

DBMS PROJECT

HOSPITAL SEARCH MANAGEMENT SYSTEM

Roll No.s and Email Ids of Team Members

1. Om Thakkar

a. 201501109

b. om.t.btech15@ahduni.edu.in

2. Harshil Shah

a. 201501097

b. harshil.s.btech15@ahduni.edu.in

3. Himol Shah

a. 201501098

b. himol.s.btech15@ahduni.edu.in

4. Shivam Raval

a. 201501088

b. shivam.r.btech15@ahduni.edu.in

5. Pratik Padalia

a. 201501084

b. pratik.p.btech15@ahduni.edu.in

Project Description

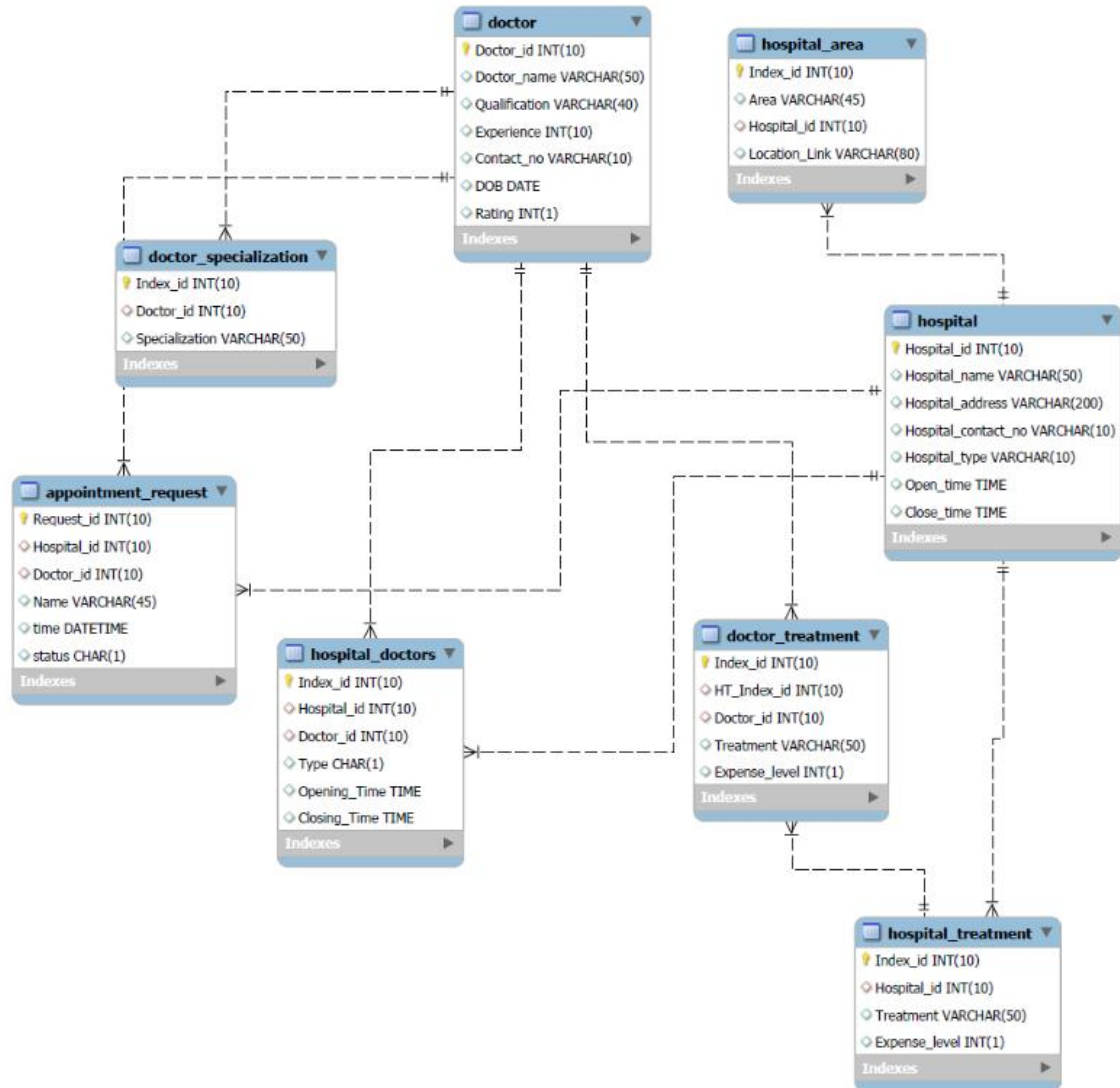
In this Project, we have tried to manage a database containing data about all the Hospitals in a city, in a particular area, treatments offered at the hospital, all doctors in a city, in a particular area, their specializations, experience, ratings, affiliations with various hospitals, availability of doctors at a hospital, book appointments.

This database can be used by the user to find a hospital or clinic that best fits the user's requirements and affordability. The user can compare fees charged by various hospitals and doctors. The database can be used in cases of emergency in order to get best and nearest doctors, based on the current availability of the respective doctor. Moreover, the user can request an appointment online by looking at the available timings of the doctor, the status of which is also a part of the "Hospital Search Management System" Database.

Furthermore, the doctors who reach their retirement age are automatically deleted from the database, making the database efficient.

Hence, the user will be able to apply all the filters which are possible and fulfills his/her requirements and sort them in ascending and descending order according to his/her convenience.

Entity Relationship Diagram



Relational Database Schema including tables, attributes of each table, Primary key, secondary keys, foreign keys, constraints etc.

1) Entity 1: Hospital

Attributes	Datatypes	Constraints
Hospital_id	Int(10)	Primary Key
Hospital_name	Varchar(50)	Not null
Hospital_address	Varchar(200)	Not null
Hospital_contact_no	Varchar(10)	Not null
Hospital_type	Varchar(10)	Not null
Open_time	Time	Not null
Close_time	time	Not null

2) Entity 2: Doctor

Attributes	Datatypes	Constraints
Doctor_id	Int(10)	Primary Key
Doctor_name	Varchar(50)	Not null
Qualification	Varchar(40)	Not null
Experience	Int(10)	Not null
Contact_no	Varchar(10)	Not null
DOB	date	Not null
Rating	Int(1)	Not null

3) Entity 3: Doctor_Specialization

Attributes	Datatypes	Constraints
Index_id	Int(10)	Primary Key
Doctor_id	Int(10)	Foreign Key
Specialization	Varchar(50)	Not null

4) Entity 4 : **Hospital_Doctors**

Attributes	Datatypes	Constraints
Index_id	Int(10)	Primary Key
Hospital_id	Int(10)	Foreign Key
Doctor_id	Int(10)	Foreign Key
Type	Char(1)	Not null
Opening time	time	Not null
Closing time	time	Not null

5) Entity 5 : **Hospital_Treatment**

Attributes	Datatypes	Constraints
Index_id	Int(10)	Primary Key
Hospital_id	Int(10)	Foreign Key
Treatment	Varchar(50)	Not null
Expense_level	Int(1)	Not null

6) Entity 6: **Doctor_Treatment**

Attributes	Datatypes	Constraints
Index_id	Int(10)	Primary Key
HT_index_id	Int(10)	Foreign Key
Doctor_id	Int(10)	Foreign Key
Treatment	Varchar(50)	Not null
Expense_level	Int(1)	Not null

7) Entity 7: **Hospital_Id**

Attributes	Datatypes	Constraints
Index_id	Int(10)	Primary_key
Area	Varchar(40)	Not null
Hospital_id	Int(10)	Foreign Key
Location_Link	Varchar(50)	Not null

8) Entity 8: **Appointment_Request**

Attributes	Datatypes	Constraints
Request_id	int(10)	Primary_key
Hospital_id	int(10)	Foreign key
Doctor_id	Int(10)	Foreign Key
Name	Varchar(50)	Not null
Time	datetime	Not null
Status	char(1)	Not null

Normalized Form of Tables:

1. Hospital

(Hospital_id, Hospital_name, Hospital_address, Hospital_contact_no, Hospital_type, Open_time, Close_time)

- Primary key -> Hospital_id
- Candidate key -> {Hospital_address}

2. Doctor

(Doctor_id, name, qualification, contact_no, rating, experience, DOB)

- Primary key -> Doctor_id
- Candidate key -> {name, contact_no}

3. Hospital_treatment

(HTindex_id, treatment, Hospital_id, expense level)

- Primary key -> HTindex_id
- Candidate key -> {treatment, Hospital_id}

4. Doctor_specialization

(DSindex_id, Doctor_id, specialization)

- Primary key -> DSindex_id
- Candidate key -> { Doctor_id, specialization}

5. Hospital_treatment_doctor

(HTDindex_id, HTindex_id, Doctor_id, expense level)

- Primary key -> HTDindex_id
- Candidate key -> {HTindex_id, Doctor_id}

6. Hospital_doctor

(HDindex_id, Hospital_id, Doctor_id, type, open_time, close_time)

- Primary key -> HDindex_id
- Candidate key -> { Hospital_id, Doctor_id}

7. Hospital_area

(HAindex_id, area, Hospital_id, location_link)

- Primary key -> HAindex_id
- Candidate key -> {area, Hospital_id}

8. Appointment_request

(Request_id, Hospital_id, Doctor_id, name, time, status)

- Primary key -> Request_id
- Candidate key -> {Hospital_id, Doctor_id, time}

The above tables are in BCNF as all the non-candidate keys of all tables are functional dependencies of only a single candidate key.

There may be cases where primary key are reference variable to the whole set of candidate key.

