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Union And Union All :-

```
--> Each 'select' statement within 'Union' must have the same number of columns.

--> The columns must also have similar data types.

--> The columns in each 'select' statement must also be in the same order.

select name from Students

union

select name from Lecturers




select name from Students where gender = "M"

union all  --> will display all the dublicate names also.

select name from Lecturers where gender = "M"


select s.name , s.age, c.cityName

from Students as s inner join city as c

on s.cityId = c.cid

where c.cityNmae = "Delhi"

union all

select l.name, l.age, ci.cityName

from Lecturers as l inner join city as ci

on l.cityId = ci.cid

where ci.cityNmae = "Delhi"
```

If And Case Statement :-

```
--> Use of 'if' clause :-

select id, name, age,

if(age >= 20, "G20", "L20") as Result

from myserver




--> Use of 'case' clause :-

select id, name, age,

case

when age >= 18 and age <= 19 then "le1819"

when age = 20 then "a20"

else "Ohoo"

end as Result

from myserver


--> 'Case' clause can also used with update command.

update myserver set

age = (case id

when 1 then 18

when 4 then 22

end)

where id in (1, 4); --> It is neccessary to use 'where' statement with 'update' statement.
```

Arithmetic Functions :-

```
ABS(-6.2) = 6.2

ABS(6.2) = 6.2  --> Always gives positive output.


floor(4.3) = 4

floor(4.8) = 4


ceil(5.6) = 6

ceil(5.2) = 6


round(4.3) = 4

round(4.8) = 5

round(4.5) = 5

round(1234.987, 2) = 1234.99


sqrt(4) = 2

sqrt(16) = 4


pow(2, 3) = 8

pow(4, 2) = 16

pow(5, 3) = 125


Sign(5) = 1

Sign(0) = 0

Sign(-6) = -1


rand() = 0.23310 --> Gives number b/w 0 and 1.


--> To get the random numbers in b/w 4 to 10(if we need numbers b/w 4 to 12 then exchange 6
with 8)

select floor(4 + (rand() * 6 ))
```

String Function :-

```
--> Way to use upper() function :-
select id, upper(name) as Students
from myserver;


select id, ucase(name) as Students --> 'ucase' is same as 'upper' function.
from myserver;


--> Way to use lower() function :-
select id, lower(name) as Students
from myserver;


select id, lcase(name) as Students --> 'lcase' is same as 'lower' function.
from myserver;


--> Way to use character_length() function :-
select id, name, character_length(name) as "Character Length"
from myserver;
select id, name, char_length(name) as "Character Length"
from myserver;
select id, name, length(name) as "Character Length" --> Gives the output in the bytes.
from myserver;


--> Way to use concat() function :-
select id, concat(name, " ", city) as "Concatinated Char"
from myserver;


select id, concat(name, " ", cityId) as "Concatinated Char" --> contact string & int also.
from myserver;


--> Way to use concat_ws() function :- first string argument inserted in b/w each words.
select id, concat_ws("-", name, cityId) as "Concatinated Char"
from myserver;


--> Way to use position() function :- Gives the position of letter in given data.
```

```sql
select id, position("A" in name) as foundAt
from myserver;


--> Way to use instr() function :- Same as position() function.
select id, instr(name, "A") as foundAt
from myserver;


--> Way to use locate() function :- Same as above but in this we can specify the starting
point for searching in the given data.
select id, locate("A", name, 2) as locateAt
from myserver;


--> Way to use substring() function :-
select id, substring(name, 2, 5) as sub --> 2nd parameter for starting & 3rd for end point.
from myserver;


select id, substr(name, 2, 5) as sub --> Same as substring()
from myserver;
select id, mid(name, 2, 5) as sub --> Same as substring()
from myserver;
--> Below query gives the output as "www.yahoo"
select substring_index("www.yahoo.com", ".", 2) as sub;


--> Below query gives the output as "www"
select substring_index("www.yahoo.com", ".", 1) as sub;


--> Way to use left() and right() function :-
select left("Yahoo.com", 5) as subS --> Output :- Yahoo


select right("Yahoo.com", 4) as subS --> Output :- .com


--> Way to use rpad() function :- Fix the string upto limit given in 2nd parameter with
extension of 3rd parameter given in the function(if required).
select id, rpad(name, 10 , ".") as DotName
from myserver;
```

```sql
--> Way to use lpad() function :- Same as above but from left side!
select id, lpad(name, 10 , "-") as DotName
from myserver;


--> Way to use reverse() function :-
select id, reverse(name) as rev
from myserver;


--> Way to use replace() function :-
select replace("Yahoo.com", "Yahoo", "Google"); --> Output :- Google.com


--> Way to use strcmp() function :-
select strcmp("Yahoo.com", "Yahoo.com") --> Output :- 0
select strcmp("Yahoo.com", "Yahoo") --> Output :- 1
select strcmp("Yahoo", "Yahoo.com") --> Output :- -1
--> Way to use hex() function :- Return hax value.
select hex("Change it in hex")--> Output in hex format : '4368616E676520697420696E20686578'
```