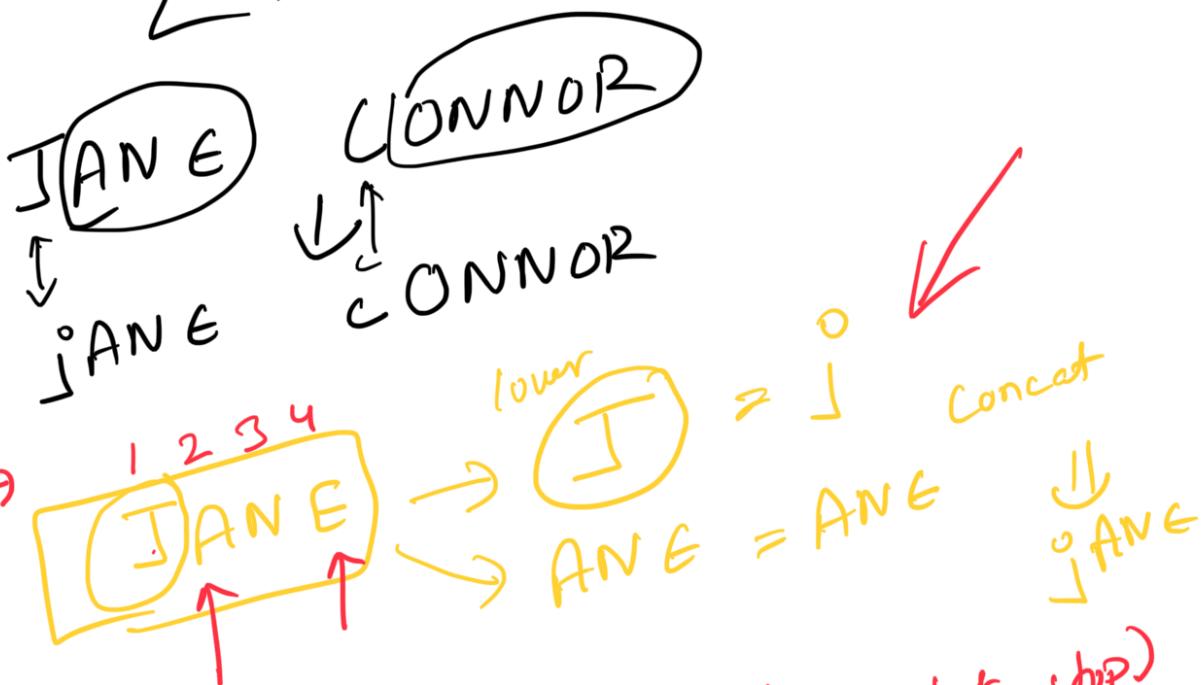
... (Floor 17.01) = 17

→ Select  $\lfloor \frac{11000}{11000}, 17.5 \rfloor = 17$   
 $\lfloor \frac{11000}{11000}, 17.9 \rfloor = 17$

⇒ Select least  $(1, 2, 3, 7, 0, 19)$   
 Greater →

$$G = 19$$

$$L = 0$$



Substring ↳ Substring (col, start, stop)  
 $\hookrightarrow (FN, 1, 1) = I$

↳ Substring (col, start)  
 $\rightarrow (FN, 2) = ANE$

$\frac{1234}{TAN E}$ , Concat  
 $\rightarrow \text{in-line}((FN, 1, 1)), = I$

$\Rightarrow \neg \neg \neg$  (lower Substring)  $\rightarrow$  ANE  
 Substring (FN, 2)  $\rightarrow$  ANG

$a \text{ and } b$	$> 3 \text{ and } < 8 \text{ and } = 10$
$\begin{array}{c} \downarrow \\ a \end{array}$ and $\begin{array}{c} \uparrow \\ b \end{array}$	$\begin{array}{c} \downarrow \\ > 3 \end{array}$ and $\begin{array}{c} \downarrow \\ < 8 \end{array}$ and $\begin{array}{c} \downarrow \\ = 10 \end{array}$
$\begin{array}{c} \nearrow \\ OR \end{array}$ $\begin{array}{cccc} T & T & T & T \\ T & F & T & T \\ F & T & T & F \\ \hline F & F & F & F \end{array}$	$\begin{array}{c} \nearrow \\ AND \end{array}$ $\begin{array}{cccc} T & T & T & F \\ T & F & T & F \\ F & T & F & F \\ \hline F & F & F & F \end{array}$

$\begin{array}{c} \nearrow \\ \text{No Jumps} \end{array}$   
 $\begin{array}{ccccc} & 3 & & 2 & \\ & \times & & \times & \\ \nearrow & & \nearrow & & \nearrow \\ 1 & & 0 & & 1 \end{array}$

$\begin{array}{c} \nearrow \\ > 3 \text{ and } < 8 \text{ and } = 10 \end{array}$   
 $\Rightarrow 3 = \text{NO}$   
 $\Rightarrow 2 = \text{NO}$   
 $\Rightarrow 7 \boxed{TTF}$   
 $\Rightarrow 10 \boxed{TF} \leftarrow F$

73 and 8  
OR  
≥ 10

Round  $(10.\underline{333} \overset{6}{\underset{2}{\textcircled{3}}})_2$   $\Rightarrow \underline{10.33}$

Round  $(10, 333, \frac{-1}{1}) \Rightarrow$

(10), 100, 1000

Round (36) q5 6, -1) →

A hand-drawn diagram illustrating a data flow process. It starts with an oval labeled "DBE" on the left. An arrow points from "DBE" to another oval labeled "DEG". From "DEG", three arrows point to the right: one to a circle containing "Sath", one to a circle containing "24x7", and one to a circle containing "DevOp". A downward-pointing arrow originates from "DevOp" and points to a final oval labeled "APPS".