In some of the tables the primary key is just the index id which may be of no importance right now other than linking the columns in with the other tables but when there comes a need to expand the database and there comes some dependencies of that table those index id will be used to further connect them.

For Instance, when we had the 'Hospital Treatment' table where all treatments offered by all hospitals were linked there was an index id set as the primary key for the table, the index id remained dormant until the new table linking the hospital, treatment and the doctors that carry out that treatment, in this table, we use the index id of Hospital_Treatment table as a parameter for Hospital_Treatment_Doctor table.

List of Queries:

- Make appointment request
- View appointment status
- Show all appointments of a doctor of a particular day
- Show all scheduled appointments in a hospital of a particular day
- Sorting hospitals based on expense of particular treatment in Ascending order
- Sorting hospitals based on expense of particular treatment in Descending order
- Sorting doctors based on expense of particular treatment in ascending order
- Sorting doctors based on expense of particular treatment in descending order
- All treatments offered in a particular hospital
- Location link (Google maps) of the desired hospital
- All government hospitals open at current time
- All government hospitals in the given area
- All private hospitals open at current time
- All private hospitals in the given area
- All appointments of the doctor of the day
- Sorting Doctors by Experience
- Sorting Doctors by Rating
- All hospitals open at Current Time
- All hospitals open in Current Area
- Doctors available at Current Time
- Doctors available in Current Area
- Searching Hospitals in an Area
- Searching Doctors in an Area
- Searching Doctors by Specialization
- Searching Hospitals by Treatments
- Searching Doctors by Treatments
- Searching Currently Open Hospitals
- Viewing all doctors with more than 10 years of experience
- Viewing all Doctors above rating 4
- Remove all Doctors having age above 60 from Government Hospitals
- Remove all Doctors having no affiliation with any private or government hospital
- Update Doctor's Service Status: Temporary to Permanent
- Delete Doctor's records if he resigns from a Hospital

- All hospitals open for 24hrs

Stored Procedures:

- Hospitals open in Current Area
- Doctors Available in Current Area
- Sorting Hospitals based on expense level for particular treatment in ascending and descending order
- Sorting Doctors based on expense level for particular treatment in ascending and descending order
- List of all treatments offered in a particular hospital

MySQL Codes for Creating Database, Tables, Queries and Stored Procedures stated above:

#Create Schema

```
create schema Hospital_Search;
use Hospital_Search;
```

#Creating Tables in the Database

```
create table Hospital (
Hospital_id int(10),
Hospital_name varchar(50),
Hospital_address varchar(200),
Hospital_contact_no varchar(10),
Hospital_type varchar(10),
Open_time time,
Close_time time,
primary key (Hospital_id) );
```

```
create table Doctor (
Doctor_id int(10),
Doctor_name varchar(50),
Qualification varchar (40),
Experience int(10),
Contact_no varchar(10),
DOB date,
Rating int(1),
primary key (Doctor_id) );
```

```
create table Doctor_Specialization (  
Index_id int(10),  
Doctor_id int(10),  
Specialization varchar(50),  
primary key (Index_id),  
foreign key (Doctor_id) references Doctor(Doctor_id)  
);
```

```
create table Hospital_Doctors(  
Index_id int(10),  
Hospital_id int(10),  
Doctor_id int(10),  
Type char(1),  
Opening_Time time,  
Closing_Time time,  
primary key (Index_id),  
foreign key (Doctor_id) references Doctor(Doctor_id),  
foreign key (Hospital_id) references Hospital(Hospital_id)  
);
```

```
create table Hospital_Treatment(  
Index_id int(10),  
Hospital_id int(10),  
Treatment varchar(50),  
Expense_level int(1),  
primary key (Index_id),  
foreign key (Hospital_id) references Hospital(Hospital_id)  
);
```

```
create table Doctor_Treatment(  
Index_id int(10),  
HT_Index_id int(10),  
Doctor_id int(10),  
Treatment varchar(50),  
Expense_level int(1),  
primary key (Index_id),  
foreign key (Doctor_id) references Doctor(Doctor_id),  
foreign key (HT_Index_id) references Hospital_Treatment(Index_id)  
);
```

```
create table Hospital_Area(  
Index_id int(10) primary key,  
Area varchar(45),  
Hospital_id int(10),  
Location_Link varchar(80),  
foreign key (Hospital_id) references Hospital(Hospital_id)  
);
```

```

create table Appointment_Request(
Request_id int(10) primary key AUTO_INCREMENT,
Hospital_id int(10),
Doctor_id int(10),
Name varchar(45),
time datetime,
status char(1),
foreign key (Doctor_id) references Doctor(Doctor_id),
foreign key (Hospital_id) references Hospital(Hospital_id)
);

```

#DATA INSERTED

#Data for hospital

```

INSERT INTO `hospital_search`.`hospital` (`Hospital_id`, `Hospital_name`,
`Hospital_address`, `Hospital_contact_no`, `Hospital_type`, `Open_time`, `Close_time`)
VALUES ('1', 'Zydus', 'Nr. Sola Bridge, S.G. Highway, Ahmedabad, Gujarat', '7874412345',
'P', '00:00:00', '23:59:59');
INSERT INTO `hospital_search`.`hospital` (`Hospital_id`, `Hospital_name`,
`Hospital_address`, `Hospital_contact_no`, `Hospital_type`, `Open_time`, `Close_time`)
VALUES ('2', 'Civil (OPD)', 'D Block, Haripura, Asarwa, Ahmedabad, Gujarat', '7922683721',
'G', '10:00:00', '18:00:00');
INSERT INTO `hospital_search`.`hospital` (`Hospital_id`, `Hospital_name`,
`Hospital_address`, `Hospital_contact_no`, `Hospital_type`, `Open_time`, `Close_time`)
VALUES ('3', 'Columbia Asia', 'Plot No. 221/222, Hebatpur Road, Off S G Highway, Thaltej,
Ahmedabad, Gujarat ', '7939898969', 'P', '00:00:00', '23:59:59');
INSERT INTO `hospital_search`.`hospital` (`Hospital_id`, `Hospital_name`,
`Hospital_address`, `Hospital_contact_no`, `Hospital_type`, `Open_time`, `Close_time`)
VALUES ('4', 'Sola Civil', 'Near Gujarat High Court, S.G. Highway, Dist Ahmedabad, Sola,
Gujarat ', '7927664359', 'G', '00:00:00', '23:59:59');
INSERT INTO `hospital_search`.`hospital` (`Hospital_id`, `Hospital_name`,
`Hospital_address`, `Hospital_contact_no`, `Hospital_type`, `Open_time`, `Close_time`)
VALUES ('5', 'Sterling ', 'Near Maharaja Agrasen Vidhyalaya, Near Gurukul,, Sterling
Hospital Rd, Nilmani Society, Memnagar, Ahmedabad, Gujarat', '7940011111', 'P',
'00:00:00', '23:59:59');
INSERT INTO `hospital_search`.`hospital` (`Hospital_id`, `Hospital_name`,
`Hospital_address`, `Hospital_contact_no`, `Hospital_type`, `Open_time`, `Close_time`)
VALUES ('6', 'CIMS', ' Opposite Panchamrut Bunglows, Near Shukan Mall, Off Science City
Road, Sola, Ahmedabad, Gujarat', '9825066664', 'P', '00:00:00', '23:59:59');
INSERT INTO `hospital_search`.`hospital` (`Hospital_id`, `Hospital_name`,
`Hospital_address`, `Hospital_contact_no`, `Hospital_type`, `Open_time`, `Close_time`)
VALUES ('7', 'Shalby', 'Opp. Karnavati Club, S.G. Highway, Ahmedabad,', '7940203333', 'P',
'09:30:00', '18:00:00');
INSERT INTO `hospital_search`.`hospital` (`Hospital_id`, `Hospital_name`,
`Hospital_address`, `Hospital_contact_no`, `Hospital_type`, `Open_time`, `Close_time`)
VALUES ('8', 'Apollo', 'Branch No 1a, Bhat Gidc Estate, Gandhi Nagar, Ahmedabad, Gujarat
', '7966701800', 'P', '10:00:00', '16:00:00');

```

```

INSERT INTO `hospital_search`.`hospital` (`Hospital_id`, `Hospital_name`,
`Hospital_address`, `Hospital_contact_no`, `Hospital_type`, `Open_time`, `Close_time`)
VALUES ('9', 'HCG cancer center', 'Sola-Science City Road, Off S.G. Highway, Sola,
Ahmedabad, Gujarat', '7940411010', 'P', '00:00:00', '23:59:59');
INSERT INTO `hospital_search`.`hospital` (`Hospital_id`, `Hospital_name`,
`Hospital_address`, `Hospital_contact_no`, `Hospital_type`, `Open_time`, `Close_time`)
VALUES ('10', 'Bhagwati Homeopathy Clinic', 'opp.Dell care,Near-swastik cross
roads,Navrangpura,Ahmedbad', '9475312982', 'P', '09:00:00', '16:30:00');
INSERT INTO `hospital_search`.`hospital` (`Hospital_id`, `Hospital_name`,
`Hospital_address`, `Hospital_contact_no`, `Hospital_type`, `Open_time`, `Close_time`)
VALUES ('11', 'CIMS cancer hospital', 'Near Shukan mall,, Science City Road, Sola,
Ahmedabad', '7930101257', 'P', '00:00:00', '23:59:59');

