Nitin chaudhary

9921103163

F7

Week 6 lab DSW

```
show databases;
use db;
show tables;

create table emp(
    eid integer primary key,
    ename varchar(20),
    age integer,
    salary integer,
    gender varchar(10)
);


create table works(
    eid integer ,
    did integer,
    pct_time integer);
alter table works add constraint primary key(eid,did);
create table dept(
    did integer primary key,
    dname varchar(20),
    budget integer,
    managerid integer
);

insert into emp values(1,'Ni','28',10000000,'female');
insert into emp values(2,'in','34',100000,'male');
insert into emp values(3,'N','44',300000,'female');
insert into emp values(4,'Nn','23',50000,'female');
insert into emp values(5,'Nin','55',600000,'female');
insert into emp values(6,'Niti','31',700000,'female');
insert into emp values(7,'Nihn','34',90000,'female');
insert into emp values(8,'Niggtin','42',900000,'male');
insert into emp values(9,'Nitsin','41',200000,'male');
insert into emp values(10,'Niadtin','23',400000,'male');
insert into emp values(11,'Ndgitin','37',700000,'male');
insert into emp values(12,'Nitizin','38',500000,'male');
insert into emp values(13,'Nipwtin','48',300000,'male');
insert into emp values(14,'Nitiein','58',100000,'male');
insert into emp values(15,'Nitinid','38',200000,'male');
```

```sql
insert into emp values(16,'Nitiuidn','28',200000,'male');
insert into emp values(17,'Nitddin','28',300000,'female');
insert into emp values(18,'Nifetin','27',500000,'male');
insert into emp values(19,'Nibstin','58',300000,'female');
insert into emp values(20,'Nveritin','28',200000,'male');


insert into works values(1,1,15);
insert into works values(2,2,25);
insert into works values(3,3,17);
insert into works values(4,4,19);
insert into works values(5,5,35);
insert into works values(6,6,10);
insert into works values(7,7,11);
insert into works values(8,8,12);
insert into works values(9,9,13);
insert into works values(10,10,14);
insert into works values(11,11,15);
insert into works values(12,12,15);
insert into works values(13,13,15);
insert into works values(14,14,16);
insert into works values(15,15,23);
insert into works values(16,16,21);
insert into works values(17,17,28);
insert into works values(18,18,30);
insert into works values(19,19,11);
insert into works values(20,20,15);


insert into dept values(1,'Hardware',1000000,1);
insert into dept values(2,'Software',10000000,2);
insert into dept values(3,'Hardware',1000000,3);
insert into dept values(4,'Software',100000,4);
insert into dept values(5,'Hardware',1000000,5);
insert into dept values(6,'Software',10000000,6);
insert into dept values(7,'Hardware',1000000,7);
insert into dept values(8,'Software',100000,8);
insert into dept values(9,'Hardware',5000000,9);
insert into dept values(10,'Software',20000000,10);
insert into dept values(11,'Hardware',1000000,11);
insert into dept values(12,'Software',90000,12);
insert into dept values(13,'Hardware',1000000,13);
insert into dept values(14,'Software',10000000,14);
insert into dept values(15,'Hardware',1000000,15);
insert into dept values(16,'Software',1000000,16);
insert into dept values(17,'Hardware',10000,17);
insert into dept values(18,'Software',100000,18);
insert into dept values(19,'Hardware',1000070,19);
insert into dept values(20,'Software',10000000,20);
```

```
mysql> select * from emp;
+-----+----------+------+----------+--------+
| eid | ename    | age  | salary   | gender |
+-----+----------+------+----------+--------+
|   1 | Ni       |   28 | 10000000 | female |
|   2 | in       |   34 |   100000 | male   |
|   3 | N        |   44 |   300000 | female |
|   4 | Nn       |   23 |    50000 | female |
|   5 | Nin      |   55 |   600000 | female |
|   6 | Niti     |   31 |   700000 | female |
|   7 | Nihn     |   34 |    90000 | female |
|   8 | Niggtin  |   42 |   900000 | male   |
|   9 | Nitsin   |   41 |   200000 | male   |
|  10 | Niadtin  |   23 |   400000 | male   |
|  11 | Ndgitin  |   37 |   700000 | male   |
|  12 | Nitizin  |   38 |   500000 | male   |
|  13 | Nipwtin  |   48 |   300000 | male   |
|  14 | Nitiein  |   58 |   100000 | male   |
|  15 | Nitinid  |   38 |   200000 | male   |
|  16 | Nitiuidn |   28 |   200000 | male   |
|  17 | Nitddin  |   28 |   300000 | female |
|  18 | Nifetin  |   27 |   500000 | male   |
|  19 | Nibstin  |   58 |   300000 | female |
|  20 | Nveritin |   28 |   200000 | male   |
+-----+----------+------+----------+--------+
20 rows in set (0.00 sec)

mysql> select * from works;
+-----+-----+----------+
| eid | did | pct_time |
+-----+-----+----------+
|   1 |   1 |       15 |
|   2 |   2 |       25 |
|   3 |   3 |       17 |
|   4 |   4 |       19 |
|   5 |   5 |       35 |
|   6 |   6 |       10 |
|   7 |   7 |       11 |
|   8 |   8 |       12 |
|   9 |   9 |       13 |
|  10 |  10 |       14 |
|  11 |  11 |       15 |
|  12 |  12 |       15 |
|  13 |  13 |       15 |
|  14 |  14 |       16 |
|  15 |  15 |       23 |
|  16 |  16 |       21 |
|  17 |  17 |       28 |
|  18 |  18 |       30 |
|  19 |  19 |       11 |
|  20 |  20 |       15 |
+-----+-----+----------+
20 rows in set (0.00 sec)
```

```
mysql> select * from dept;
+-----+----------+----------+-----------+
| did | dname    | budget   | managerid |
+-----+----------+----------+-----------+
|   1 | Hardware | 1000000  |         1 |
|   2 | Software | 10000000 |         2 |
|   3 | Hardware | 1000000  |         3 |
|   4 | Software | 100000   |         4 |
|   5 | Hardware | 1000000  |         5 |
|   6 | Software | 10000000 |         6 |
|   7 | Hardware | 1000000  |         7 |
|   8 | Software | 100000   |         8 |
|   9 | Hardware | 5000000  |         9 |
|  10 | Software | 20000000 |        10 |
|  11 | Hardware | 1000000  |        11 |
|  12 | Software | 90000    |        12 |
|  13 | Hardware | 1000000  |        13 |
|  14 | Software | 10000000 |        14 |
|  15 | Hardware | 1000000  |        15 |
|  16 | Software | 1000000  |        16 |
|  17 | Hardware | 10000    |        17 |
|  18 | Software | 100000   |        18 |
|  19 | Hardware | 1000070  |        19 |
|  20 | Software | 10000000 |        20 |
+-----+----------+----------+-----------+
20 rows in set (0.00 sec)

mysql>
```

