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Roll No. – 25MCMC29

Exercise: 4

1. Consider the following employee database.

employee (ID, emp_name, age, street, city)

works (ID, company_name, salary)

company (company_name, city)

Give an expression each in the relational algebra to express the following queries.

a. Find the name of each employee whose salary is greater than Rs. 1000000. (1 point)

$\pi_{emp\_name}(\sigma_{salary>1000000}\ (\sigma_{works.ID = employee.ID}\ (employee\ X\ works))$

b. Find the name of each employee who lives in the city "Hyderabad" and whose salary less than 1000000

$\pi_{emp\_name}(\sigma_{works\ .ID = employee.ID\ \wedge\ works.salary< 1000000}(works\ X\ employee))$

c. Find the ID and name of each employee who does not work for "University of Hyderabad". (1 point)

$\pi_{ID\ ,\ emp\_name}\ (\sigma_{works.ID = employee.ID\ \wedge\ works.company\_name <> \text{'University of Hyderabad'}}(works\ X\ employee))$

d. Find the ID and name of each employee who earns at least as much as every employee in the database.

$\pi_{ID,emp\_name}(\sigma_{E1.salary<E2.salary}(\rho_{E1}(employeeXworks)X\rho_{E2}(employeeXworks)))$

2 . Create Data base "create database 25MCMCXX”

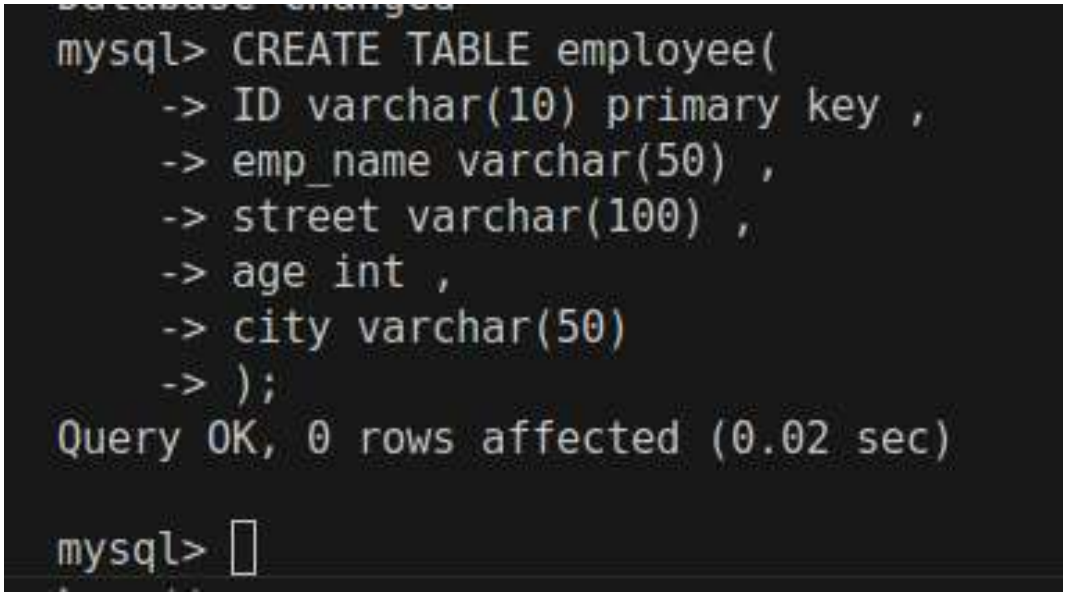
Create Database

```
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
4 rows in set (0.00 sec)

mysql> CREATE DATABASE 25MCMC29;
Query OK, 1 row affected (0.00 sec)

mysql> USE 25MCMC29;
Database changed
mysql>
```

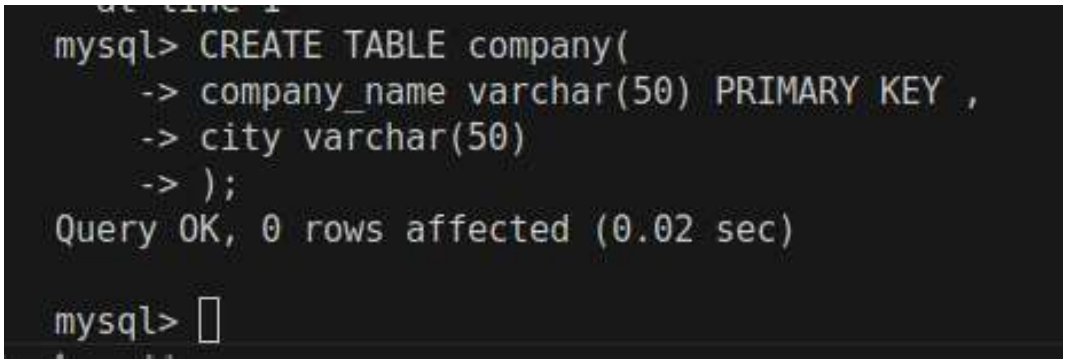
3. Now create the employee database tables in your database.

a. Ensure all the primary key and foreign key relations while creating the tables.