```

#data for hospital_area

```

INSERT INTO `hospital_search`.`hospital_area` (`Index_id`, `Area`, `Hospital_id`,
`Location_Link`) VALUES ('1', 'Sola', '1',
'https://www.google.co.in/maps/place/Zydus+Hospital,+Zydus+Hospital+Rd,+Sola');
INSERT INTO `hospital_search`.`hospital_area` (`Index_id`, `Area`, `Hospital_id`,
`Location_Link`) VALUES ('2', 'Asarwa', '2', 'https://www.google.co.in/maps/place/OPD+-
+Civil+Hospital');
INSERT INTO `hospital_search`.`hospital_area` (`Index_id`, `Area`, `Hospital_id`,
`Location_Link`) VALUES ('3', 'Thaltej', '3',
'https://www.google.co.in/maps/place/Columbia+Asia+Hospital+++Ahmedabad');
INSERT INTO `hospital_search`.`hospital_area` (`Index_id`, `Area`, `Hospital_id`,
`Location_Link`) VALUES ('4', 'Sola', '4',
'https://www.google.co.in/maps/place/Sola+Civil+Hospital');
INSERT INTO `hospital_search`.`hospital_area` (`Index_id`, `Area`, `Hospital_id`,
`Location_Link`) VALUES ('5', 'Memnagar', '5',
'https://www.google.co.in/maps/place/Sterling+Hospital');
INSERT INTO `hospital_search`.`hospital_area` (`Index_id`, `Area`, `Hospital_id`,
`Location_Link`) VALUES ('6', 'Sola', '6',
'https://www.google.co.in/maps/place/CIMS+Hospital');
INSERT INTO `hospital_search`.`hospital_area` (`Index_id`, `Area`, `Hospital_id`,
`Location_Link`) VALUES ('7', 'Karnavati', '7',
'https://www.google.co.in/maps/place/Shalby+Hospital');
INSERT INTO `hospital_search`.`hospital_area` (`Index_id`, `Area`, `Hospital_id`,
`Location_Link`) VALUES ('8', 'Bhat', '8',
'https://www.google.co.in/maps/place/Apollo+Hospitals+International+Limited');
INSERT INTO `hospital_search`.`hospital_area` (`Index_id`, `Area`, `Hospital_id`,
`Location_Link`) VALUES ('9', 'Sola', '9',
'https://www.google.co.in/maps/place/HCG+Cancer+Centre');
INSERT INTO `hospital_search`.`hospital_area` (`Index_id`, `Area`, `Hospital_id`,
`Location_Link`) VALUES ('10', 'Navrangpura', '10',
'https://www.google.co.in/maps/place/Bhagwati+Homeopathy+Navrangpura');
INSERT INTO `hospital_search`.`hospital_area` (`Index_id`, `Area`, `Hospital_id`,
`Location_Link`) VALUES ('11', 'Sola', '11',
'https://www.google.co.in/maps/place/CIMS+cancer+center+Sola');

```

#data for hospital_treatment

```
INSERT INTO `hospital_search`.`hospital_treatment` (`Index_id`, `Hospital_id`, `Treatment`, `Expense_level`) VALUES ('1', '1', 'Neurosurgery', '3');
INSERT INTO `hospital_search`.`hospital_treatment` (`Index_id`, `Hospital_id`, `Treatment`, `Expense_level`) VALUES ('2', '2', 'OPD', '1');
INSERT INTO `hospital_search`.`hospital_treatment` (`Index_id`, `Hospital_id`, `Treatment`, `Expense_level`) VALUES ('3', '3', 'Cardiology', '3');
INSERT INTO `hospital_search`.`hospital_treatment` (`Index_id`, `Hospital_id`, `Treatment`, `Expense_level`) VALUES ('4', '4', 'Surgery', '1');
INSERT INTO `hospital_search`.`hospital_treatment` (`Index_id`, `Hospital_id`, `Treatment`, `Expense_level`) VALUES ('5', '5', 'Dentistry', '2');
INSERT INTO `hospital_search`.`hospital_treatment` (`Index_id`, `Hospital_id`, `Treatment`, `Expense_level`) VALUES ('6', '6', 'ENT', '2');
INSERT INTO `hospital_search`.`hospital_treatment` (`Index_id`, `Hospital_id`, `Treatment`, `Expense_level`) VALUES ('7', '7', 'pediatrics', '2');
INSERT INTO `hospital_search`.`hospital_treatment` (`Index_id`, `Hospital_id`, `Treatment`, `Expense_level`) VALUES ('8', '8', 'Psychiatry', '3');
INSERT INTO `hospital_search`.`hospital_treatment` (`Index_id`, `Hospital_id`, `Treatment`, `Expense_level`) VALUES ('9', '9', 'cancer', '3');
INSERT INTO `hospital_search`.`hospital_treatment` (`Index_id`, `Hospital_id`, `Treatment`, `Expense_level`) VALUES ('10', '10', 'Homeopathy', '1');
INSERT INTO `hospital_search`.`hospital_treatment` (`Index_id`, `Hospital_id`, `Treatment`, `Expense_level`) VALUES ('12', '11', 'cancer', '4');
INSERT INTO `hospital_search`.`hospital_treatment` (`Index_id`, `Hospital_id`, `Treatment`, `Expense_level`) VALUES ('13', '7', 'knee replacement', '4');
INSERT INTO `hospital_search`.`hospital_treatment` (`Index_id`, `Hospital_id`, `Treatment`, `Expense_level`) VALUES ('14', '7', 'cataract', '3');
```

#data for doctors

```
INSERT INTO `hospital_search`.`doctor` (`Doctor_id`, `Doctor_name`, `Qualification`, `Experience`, `Contact_no`, `DOB`, `Rating`) VALUES ('101', 'Ramesh Shah', 'MBBS,MD', '15', '9758312051', '1970-08-07', '3');
INSERT INTO `hospital_search`.`doctor` (`Doctor_id`, `Doctor_name`, `Qualification`, `Experience`, `Contact_no`, `DOB`, `Rating`) VALUES ('102', 'Shiv Patel', 'MBBS,MD,Gold-medalist', '17', '9312436108', '1968-10-27', '4');
INSERT INTO `hospital_search`.`doctor` (`Doctor_id`, `Doctor_name`, `Qualification`, `Experience`, `Contact_no`, `DOB`, `Rating`) VALUES ('103', 'Khyati Modi', 'BDS', '8', '9481420951', '1979-01-12', '3');
INSERT INTO `hospital_search`.`doctor` (`Doctor_id`, `Doctor_name`, `Qualification`, `Experience`, `Contact_no`, `DOB`, `Rating`) VALUES ('104', 'Shreyas Shah', 'MBBS', '20', '9561231423', '1967-04-16', '4');
INSERT INTO `hospital_search`.`doctor` (`Doctor_id`, `Doctor_name`, `Qualification`, `Experience`, `Contact_no`, `DOB`, `Rating`) VALUES ('105', 'Atit Sheth', 'BPT', '8', '9812034910', '1983-05-09', '3');
```

```

INSERT INTO `hospital_search`.`doctor` (`Doctor_id`, `Doctor_name`, `Qualification`,
`Experience`, `Contact_no`, `DOB`, `Rating`) VALUES ('106', 'Brijesh Upadhyay', 'MBBS',
'5', '8511023689', '1987-09-17', '2');
INSERT INTO `hospital_search`.`doctor` (`Doctor_id`, `Doctor_name`, `Qualification`,
`Experience`, `Contact_no`, `DOB`, `Rating`) VALUES ('107', 'Shubhangi Shah', 'BHMS', '7',
'9985725368', '1985-08-29', '2');
INSERT INTO `hospital_search`.`doctor` (`Doctor_id`, `Doctor_name`, `Qualification`,
`Experience`, `Contact_no`, `DOB`, `Rating`) VALUES ('108', 'Mahesh', 'Special course
psychatrist', '6', '8845036970', '1981-03-15', '3');
INSERT INTO `hospital_search`.`doctor` (`Doctor_id`, `Doctor_name`, `Qualification`,
`Experience`, `Contact_no`, `DOB`, `Rating`) VALUES ('109', 'Yash', 'MBBS,MD,super-
special', '13', '9705948167', '1974-12-09', '5');
INSERT INTO `hospital_search`.`doctor` (`Doctor_id`, `Doctor_name`, `Qualification`,
`Experience`, `Contact_no`, `DOB`, `Rating`) VALUES ('110', 'Nilesh Chokshi', 'MBBS', '6',
'9470360159', '1985-10-08', '3');
INSERT INTO `hospital_search`.`doctor` (`Doctor_id`, `Doctor_name`, `Qualification`,
`Experience`, `Contact_no`, `DOB`, `Rating`) VALUES ('111', 'Ketul Joshi', 'MBBS', '7',
'9860320875', '1984-11-05', '4');
INSERT INTO `hospital_search`.`doctor` (`Doctor_id`, `Doctor_name`, `Qualification`,
`Experience`, `Contact_no`, `DOB`, `Rating`) VALUES ('112', 'Mahipad Modi', 'MBBS,MD',
'8', '8750369702', '1981-02-09', '4');

