

三

DML

## Data manipulation language

→ today's goal →

~~→ insert  
→ select  
→ update  
→ delete~~ } C R G D

→ mysql & workbench install ↴

→ database (concept) created ←

→ table users (username user\_id, name, email  
password (hashed)) ✓

→ 3 icons near table's name ✓

1

१८५६-१८५७ वर्षात् यहां अपनी शिक्षा की ओर से अपनी जीवनी की ओर आया।

→ Insert → Query →

→ INSERT INTO computers\_users (user\_id, name)

sequences  
matter

→ (1) name differs optional has  
not either to be clearing a  
Date  
\* has value for sequence gather tables

→ fügert Info campusx. user

→ VALUES (NULL, 'ankush', 'ankush@qunit.com',  
                  12345)

(#) sir / name, email chaiye :-

strict mode off

## ~~SET SESSION~~

sqrd-mode = "1"

→ BE NOT NULL  
column  
blank char

Page, other  
wedge error  
dega

(9) name, email —

Insert into campus.users (name, email)

VALUES ('shubham', 'sagar', shubhan@gmail.com)

~~\* observed observation →~~

Value delle ka gequence matter parsa hai.

Sq (Pass, name)

valles (1234, sagar)

(2) (Pass name)  
Sagar, 1234

eggs  
assimilate  
no day eggs

② Remember value could be according to  
doge -'

*all*

doge -

~~Coyote~~

(1) (2)

(י' י' י' י' י')

(Name, eml)

卷之三

13

1

②

Select query →

2<sup>nd</sup>

Retain all

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most imp

→ ✗ first learn how to import dataset  
in workbench

→ campusx → Table → Right click

click on table data import wizard

upload

start -:

①

✗

Select all →

SELECT \* FROM campusx. users smartphone

where 1

mean all the rows

Optional not

②

✗ filter col, o/p model, price, rating

SELECT model, price, rating FROM campusx.  
smartphone

② order doesn't matter (bas result i/p  
re according avg)

select rating, model, price

rating | model | price

(X) 2

## Renaming cols $\rightarrow$ (aliasing)

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select os AS 'operating system', model,  
battery\_capacity AS 'Math' FROM  
campus.smartfon

Previous  $\rightarrow$  new name  
new

os	model	bat-cap	oper sys	model	Math

(X) 9

## Create expression using colas?

\* who wants to create PPF (Pixel per inch) with the help of colas

$\rightarrow$  screen\_size

$\rightarrow$  Resolution\_width

$\rightarrow$  Resolution\_length

PPI formula -

$$\text{PPI} = \sqrt{(\text{Res\_width})^2 + (\text{Res\_height})^2}$$

Copy

screen\_size

ss

$$\sqrt{W^2 + H^2}$$

$\rightarrow$  select model,

$\rightarrow$  sqrt (res\_width \* res\_width + res\_height \* res\_height)

/ screen\_size (AS)

$\rightarrow$  FROM all campus. smartphones

'PPI'

## ⑤ constants

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new col  $\rightarrow$  stat

ek col ~~exists~~ smartphone name or  
Bcz let say hum feature like os  
data scrap language or - some  
feature hon hui ho shte hai

$\rightarrow$  so abhi hum sabko smartphone  
ka tag dene inskrpt.

$\rightarrow$  Select model, 'smartphone' As 'type' from

↓	Value	col
mode	type	
OPPO	smartphony	
vivo	ii	

## ⑥ DISTINCT (unique) value from a col!

①  $\star$  to fetch How much unique brand  
in data

All Brand

$\rightarrow$  select DISTINCT (brand name) AS Allbrand  
from  $\swarrow$   $\searrow$  qz all

② All process brand

select distinct (processor-brand) AS 'All pro'

④

## DISTINCT COMBOS

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→ brand name / processor brand

→ select distinct brand.name, pro.brand  
FROM \_\_\_\_\_

commas sep karke  
left the in com-  
bo list.

⑧ filtering rows WHERE clause →

⑨ find all Samsung phones →

select \* from \_\_\_\_\_  
WHERE brand.name = 'Samsung'

103 ✓

b) find all where price > 50,000 / -

select \* from \_\_\_\_\_  
WHERE price > 50000

50+ operator in YT description →

⑩ Between →

⑪ find all phones in the price range of  
10k - 20k.

I

select \* from \_\_\_\_\_  
where price >= 10000  
and price <= 20000

II

select \* from \_\_\_\_\_  
WHERE price BETWEEN  
10000 AND 20000

Ye

~~(4)~~ ~~(5)~~ find all phones costing > 80, price < 280

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select \* from phones  
where price < 28000 AND costing > 80

also brand samsung claire

where price < 28000 and costing > 80  
and brand\_name = 'samsung'

\* All samsung phones with ram > 8 GB?

Select \* from phones  
where brand\_name = 'samsung' AND ram > 8

\* All samsung phones with snapdragon pros?

Select \* from phones  
where brand\_name = 'samsung' AND processor = 'snapdragon'

(10) query execution order?

