

# **DBMS EXPERIMENTS**

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## **EXPERIMENT-5**

CREATING TABLES:

```
create table employee(person_name varchar(20) primary key,street varchar(20),city
varchar(10));
create table company(company_name varchar(10) primary key,city varchar(10));
create table works(person_name varchar(20) not null,company_name varchar(10) not
null,salary int,foreign key(person_name) references employee(person_name),foreign
key(company_name) references company(company_name));
create table manages(person_name varchar(20) not null,manager_name varchar(10),foreign
key(person_name) references employee(person_name));
```

INSERTING VALUES:

```
insert into employee values ('Amogh Garg','6th Street','Delhi'),('Akshat Barwal','7th
Street','Mumbai'),('Harkeerat','8th Street','Kolkata');
insert into company values ('Samba Bank','Delhi'),('NCB Bank','Bangalore');
insert into works values ('Amogh Garg','Samba Bank',8500),('Akshat Barwal','NCB
Bank',11000),('Harkeerat','NCB Bank',9000);
insert into manages values('Amogh Garg','Akshat Barwal'),('Akshat
Barwal','Harkeerat'),('Harkeerat','Amogh Garg');
```

```
MariaDB [question_5]> select * from employee;
+-----+-----+-----+
| person_name | street | city |
+-----+-----+-----+
| Akshat Barwal | 7th Street | Mumbai |
| Amogh Garg | 6th Street | Delhi |
| Harkeerat | 8th Street | Kolkata |
+-----+-----+-----+
3 rows in set (0.001 sec)

MariaDB [question_5]> select * from company;
+-----+-----+
| company_name | city |
+-----+-----+
| NCB Bank | Bangalore |
| Samba Bank | Delhi |
+-----+-----+
2 rows in set (0.001 sec)

MariaDB [question_5]> select * from works;
+-----+-----+-----+
| person_name | company_name | salary |
+-----+-----+-----+
| Amogh Garg | Samba Bank | 8500 |
| Akshat Barwal | NCB Bank | 11000 |
| Harkeerat | NCB Bank | 9000 |
+-----+-----+-----+
3 rows in set (0.001 sec)

MariaDB [question_5]> select * from manages;
+-----+-----+
| person_name | manager_name |
+-----+-----+
| Amogh Garg | Akshat Bar |
| Akshat Barwal | Harkeerat |
| Harkeerat | Amogh Garg |
+-----+-----+
3 rows in set (0.001 sec)
```

1. Table employee-Primary key is person\_name  
 Table company-Primary key is company\_name  
 Table works-Foreign key is person\_name and company\_name  
 Table manages-Foreign key is person\_name

2. alter table employee add column email varchar(20) null;

```
MariaDB [question_5]> select * from employee;
```

person_name	street	city	email
Akshat Barwal	7th Street	Mumbai	NULL
Amogh Garg	6th Street	Delhi	NULL
Harkeerat	8th Street	Kolkata	NULL

```
3 rows in set (0.001 sec)
```

3. select m.manager\_name from manages m,works w where m.person\_name=w.person\_name and w.company\_name='Samba Bank' and w.company\_name='NCB Bank';

```
Empty set (0.001 sec)
```

4. select e.person\_name,e.street,e.city from employee e,works w where e.person\_name=w.person\_name and w.company\_name='NCB Bank' and w.salary>10000;

```
MariaDB [question_5]> select e.person_name,e.street,e.city from employee e,works w where e.person_name=w.person_name
-> and w.company_name='NCB Bank' and w.salary>10000;
```

person_name	street	city
Akshat Barwal	7th Street	Mumbai

```
1 row in set (0.002 sec)
```

5. select e.person\_name from employee e,works w,company c where e.person\_name=w.person\_name and w.company\_name=c.company\_name and e.city=c.city;

```
MariaDB [question_5]> select e.person_name from employee e,works w,company c where e.person_name=w.person_name and w.company_name=c.company_name
-> and e.city=c.city;
```

person_name
Amogh Garg

```
1 row in set (0.004 sec)
```

6. select max(salary),company\_name from works group by company\_name;  
 select min(salary),company\_name from works group by company\_name;  
 select avg(salary),company\_name from works group by company\_name;

```

MariaDB [question_5]> select max(salary),company_name from works group by company_name;
+-----+-----+
| max(salary) | company_name |
+-----+-----+
|          11000 | NCB Bank      |
|          8500  | Samba Bank    |
+-----+-----+
2 rows in set (0.001 sec)

MariaDB [question_5]> select min(salary),company_name from works group by company_name;
+-----+-----+
| min(salary) | company_name |
+-----+-----+
|          9000 | NCB Bank      |
|          8500 | Samba Bank    |
+-----+-----+
2 rows in set (0.003 sec)

MariaDB [question_5]> select avg(salary),company_name from works group by company_name;
+-----+-----+
| avg(salary) | company_name |
+-----+-----+
| 10000.0000  | NCB Bank      |
| 8500.0000   | Samba Bank    |
+-----+-----+
2 rows in set (0.004 sec)

```

7. select company\_name from works order by salary desc limit 1;

```

MariaDB [question_5]> select company_name from works order by salary desc limit 1;
+-----+
| company_name |
+-----+
| NCB Bank      |
+-----+
1 row in set (0.000 sec)

```