```

#data for doctor_specialization

```

INSERT INTO `hospital_search`.`doctor_specialization` (`Index_id`, `Doctor_id`,
`Specialization`) VALUES ('1', '101', 'cancer');
INSERT INTO `hospital_search`.`doctor_specialization` (`Index_id`, `Doctor_id`,
`Specialization`) VALUES ('2', '102', 'Neurosurgeon');
INSERT INTO `hospital_search`.`doctor_specialization` (`Index_id`, `Doctor_id`,
`Specialization`) VALUES ('3', '103', 'dentist');
INSERT INTO `hospital_search`.`doctor_specialization` (`Index_id`, `Doctor_id`,
`Specialization`) VALUES ('4', '104', 'pediatrician');
INSERT INTO `hospital_search`.`doctor_specialization` (`Index_id`, `Doctor_id`,
`Specialization`) VALUES ('5', '105', 'physiotherapist');
INSERT INTO `hospital_search`.`doctor_specialization` (`Index_id`, `Doctor_id`,
`Specialization`) VALUES ('6', '106', 'ENT');
INSERT INTO `hospital_search`.`doctor_specialization` (`Index_id`, `Doctor_id`,
`Specialization`) VALUES ('7', '107', 'Homeopathist');
INSERT INTO `hospital_search`.`doctor_specialization` (`Index_id`, `Doctor_id`,
`Specialization`) VALUES ('8', '108', 'Psychatirst');
INSERT INTO `hospital_search`.`doctor_specialization` (`Index_id`, `Doctor_id`,
`Specialization`) VALUES ('9', '109', 'Cardiologist');
INSERT INTO `hospital_search`.`doctor_specialization` (`Index_id`, `Doctor_id`,
`Specialization`) VALUES ('10', '110', 'orthopedic');
INSERT INTO `hospital_search`.`doctor_specialization` (`Index_id`, `Doctor_id`,
`Specialization`) VALUES ('11', '111', 'surgeon');
INSERT INTO `hospital_search`.`doctor_specialization` (`Index_id`, `Doctor_id`,
`Specialization`) VALUES ('12', '112', 'cancer');

```

#data for doctor_treatment

```
INSERT INTO `hospital_search`.`doctor_treatment` (`Index_id`, `HT_Index_id`, `Doctor_id`,
`Treatment`, `Expense_level`) VALUES ('1', '9', '101', 'cancer', '3');
INSERT INTO `hospital_search`.`doctor_treatment` (`Index_id`, `HT_Index_id`, `Doctor_id`,
`Treatment`, `Expense_level`) VALUES ('2', '1', '102', 'neurosurgery', '3');
INSERT INTO `hospital_search`.`doctor_treatment` (`Index_id`, `HT_Index_id`, `Doctor_id`,
`Treatment`, `Expense_level`) VALUES ('3', '5', '103', 'dentistry', '2');
INSERT INTO `hospital_search`.`doctor_treatment` (`Index_id`, `HT_Index_id`, `Doctor_id`,
`Treatment`, `Expense_level`) VALUES ('4', '7', '104', 'pediatrics', '3');
INSERT INTO `hospital_search`.`doctor_treatment` (`Index_id`, `HT_Index_id`, `Doctor_id`,
`Treatment`, `Expense_level`) VALUES ('5', '11', '105', 'physiotherapy', '2');
INSERT INTO `hospital_search`.`doctor_treatment` (`Index_id`, `HT_Index_id`, `Doctor_id`,
`Treatment`, `Expense_level`) VALUES ('6', '6', '106', 'ENT', '2');
INSERT INTO `hospital_search`.`doctor_treatment` (`Index_id`, `HT_Index_id`, `Doctor_id`,
`Treatment`, `Expense_level`) VALUES ('7', '10', '107', 'Homeopathy', '1');
INSERT INTO `hospital_search`.`doctor_treatment` (`Index_id`, `HT_Index_id`, `Doctor_id`,
`Treatment`, `Expense_level`) VALUES ('8', '8', '108', 'psychatrist', '3');
INSERT INTO `hospital_search`.`doctor_treatment` (`Index_id`, `HT_Index_id`, `Doctor_id`,
`Treatment`, `Expense_level`) VALUES ('9', '3', '109', 'cardiology', '3');
INSERT INTO `hospital_search`.`doctor_treatment` (`Index_id`, `HT_Index_id`, `Doctor_id`,
`Treatment`, `Expense_level`) VALUES ('10', '2', '110', 'orthopedic', '3');
INSERT INTO `hospital_search`.`doctor_treatment` (`Index_id`, `HT_Index_id`, `Doctor_id`,
`Treatment`, `Expense_level`) VALUES ('11', '4', '111', 'surgery', '3');
INSERT INTO `hospital_search`.`doctor_treatment` (`Index_id`, `HT_Index_id`, `Doctor_id`,
`Treatment`, `Expense_level`) VALUES ('12', '12', '112', 'cancer', '4');
```

#data for hospital_doctors

```
INSERT INTO `hospital_search`.`hospital_doctors` (`Index_id`, `Hospital_id`, `Doctor_id`,
`Type`, `Opening_Time`, `Closing_Time`) VALUES ('1', '9', '101', 'P', '09:30:00', '17:00:00');
INSERT INTO `hospital_search`.`hospital_doctors` (`Index_id`, `Hospital_id`, `Doctor_id`,
`Type`, `Opening_Time`, `Closing_Time`) VALUES ('2', '1', '102', 'P', '09:00:00', '16:30:30');
INSERT INTO `hospital_search`.`hospital_doctors` (`Index_id`, `Hospital_id`, `Doctor_id`,
`Type`, `Opening_Time`, `Closing_Time`) VALUES ('3', '5', '103', 'P', '10:00:00', '17:30:00');
INSERT INTO `hospital_search`.`hospital_doctors` (`Index_id`, `Hospital_id`, `Doctor_id`,
`Type`, `Opening_Time`, `Closing_Time`) VALUES ('4', '7', '104', 'P', '09:30:00', '16:30:00');
INSERT INTO `hospital_search`.`hospital_doctors` (`Index_id`, `Hospital_id`, `Doctor_id`,
`Type`, `Opening_Time`, `Closing_Time`) VALUES ('5', '6', '105', 'T', '10:30:00', '14:00:00');
INSERT INTO `hospital_search`.`hospital_doctors` (`Index_id`, `Hospital_id`, `Doctor_id`,
`Type`, `Opening_Time`, `Closing_Time`) VALUES ('6', '6', '106', 'P', '09:00:00', '15:30:00');
INSERT INTO `hospital_search`.`hospital_doctors` (`Index_id`, `Hospital_id`, `Doctor_id`,
`Type`, `Opening_Time`, `Closing_Time`) VALUES ('7', '10', '107', 'P', '09:30:00', '17:00:00');
INSERT INTO `hospital_search`.`hospital_doctors` (`Index_id`, `Hospital_id`, `Doctor_id`,
`Type`, `Opening_Time`, `Closing_Time`) VALUES ('8', '8', '108', 'P', '10:00:00', '15:30:00');
INSERT INTO `hospital_search`.`hospital_doctors` (`Index_id`, `Hospital_id`, `Doctor_id`,
`Type`, `Opening_Time`, `Closing_Time`) VALUES ('9', '3', '109', 'P', '09:30:00', '16:30:00');
INSERT INTO `hospital_search`.`hospital_doctors` (`Index_id`, `Hospital_id`, `Doctor_id`,
`Type`, `Opening_Time`, `Closing_Time`) VALUES ('10', '2', '110', 'P', '10:00:00', '16:30:00');
```



```

INSERT INTO `hospital_search`.`hospital_doctors` (`Index_id`, `Hospital_id`, `Doctor_id`,
`Type`, `Opening_Time`, `Closing_Time`) VALUES ('11', '4', '111', 'T', '11:00:00', '16:00:00');
INSERT INTO `hospital_search`.`hospital_doctors` (`Index_id`, `Hospital_id`, `Doctor_id`,
`Type`, `Opening_Time`, `Closing_Time`) VALUES ('12', '11', '112', 'P', '09:00:00',
'16:30:00');
INSERT INTO `hospital_search`.`hospital_doctors` (`Index_id`, `Hospital_id`, `Doctor_id`,
`Type`, `Opening_Time`, `Closing_Time`) VALUES ('13', '1', '105', 'T', '14:00:00', '17:00:00');
INSERT INTO `hospital_search`.`hospital_doctors` (`Index_id`, `Hospital_id`, `Doctor_id`,
`Type`, `Opening_Time`, `Closing_Time`) VALUES ('14', '1', '111', 'T', '16:00:00', '19:00:00');
INSERT INTO `hospital_search`.`hospital_doctors` (`Index_id`, `Hospital_id`, `Doctor_id`,
`Type`, `Opening_Time`, `Closing_Time`) VALUES ('15', '1', '108', 'T', '17:00:00', '19:00:00');
INSERT INTO `hospital_search`.`hospital_doctors` (`Index_id`, `Hospital_id`, `Doctor_id`,
`Type`, `Opening_Time`, `Closing_Time`) VALUES ('16', '7', '106', 'T', '16:00:00', '18:30:00');
INSERT INTO `hospital_search`.`hospital_doctors` (`Index_id`, `Hospital_id`, `Doctor_id`,
`Type`, `Opening_Time`, `Closing_Time`) VALUES ('17', '7', '110', 'T', '16:30:00', '19:00:00');

