

SUB-QUERIES

- 1. Also Called as Nested Queries.
- 2.A Query inside another Query is called as sub-query.
- 3. The Outer Query depends on the Values (one or many) returned by the internal Query.
- 4. IN Operator is preferred in Sub-query when internal Query returns more then

one values

- 5. '=' is preferred when single value is returned by internal sub-query.
- 6. IN Operator can handle single as well as multiple values returned.

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Table 1:-

mysql> SELECT * FROM ED_RECORD;

ס	NAME	JOB	SALARY	COMM	DEPTNO	
01	SURESH	MANAGER	100000	5000	20	
02	ROHIT	SALES	100000	5000	20	
03	SUNITA	QUALITY	70000	3000	20	
04	GAURI	OPERATIONS	80000	3500	20	
05	SHRUTIKA	MANAGER	150000	4500	10	
06	SAHIL	SALES	130000	3500	10	
07	SHALAKA	QUALITY	64000	3500	10	
08	MOHSIN	OPERATIONS	55000	2500	10	
09	JEET	MANAGER	155000	4500	30	
10	YOGESH	SALES	90000	3500	30	
11	SMRUTI	QUALITY	55000	2500	30	
12	PAYAL	OPERATIONS	72000	1500	30	
13	SWAPNIL	MANAGER	97000	3200	40	
14	SHIRIN	SALES	50000	1500	400+	ifi i
15	SOHAIL	QUALITY	50000	2540	40	Itu
16	SURAJ	OPERATIONS	83000	2700	S ⁴⁰ + O +	Tv h
17	GILL	SALES	34000	NULL	50	1 9 1 1
18	SOURABH	OPERATIONS	41200	0	50	
19	ASHISH	MANAGER	53470	3700	60	
20	SURESH	QUALITY	41200	0	70	
03	NAVED	SECURITY	500	0	100	
21	SHIKHAR	FINANCE	700	40	200	
23	PRIYA	HR	4500	400	300	

²³ rows in set (0.00 sec)



Table 2:-

mysql> SELECT * FROM DEPT;

DEPTNO	DNAME	LOC
10	MECHANICAL	MUMBAI
20	COMPUTER	PUNE
30	CIVIL	BANGLORE
40	ENTC	CHENNAI
50	IT	MP
60	ELECTRIC	TAMIL_NADU
70	CHEMICAL	PUNJAB
80	EDUCATIONAL	KARNATAKA
90	ART	RAJASTHAN

9 rows in set (0.00 sec)

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Q1: DISPLAY NAME OF EMPLOYEES WHOSE DEPARTMENT NAME STARTS WITH 'C';

mysql> SELECT NAME FROM ED_RECORD WHERE DEPTNO IN(SELECT DEPTNO FROM DEPT WHERE DNAME LIKE 'C%');

Name
Swapnil
Shirin
Sohail
Suraj
Ashish



→ CROSS VERIFY

mysql> SELECT DEPTNO ,DNAME FROM DEPT WHERE DNAME

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Deptno	Dname
20	Computer
30	Civil
70	Chemical

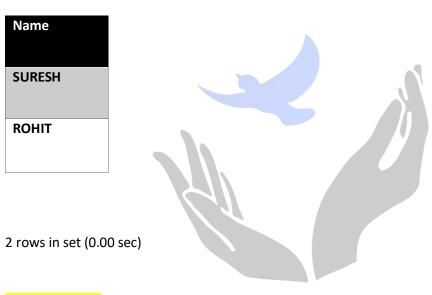
you wings to fly high

3 rows in set (0.00 sec)



Q2: DISPLAY DETAILS OF EMPLOYEE WHO IS EARNING MAXIMUM SALARY IN COMPUTER DEPARTMENT?

mysql> SELECT NAME FROM ED_RECORD WHERE SALARY=(SELECT MAX(SALARY) FROM ED_RECORD WHERE DEPTNO IN (SELECT DEPTNO FROM DEPT WHERE DNAME='COMPUTER'));



