

DBMS LABORATORY – 2

CREATE DATABASE

```
mysql> create database hospital;  
Query OK, 1 row affected (0.00 sec)
```

```
mysql> use hospital;  
Database changed
```

CREATE TABLES

PATIENT TABLE

```
mysql> create table patients(  
    -> id int primary key,  
    -> firstname varchar(50),  
    -> lastname varchar(50),  
    -> dob varchar(20),  
    -> gender varchar(10),  
    -> address varchar(100),  
    -> contact varchar(30)  
    -> );  
Query OK, 0 rows affected (0.03 sec)
```

DOCTOR TABLE

```
mysql> create table doctor(  
    -> id int primary key,  
    -> firstname varchar(50),  
    -> lastname varchar(50),  
    -> specialization varchar(50),  
    -> contact varchar(20)  
    -> );  
Query OK, 0 rows affected (0.06 sec)
```

APPOINTMENT TABLE

```
mysql> create table appointments(  
    -> id int primary key,  
    -> patient_id int,  
    -> doctor_id int,  
    -> date varchar(20),  
    -> time varchar(30),  
    -> status varchar(60)  
    -> );  
Query OK, 0 rows affected (0.01 sec)
```

MEDICAL TEST TABLE

```
mysql> create table medical_test(  
    -> test_id int primary key,  
    -> patient_id int,  
    -> test_name varchar(100),  
    -> test_date varchar(20),  
    -> results varchar(50)  
    -> );  
Query OK, 0 rows affected (0.02 sec)
```

INSERTING VALUES INTO THE TABLES

PATIENT TABLE:

```
mysql> insert into patients values(01,  
"Chris","Evans","12/08/1996","Male", "New York", "6341876312");  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> insert into patients values(02,  
"Emily","Jackson","18/03/2006","Female", "New Jersey", "97418321812");  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> insert into patients values(03,  
"Ashley","Pearson","23/09/2001","Female", "California", "87938321932");  
Query OK, 1 row affected (0.00 sec)
```

```
mysql> insert into patients values(04,  
"Victor","Frankyl","29/01/1991","Male", "Melbourne", "8654241932");  
Query OK, 1 row affected (0.00 sec)
```

```
mysql> insert into patients values(05,  
"Ben","Johnson","17/02/1999","Male", "Swinburne", "9354241282");  
Query OK, 1 row affected (0.00 sec)
```

```
mysql> select * from patients;
```

id	firstname	lastname	dob	gender	address	contact
1	Chris	Evans	12/08/1996	Male	New York	6341876312
2	Emily	Jackson	18/03/2006	Female	New Jersey	97418321812
3	Ashley	Pearson	23/09/2001	Female	California	87938321932
4	Victor	Frankyl	29/01/1991	Male	Melbourne	8654241932
5	Ben	Johnson	17/02/1999	Male	Swinburne	9354241282

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

DOCTOR TABLE:

```
mysql> insert into doctor values(01, "Manish", "Malhotra", "Gynacology",  
"9876349281");  
Query OK, 1 row affected (0.00 sec)
```

```
mysql> insert into doctor values(02, "Maddison", "Paul", "Cardiology",  
"93762686581");  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> insert into doctor values(03, "Karl", "Patrick", "Neurologist",  
"8432268681");  
Query OK, 1 row affected (0.00 sec)
```

```
mysql> insert into doctor values(04, "Swathy", "Ganesh", "Cardiologist",  
"9472568681");  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> insert into doctor values(05, "Flora", "Diasy", "Neurologist",  
"7472595237");  
Query OK, 1 row affected (0.00 sec)
```

```
mysql> select * from doctor;
```

id	firstname	lastname	specialization	contact
1	Manish	Malhotra	Gynacology	9876349281
2	Maddison	Paul	Cardiologist	93762686581
3	Karl	Patrick	Neurologist	8432268681
4	Swathy	Ganesh	Cardiologist	9472568681
5	Flora	Diasy	Neurologist	7472595237