Ans 1

SELECT E.ename, E.age
FROM Emp E, Works W1, Works W2, Dept D1, Dept D2
WHERE E.eid = W1.eid AND W1.did = D1.did AND D1.dname = 'Hardware' AND
 E.eid = W2.eid AND W2.did = D2.did AND D2.dname = 'Software';

Ans 2

```
SELECT W.did, COUNT(W.eid)
FROM Works W
GROUP BY W.did
HAVING 2000 < ( SELECT SUM (W1.pct_time)
 FROM Works W1
 WHERE W1.did = W.did );
```

	did	COUNT(W.eid)
1	2	1
2	5	1
3	15	1
4	16	1
5	17	1
6	18	1

Ans 3

```
 SELECT E.ename
FROM Emp E
WHERE E.salary > ALL (SELECT D.budget
 FROM Dept D, Works W
 WHERE E.eid = W.eid AND D.did = W.did);
```

```
mysql>  SELECT E.ename
    -> FROM Emp E
    -> WHERE E.salary > ALL (SELECT D.budget
    ->  FROM Dept D, Works W
    ->  WHERE E.eid = W.eid AND D.did = W.did);
+---------+
| ename   |
+---------+
| Ni      |
| Niggtin |
| Nitizin |
| Nitddin |
| Nifetin |
+---------+
5 rows in set (0.00 sec)

mysql>
```