```

#data for appointment request

```

INSERT INTO `hospital_search`.`appointment_request` (`Request_id`, `Hospital_id`,
`Doctor_id`, `Name`, `time`, `status`) VALUES ('1', '9', '101', 'Aarsh', '2017-05-01 11:00:00',
'C');
INSERT INTO `hospital_search`.`appointment_request` (`Request_id`, `Hospital_id`,
`Doctor_id`, `Name`, `time`, `status`) VALUES ('2', '9', '101', 'Bhupesh', '2017-05-01
16:30:00', 'W');
INSERT INTO `hospital_search`.`appointment_request` (`Request_id`, `Hospital_id`,
`Doctor_id`, `Name`, `time`, `status`) VALUES ('3', '1', '102', 'Chaitanya', '2017-05-01
10:30:00', 'C');
INSERT INTO `hospital_search`.`appointment_request` (`Request_id`, `Hospital_id`,
`Doctor_id`, `Name`, `time`, `status`) VALUES ('4', '1', '102', 'Dimple', '2017-05-01 14:00:00',
'C');
INSERT INTO `hospital_search`.`appointment_request` (`Request_id`, `Hospital_id`,
`Doctor_id`, `Name`, `time`, `status`) VALUES ('5', '5', '103', 'Forum', '2017-05-01 11:30:00',
'C');
INSERT INTO `hospital_search`.`appointment_request` (`Request_id`, `Hospital_id`,
`Doctor_id`, `Name`, `time`, `status`) VALUES ('6', '5', '103', 'Harsh', '2017-05-01 15:30:00',
'C');
INSERT INTO `hospital_search`.`appointment_request` (`Request_id`, `Hospital_id`,
`Doctor_id`, `Name`, `time`, `status`) VALUES ('7', '7', '104', 'Manish', '2017-05-01 11:15:00',
'C');
INSERT INTO `hospital_search`.`appointment_request` (`Request_id`, `Hospital_id`,
`Doctor_id`, `Name`, `time`, `status`) VALUES ('8', '7', '104', 'Nimesh', '2017-05-01 16:15:00',
'W');
INSERT INTO `hospital_search`.`appointment_request` (`Request_id`, `Hospital_id`,
`Doctor_id`, `Name`, `time`, `status`) VALUES ('9', '6', '105', 'Bhoomi', '2017-05-01 12:30:00',
'C');
INSERT INTO `hospital_search`.`appointment_request` (`Request_id`, `Hospital_id`,
`Doctor_id`, `Name`, `time`, `status`) VALUES ('10', '6', '105', 'Roshan', '2017-05-01
14:30:00', 'W');

```

```

INSERT INTO `hospital_search`.`appointment_request` (`Request_id`, `Hospital_id`,
`Doctor_id`, `Name`, `time`, `status`) VALUES ('11', '6', '106', 'Devendra', '2017-05-01
10:30:00', 'C');
INSERT INTO `hospital_search`.`appointment_request` (`Request_id`, `Hospital_id`,
`Doctor_id`, `Name`, `time`, `status`) VALUES ('12', '6', '106', 'Varsh', '2017-05-01 14:00:00',
'C');
INSERT INTO `hospital_search`.`appointment_request` (`Request_id`, `Hospital_id`,
`Doctor_id`, `Name`, `time`, `status`) VALUES ('13', '10', '107', 'Rudra', '2017-05-01
11:45:00', 'C');
INSERT INTO `hospital_search`.`appointment_request` (`Request_id`, `Hospital_id`,
`Doctor_id`, `Name`, `time`, `status`) VALUES ('14', '10', '107', 'Kalpesh', '2017-05-01
13:30:00', 'C');
INSERT INTO `hospital_search`.`appointment_request` (`Request_id`, `Hospital_id`,
`Doctor_id`, `Name`, `time`, `status`) VALUES ('15', '8', '108', 'Mitul', '2017-05-01 11:30:00',
'C');
INSERT INTO `hospital_search`.`appointment_request` (`Request_id`, `Hospital_id`,
`Doctor_id`, `Name`, `time`, `status`) VALUES ('16', '8', '108', 'Riddhi', '2017-05-01 12:30:00',
'C');
INSERT INTO `hospital_search`.`appointment_request` (`Request_id`, `Hospital_id`,
`Doctor_id`, `Name`, `time`, `status`) VALUES ('17', '3', '109', 'Hemal', '2017-05-01 11:00:00',
'C');
INSERT INTO `hospital_search`.`appointment_request` (`Request_id`, `Hospital_id`,
`Doctor_id`, `Name`, `time`, `status`) VALUES ('18', '3', '109', 'Naisargi', '2017-05-01
14:00:00', 'C');
INSERT INTO `hospital_search`.`appointment_request` (`Request_id`, `Hospital_id`,
`Doctor_id`, `Name`, `time`, `status`) VALUES ('19', '2', '110', 'Akshay', '2017-05-01
12:00:00', 'C');
INSERT INTO `hospital_search`.`appointment_request` (`Request_id`, `Hospital_id`,
`Doctor_id`, `Name`, `time`, `status`) VALUES ('20', '2', '110', 'Piyush', '2017-05-01 16:15:00',
'W');
INSERT INTO `hospital_search`.`appointment_request` (`Request_id`, `Hospital_id`,
`Doctor_id`, `Name`, `time`, `status`) VALUES ('21', '4', '111', 'Ankit', '2017-05-01 11:30:00',
'C');
INSERT INTO `hospital_search`.`appointment_request` (`Request_id`, `Hospital_id`,
`Doctor_id`, `Name`, `time`, `status`) VALUES ('22', '4', '111', 'Suresh', '2017-05-01
14:30:00', 'C');

```

#Queries

1. Search hospital of an area

Select hospital.Hospital_name, hospital.Hospital_address, hospital.Hospital_contact_no, hospital.Open_time, hospital.Close_time from hospital where hospital.Hospital_id in (select hospital_area.Hospital_id from hospital_area where hospital_area.Area = "Abad");

```
195
196 # 1. Search hospital of an area
197 • Select hospital.Hospital_name, hospital.Hospital_address, hospital.Hospital_contact_no,
198     hospital.Open_time, hospital.Close_time from hospital where hospital.Hospital_id
199     in (select hospital_area.Hospital_id from hospital_area where hospital_area.Area = "Sola");
200
201
```

	Hospital_name	Hospital_address	Hospital_contact_no	Open_time	Close_time
▶	Zydus	Nr. Sola Bridge, S.G. Highway, Ahmedabad, Gu...	7874412345	00:00:00	23:59:59
	Sola Civil	Near Gujarat High Court, S.G. Highway, Dist Ah...	7927664359	00:00:00	23:59:59
	CIMS	Opposite Panchamrut Bunglows, Near Shukan ...	9825066664	00:00:00	23:59:59
	HCG cancer center	Sola-Science City Road, Off S.G. Highway, Sola...	7940411010	00:00:00	23:59:59

2. Search doctors of an area

Select doctor.Doctor_name, doctor.Qualification, doctor.Contact_no, doctor.Rating from doctor where doctor.Doctor_id in (select hospital_doctors.Doctor_id from hospital_doctors where hospital_doctors.Hospital_id in (select hospital_area.Hospital_id from hospital_area where hospital_area.Area = "Abad"));

```
201 # 2. Search doctors of an area
202 • Select doctor.Doctor_name, doctor.Qualification, doctor.Contact_no,
203     doctor.Rating from doctor where doctor.Doctor_id
204     in (select hospital_doctors.Doctor_id from hospital_doctors where hospital_doctors.Hospital_id
205     in (select hospital_area.Hospital_id from hospital_area where hospital_area.Area = "Sola"));
206
```

	Doctor_name	Qualification	Contact_no	Rating
▶	Ramesh Shah	MBBS,MD	9758312051	3
	Shiv Patel	MBBS,MD,Gold-...	9312436108	4
	Atit Sheth	BPT	9812034910	3
	Brijesh Upadhyay	MBBS	8511023689	2
	Ketul Joshi	MBBS	9860320875	4

3. Doctor search by their Specialization

Select doctor.Doctor_name, doctor.Qualification, doctor.Contact_no, doctor.Rating from doctor where doctor.Doctor_id in (select doctor_specialization.Doctor_id from doctor_specialization where doctor_specialization.Specialization = "Specialization");

```

207 # 3. Doctor search by their Specialization
208 • Select doctor.Doctor_name, doctor.Qualification, doctor.Contact_no, doctor.Rating
209   from doctor where doctor.Doctor_id in (select doctor_specialization.Doctor_id from doctor_specialization
210   where doctor_specialization.Specialization = "Neurosurgeon");
211
212

```

Doctor_name	Qualification	Contact_no	Rating
Shiv Patel	MBBS,MD,Gold...	9312436108	4

4. All Govt Hospitals

Select * from hospital where hospital.Hospital_type = 'G';

```

212 # 4. All Govt Hospitals
213 • Select * from hospital where hospital.Hospital_type = 'G';
214
215
216
217

```

Hospital_id	Hospital_name	Hospital_address	Hospital_contact_no	Hospital_type	Open_time	Close_time
2	Civil (OPD)	D Block, Haripura, Asarwa, Ahmedabad, Gujarat	7922683721	G	10:00:00	18:00:00
4	Sola Civil	Near Gujarat High Court, S.G. Highway, Dist Ah...	7927664359	G	00:00:00	23:59:59
NULL	NULL	NULL	NULL	NULL	NULL	NULL

5. All Private Hospitals

Select * from hospital where hospital.Hospital_type = 'P';

```

214 # 5. All Private Hospitals
215 • Select * from hospital where hospital.Hospital_type = 'P';
216
217
218
219
220

```

Hospital_id	Hospital_name	Hospital_address	Hospital_contact_no	Hospital_type	Open_time	Close_time
1	Zydus	Nr. Sola Bridge, S.G. Highway, Ahmedabad, Gu...	7874412345	P	00:00:00	23:59:59
3	Columbia Asia	Plot No. 221/222, Hebatpur Road, Off S G High...	7939898969	P	00:00:00	23:59:59
5	Sterling	Near Maharaja Agrasen Vidhyalaya, Near Guruk...	7940011111	P	00:00:00	23:59:59
6	CIMS	Opposite Panchamrut Bunglows, Near Shukan ...	9825066664	P	00:00:00	23:59:59
7	Shalby	Opp. Karnavati Club, S.G. Highway, Ahmedabad,	7940203333	P	09:30:00	18:00:00
8	Apollo	Branch No 1a, Bhat Gidc Estate, Gandhi Nagar, ...	7966701800	P	10:00:00	16:00:00
9	HCG cancer center	Sola-Science City Road, Off S.G. Highway, Sola...	7940411010	P	00:00:00	23:59:59
10	Bhagwati Homeopathy Clinic	opp.Dell care,Near-swastik cross roads,Navran...	9475312982	P	09:00:00	16:30:00
NULL	NULL	NULL	NULL	NULL	NULL	NULL