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

APPOINTMENTS TABLE:

```
mysql> insert into appointments values(01, 03, 02, "19/03/2024",  
"17:35", "Scheduled");
```

```
Query OK, 1 row affected (0.02 sec)
```

```
mysql> insert into appointments values(02, 01, 05, "18/03/2024",  
"14:55", "Postponed");
```

```
Query OK, 1 row affected (0.00 sec)
```

```
mysql> insert into appointments values(03, 04, 05, "17/03/2024",  
"19:20", "Completed");
```

```
Query OK, 1 row affected (0.01 sec)
```

```
mysql> insert into appointments values(04, 02, 03, "18/03/2024",  
"12:10", "Scheduled");
```

```
Query OK, 1 row affected (0.01 sec)
```

```
mysql> insert into appointments values(05, 05, 01, "19/03/2024",  
"13:10", "Scheduled");
```

```
Query OK, 1 row affected (0.00 sec)
```

```
mysql> select * from appointments;
```

id	patient_id	doctor_id	date	time	status
1	3	2	19/03/2024	17:35	Scheduled
2	1	5	18/03/2024	14:55	Postponed
3	4	5	17/03/2024	19:20	Completed
4	2	3	18/03/2024	12:10	Scheduled
5	5	1	19/03/2024	13:10	Scheduled

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

MEDICAL TEST TABLE:

```
mysql> insert into medical_test values(01, 04, "DNA test", "12/03/2024",  
"Positive");
```

Query OK, 1 row affected (0.00 sec)

```
mysql> insert into medical_test values(02, 03, "TB test", "14/03/2024",  
"Negative");
```

Query OK, 1 row affected (0.00 sec)

```
mysql> insert into medical_test values(03, 02, "HIV test", "15/03/2024",  
"Negative");
```

Query OK, 1 row affected (0.01 sec)

```
mysql> insert into medical_test values(04, 05, "Cancer test",  
"16/03/2024", "Negative");
```

Query OK, 1 row affected (0.00 sec)

```
mysql> insert into medical_test values(05, 01, "Pregnancy test",  
"16/03/2024", "Positive");
```

Query OK, 1 row affected (0.01 sec)

```
mysql> select * from medical_test;
```

test_id	patient_id	test_name	test_date	results
1	4	DNA test	12/03/2024	Positive
2	3	TB test	14/03/2024	Negative
3	2	HIV test	15/03/2024	Negative
4	5	Cancer test	16/03/2024	Negative
5	1	Pregnancy test	16/03/2024	Positive

5 rows in set (0.00 sec)

PROBLEMS

SELECT QUERY:

1. Retrieve the full list of patients

```
mysql> select * from patients;
```

id	firstname	lastname	dob	gender	address	contact
1	Chris	Evans	12/08/1996	Male	New York	6341876312
2	Emily	Jackson	18/03/2006	Female	New Jersey	97418321812
3	Ashley	Pearson	23/09/2001	Female	California	87938321932
4	Victor	Frankyl	29/01/1991	Male	Melbourne	8654241932
5	Ben	Johnson	17/02/1999	Male	Swinburne	9354241282

5 rows in set (0.00 sec)

2. Find all doctors who specialize in "Cardiology".

```
mysql> select * from doctor where specialization="Cardiologist";
```

id	firstname	lastname	specialization	contact
2	Maddison	Paul	Cardiologist	93762686581
4	Swathy	Ganesh	Cardiologist	9472568681

2 rows in set (0.00 sec)

3. Get all appointments scheduled for a specific doctor on a given date.

```
mysql> select * from appointments where doctor_id = 5 and date = "18/03/2024";
```

id	patient_id	doctor_id	date	time	status
2	1	5	18/03/2024	14:55	Postponed

1 row in set (0.00 sec)

4. List all medical tests conducted on a specific patient.

```
mysql> select * from medical_test where patient_id = 4;
```

test_id	patient_id	test_name	test_date	results
1	4	DNA test	12/03/2024	Positive

1 row in set (0.00 sec)

5. Retrieve contact information of all doctors.

```
mysql> select firstname,contact from doctor;
```

firstname	contact
Manish	9876349281
Maddison	93762686581
Karl	8432268681
Swathy	9472568681
Flora	7472595237

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

INSERT QUERY:

1. Add a new patient to the Patients table.

```
mysql> insert into patients values(06, "John", "Weshley", "19/06/1997",  
"Male", "Sydney", "8736396274");
```

Query OK, 1 row affected (0.01 sec)

```
mysql> select * from patients;
```

id	firstname	lastname	dob	gender	address	contact
1	Chris	Evans	12/08/1996	Male	New York	6341876312
2	Emily	Jackson	18/03/2006	Female	New Jersey	97418321812
3	Ashley	Pearson	23/09/2001	Female	California	87938321932
4	Victor	Frankyl	29/01/1991	Male	Melbourne	8654241932
5	Ben	Johnson	17/02/1999	Male	Swinburne	9354241282
6	John	Weshley	19/06/1997	Male	Sydney	8736396274