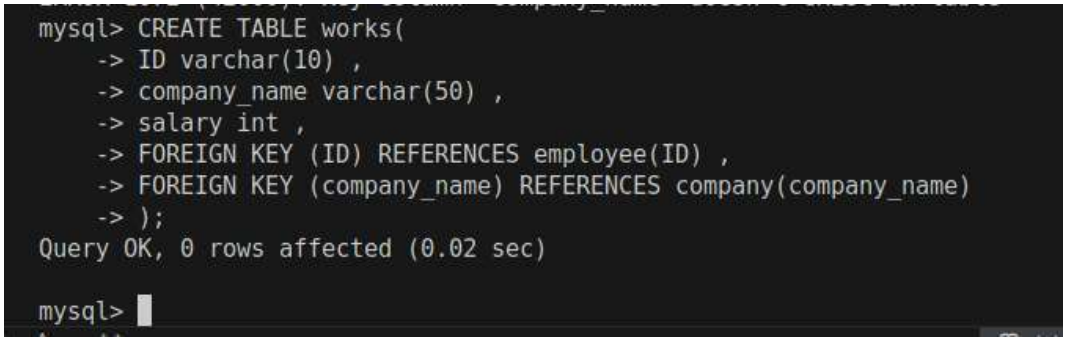
Creating table employee



Creating table company



creating table works



b . Populate the tables with at least 5 entries per table.

Inserting data in employee

```
mysql> INSERT INTO employee(ID,emp_name,street,age,city) VALUES
    -> ('25soe1','Adarsh','hesal',34,'ranchi'),
    -> ('25soe2','Adrarsh garv','sector 1',23,'delhi'),
    -> ('25soe4','ajit raja','raja complex',45,'gorakpur'),
    -> ('25soe7','billu dada','cat complex',30,'sikkim'),
    -> ('24soe89','faran saju','south complex',26,'raxol')
    -> ;
Query OK, 5 rows affected (0.01 sec)
Records: 5  Duplicates: 0  Warnings: 0

mysql>
```

Inserting data into employee

```
mysql> INSERT INTO company(company_name,city) VALUES ('sun','banglore')
    -> ,('roy grp','rajasthan'),
    -> ('giio','mumbai'),
    -> ('flask','chapra'),
    -> ('neo pvt','hyderabad')
    -> ;
Query OK, 5 rows affected (0.00 sec)
Records: 5  Duplicates: 0  Warnings: 0
```

Inserting data in works

```
mysql> INSERT INTO works(ID,company_name,salary) VALUES ('24soe89','giio',35000),
    -> ('25soe1','neo pvt',20000),
    -> ('25soe4','roy grp',23000),
    -> ('25soe7','sun',30000);
Query OK, 4 rows affected (0.01 sec)
Records: 4  Duplicates: 0  Warnings: 0
```

4. all the SQL commands discussed/demonstrated in the slides

Updating works table works

```
mysql> UPDATE works
    -> SET salary = salary * 12;
Query OK, 5 rows affected (0.01 sec)
Rows matched: 5  Changed: 5  Warnings: 0

mysql>
```

Updating specific detail of the employee

```
mysql> select * from employee
    -> ;
+---------+--------------+---------------+------+----------+
| ID      | emp_name     | street        | age  | city     |
+---------+--------------+---------------+------+----------+
| 24soe89 | faran saju   | south complex |   26 | raxol    |
| 25soe1  | Adarsh       | hesal         |   34 | ranchi   |
| 25soe2  | Adrarsh garv | sector 1      |   23 | delhi    |
| 25soe4  | ajit raja    | raja complex  |   45 | gorakpur |
| 25soe7  | billu dada   | cat complex   |   30 | sikkim   |
+---------+--------------+---------------+------+----------+
5 rows in set (0.00 sec)

mysql> UPDATE employee
    -> SET emp_name = 'Akash Garv'
    -> WHERE ID = '25soe2';
Query OK, 1 row affected (0.02 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> SELECT * from employee;
+---------+------------+---------------+------+----------+
| ID      | emp_name   | street        | age  | city     |
+---------+------------+---------------+------+----------+
| 24soe89 | faran saju | south complex |   26 | raxol    |
| 25soe1  | Adarsh     | hesal         |   34 | ranchi   |
| 25soe2  | Akash Garv | sector 1      |   23 | delhi    |
| 25soe4  | ajit raja  | raja complex  |   45 | gorakpur |
| 25soe7  | billu dada | cat complex   |   30 | sikkim   |
+---------+------------+---------------+------+----------+
5 rows in set (0.00 sec)

mysql>
```

Projection of NULL

```
mysql> SELECT NULL;
+------+
| NULL |
+------+
| NULL |
+------+
1 row in set (0.00 sec)

mysql> SELECT test;
ERROR 1054 (42S22): Unknown column 'test' in 'field list'
mysql>
```

Projection of empty string

```
mysql> SELECT '';
+--+
|  |
+--+
|  |
+--+
1 row in set (0.00 sec)

mysql>
```

Projection of string with changed name

```
mysql> SELECT 'temp' as TEST;
+------+
| TEST |
+------+
| temp |
+------+
1 row in set (0.00 sec)

mysql>
```

show all employee in database

```
mysql> SELECT * from company;
+--------------+-----------+
| company_name | city      |
+--------------+-----------+
| flask        | chapra    |
| giio         | mumbai    |
| neo pvt      | hyderabad |
| roy grp      | rajasthan |
| sun          | banglore  |
+--------------+-----------+
5 rows in set (0.00 sec)

mysql>
```

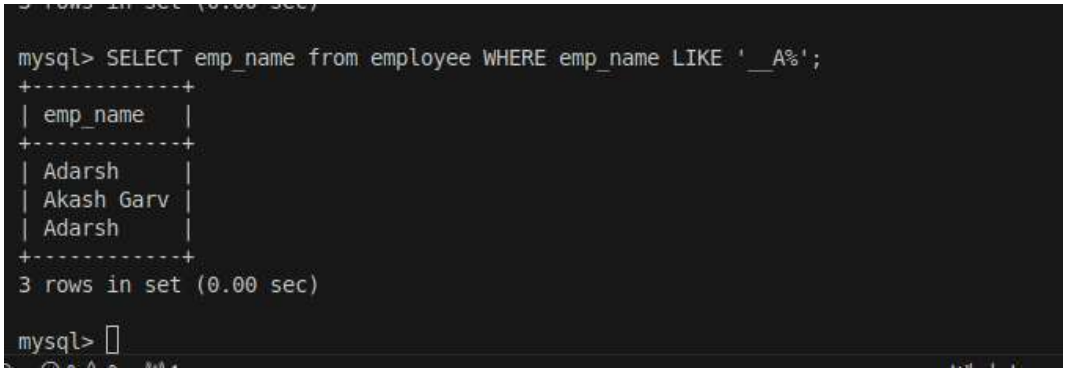
Display only employee name

```
mysql> SELECT emp_name from employee;
+------------+
| emp_name   |
+------------+
| faran saju |
| Adarsh     |
| Akash Garv |
| ajit raja  |
| billu dada |
+------------+
5 rows in set (0.00 sec)

mysql>
```