6. All Doctors with experience over 5yrs

Select * from doctor where doctor.Experience >= 5;

```

217
218 # 6. All Doctors with experience over 5yrs
219 • Select * from doctor where doctor.Experience >= 5;
220
221
222
223

```

Doctor_id	Doctor_name	Qualification	Experience	Contact_no	DOB	Rating
101	Ramesh Shah	MBBS,MD	15	9758312051	1970-08-07	3
102	Shiv Patel	MBBS,MD,Gold-...	17	9312436108	1968-10-27	4
103	Khyati Modi	BDS	8	9481420951	1979-01-12	3
104	Shreyas Shah	MBBS	20	9561231423	1967-04-16	4
105	Atit Sheth	BPT	8	9812034910	1983-05-09	3
106	Brijesh Upadhyay	MBBS	5	8511023689	1987-09-17	2
107	Shubhangi Shah	BHMS	7	9985725368	1985-08-29	2
108	Mahesh	Special course p...	6	8845036970	1981-03-15	3
109	Yash	MBBS,MD,super...	13	9705948167	1974-12-09	5
110	Nilesh Chokshi	MBBS	6	9470360159	1985-10-08	3
111	Ketul Joshi	MBBS	7	9860320875	1984-11-05	4
NULL	NULL	NULL	NULL	NULL	NULL	NULL

7. All Doctors with rating over average

Select * from doctor where doctor.Rating >= 4;

```

220
221 # 7. All Doctors with rating over average
222 • Select * from doctor where doctor.Rating >= 4;
223
224
225
226

```

Doctor_id	Doctor_name	Qualification	Experience	Contact_no	DOB	Rating
102	Shiv Patel	MBBS,MD,Gold-...	17	9312436108	1968-10-27	4
104	Shreyas Shah	MBBS	20	9561231423	1967-04-16	4
109	Yash	MBBS,MD,super...	13	9705948167	1974-12-09	5
111	Ketul Joshi	MBBS	7	9860320875	1984-11-05	4
NULL	NULL	NULL	NULL	NULL	NULL	NULL

8. All Hospitals hospitals open for 24hrs

Select * from hospital where hospital.Open_time = '00:00:00' and hospital.Close_time = '23:59:59';


```

223
224 # 8. All Hospitals hospitals open for 24hrs
225 • Select * from hospital where hospital.Open_time = '00:00:00' and hospital.Close_time = '23:59:59';
226
227
228
229

```

Hospital_id	Hospital_name	Hospital_address	Hospital_contact_no	Hospital_type	Open_time	Close_time
1	Zydus	Nr. Sola Bridge, S.G. Highway, Ahmedabad, Gu...	7874412345	P	00:00:00	23:59:59
3	Columbia Asia	Plot No. 221/222, Hebatpur Road, Off S G High...	7939898969	P	00:00:00	23:59:59
4	Sola Civil	Near Gujarat High Court, S.G. Highway, Dist Ah...	7927664359	G	00:00:00	23:59:59
5	Sterling	Near Maharaja Agrasen Vidhyalaya, Near Guruk...	7940011111	P	00:00:00	23:59:59
6	CIMS	Opposite Panchamrut Bunglows, Near Shukan ...	9825066664	P	00:00:00	23:59:59
9	HCG cancer center	Sola-Science City Road, Off S.G. Highway, Sola...	7940411010	P	00:00:00	23:59:59
* NULL	NULL	NULL	NULL	NULL	NULL	NULL

9. Hospital search by the treatments offered

Select hospital.Hospital_name, hospital.Hospital_type, hospital.Hospital_address, hospital.Hospital_contact_no, hospital.Open_time, hospital.Close_time from hospital where hospital.Hospital_id in (select hospital_treatment.Hospital_id from hospital_treatment where hospital_treatment.Treatment = "Treatment");

```

227 # 9. Hospital search by the treatments offered
228 • Select hospital.Hospital_name, hospital.Hospital_type, hospital.Hospital_address,
229 hospital.Hospital_contact_no, hospital.Open_time, hospital.Close_time from hospital
230 where hospital.Hospital_id in (select hospital_treatment.Hospital_id from hospital_treatment
231 where hospital_treatment.Treatment = "cancer");
232
233
234
235
236
237
238
239
240

```

Hospital_name	Hospital_type	Hospital_address	Hospital_contact_no	Open_time	Close_time
HCG cancer center	P	Sola-Science City Road, Off S.G. Highway, Sola...	7940411010	00:00:00	23:59:59

10. Doctors search by the treatments offered

Select doctor.Doctor_name, doctor.Qualification, doctor.Contact_no from doctor where doctor.Doctor_id in (Select doctor_treatment.Doctor_id from doctor_treatment where doctor_treatment.HT_Index_id in (select hospital_treatment.Index_id from hospital_treatment where hospital_treatment.Treatment = "Treatment"));

```

245
246 # 10. Doctors search by the treatments offered
247 • Select doctor.Doctor_name, doctor.Qualification, doctor.Contact_no from doctor
248   where doctor.Doctor_id in (Select doctor_treatment.Doctor_id from doctor_treatment
249   where doctor_treatment.HT_Index_id in (select hospital_treatment.Index_id from hospital_treatment
250   where hospital_treatment.Treatment = "cancer"));

```

Doctor_name	Qualification	Contact_no
Ramesh Shah	MBBS,MD	9758312051
Mahipad Modi	MBBS,MD	8750369702

11. Sort Doctors by Experience

select * from doctor order by experience asc;

```

238
239 # 11. Sort Doctors by Experience
240 • select * from doctor order by experience asc;
241
242
243
244

```

Doctor_id	Doctor_name	Qualification	Experience	Contact_no	DOB	Rating
106	Brijesh Upadhyay	MBBS	5	8511023689	1987-09-17	2
108	Mahesh	Special course p...	6	8845036970	1981-03-15	3
110	Nilesh Chokshi	MBBS	6	9470360159	1985-10-08	3
107	Shubhangi Shah	BHMS	7	9985725368	1985-08-29	2
111	Ketul Joshi	MBBS	7	9860320875	1984-11-05	4
103	Khyati Modi	BDS	8	9481420951	1979-01-12	3
105	Atit Sheth	BPT	8	9812034910	1983-05-09	3
109	Yash	MBBS,MD,super...	13	9705948167	1974-12-09	5
101	Ramesh Shah	MBBS,MD	15	9758312051	1970-08-07	3
102	Shiv Patel	MBBS,MD,Gold-...	17	9312436108	1968-10-27	4
104	Shreyas Shah	MBBS	20	9561231423	1967-04-16	4
*	NULL	NULL	NULL	NULL	NULL	NULL

12. Sort Doctors by Rating

select * from doctor order by rating asc;

241
242 # 12. Sort Doctors by Rating
243 • `select * from doctor order by rating asc;`
244
245
246
247

Doctor_id	Doctor_name	Qualification	Experience	Contact_no	DOB	Rating
106	Brijesh Upadhyay	MBBS	5	8511023689	1987-09-17	2
107	Shubhangi Shah	BHMS	7	9985725368	1985-08-29	2
101	Ramesh Shah	MBBS,MD	15	9758312051	1970-08-07	3
103	Khyati Modi	BDS	8	9481420951	1979-01-12	3
105	Atit Sheth	BPT	8	9812034910	1983-05-09	3
108	Mahesh	Special course p...	6	8845036970	1981-03-15	3
110	Nilesh Chokshi	MBBS	6	9470360159	1985-10-08	3
102	Shiv Patel	MBBS,MD,Gold-...	17	9312436108	1968-10-27	4
104	Shreyas Shah	MBBS	20	9561231423	1967-04-16	4
111	Ketul Joshi	MBBS	7	9860320875	1984-11-05	4
109	Yash	MBBS,MD,super...	13	9705948167	1974-12-09	5
NULL	NULL	NULL	NULL	NULL	NULL	NULL

13. Hospitals open at Current Time

`select hospital.Hospital_name, hospital.Hospital_address, hospital.Hospital_contact_no from hospital where hospital.close_time >= curtime() and hospital.open_time <= curtime();`

244
245 # 13. Hospitals open at Current Time
246 • `select hospital.Hospital_name, hospital.Hospital_address, hospital.Hospital_contact_no from hospital`
247 `where hospital.close_time >= curtime() and hospital.open_time <= curtime();`
248
249
250

Hospital_name	Hospital_address	Hospital_contact_no
Zydus	Nr. Sola Bridge, S.G. Highway, Ahmedabad, Gu...	7874412345
Columbia Asia	Plot No. 221/222, Hebatpur Road, Off S G High...	7939899969
Sola Civil	Near Gujarat High Court, S.G. Highway, Dist Ah...	7927664359
Sterling	Near Maharaja Agrasen Vidhyalaya, Near Guruk...	7940011111
CIMS	Opposite Panchamrut Bunglows, Near Shukan ...	9825066664
HCG cancer center	Sola-Science City Road, Off S.G. Highway, Sola...	7940411010
Bhagwati Homeopathy Clinic	opp.Dell care,Near-swastik cross roads,Navran...	9475312982

