

IFNULL(), COALESCE() and Joins

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Day-7 Tasks

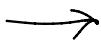
objectives

- ① IFNULL()
- ② COALESCE()
- ③ Aggregate functions

Count
Sum
Max
Min
Avg

* * group by clause

- ④ Joins



Emp { EmpId, fname, designation, City, Email, Qual }

HariHaran
NULL
NULL ✓

Substitute → Main WPI allocated.

Aggregate functions

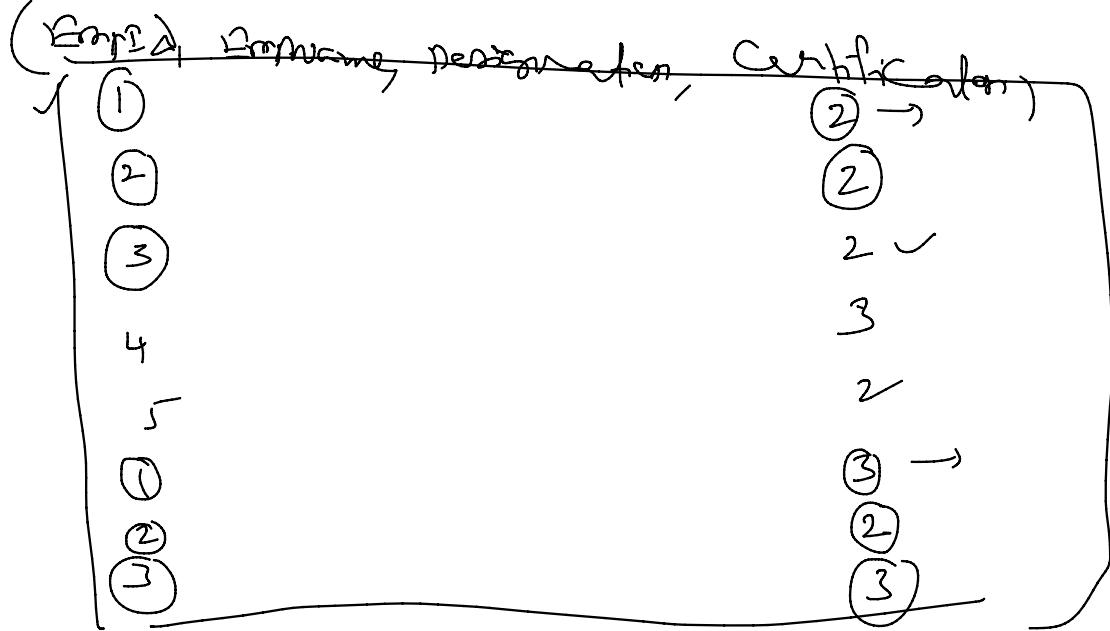
count(),
 sum(),
 max
 min(),
 avg()

Input → multiple records
 Output → single value

Salaries

sum(),
 count(),
 avg(),
 max(),
 min(),

Emp



O/P:

EmpId	Count
1	5
2	4
3	5
4	3
5	2

MIS Hostel

Food →

Specific
state

Sno	Branch	State
1	CSE	PN
2	ECE	KW
3	EEE	AB
4	Chem	TN
5	Mech	DL
6	Material	KN

Number of
student
→
(105)

Recording ! =

Individual

Records → grouped

Scenarios → Certification / ~~some~~
 ② State → Repeat ↓

group by clause

Group by	
Ap	105
Tn	200
Kn	150
KL	105

150 >
↓

KL	(105)
DC	(5)
MU	(42)

↓
Hostel → food

Group by state

Condition →

≥ 150

Can we use where clause along with group by ?

If no justify

Key take aways

① IFNULL → $(Arg_1, > \text{msg})$ $Arg_1 = \text{value} \checkmark$
 $Arg_1 = \text{null}$

② COALESCE, → $(Arg_1, Arg_2, > \text{msg})$ $Arg \rightarrow \text{value}, Arg \rightarrow \text{null}$
 $\text{msg} \downarrow$

③ GROUP BY → groups the records
 Based on Arg₁, ..., Arg_n $Arg_2 \downarrow$
 null