Show distinct employee name

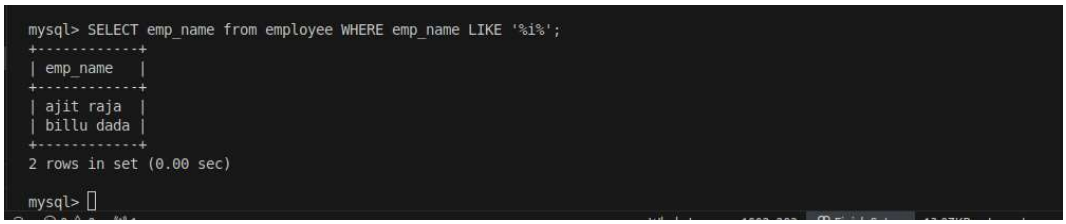
```
mysql> INSERT INTO employee VALUES ('25soe9','Adarsh','khelgao',32,'ranchi');
Query OK, 1 row affected (0.00 sec)

mysql> SELECT * from employee;
+---------+------------+---------------+------+----------+
| ID      | emp_name   | street        | age  | city     |
+---------+------------+---------------+------+----------+
| 24soe89 | faran saju | south complex |   26 | raxol    |
| 25soe1  | Adarsh     | hesal         |   34 | ranchi   |
| 25soe2  | Akash Garv | sector 1      |   23 | delhi    |
| 25soe4  | ajit raja  | raja complex  |   45 | gorakpur |
| 25soe7  | billu dada | cat complex   |   30 | sikkim   |
| 25soe9  | Adarsh     | khelgao       |   32 | ranchi   |
+---------+------------+---------------+------+----------+
6 rows in set (0.00 sec)

mysql> SELECT DISTINCT emp_name from employee;
+------------+
| emp_name   |
+------------+
| faran saju |
| Adarsh     |
| Akash Garv |
| ajit raja  |
| billu dada |
+------------+
5 rows in set (0.00 sec)

mysql>
```

Show name with min 3 char where 3rd char is A



```
mysql> SELECT emp_name from employee WHERE emp_name LIKE '__A%';
+------------+
| emp_name   |
+------------+
| Adarsh     |
| Akash Garv |
| Adarsh     |
+------------+
3 rows in set (0.00 sec)

mysql>
```

Show employee name which contains I in it

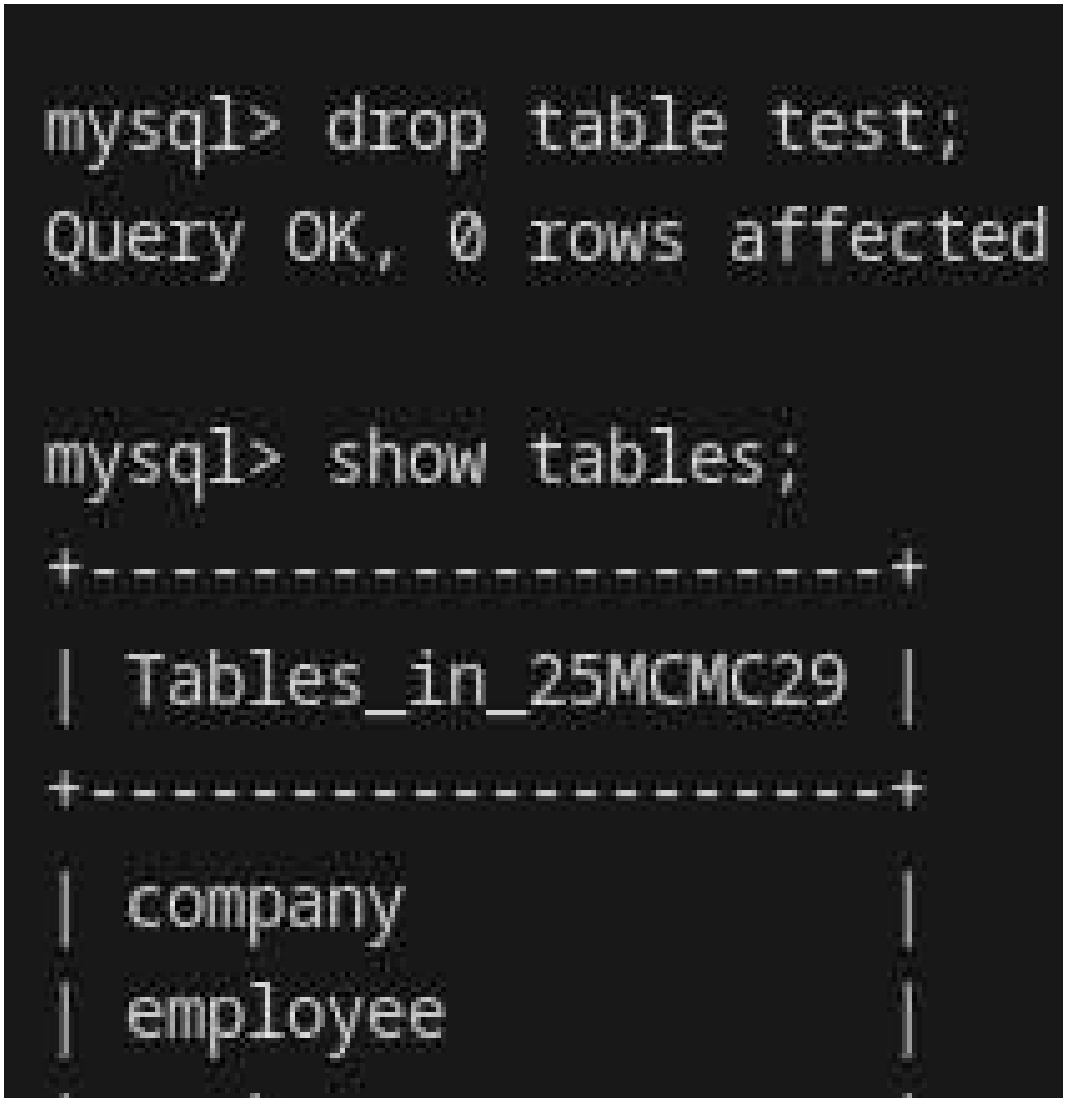


```
mysql> SELECT emp_name from employee WHERE emp_name LIKE '%i%';
+------------+
| emp_name   |
+------------+
| ajit raja  |
| billu dada |
+------------+
2 rows in set (0.00 sec)

mysql>
```