6 rows in set (0.00 sec)

2. Insert a new appointment for a patient with a specific doctor on a given date and time.

```
mysql> insert into appointments values(06, 01, 04, "20/03/2024",  
"11:11", "Scheduled");
```

Query OK, 1 row affected (0.01 sec)

```
mysql> select * from appointments;
```

id	patient_id	doctor_id	date	time	status
1	3	2	19/03/2024	17:35	Scheduled
2	1	5	18/03/2024	14:55	Postponed
3	4	5	17/03/2024	19:20	Completed
4	2	3	18/03/2024	12:10	Scheduled
5	5	1	19/03/2024	13:10	Scheduled
6	1	4	20/03/2024	11:11	Scheduled

6 rows in set (0.00 sec)

3. Record a new medical test for a patient.

```
mysql> insert into medical_test values(06, 03, "Brain tumour test",  
"17/03/2024", "Negative");
```

Query OK, 1 row affected (0.00 sec)

```
mysql> select * from medical_test;
```

test_id	patient_id	test_name	test_date	results
1	4	DNA test	12/03/2024	positive
2	3	TB test	14/03/2024	Negative
3	2	HIV test	15/03/2024	Negative
4	5	Cancer test	16/03/2024	Negative
5	1	Pregnancy test	16/03/2024	Positive
6	3	Brain tumour test	17/03/2024	Negative

6 rows in set (0.00 sec)

UPDATE QUERY:

1. Update the contact number of a patient.

```
mysql> update patients set contact = 8324762376 where id = 5;
```

```
Query OK, 1 row affected (0.01 sec)
```

```
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> select * from patients;
```

id	firstname	lastname	dob	gender	address	contact
1	Chris	Evans	12/08/1996	Male	New York	6341876312
2	Emily	Jackson	18/03/2006	Female	New Jersey	97418321812
3	Ashley	Pearson	23/09/2001	Female	California	87938321932
4	Victor	Frankyl	29/01/1991	Male	Melbourne	8654241932
5	Ben	Johnson	17/02/1999	Male	Swinburne	8324762376
6	John	Weshley	19/06/1997	Male	Sydney	8736396274

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

2. Change the status of an appointment (e.g., from "Scheduled" to "Completed").

```
mysql> update appointments set status = "Completed" where id = 4;
```

```
Query OK, 1 row affected (0.01 sec)
```

```
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> select * from appointments;
```

id	patient_id	doctor_id	date	time	status
1	3	2	19/03/2024	17:35	Scheduled
2	1	5	18/03/2024	14:55	Postponed
3	4	5	17/03/2024	19:20	Completed
4	2	3	18/03/2024	12:10	Completed
5	5	1	19/03/2024	13:10	Scheduled
6	1	4	20/03/2024	11:11	Scheduled

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

3. Update the test results for a medical test.

```
mysql> update medical_test set results = "Negative" where test_name =  
"DNA test";
```

Query OK, 1 row affected (0.00 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> select * from medical_test;
```

test_id	patient_id	test_name	test_date	results
1	4	DNA test	12/03/2024	Negative
2	3	TB test	14/03/2024	Negative
3	2	HIV test	15/03/2024	Negative
4	5	Cancer test	16/03/2024	Negative
5	1	Pregnancy test	16/03/2024	Positive
6	3	Brain tumour test	17/03/2024	Negative

6 rows in set (0.00 sec)

DELETE QUERY:

1. Remove a patient record from the database.

```
mysql> delete from patients where id = 5;  
Query OK, 1 row affected (0.00 sec)
```

```
mysql> select * from patients;
```

id	firstname	lastname	dob	gender	address	contact
1	Chris	Evans	12/08/1996	Male	New York	6341876312
2	Emily	Jackson	18/03/2006	Female	New Jersey	97418321812
3	Ashley	Pearson	23/09/2001	Female	California	87938321932
4	Victor	Frankyl	29/01/1991	Male	Melbourne	8654241932
6	John	Weshley	19/06/1997	Male	Sydney	8736396274

2. Delete an appointment for a specific patient.

```
mysql> delete from appointments where patient_id = 2;  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> select * from appointments;
```

id	patient_id	doctor_id	date	time	status
1	3	2	19/03/2024	17:35	Scheduled
2	1	5	18/03/2024	14:55	Postponed
3	4	5	17/03/2024	19:20	Completed
5	5	1	19/03/2024	13:10	Scheduled
6	1	4	20/03/2024	11:11	Scheduled

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