(c) \rightarrow Groups the records
Based on the Column

(d) Where With Group By

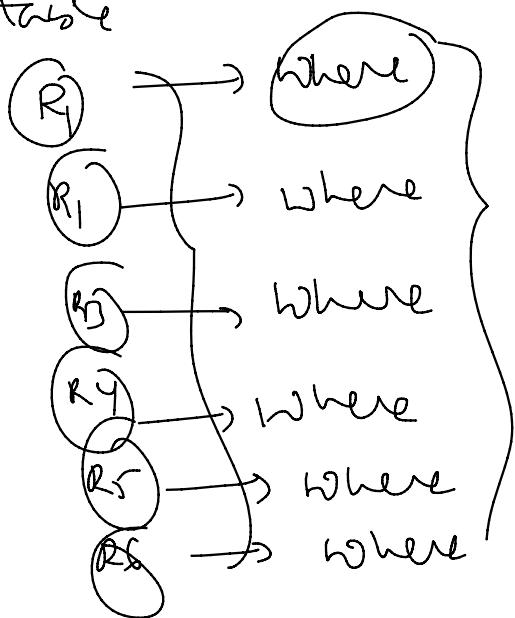
Syntax
is
Correct

but

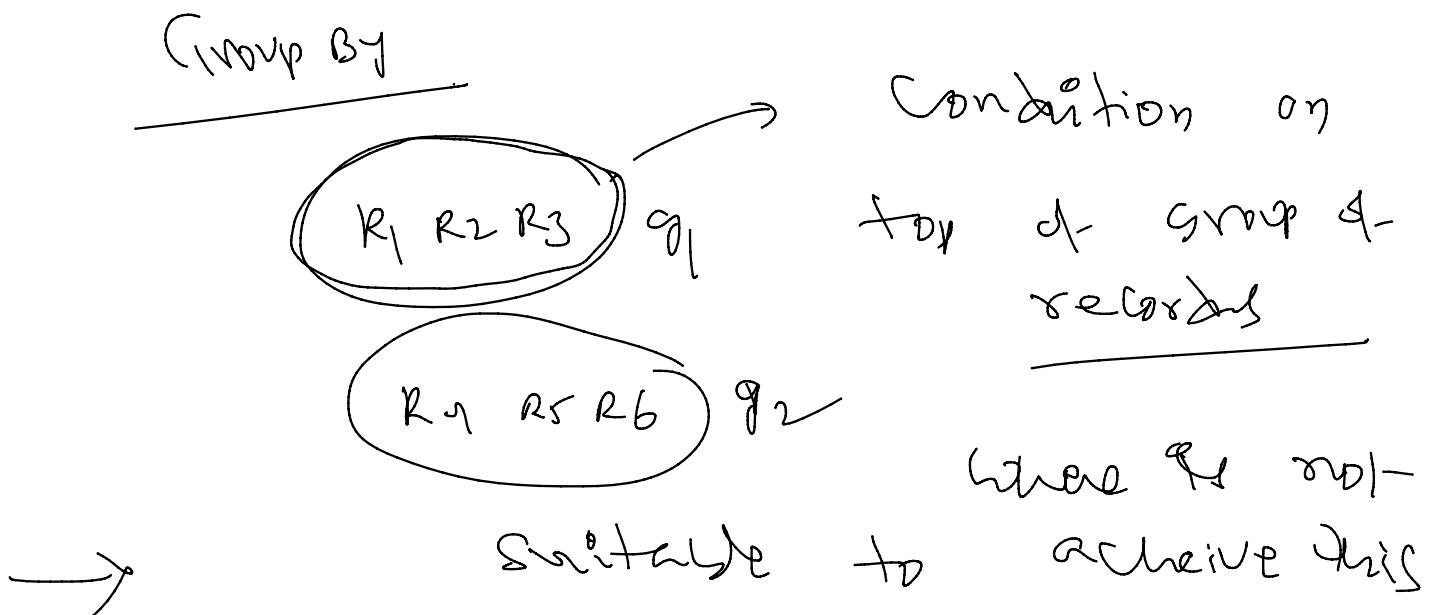
Select Qual, Count(*)
from Emp
Where Count(*) > 2
Group by Qual

MySQL is not allowing where
clause usage with group by

table



where verifies the
condition on individual
record.



On group & records if I want to apply a condition which gives some set of records meeting with that condition, can be done with

[Having clause]

```
select aadl, Count(*)  
from Emp  
group by aadl having Count(*) > 3;
```

Constructs

- ① select
 ② order by
 ③ group by
 ④ having
 ⑤ Aggregate functions

Table

A_1	$(A_2 A_3 \dots A_n)$
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Query