14. Hospitals open in Current Area

`select hospital.Hospital_name, hospital.Hospital_address, hospital_area.location_link, hospital.Hospital_contact_no from hospital,hospital_area where hospital_area.area = 'Sola' and hospital.Hospital_id = hospital_area.Hospital_id and hospital.close_time > curtime() and hospital.open_time < curtime();`


```

248
249 # 14. Hospitals open in Current Area
250 select hospital.Hospital_name, hospital.Hospital_address, hospital_area.location_link, hospital.Hospital_contact_no
251 from hospital,hospital_area where hospital_area.area = 'Sola' and hospital.Hospital_id = hospital_area.Hospital_id and
252 hospital.close_time > curtime() and hospital.open_time < curtime();
253
254

```

Hospital_name	Hospital_address	location_link	Hospital_contact_no
Zydus	Nr. Sola Bridge, S.G. Highway, Ahmedabad, Gu...	https://www.google.co.in/maps/place/Zydus+H...	7874412345
Sola Civil	Near Gujarat High Court, S.G. Highway, Dist Ah...	https://www.google.co.in/maps/place/Sola+Civ...	7927664359
CIMS	Opposite Panchamrut Bunglows, Near Shukan ...	https://www.google.co.in/maps/place/CIMS+H...	9825066664
HCG cancer center	Sola-Science City Road, Off S.G. Highway, Sola...	https://www.google.co.in/maps/place/HCG+Ca...	7940411010

15. Doctors available at Current Time

select doctor.doctor_name, doctor.qualification, doctor.contact_no, hospital.hospital_name, hospital_doctors.type, hospital.hospital_contact_no from doctor,hospital_doctors, hospital where hospital_doctors.opening_time < curtime() and hospital_doctors.closing_time > curtime() and hospital_doctors.Doctor_id = doctor.Doctor_id and hospital_doctors.Hospital_id = hospital.Hospital_id;

```

253
254 # 15. Doctors available at Current Time
255 select doctor.doctor_name, doctor.qualification, doctor.contact_no, hospital.hospital_name,
256 hospital_doctors.type, hospital.hospital_contact_no from doctor,hospital_doctors, hospital
257 where hospital_doctors.opening_time < curtime() and hospital_doctors.closing_time > curtime()
258 and hospital_doctors.Doctor_id = doctor.Doctor_id and hospital_doctors.Hospital_id = hospital.Hospital_id;
259

```

doctor_name	qualification	contact_no	hospital_name	type	hospital_contact_no
Ramesh Shah	MBBS,MD	9758312051	HCG cancer center	P	7940411010
Shiv Patel	MBBS,MD,Gold-medalist	9312436108	Zydus	P	7874412345
Shreyas Shah	MBBS	9561231423	Shalby	P	7940203333
Brijesh Upadhyay	MBBS	8511023689	CIMS	P	9825066664
Shubhangi Shah	BHMS	9985725368	Bhagwati Homeopathy Clinic	P	9475312982
Yash	MBBS,MD,super-special	9705948167	Columbia Asia	P	7939898969

16. Doctors available in Current Area

select doctor.doctor_name, doctor.qualification, doctor.contact_no, hospital.hospital_name, hospital.hospital_contact_no from doctor , hospital_doctors ,hospital , hospital_area where hospital_doctors.opening_time < curtime() and hospital_doctors.closing_time > curtime() and hospital_area.area = 'Sola' and hospital.close_time > curtime() and hospital.open_time < curtime() and hospital_doctors.Doctor_id= doctor.Doctor_id and hospital_doctors.Hospital_id= hospital.Hospital_id and hospital.Hospital_id= hospital_area.Hospital_id;

```

261 # 16. Doctors available in Current Area
262 select doctor.doctor_name, doctor.qualification, doctor.contact_no, hospital.hospital_name,
263 hospital.hospital_contact_no from doctor , hospital_doctors ,hospital , hospital_area
264 where hospital_doctors.opening_time < curtime() and
265 hospital_doctors.closing_time > curtime() and hospital_area.area = 'Sola' and
266 hospital.close_time > curtime() and hospital.open_time < curtime() and hospital_doctors.Doctor_id= doctor.Doctor_id
267 and hospital_doctors.Hospital_id= hospital.Hospital_id and hospital.Hospital_id= hospital_area.Hospital_id;

```

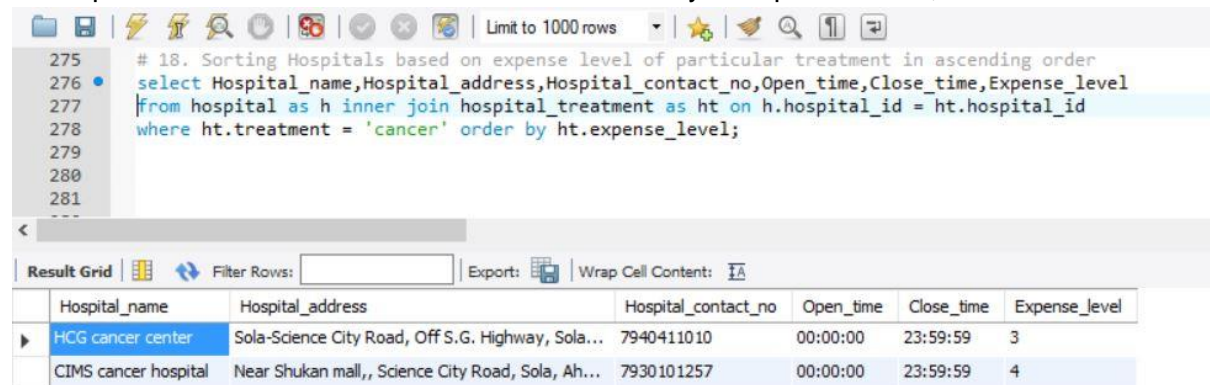
doctor_name	qualification	contact_no	hospital_name	hospital_contact_no
Shiv Patel	MBBS,MD,Gold-medalist	9312436108	Zydus	7874412345
Brijesh Upadhyay	MBBS	8511023689	CIMS	9825066664
Ramesh Shah	MBBS,MD	9758312051	HCG cancer center	7940411010

17. Make Appointment Request

Insert into appointment_request (Request_id,Doctor_id,Hospital_id,Name,time,status)
values (autoinc.nextval, '101','9','Ajit','2017-05-01 12:30:00','W');

18. Sorting Hospitals based on expense level of particular treatment in ascending order

select * from hospital as h inner join hospital_treatment as ht on h.hospital_id =
ht.hospital_id where ht.treatment = 'cataract' order by ht.expense_level;



The screenshot shows a database query editor with the following SQL query:

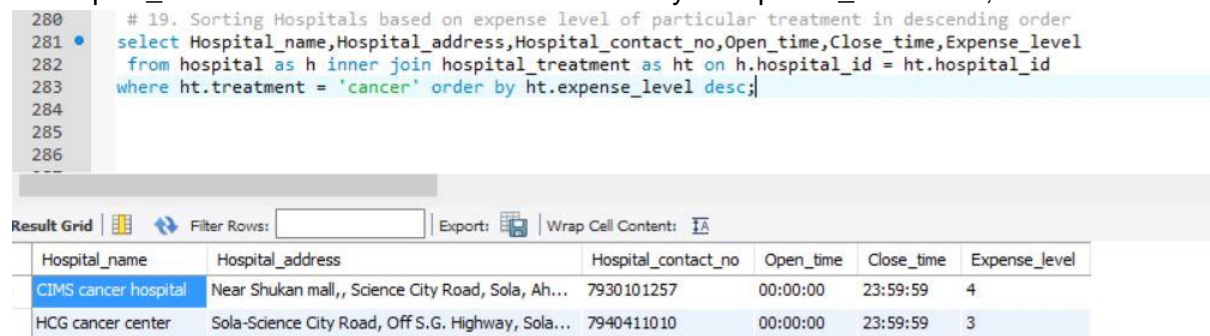
```
# 18. Sorting Hospitals based on expense level of particular treatment in ascending order
select Hospital_name,Hospital_address,Hospital_contact_no,Open_time,Close_time,Expense_level
from hospital as h inner join hospital_treatment as ht on h.hospital_id = ht.hospital_id
where ht.treatment = 'cancer' order by ht.expense_level;
```

Below the query editor is a result grid showing the results of the query. The grid has 7 columns: Hospital_name, Hospital_address, Hospital_contact_no, Open_time, Close_time, and Expense_level. The results are sorted by Expense_level in ascending order.

Hospital_name	Hospital_address	Hospital_contact_no	Open_time	Close_time	Expense_level
HCG cancer center	Sola-Science City Road, Off S.G. Highway, Sola...	7940411010	00:00:00	23:59:59	3
CIMS cancer hospital	Near Shukan mall,, Science City Road, Sola, Ah...	7930101257	00:00:00	23:59:59	4

19. Sorting Hospitals based on expense level of particular treatment in descending order

Select Hospital_name, Hospital_address, Hospital_contact_no, Open_time, Close_time,
Expense_level from hospital as h inner join hospital_treatment as ht on h.hospital_id =
ht.hospital_id where ht.treatment = 'cancer' order by ht.expense_level desc;



The screenshot shows a database query editor with the following SQL query:

```
# 19. Sorting Hospitals based on expense level of particular treatment in descending order
select Hospital_name,Hospital_address,Hospital_contact_no,Open_time,Close_time,Expense_level
from hospital as h inner join hospital_treatment as ht on h.hospital_id = ht.hospital_id
where ht.treatment = 'cancer' order by ht.expense_level desc;
```

Below the query editor is a result grid showing the results of the query. The grid has 7 columns: Hospital_name, Hospital_address, Hospital_contact_no, Open_time, Close_time, and Expense_level. The results are sorted by Expense_level in descending order.

