

ASSIGNMENT NO : 3

(CLINIC DATABASE SYSTEM)

PROBLEM STATEMENT:

Doctor(**DocId**,Dname,Specialist,experience) [Specialist should be "Medicine", "Surgery", "Child"]

Room(**RID**,Rate,Floor_no,date)

Patient(**PID**, Pname,RID,DocId,age,sex,phone)

Create the above tables with appropriate SQL commands. Define all integrity constraints and enter sufficient data. Write SQL commands for following queries and give the output for each query.

i> Give the patient names who are admitted under the doctor specialist in "Medicine" and whose room charge is not between Rs. 1500-2000 .

ii> Increase the rate of Room by 5% for the 4th floor.

iii> Find the total number of Child patients.

iv> Find details of female patients under "surgery" whose age is greater than 45.

SOLUTION:

□ **DATABASE CREATION AND USE :**

```
mysql> create database first3;
```

Query OK, 1 row affected (0.13 sec)

```
mysql> use first3;
```

Database changed

□ **TABLE CREATION:**

• **DOCTOR:**

```
mysql> create table Doctor
```

```
-> (
```

```
-> DocId varchar(5) primary key,
```

```
-> Dname varchar(20) not null,
```

```
-> Specialist varchar(15),
```

-> experience int(2)

->);

Query OK, 0 rows affected (0.14 sec)

- **Room:**

mysql> create table Room

-> (

-> RID varchar(5) primary key,

-> Rate int(8) not null,

-> Floor_no int(2),

-> date date

->);

Query OK, 0 rows affected (0.20 sec)

- **PATIENT:**

mysql> create table Patient

-> (

-> PID varchar(5) primary key,

-> Pname varchar(20) not null,

-> RID varchar(5) references Room,

-> DocId varchar(5) references Doctor,

-> age int(3),

-> sex varchar(6),

-> phone bigint(12)

->);

Query OK, 0 rows affected (0.11 sec)

- **INTEGRITY CONSTRAINTS:**

- **DOCTOR:**

mysql> desc Doctor;

+-----+-----+-----+-----+-----+-----+						
Field	Type	Null	Key	Default	Extra	
+-----+-----+-----+-----+-----+-----+						
DocId	varchar(5)	NO	PRI	NULL		

Dname	varchar(20)	NO		NULL		
Specialist	varchar(15)	YES		NULL		
experience	int(2)	YES		NULL		

+-----+-----+-----+-----+-----+

4 rows in set (0.16 sec)

- **ROOM:**

mysql> desc Room;

Field	Type	Null	Key	Default	Extra
-------	------	------	-----	---------	-------

+-----+-----+-----+-----+-----+

RID	varchar(5)	NO	PRI	NULL	
Rate	int(8)	NO		NULL	
Floor_no	int(2)	YES		NULL	
date	date	YES		NULL	

+-----+-----+-----+-----+-----+

4 rows in set (0.00 sec)

- **PATIENT:**

mysql> desc Patient;

Field	Type	Null	Key	Default	Extra
-------	------	------	-----	---------	-------

+-----+-----+-----+-----+-----+

PID	varchar(5)	NO	PRI	NULL	
Pname	varchar(20)	NO		NULL	
RID	varchar(5)	YES		NULL	
DocId	varchar(5)	YES		NULL	
age	int(3)	YES		NULL	
sex	varchar(6)	YES		NULL	
phone	int(12)	YES		NULL	

+-----+-----+-----+-----+-----+

7 rows in set (0.01 sec)

□ **TUPLE INSERTION:**

• **DOCTOR:**

```
mysql> insert into Doctor values('d01','Dr.Supratik','surgery',15);
```

```
Query OK, 1 row affected (0.05 sec)
```

```
mysql> insert into Doctor values('d02','Dr.Liza','medicine',5);
```

```
Query OK, 1 row affected (0.14 sec)
```

```
mysql> commit;
```

```
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> select * from Doctor;
```

```
+-----+-----+-----+-----+
| DocId | Dname   | Specialist | experience |
+-----+-----+-----+-----+
| d01   | Dr.Supratik | surgery   | 15 |
| d02   | Dr.Liza    | medicine  | 5  |
| d03   | Dr.Somen   | surgery   | 7  |
| d04   | Dr.Debash  | medicine  | 8  |
| d05   | Dr.Ashok   | medicine  | 10 |
| d06   | Dr.Dipa    | child     | 9  |
| d07   | Dr.Sikha   | child     | 18 |
+-----+-----+-----+-----+
```

```
7 rows in set (0.00 sec)
```