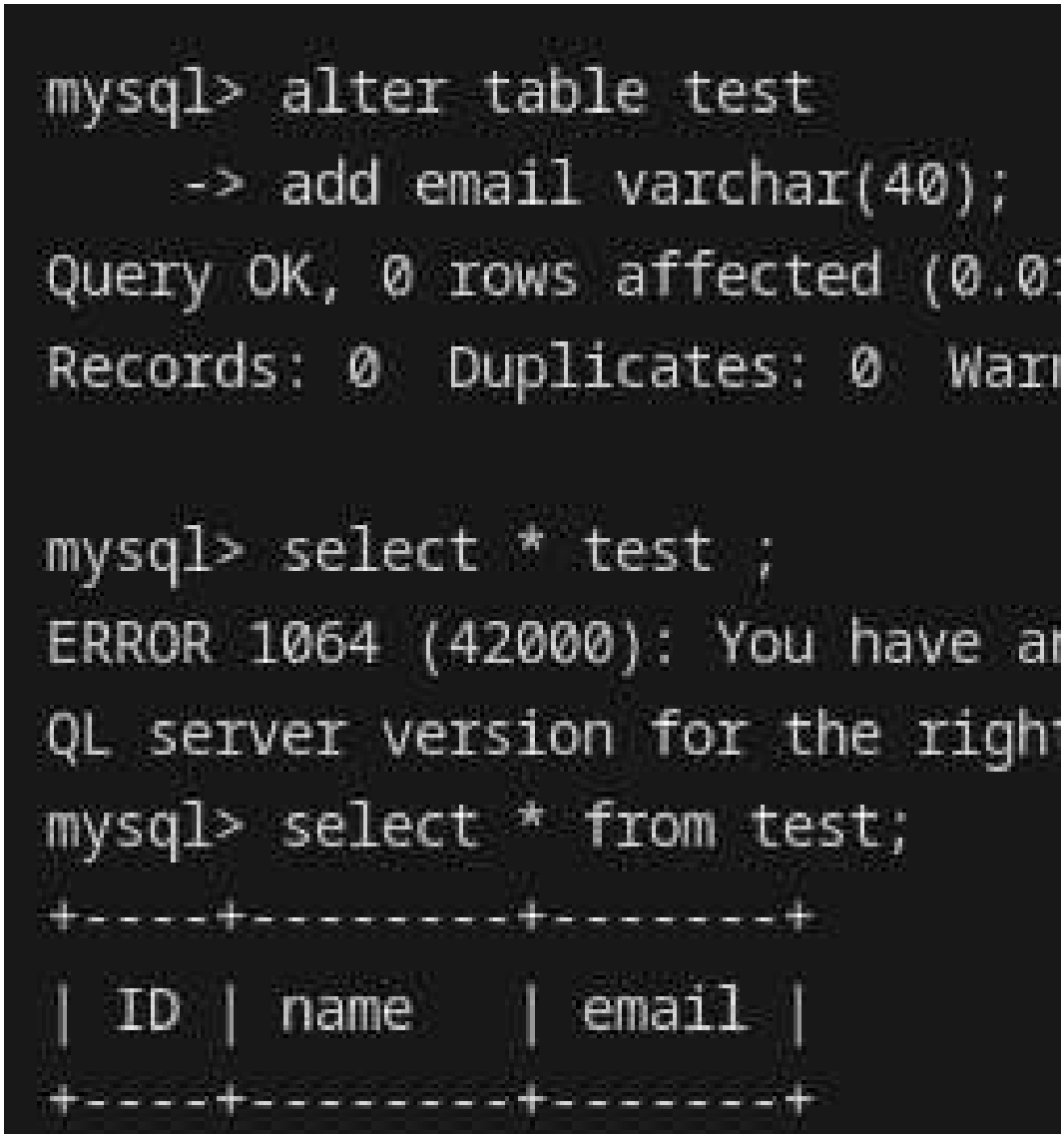
Use of delete command

```
mysql> insert into test values (12
    -> (14,'AJIT'),
    -> (16,'garv');
Query OK, 3 rows affected (0.00 se
Records: 3  Duplicates: 0  Warning

mysql> delete from test where id =
Query OK, 1 row affected (0.00 sec

mysql> select * from test;
+----+--------+
| ID | name   |
```