Ans 4

```
SELECT DISTINCT D.managerid
FROM Dept D
WHERE 1000000 < ALL (SELECT D2.budget
 FROM Dept D2
 WHERE D2.managerid = D.managerid );
```

```
mysql>
mysql> SELECT DISTINCT D.managerid
    -> FROM Dept D
    -> WHERE 1000000 < ALL (SELECT D2.budget
    ->  FROM Dept D2
    ->  WHERE D2.managerid = D.managerid );
+-----------+
| managerid |
+-----------+
|         2 |
|         6 |
|         9 |
|        10 |
|        14 |
|        19 |
|        20 |
+-----------+
7 rows in set (0.00 sec)

mysql>
```

Ans 5

```
SELECT E.ename
FROM Emp E
WHERE E.eid IN (SELECT D.managerid
 FROM Dept D
 WHERE D.budget = (SELECT MAX (D2.budget)
 FROM Dept D2));
```

ename	
Niadtin	

Ans 6

```
SELECT D.managerid
FROM Dept D
WHERE 5000000 < (SELECT SUM (D2.budget)
 FROM Dept D2
 WHERE D2.managerid = D.managerid );
```

	managerid	
1	2	
2	6	
3	10	
4	14	
5	20	

Ans 7

select d.managerid from dept d where d.budget>=All(select budget from dept);

```
mysql> select d.managerid from dept d where d.budget>=All(select budget from dept);
+-----------+
| managerid |
+-----------+
|        10 |
+-----------+
1 row in set (0.00 sec)

mysql>
```

Ans 8-

select d.dname,count(*) from dept d group by d.dname having 30000<(select avg(salary) from emp e,dept dep where e.eid=dep.did and dep.dname=d.dname);

```
mysql> select d.dname,count(*) from dept d group by d.dname having 30000<(select avg(salary) from emp e,dept dep where e.eid=dep.did and  dep.dname=d.dname);
+----------+----------+
| dname    | count(*) |
+----------+----------+
| Hardware |       10 |
| Software |       10 |
+----------+----------+
2 rows in set (0.00 sec)

mysql>
```

Ans 9-

select d.dname,count(*) from dept d group by d.dname having 30000<=All(select e.salary from emp e,dept dep where e.eid=dep.did and e.gender="male" and dep.dname=d.dname);

```
mysql> select d.dname,count(*) from dept d group by d.dname having 30000<=All(select e.salary from emp e,dept dep where e.eid=dep.did and e.gender="male" and dep.dname=d.dname );
+----------+----------+
| dname    | count(*) |
+----------+----------+
| Hardware |       10 |
| Software |       10 |
+----------+----------+
2 rows in set (0.04 sec)

mysql>
```

ANS 10-

select ename,dname from emp,dept,works where emp.eid=works.eid and works.did=dept.did and dname=(select dname from dept,emp,works where emp.ei

d=works.eid and works.did=dept.did and salary>=ALL(select salary from e
mp));

```
mysql> select ename,dname from emp,dept,works where emp.eid=works.eid and works.did=dept.did and dname=(select dname from dept,emp,works where emp.eid=works.eid and works.d
id=dept.did and salary>=ALL(select salary from emp));
+---------+----------+
| ename   | dname    |
+---------+----------+
| Ni      | Hardware |
| N       | Hardware |
| Nin     | Hardware |
| Nihn    | Hardware |
| Nitsin  | Hardware |
| Ndgitin | Hardware |
| Nipwtin | Hardware |
| Nitinid | Hardware |
| Nitddin | Hardware |
| Nibstin | Hardware |
+---------+----------+
10 rows in set (0.00 sec)
```

Ans 11-

select ename from emp where 10000<(salary-
(select min(salary) from emp));

```
mysql> select ename from emp where 10000<(salary-(select min(salary) from emp));
+----------+
| ename    |
+----------+
| Ni       |
| in       |
| N        |
| Nin      |
| Niti     |
| Nihn     |
| Niggtin  |
| Nitsin   |
| Niadtin  |
| Ndgitin  |
| Nitizin  |
| Nipwtin  |
| Nitiein  |
| Nitinid  |
| Nitiuidn |
| Nitddin  |
| Nifetin  |
| Nibstin  |
| Nveritin |
+----------+
19 rows in set (0.04 sec)

mysql>
```