• **ROOM:**

```
mysql> insert into Room values('R01',1550,1,'2019-01-25');
```

```
Query OK, 1 row affected (0.13 sec)
```

```
mysql> insert into Room values('R02',1800,2,'2018-12-22');
```

```
Query OK, 1 row affected (0.03 sec)
```

```
mysql> commit;
```

```
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> select * from Room;
```

```
+----+-----+-----+-----+
| RID | Rate | Floor_no | date   |
+----+-----+-----+-----+
| R01 | 1550 | 1 | 2019-01-25 |
| R02 | 1800 | 2 | 2018-12-22 |
| R03 | 1300 | 4 | 2019-05-31 |
| R04 | 1420 | 1 | 2019-06-30 |
| R05 | 1870 | 3 | 2017-11-22 |
| R06 | 2500 | 4 | 2019-03-15 |
+----+-----+-----+-----+
```

6 rows in set (0.00 sec)

- **PATIENT:**

```
mysql> insert into Patient values('p01','Rusha Dey','R05','d01',48,'female',9845785825);
Query OK, 1 row affected (0.13 sec)
```

```
mysql> insert into Patient values('p02','Rima Biswas','R02','d03',55,'female',7455489865);
Query OK, 1 row affected (0.04 sec)
```

```
mysql> commit;
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> select * from Patient;
```

```
+----+-----+-----+-----+-----+-----+
| PID | Pname   | RID | DocId | age | sex  | phone   |
+----+-----+-----+-----+-----+-----+
| p01 | Rusha Dey | R05 | d01   | 48 | female | 9845785825 |
| p02 | Rima Biswas | R02 | d03   | 55 | female | 7455489865 |
| p03 | Tanmoy Mondal | R03 | d02   | 28 | male  | 9814552414 |
| p04 | Binoya Chanda | R04 | d04   | 30 | female | 9988578585 |
| p05 | Riju Dey   | R01 | d06   | 5  | male  | 9814552825 |
| p06 | Diya Sarkar | R02 | d06   | 2  | female | 8478995825 |
| p07 | Anjan Bera  | R03 | d07   | 8  | male  | 7745100125 |
| p08 | Dipan Dey   | R05 | d06   | 7  | male  | 7885566321 |
```

```
+-----+-----+-----+-----+-----+
8 rows in set (0.00 sec)
```

□ **QUERY EXECUTION:**

i>mysql> select Pname from Doctor d,Room r,Patient p where d.docId=p.DocId and r.RID=p.RID and Specialist like 'Medicine' and Rate not between 1500 and 2000;

```
+-----+
| Pname      |
+-----+
| Tanmoy Mondal |
| Binoya Chanda |
+-----+
2 rows in set (0.02 sec)
```

iii>mysql> select count(*) 'Total number of child patient' from Patient p,Doctor d where p.Docid=d.Docid and Specialist like 'child';

```
+-----+
| Total number of child patient |
+-----+
| 4 |
+-----+
1 row in set (0.00 sec)
```

iv>mysql> select * from Patient p,Doctor d where p.Docid=d.Docid and sex like 'female' and Specialist like 'surgery' and age>45;

```
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+
| PID | Pname      | RID | DocId | age | sex  | phone      | DocId | Dname      |
Specialist | experience |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+
| p01 | Rusha Dey | R05 | d01   | 48 | female | 9845785825 | d01   | Dr.Supratik |
| surgery | 15 |
| p02 | Rima Biswas | R02 | d03   | 55 | female | 7455489865 | d03   | Dr.Somen    |
| surgery | 7 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+
2 rows in set (0.00 sec)
```

ii>Before increment:

mysql> select RID,rate from Room where floor_no=4;

```
+-----+
| RID | Rate |
```

```
+-----+-----+
| R03 | 1300 |
| R06 | 2500 |
+-----+-----+
2 rows in set (0.00 sec)
```

After increment:

```
mysql> select RID,Rate 'Rate after increment' from Room where Floor_no=4;
```

```
+-----+-----+
| RID | Rate after increment |
+-----+-----+
| R03 |          1365 |
| R06 |          2625 |
+-----+-----+
2 rows in set (0.00 sec)
```