Use of drop command



Use of alter command to add column



Use of alter command to drop the column

```
mysql> alter table test
    -> drop column email;
Query OK, 0 rows affected (0.01 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> select * from test;
+----+---------+
| ID | name    |
+----+---------+
| 12 | Adarsh  |
| 16 | garv    |
+----+---------+
2 rows in set (0.00 sec)

mysql>
```

Use of where clause

```
mysql> SELECT emp_name from employee
    -> WHERE city='delhi';
+------------+
| emp_name   |
+------------+
| Akash Garv |
+------------+
1 row in set (0.00 sec)
```


Projection of string

```
mysql> SELECT 'temp';
+------+
| temp |
+------+
| temp |
+------+
1 row in set (0.00 sec)

mysql>
```

Projection of string using from on table

```
mysql> select 'temp' from employee;
+------+
| temp |
+------+
| temp |
| temp |
| temp |
| temp |
| temp |
| temp |
+------+
6 rows in set (0.00 sec)

mysql>
```

Projection of attribute name

```
mysql> SELECT temp from employee;
ERROR 1054 (42S22): Unknown column 'temp' in 'field list'
mysql>
```

show all city name

```
mysql> SELECT ALL city from employee;
+----------+
| city     |
+----------+
| raxol    |
| ranchi   |
| delhi    |
| gorakpur |
| sikkim   |
| ranchi   |
+----------+
6 rows in set (0.00 sec)

mysql>
```

Show monthly salary of the employee

```
mysql> SELECT company_name , ID , salary/12 from works;'
+--------------+---------+------------+
| company_name | ID      | salary/12  |
+--------------+---------+------------+
| giio         | 24soe89 | 35000.0000 |
| neo pvt      | 25soe1  | 20000.0000 |
| flask        | 25soe2  | 25000.0000 |
| roy grp      | 25soe4  | 23000.0000 |
| sun          | 25soe7  | 30000.0000 |
+--------------+---------+------------+
5 rows in set (0.00 sec)

    '>
```

Use of As command

```
mysql> SELECT company_name , ID , salary/4 as QUARTRLY from works;
+--------------+---------+-------------+
| company_name | ID      | QUARTRLY    |
+--------------+---------+-------------+
| giio         | 24soe89 | 105000.0000 |
| neo pvt      | 25soe1  |  60000.0000 |
| flask        | 25soe2  |  75000.0000 |
| roy grp      | 25soe4  |  69000.0000 |
| sun          | 25soe7  |  90000.0000 |
+--------------+---------+-------------+
5 rows in set (0.00 sec)

mysql>
```

Pattern matching to get a on 3rd place

```
mysql> SELECT emp_name from employee
    -> WHERE emp_name LIKE '__a%';
+------------+
| emp_name   |
+------------+
| Adarsh     |
| Akash Garv |
| Adarsh     |
+------------+
3 rows in set (0.00 sec)

mysql>
```

Pattern matching to get a on 3rd place and salary > 70000

```
mysql> SELECT e.emp_name from employee e , works w where e.ID = w.ID AND e.emp_name LIKE '__A%' AND w.salary > 70000;
+------------+
| emp_name   |
+------------+
| Adarsh     |
| Akash Garv |
+------------+
2 rows in set (0.00 sec)

mysql>
```

Cross product of employee and work

```
mysql> SELECT * from employee , works;
+---------+-----------+--------------+------+----------+---------+--------------+--------+
| ID      | emp_name  | street       | age  | city     | ID      | company_name | salary |
+---------+-----------+--------------+------+----------+---------+--------------+--------+
| 24soe89 | faran saju | south complex |   26 | raxol    | 25soe7  | sun          | 360000 |
| 24soe89 | faran saju | south complex |   26 | raxol    | 25soe4  | roy grp      | 276000 |
| 24soe89 | faran saju | south complex |   26 | raxol    | 25soe2  | flask        | 300000 |
| 24soe89 | faran saju | south complex |   26 | raxol    | 25soe1  | neo pvt      | 240000 |
| 24soe89 | faran saju | south complex |   26 | raxol    | 24soe89 | giio         | 420000 |
| 25soe1  | Adarsh     | hesal         |   34 | ranchi   | 25soe7  | sun          | 360000 |
| 25soe1  | Adarsh     | hesal         |   34 | ranchi   | 25soe4  | roy grp      | 276000 |
| 25soe1  | Adarsh     | hesal         |   34 | ranchi   | 25soe2  | flask        | 300000 |
| 25soe1  | Adarsh     | hesal         |   34 | ranchi   | 25soe1  | neo pvt      | 240000 |
| 25soe1  | Adarsh     | hesal         |   34 | ranchi   | 24soe89 | giio         | 420000 |
| 25soe2  | Akash Garv | sector 1      |   23 | delhi    | 25soe7  | sun          | 360000 |
| 25soe2  | Akash Garv | sector 1      |   23 | delhi    | 25soe4  | roy grp      | 276000 |
| 25soe2  | Akash Garv | sector 1      |   23 | delhi    | 25soe2  | flask        | 300000 |
| 25soe2  | Akash Garv | sector 1      |   23 | delhi    | 25soe1  | neo pvt      | 240000 |
| 25soe2  | Akash Garv | sector 1      |   23 | delhi    | 24soe89 | giio         | 420000 |
| 25soe4  | ajit raja  | raja complex  |   45 | gorakpur | 25soe7  | sun          | 360000 |
| 25soe4  | ajit raja  | raja complex  |   45 | gorakpur | 25soe4  | roy grp      | 276000 |
| 25soe4  | ajit raja  | raja complex  |   45 | gorakpur | 25soe2  | flask        | 300000 |
| 25soe4  | ajit raja  | raja complex  |   45 | gorakpur | 25soe1  | neo pvt      | 240000 |
| 25soe4  | ajit raja  | raja complex  |   45 | gorakpur | 24soe89 | giio         | 420000 |
| 25soe7  | billu dada | cat complex   |   30 | sikkim   | 25soe7  | sun          | 360000 |
| 25soe7  | billu dada | cat complex   |   30 | sikkim   | 25soe4  | roy grp      | 276000 |
| 25soe7  | billu dada | cat complex   |   30 | sikkim   | 25soe2  | flask        | 300000 |
| 25soe7  | billu dada | cat complex   |   30 | sikkim   | 25soe1  | neo pvt      | 240000 |
| 25soe7  | billu dada | cat complex   |   30 | sikkim   | 24soe89 | giio         | 420000 |
| 25soe9  | Adarsh     | khelgao       |   32 | ranchi   | 25soe7  | sun          | 360000 |
| 25soe9  | Adarsh     | khelgao       |   32 | ranchi   | 25soe4  | roy grp      | 276000 |
| 25soe9  | Adarsh     | khelgao       |   32 | ranchi   | 25soe2  | flask        | 300000 |
| 25soe9  | Adarsh     | khelgao       |   32 | ranchi   | 25soe1  | neo pvt      | 240000 |
| 25soe9  | Adarsh     | khelgao       |   32 | ranchi   | 24soe89 | giio         | 420000 |
+---------+-----------+--------------+------+----------+---------+--------------+--------+
30 rows in set (0.00 sec)

mysql>
```