FROM J

FROM JOIN WHERE groupby Having select

'from join where groupby having select distinct order by'

F J W G H T S D O

~~xxx stuck~~

Finally Jack went grocery hunting, soon discovered oranges

## Visualisation done

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→ from the PPT which sir explaining on a slide

### Practice kind of thing

→ find brands who sells phone with price > 50000 →

select distinct (brand-name) from —  
where iprice > 50000

execution

- ① from → table load
- ② where → price filter
- ③ select → save select brand (price>50k)
- ④ distinct → distinct set duplicate gagab.

### (11) IN and NOT IN

size vo for chalye jinme processor  
snapdragon, exynos, bionic hat

→ select \* from

where processor.brand IN ('snapdragon',  
'exynos', 'bionic')

(12) select \* from

where pro-brand = 'snapdragon' OR

pro-brand = 'exynos' OR

pro-brand = 'bionic'

(13) better hat

same  
NOT IN

### ③ Update (Query)

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(a)

→ fetch all the fon name where processor  
is mediatek.

select \* from \_\_\_\_\_  
where processor brand = 'mediatek'

① phone

mediatek =  
dimesity

→ so ham mediatek wale fon ko bhi  
dimesity ka banana chalte hain.

Ex: me  
Chage  
Parha

UPDATE campusX-smartphones

← set processor brand = 'dimesity'  
where processor brand = 'mediatek'

rise  
charge Parha

if got error

go to ⌂ edit → preferences

↓  
safe mode

↓  
of ✓

(b) User table ~~at~~ sagar@gmail.com  
~~at~~ sagar@yahoo.com  
or password to 1234 — 693998

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select \* from campusx.users

set email = 'sagar@yahoo.com', password  
= '693998'

where name = 'sagar'

(4) delete query →

(a) ~~→~~ delete all phone where price > 20000

DELETE FROM campusx.smartphones  
where price > 200,000

check

DONE

(b) Remove for where primary camera  
more than 150 MP —!

only samsung note →

Nokia

DELETE FROM ~~all the~~ campusx.smartphones  
where primary\_rear\_camera > 150 AND  
brand\_name = 'nokia'

while

"Be careful while working with OLTP  
to use UPDATE, DELETE query"

UPDATE ] → Both permanent operations  
DELETE

# Functions

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SQL fns

Build In

User-defined

This lecture

Scalar

Eg →

round

Aggregate

(summary)

Avg

Sid	Name
8:73	8
9:12	9
6:66	C

CUPA

8.73

9.12

6.66

sqrt  
b92

tot Avg

8.73

Eg → sqrt, round  
ABS, etc

other Eg →

min/max/Avg/sum/

\* → first Aggregate  
then scalar → only useful  
for complete we  
poly

①

Aggregate functions

learn with the help of  
query/question.

① Min/Max =

① find min / max prices -

→ select MAX(price) FROM

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1.99L

→ select MIN(price) FROM

3999

also

select MAX(max\_capacity) FROM

18

⑤ find the costliest samsung phone

→ select max(price) FROM

where brand\_name = 'samsung'

163980

Now to find this phone -

select \* FROM

where brand\_name = 'samsung' and price

galaxy 2 fold 4

②

a) find avg rating of apple phones

select avg AVG(rating) FROM

where brand\_name = 'apple'

b) Avg price of apple phone -

select AVG(price) FROM

where brand\_name = 'apple'

(3)

sum -  $\Sigma$

\* sum of all phone prices

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→ select sum(price) from

(4)

count -  $\Sigma$

(a) find the no of oneplus phones :-

select COUNT(\*) from

where brand\_name = 'oneplus'

(5)

count distinct -  $\Sigma$

\* find the number of brands available

select COUNT(DISTINCT(brand\_name)) FROM

count distinct

42 ✓

(6)

standard deviation (STD) :-

\* find std of screen size -

select STD(screen\_size) FROM

0.34 ✓

( $\sigma^2$ )

variance (VAR)

→ same ~~✓~~

→ select VAR(screen\_size) FROM

✓

(2)

## Scalar functions

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### (1) Absolute → (ABS)

- \* salar ki chil karne, actually bad me padheuge
- \* price - 1000000 In new col value -ve hogi isliye ABS() se positive kar diya to bar

select ABS(price-1000000) AS 'temp'  
FROM \_\_\_\_\_



### (2) ROUND -

- \* PPI kya tha use karto.

→ select model,

Round (  $\frac{\text{model}}{5}$  ) ] AS 'PPI'

from \_\_\_\_\_

{ 526 }  
{ 1 }

agar decimal chahiye - :

Round (  $\frac{\text{model}}{5}, 2$  ) ]

{ 520.22 }

### (3) ceil / floor

ceil

4.1 → 5 (next)  
4.9 → 5

Floor

4.9 → 4 (pre)  
4.1 → 4

\* ceil of on screen size

→ select CEIL(screen\_size) FROM \_\_\_\_\_

→ select FLOOR(screen\_size) FROM \_\_\_\_\_