→ CROSS CHECK

mysql> SELECT DEPTNO FROM DEPT WHERE DNAME='COMPUTER';

+----+

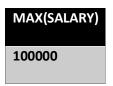
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DEPTNO	
20	

1 row in set (0.00 sec)

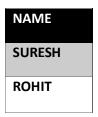


mysql> SELECT MAX(SALARY) FROM ED_RECORD WHERE DEPTNO=20;



1 row in set (0.00 sec)

mysql> SELECT NAME FROM ED_RECORD WHERE SALARY=100000 AND DEPTNO=20;



2 rows in set (0.00 sec)

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Q3:DISPLAY DEPARTMENT NAME WHOSE EMPLOYEE EARNS HIGHEST COMMISION?

mysql> SELECT DNAME FROM DEPT WHERE DEPTNO IN(SELECT DEPTNO FROM ED_RECORD WHERE COMM=(SELECT MAX(COMM) FROM ED_RECORD));



1 row in set (0.00 sec)

→ CROSS CHECK

mysql> SELECT MAX(COMM)FROM ED_RECORD;

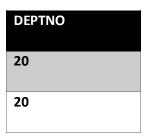


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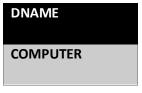


mysql> SELECT DEPTNO FROM ED_RECORD WHERE COMM=5000;



2 rows in set (0.00 sec)

mysql> SELECT DNAME FROM DEPT WHERE DEPTNO=20;



1 row in set (0.00 sec)

Q4:DISPLAY NAME OF EMPLOYEE WHOSE DEPARTMENT NAME CONTAINS I AS SECOND CHARACTER?

mysql> SELECT NAME, FROM ED_RECORD WHERE DEPTNO IN(SELECT DEPTNO FROM DEPT WHERE DNAME LIKE '_I%');

NAME	
JEET	
YOGESH	
SMRUTI	
PAYAL	

4 rows in set (0.00 sec)



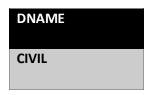
→ CROSS CHECK

mysql> SELECT DEPTNO FROM ED_RECORD WHERE NAME='JEET';



1 row in set (0.00 sec)

mysql> SELECT DNAME FROM DEPT WHERE DEPTNO=30;



1 row in set (0.00 sec)

Q5: DISPLAY ALL EMPLOYEES WHOSE DEPARTMENT NAME IS SAME AS SHALAKA?

mysql> SELECT NAME FROM ED_RECORD WHERE DEPTNO IN(SELECT DEPTNO FROM DEPT WHERE DNAME IN(SELECT DNAME FROM DEPT WHERE DEPTNO IN(SELECT DEPTNO FROM ED_RECORD WHERE NAME='SHALAKA')));

NAME			SHU	ULE
NAME				
SHRUTIKA	es you	wings	to fly	high
SAHIL				
SHALAKA				
MOHSIN				

4 rows in set (0.00 sec)



→ CROSS CHECK

mysql> SELECT DEPTNO FROM ED_RECORD WHERE NAME='SHRUTIKA';



1 row in set (0.00 sec)

mysql> SELECT DNAME FROM DEPT WHERE DEPTNO=10;



1 row in set (0.00 sec)

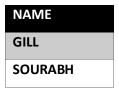
mysql> SELECT DEPTNO FROM ED_RECORD WHERE NAME='SHALAKA':



1 row in set (0.00 sec)

Q6:DISPLAY NAME OF EMPLOYEE WHOSE LOC IS SAME AS GILL? Gives you wings to fly high

mysql> SELECT NAME FROM ED_RECORD WHERE DEPTNO IN(SELECT DEPTNO FROM DEPT WHERE LOC IN(SELECT LOC FROM DEPT WHERE DEPTNO IN(SELECT DEPTNO FROM ED_RECORD WHERE NAME='GILL')));



2 rows in set (0.00 sec



→ CROSS CHECK:

mysql> SELECT DEPTNO FROM ED_RECORD WHERE NAME='GILL';