Cross product of employee and works to get who work in which organization

```
mysql> SELECT *  from employee e , works w where e.ID = w.ID;
+---------+-----------+--------------+------+----------+---------+--------------+--------+
| ID      | emp_name  | street       | age  | city     | ID      | company_name | salary |
+---------+-----------+--------------+------+----------+---------+--------------+--------+
| 24soe89 | faran saju | south complex |   26 | raxol    | 24soe89 | giio         | 420000 |
| 25soe1  | Adarsh     | hesal         |   34 | ranchi   | 25soe1  | neo pvt      | 240000 |
| 25soe2  | Akash Garv | sector 1      |   23 | delhi    | 25soe2  | flask        | 300000 |
| 25soe4  | ajit raja  | raja complex  |   45 | gorakpur | 25soe4  | roy grp      | 276000 |
| 25soe7  | billu dada | cat complex   |   30 | sikkim   | 25soe7  | sun          | 360000 |
+---------+-----------+--------------+------+----------+---------+--------------+--------+
5 rows in set (0.00 sec)

mysql>
```

Show details of those employee who earn more than 25000 per month

```
mysql> SELECT *  from employee e , works w where e.ID = w.ID AND w.salary/12 > 25000;
+---------+------------+---------------+------+--------+---------+--------------+--------+
| ID      | emp_name   | street        | age  | city   | ID      | company_name | salary |
+---------+------------+---------------+------+--------+---------+--------------+--------+
| 24soe89 | faran saju | south complex |   26 | raxol  | 24soe89 | giio         | 420000 |
| 25soe7  | billu dada | cat complex   |   30 | sikkim | 25soe7  | sun          | 360000 |
+---------+------------+---------------+------+--------+---------+--------------+--------+
2 rows in set (0.00 sec)

mysql>
```

Get name of employee who is older than some one and lives in ranchi

```
mysql> SELECT e.emp_name FROM employee e , employee t WHERE e.age > t.age AND e.city = 'ranchi';
+----------+
| emp_name |
+----------+
| Adarsh   |
| Adarsh   |
| Adarsh   |
| Adarsh   |
| Adarsh   |
| Adarsh   |
| Adarsh   |
+----------+
7 rows in set (0.00 sec)

mysql>
```

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Joining three table using primary key and foreign key

```
7 rows in set (0.00 sec)

mysql> SELECT * from employee e , works w , company c WHERE e.ID = w.ID and w.company_name = c.company_name;
+---------+------------+---------------+------+----------+---------+--------------+--------+--------------+----------+
| ID      | emp_name   | street        | age  | city     | ID      | company_name | salary | company_name | city     |
+---------+------------+---------------+------+----------+---------+--------------+--------+--------------+----------+
| 24soe89 | faran saju | south complex |   26 | raxol    | 24soe89 | giio         | 420000 | giio         | mumbai   |
| 25soe1  | Adarsh     | hesal         |   34 | ranchi   | 25soe1  | neo pvt      | 240000 | neo pvt      | hyderabad |
| 25soe2  | Akash Garv | sector 1      |   23 | delhi    | 25soe2  | flask        | 300000 | flask        | chapra   |
| 25soe4  | ajit raja  | raja complex  |   45 | gorakpur | 25soe4  | roy grp      | 276000 | roy grp      | rajasthan |
| 25soe7  | billu dada | cat complex   |   30 | sikkim   | 25soe7  | sun          | 360000 | sun          | banglore |
+---------+------------+---------------+------+----------+---------+--------------+--------+--------------+----------+
5 rows in set (0.00 sec)

mysql>
```

self join to get name of employee who is at least older than some one

```
mysql> SELECT e.emp_name FROM employee e , employee t WHERE e.age > t.age;
+------------+
| emp_name   |
+------------+
| Adarsh     |
| billu dada |
| ajit raja  |
| Adarsh     |
| ajit raja  |
| Adarsh     |
| billu dada |
| ajit raja  |
| Adarsh     |
| faran saju |
| Adarsh     |
| ajit raja  |
| Adarsh     |
| ajit raja  |
| Adarsh     |
+------------+
15 rows in set (0.00 sec)

mysql>
```

