LAB QUERIES SIMPLE-Solution

## TEAM MEMBERS

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1) SELECT M.HACKER\_ID, H.NAME, SUM(SCORE) AS TOTAL\_SCORE FROM (SELECT HACKER\_ID,

CHALLENGE\_ID, MAX(SCORE) AS SCORE FROM SUBMISSIONS GROUP BY HACKER\_ID,

CHALLENGE\_ID) AS M

JOIN HACKERS AS H

ON M.HACKER\_ID = H.HACKER\_ID

GROUP BY M.HACKER\_ID, H.NAME

HAVING TOTAL\_SCORE > 0

ORDER BY TOTAL\_SCORE DESC, M.HACKER\_ID;

2) SELECT N, IF (P IS NULL, 'ROOT', IF ((SELECT COUNT (\*) FROM BST WHERE P = B.N)> 0, 'INNER', 'LEAF'))

FROM BST AS B

ORDER BY N;

3) SELECT CONCAT(NAME, '(', SUBSTRING(OCCUPATION, 1, 1), ')') AS NAME

FROM OCCUPATIONS

ORDER BY NAME

SELECT CONCAT('THERE ARE A TOTAL OF', ' ', COUNT(OCCUPATION), ' ',

LOWER(OCCUPATION), 'S.') AS PROFESSION

FROM OCCUPATIONS

GROUP BY OCCUPATION

ORDER BY PROFESSION;

4) SELECT H.HACKER\_ID, H.NAME FROM SUBMISSIONS AS S JOIN HACKERS AS H

ON S.HACKER\_ID = H.HACKER\_ID

JOIN CHALLENGES AS C ON S.CHALLENGE\_ID = C.CHALLENGE\_ID

JOIN DIFFICULTY AS D ON C.DIFFICULTY\_LEVEL = D.DIFFICULTY\_LEVEL

WHERE S.SCORE = D.SCORE

GROUP BY H.HACKER\_ID, H.NAME

HAVING COUNT(\*) > 1

ORDER BY COUNT (\*) DESC, H.HACKER\_ID;

SAMPLE QUESTIONS-Solution

1)

1. SELECT name,GDP FROM Country WHERE GDP > 500 AND GDP < 1000; (GDP IN BILLIONS)
2. SELECT Country.name, Country.life\_expentancy FROM Country INNER JOIN River ON Country.name = River.origin;
3. SELECT name FROM City

INNER JOIN Country ON City.country=Country.name

WHERE continent IN (‘South America’) OR population < 2; (POPULATION IN MILLIONS)

1. SELECT name FROM City

INNER JOIN Country ON City.country=Country.name

WHERE continent NOT IN (‘South America’);

2)

1. SELECT name FROM person JOIN accident ON person.name=accident.driver;
2. SELECT registration\_number FROM car WHERE registration\_number NOT IN ( SELECT reg\_no FROM accident);

3)

a.SELECT ename FROM Employee WHERE manager\_name = 'Ragu';\

b.SELECT department\_name

FROM Works

GROUP BY department\_name

ORDER BY COUNT(\*) DESC

LIMIT 1;

c.SELECT ename FROM Works WHERE salary = (SELECT MIN(salary) FROM Works);

1. SELECT w.ename FROM Works w

INNER JOIN (

SELECT department\_name, AVG(salary) AS avg\_salary FROM Works

GROUP BY department\_name

) AS avg\_salaries

ON w.department\_name = avg\_salaries.department\_name

WHERE w.salary > avg\_salaries.avg\_salary AND w.department\_name = 'sales';

4)

a.

SELECT COUNT(\*) AS total\_stops FROM TrainRoute

WHERE TrainNo IN (SELECT TrainNo FROM Train WHERE TrainName = 'Vaigai Express');

b.

SELECT S.StopName FROM Stop S

JOIN TrainRoute TR ON S.Stopid = TR.Stopid

JOIN Train T ON TR.TrainNo = T.TrainNo

WHERE T.TrainName = 'Nellai Express'

ORDER BY S.StopName;

c.

SELECT S.StopName

FROM Stop S

JOIN TrainRoute TR ON S.Stopid = TR.Stopid

JOIN Train T ON TR.TrainNo = T.TrainNo

WHERE T.TrainName = 'Pearl City Express' AND TR.Rank = 2;

d.

SELECT S.StopName

FROM Stop S

JOIN TrainRoute TR ON S.Stopid = TR.Stopid

JOIN Train T ON TR.TrainNo = T.TrainNo

WHERE T.TrainName = 'Pandiyan Express'

ORDER BY TR.Rank DESC

LIMIT 1;

e.

SELECT DISTINCT TR1.TrainNo

FROM TrainRoute TR1

JOIN TrainRoute TR2 ON TR1.TrainNo = TR2.TrainNo

WHERE TR1.Stopid IN (SELECT Stopid FROM Stop WHERE StopName = 'Madurai')

AND TR2.Stopid IN (SELECT Stopid FROM Stop WHERE StopName = 'Trichy');

f.

SELECT DISTINCT S.StopName

FROM Stop S

JOIN TrainRoute TR1 ON S.Stopid = TR1.Stopid

WHERE TR1.TrainNo IN (

SELECT TR2.TrainNo

FROM TrainRoute TR2

WHERE TR2.Stopid = (SELECT Stopid FROM Stop WHERE StopName = 'Madurai')

);

5)

a.

SELECT E1.ename

FROM Employee E1

JOIN Manages M ON E1.ename = M.ename

JOIN Employee E2 ON M.mname = E2.ename AND E1.ecity = E2.ecity;

b.

SELECT E.ename

FROM Employee E

JOIN Works W ON E.ename = W.ename

JOIN Company C ON W.cname = C.cname AND E.ecity = C.ccity;

c.

SELECT W.ename

FROM Works W

WHERE W.salary > (

SELECT AVG(salary)

FROM Works W2

WHERE W.cname = W2.cname

);

d.

SELECT W.ename

FROM Works W

WHERE W.salary > (

SELECT AVG(salary)

FROM Works

);

e.

SELECT W.cname

FROM Works W

GROUP BY W.cname

ORDER BY AVG(W.salary) DESC

LIMIT 1;

f.

SELECT W.cname, SUM(W.salary) AS total\_salary

FROM Works W

GROUP BY W.cname;

g.

SELECT E.ename

FROM Employee E

WHERE NOT EXISTS (

SELECT \*

FROM Works W1

WHERE W1.cname = 'SBI' AND W1.salary >= ALL (

SELECT W2.salary

FROM Works W2

WHERE W2.ename = E.ename

)

);

h.

SELECT W.cname

FROM Works W

GROUP BY W.cname

ORDER BY COUNT(\*) DESC

LIMIT 1;

i.

SELECT C.cname

FROM Company C

WHERE NOT EXISTS (

SELECT S.ccity

FROM Company S

WHERE S.cname = 'SBI' AND NOT EXISTS (

SELECT \*

FROM Company C2

WHERE C2.cname = C.cname AND C2.ccity = S.ccity

)

);

j.

SELECT ename, ecity

FROM Employee;