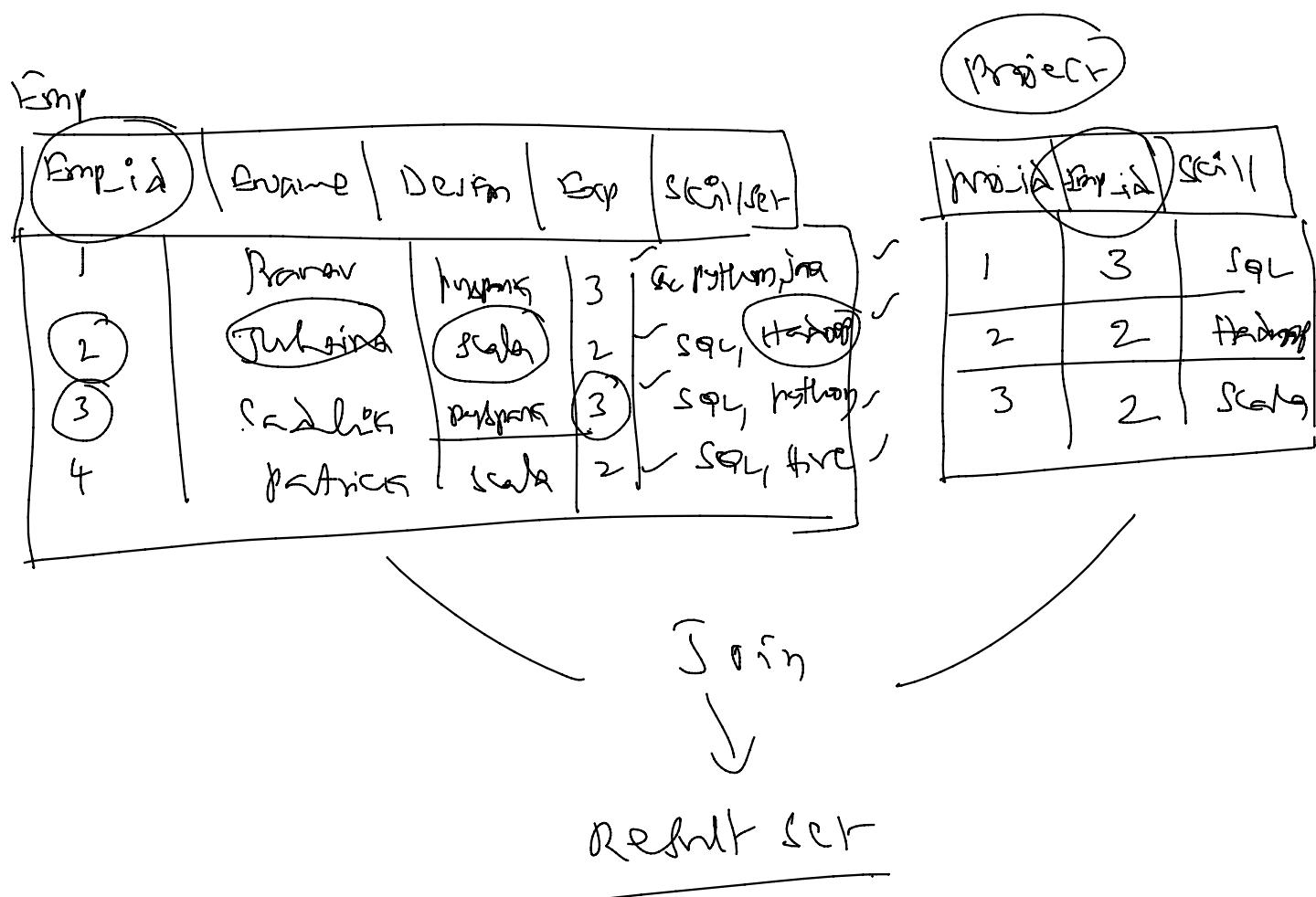
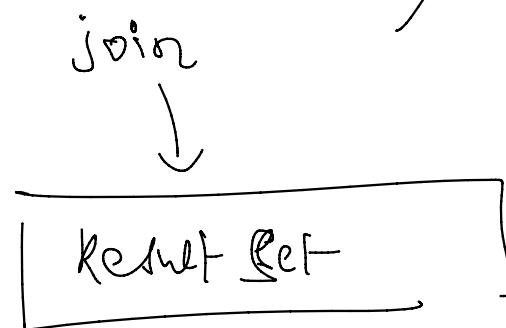
Result set

T_1

A_1	$(A_2 A_3 \dots A_n)$
-------	-----------------------------

T_2

B_1	$(B_2 B_3 \dots B_n)$
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Join: To combine the records from the two tables.

Condition: A common Column

(Datatype, kind of the Data) must be there in both the tables.

Join Categories

① Inner Join

② LEFT OUTER JOIN

③ RIGHT OUTER JOIN

④ Join with where clause

⑤ Cartesian Join



Key take aways (DAS-08)

① NVL → IFNULL (Arg₁, Arg₂) → max

② Coalesce (Arg₁, Arg₂, Arg₃) → 3--

③ Group by clause

Qual, Designation

④ Like \rightarrow % or _ AND with

(4) Why where is not associated with
grainy →

(5) Having clause →

(6) Dry

$T_1 > T_{in} \rightarrow \text{Rehltser}$
 T_2

Assessment (1)