Use of upper function

```
mysql> SELECT UPPER( emp_name) from employee ;
+-----------------+
| UPPER( emp_name) |
+-----------------+
| FARAN SAJU      |
| ADARSH          |
| AKASH GARV      |
| AJIT RAJA       |
| BILLU DADA      |
| ADARSH          |
+-----------------+
6 rows in set (0.00 sec)

mysql>
```

use of lower function

```
mysql> SELECT LOWER( emp_name) from employee ;
+-----------------+
| LOWER( emp_name) |
+-----------------+
| faran saju      |
| adarsh          |
| akash garv      |
| ajit raja       |
| billu dada      |
| adarsh          |
+-----------------+
6 rows in set (0.00 sec)

mysql>
```

use of trim function

```
mysql> SELECT TRIM( emp_name) from employee ;
+-----------------+
| TRIM( emp_name) |
+-----------------+
| faran saju      |
| Adarsh          |
| Akash Garv      |
| ajit raja       |
| billu dada      |
| Adarsh          |
+-----------------+
6 rows in set (0.00 sec)

mysql>
```

use of concat function

```
mysql> SELECT CONCAT( emp_name,"||",street,"||",city) from employee ;
+---------------------------------------+
| CONCAT( emp_name,"||",street,"||",city) |
+---------------------------------------+
| faran saju||south complex||raxol       |
| Adarsh||hesal||ranchi                  |
| Akash Garv||sector 1||delhi            |
| ajit raja||raja complex||gorakpur      |
| billu dada||cat complex||sikkim        |
| Adarsh||khelgao||ranchi                |
+---------------------------------------+
6 rows in set (0.00 sec)

mysql>
```

Pattern matching for min length 3 and ends with a

```
mysql> SELECT emp_name from employee WHERE emp_name LIKE '%__a';
+------------+
| emp_name   |
+------------+
| ajit raja  |
| billu dada |
+------------+
2 rows in set (0.00 sec)

mysql>
```

Pattern matching which has min length of 3 and contains 3rd character as i

```
2 rows in set (0.00 sec)

mysql> SELECT emp_name from employee WHERE emp_name LIKE '__i%';
+-----------+
| emp_name  |
+-----------+
| ajit raja |
+-----------+
1 row in set (0.00 sec)

mysql>
```

Pattern matching which contains sh

```
mysql> SELECT emp_name from employee WHERE emp_name LIKE '%sh%';
+------------+
| emp_name   |
+------------+
| Adarsh     |
| Akash Garv |
| Adarsh     |
+------------+
3 rows in set (0.00 sec)

mysql>
```

Give name of employee who’s name contain 6character

```
mysql> SELECT emp_name from employee WHERE emp_name LIKE '_____';
+----------+
| emp_name |
+----------+
| Adarsh   |
| Adarsh   |
+----------+
2 rows in set (0.00 sec)

mysql>
```

Give name of employee with minimum of 6 character

```
mysql> SELECT emp_name from employee WHERE emp_name LIKE '______%';
+------------+
| emp_name   |
+------------+
| faran saju |
| Akash Garv |
| ajit raja  |
| billu dada |
+------------+
4 rows in set (0.00 sec)

mysql>
```

give name of employee with less than 7 character

```
mysql> SELECT emp_name from employee WHERE emp_name NOT  LIKE '______%';
+----------+
| emp_name |
+----------+
| Adarsh   |
| Adarsh   |
+----------+
2 rows in set (0.00 sec)

mysql>
```

Use of order by and distinct

```
mysql> SELECT DISTINCT  emp_name from employee ORDER BY emp_name;
+------------+
| emp_name   |
+------------+
| Adarsh     |
| ajit raja  |
| Akash Garv |
| billu dada |
| faran saju |
+------------+
5 rows in set (0.00 sec)
```

use of order by

```
mysql> SELECT emp_name from employee ORDER BY emp_name;
+------------+
| emp_name   |
+------------+
| Adarsh     |
| Adarsh     |
| ajit raja  |
| Akash Garv |
| billu dada |
| faran saju |
+------------+
6 rows in set (0.00 sec)
```

use of order by and in desc order

```
mysql> SELECT DISTINCT  emp_name from employee ORDER BY emp_name DESC;
+------------+
| emp_name   |
+------------+
| faran saju |
| billu dada |
| Akash Garv |
| ajit raja  |
| Adarsh     |
+------------+
5 rows in set (0.00 sec)
```

use order by on two attribute

```
mysql> SELECT DISTINCT  emp_name, city from employee ORDER BY emp_name DESC,city ASC;
+------------+----------+
| emp_name   | city     |
+------------+----------+
| faran saju | raxol    |
| billu dada | sikkim   |
| Akash Garv | delhi    |
| ajit raja  | gorakpur |
| Adarsh     | ranchi   |
+------------+----------+
5 rows in set (0.00 sec)

mysql>
```

Show name of those employee who's salary between 2 lakh to 3.5 lakh

```
mysql> select e.emp_name from employee e, works w WHERE w.ID = e.ID AND w.salary BETWEEN 200000 AND 350000;
+------------+
| emp_name   |
+------------+
| Adarsh     |
| Akash Garv |
| ajit raja  |
+------------+
3 rows in set (0.00 sec)

mysql>
```

Show name of those employee who's salary is not in between 2 lakh to 3.5 lakh

```
mysql> select e.emp_name from employee e, works w WHERE w.ID = e.ID AND w.salary NOT  BETWEEN 200000 AND 350000;
+------------+
| emp_name   |
+------------+
| faran saju |
| billu dada |
+------------+
2 rows in set (0.00 sec)

mysql>
```