1 row in set (0.00 sec)

mysql> SELECT DNAME,LOC FROM DEPT WHERE DEPTNO=50;

DNAME	LOC
IT	MP

1 row in set (0.00 sec)

Q7:DISPLAY ALL EMPLOYEES WHOSE JOB IS NOT SAME AS SMRUTI AND SALARY IS GREATER THEN ROHIT?

mysql> SELECT * FROM ED_RECORD WHERE JOB!=(SELECT JOB FROM ED_RECORD WHERE NAME='SMRUTI') AND SALARY >(SELECT SALARY FROM ED_RECORD WHERE NAME='ROHIT');

ID	NAME	JOB	SALARY	COMM	DEPTNO
105	SHRUTIKA	MANAGER	150000	4500	10
106	SAHIL	SALES	130000	3500	10
109	JEET	MANAGER	150000	4500	30

3 rows in set (0.00 sec)



→ CROSS CHECK:

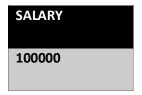
mysql> SELECT NAME,JOB FROM ED_RECORD WHERE NAME='SMRUTI';

+----+

NAME	JOB
SMRUTI	QUALITY

1 row in set (0.00 sec)

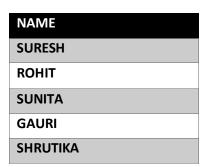
mysql> SELECT SALARY FROM ED_RECORD WHERE NAME='ROHIT';



1 row in set (0.00 sec)

Q8:DISPLAY ALL NAME OF EMPLOYEES WHO ARE WORKING IN MECHANICAL AND COMPUTER?

mysql> SELECT NAME FROM ED_RECORD WHERE DEPTNO IN(SELECT DEPTNO FROM DEPT WHERE DNAME IN('MECHANICAL','COMPUTER'));





SAHIL	
SHALAKA	
MOHSIN	

8 rows in set (0.00 sec)

→ CROSS CHECK:

mysql> SELECT DEPTNO FROM DEPT WHERE DNAME='COMPUTER';

DEPTNO 20

1 row in set (0.00 sec)

mysql> SELECT DEPTNO FROM ED_RECORD WHERE NAME='ROHIT';

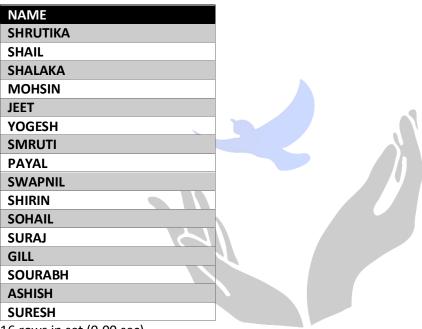
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1 row in set (0.00 sec) Ves you wings to fly high



Q9: DISPLAY NAME OF EMPLOYEE WHOSE LOC IS NOT SAME AS GAURI?

mysql> SELECT NAME FROM ED_RECORD WHERE DEPTNO IN(SELECT DEPTNO FROM DEPT WHERE LOC NOT IN(SELECT LOC FROM DEPT WHERE DEPTNO IN(SELECT DEPTNO FROM ED_RECORD WHERE NAME='GAURI')));



16 rows in set (0.00 sec)

→ CROSS CHECK

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mysql> SELECT DEPTNO FROM ED_RECORD WHERE NAME='GAURI';



1 row in set (0.00 sec)



mysql> SELECT DEPTNO FROM ED_RECORD WHERE NAME='SOURABH';



1 row in set (0.00 sec)

Q10: DISPLAY DEPARTMENT NAME FROM DEPARTMENT WHERE SALARY ARE REPEATED?

mysql> SELECT DNAME FROM DEPT WHERE DEPTNO IN(SELECT DEPTNO FROM ED_RECORD GROUP BY SALARY HAVING COUNT(SALARY)>1);

DNAME	
MECHANICAL	Smit IT Inctitute
COMPUTER	Smit IT Institute
ENTC	Gives you wings to fly high
IT	

4 rows in set (0.00 sec)