Show employee name , salary and city of company with company name

```
mysql> SELECT e.emp_name , w.salary , c.company_name , c.city from employee e , works w
, company c WHERE e.ID = w.ID AND w.company_name = c.company_name;
+------------+--------+--------------+-----------+
| emp_name   | salary | company_name | city      |
+------------+--------+--------------+-----------+
| faran saju | 420000 | giio         | mumbai    |
| Adarsh     | 240000 | neo pvt      | hyderabad |
| Akash Garv | 300000 | flask        | chapra    |
| ajit raja  | 276000 | roy grp      | rajasthan |
| billu dada | 360000 | sun          | banglore  |
+------------+--------+--------------+-----------+
5 rows in set (0.00 sec)

mysql>
```

Use of union

get those who live in ranchi or delhi

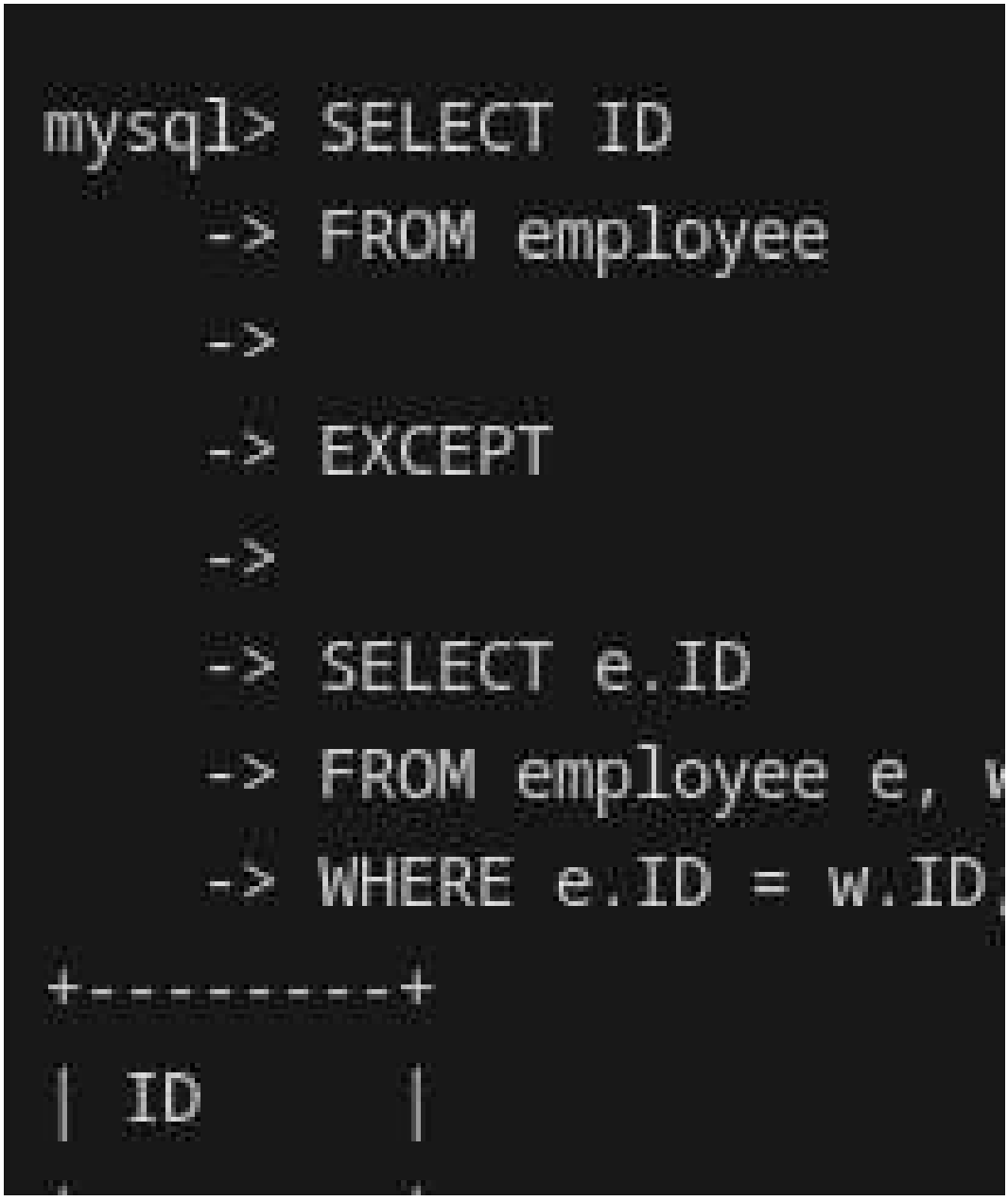
```
mysql> SELECT emp_name from employee where city='ranchi'
    -> UNION
    -> SELECT emp_name from employee where city='delhi';
+------------+
| emp_name   |
+------------+
| Adarsh     |
| Akash Garv |
+------------+
2 rows in set (0.00 sec)

mysql>
```

Get those people who work in same city as they are from

```
mysql> SELECT e.emp_name  FROM employee e, works w  WHERE e.ID = w.ID AND e.city = 'delhi'  INTERSECT
SELECT e.emp_name  FROM employee e, works w, company c  WHERE e.ID = w.ID AND w.company_n
ame = c.company_name AND c.city = 'delhi';
Empty set (0.08 sec)
```

Get those people who are not employed



5. Now in the created employee database, provide the SQL queries for the following.

a. Find the name of each employee who lives in the city “Hyderabad”.

```
mysql> select emp_name from employee where city ='hyderabad';
+----------+
| emp_name |
+----------+
| zaza     |
+----------+
1 row in set (0.00 sec)

mysql>
```

b. Find the name of each employee who lives in the city “Hyderabad” and whose salary is greater than Rs. 1000000.

```
mysql> select e.emp_name from employee e , works w where w.ID = e.ID and w.salary > 1000000 and e.city = 'hyderabad';
+----------+
| emp_name |
+----------+
| zaza     |
+----------+
1 row in set (0.00 sec)
```