Hospital_name	Hospital_address	Hospital_contact_no	Open_time	Close_time	Expense_level
CIMS cancer hospital	Near Shukan mall,, Science City Road, Sola, Ah...	7930101257	00:00:00	23:59:59	4
HCG cancer center	Sola-Science City Road, Off S.G. Highway, Sola...	7940411010	00:00:00	23:59:59	3

19. Sorting Doctors based on expense level of particular treatment in ascending order

select * from doctor as d inner join doctor_treatment as dt on d.doctor_id = dt.doctor_id
where dt.treatment = 'knee replacement' order by dt.expense_level;

```

299
300
301
302 # 19.a) Sorting Doctors based on expense level of particular treatment in ascending order
303 select * from doctor as d inner join doctor_treatment as dt on d.doctor_id = dt.doctor_id
304 where dt.treatment = 'cancer' order by dt.expense_level;
305

```

Doctor_id	Doctor_name	Qualification	Experience	Contact_no	DOB	Rating	Index_id	HT_Index_id	Doctor_id	Treatment	Expense_level
101	Ramesh Shah	MBBS,MD	15	9758312051	1970-08-07	3	1	9	101	cancer	3
112	Mahipad Modi	MBBS,MD	8	8750369702	1981-02-09	4	12	12	112	cancer	4

19. Sorting Doctors based on expense level of particular treatment in descending order

select * from doctor as d inner join doctor_treatment as dt on d.doctor_id = dt.doctor_id
where dt.treatment = 'chest' order by dt.expense_level desc;

```

306
307 # 19b). Sorting Doctors based on expense level of particular treatment in descending order
308 select * from doctor as d inner join doctor_treatment as dt on d.doctor_id = dt.doctor_id
309 where dt.treatment = 'cancer' order by dt.expense_level desc;
310

```

Doctor_id	Doctor_name	Qualification	Experience	Contact_no	DOB	Rating	Index_id	HT_Index_id	Doctor_id	Treatment	Expense_level
112	Mahipad Modi	MBBS,MD	8	8750369702	1981-02-09	4	12	12	112	cancer	4
101	Ramesh Shah	MBBS,MD	15	9758312051	1970-08-07	3	1	9	101	cancer	3

20. List of all the treatments offered in a particular hospital

select Treatment from hospital_treatment as ht inner join hospital as h on h.hospital_id = ht.hospital_id where h.hospital_name = 'Shalby';

```

311
312 # 20. List of all the treatments offered in a particular hospital
313 select Treatment from hospital_treatment as ht inner join hospital as h on h.hospital_id = ht.hospital_id
314 where h.hospital_name = 'Shalby';
315

```

Treatment
pediatrics
knee replacement
cataract

21. Location Link of a Particular Hospital

select location_link from hospital_area as ha inner join hospital as h on h.hospital_id = ha.hospital_id where h.hospital_name = 'Apollo';

```

316
317 # 21. Location Link of a Particular Hospital
318 select location_link from hospital_area as ha inner join hospital as h on h.hospital_id = ha.hospital_id
319 where h.hospital_name = 'Apollo';
320

```

location_link
https://www.google.co.in/maps/place/Apollo+H...

22. All Govt Hospitals open at current time

select * from hospital as h where h.hospital_type = 'g' and (current_time() >= h.open_time and current_time() < h.close_time);

```
308
309 # 22. All Govt Hospitals open at current time
310 • select * from hospital as h where h.hospital_type = 'G'
311 and (current_time() >= h.open_time and current_time() < h.close_time);
```

Hospital_id	Hospital_name	Hospital_address	Hospital_contact_no	Hospital_type	Open_time	Close_time
2	Civil (OPD)	D Block, Haripura, Asarwa, Ahmedabad, Gujarat	7922683721	G	10:00:00	18:00:00
4	Sola Civil	Near Gujarat High Court, S.G. Highway, Dist Ah...	7927664359	G	00:00:00	23:59:59
* NULL	NULL	NULL	NULL	NULL	NULL	NULL

23. All Govt Hospitals open in current area

select * from hospital as h inner join hospital_area as ha on h.hospital_id = ha.hospital_id where (h.hospital_type = 'g' and ha.area = 'Delhi') and (current_time() > h.open_time and current_time() < h.close_time);

```
312
313 # 23. All Govt Hospitals open in current area
314 • select * from hospital as h inner join hospital_area as ha on h.hospital_id = ha.hospital_id
315 where (h.hospital_type = 'G' and ha.area = 'Sola') and (current_time() > h.open_time and current_time() < h.close_time)
316
```

Hospital_id	Hospital_name	Hospital_address	Hospital_contact_no	Hospital_type	Open_time	Close_time	Index_id	Area	Hos
4	Sola Civil	Near Gujarat High Court, S.G. Highway, Dist Ah...	7927664359	G	00:00:00	23:59:59	4	Sola	4

24. All Private Hospitals open at current time

select * from hospital as h where h.hospital_type = 'p' and (current_time() >= h.open_time and current_time() < h.close_time);

```
316
317 # 24. All Private Hospitals open at current time
318 • select * from hospital as h where h.hospital_type = 'p' and (current_time() >= h.open_time and current_time() < h.close_time)
319
```

Hospital_id	Hospital_name	Hospital_address	Hospital_contact_no	Hospital_type	Open_time	Close_time
1	Zydus	Nr. Sola Bridge, S.G. Highway, Ahmedabad, Gu...	7874412345	P	00:00:00	23:59:59
3	Columbia Asia	Plot No. 221/222, Hebatpur Road, Off S G High...	7939898969	P	00:00:00	23:59:59
5	Sterling	Near Maharaja Agrasen Vidhyalaya, Near Guruk...	7940011111	P	00:00:00	23:59:59
6	CIMS	Opposite Panchamrut Bunglows, Near Shukan ...	9825066664	P	00:00:00	23:59:59
7	Shalby	Opp. Karnavati Club, S.G. Highway, Ahmedabad,	7940203333	P	09:30:00	18:00:00
8	Apollo	Branch No 1a, Bhat Gidc Estate, Gandhi Nagar, ...	7966701800	P	10:00:00	16:00:00
9	HCG cancer center	Sola-Science City Road, Off S.G. Highway, Sola...	7940411010	P	00:00:00	23:59:59
10	Bhagwati Homeopathy Clinic	opp.Dell care,Near-swastik cross roads,Navran...	9475312982	P	09:00:00	16:30:00
11	CIMS cancer hospital	Near Shukan mall,, Science City Road, Sola, Ah...	7930101257	P	00:00:00	23:59:59
* NULL	NULL	NULL	NULL	NULL	NULL	NULL

25. All Private Hospitals open in current area

select * from hospital as h inner join hospital_area as ha on h.hospital_id = ha.hospital_id where (h.hospital_type = 'p' and ha.area = 'bodakdev') and (current_time() > h.open_time and current_time() < h.close_time);

```

320 # 25. All Private Hospitals open in current area
321 • select * from hospital as h inner join hospital_area as ha on h.hospital_id = ha.hospital_id
322   where (h.hospital_type = 'p' and ha.area = 'Sola')
323   and (current_time() > h.open_time and current_time() < h.close_time);
324

```

	Hospital_id	Hospital_name	Hospital_address	Hospital_contact_no	Hospital_type	Open_time	Close_time	Index_id	Area
▶	1	Zydus	Nr. Sola Bridge, S.G. Highway, Ahmedabad, Gu...	7874412345	P	00:00:00	23:59:59	1	Sola
	6	CIMS	Opposite Panchamrut Bunglows, Near Shukan ...	9825066664	P	00:00:00	23:59:59	6	Sola
	9	HCG cancer center	Sola-Science City Road, Off S.G. Highway, Sola...	7940411010	P	00:00:00	23:59:59	9	Sola
	11	CIMS cancer hospital	Near Shukan mall,, Science City Road, Sola, Ah...	7930101257	P	00:00:00	23:59:59	11	Sola

26. Number of doctors associated with a hospital

Select count(hospital_doctors.Doctor_id) from hospital_doctors where hospital_doctors.Hospital_id = (Select hospital.Hospital_id from hospital where hospital.Hospital_name = 'HOSPITAL_NAME');

```

336 # 26. Number of doctors associated with a hospital
337 • Select count(hospital_doctors.Doctor_id) from hospital_doctors
338   where hospital_doctors.Hospital_id = (Select hospital.Hospital_id from hospital
339   where hospital.Hospital_name = 'Zydus');
340

```

	count(hospital_doctors.Doctor_id)
▶	4

27. Avg rating of doctors associated with a hospital

Select avg(doctor.Rating) from doctor, hospital_doctors where doctor.Doctor_id = hospital_doctors.Doctor_id and hospital_doctors.Hospital_id = (Select hospital.Hospital_id from hospital where hospital.Hospital_name = 'HOSPITAL_NAME');

```

341 # 27. Avg rating of doctors associated with a hospital
342 • Select avg(doctor.Rating) from doctor, hospital_doctors where doctor.Doctor_id = hospital_doctors.Doctor_id
343   and hospital_doctors.Hospital_id = (Select hospital.Hospital_id from hospital
344   where hospital.Hospital_name = 'Zydus');

```

	avg(doctor.Rating)
▶	3.5000

28. Number of private hospitals with more than 3 doctors in a particular area

Select hospital.Hospital_name, hospital.Hospital_contact_no, hospital.Hospital_type, count(hospital.Hospital_id) as 'number of doctors' from hospital, doctor, hospital_doctors where doctor.Doctor_id = hospital_doctors.Doctor_id and hospital.Hospital_id = hospital_doctors.Hospital_id and hospital.Hospital_id in (select hospital_area.Hospital_id from hospital_area where hospital_area.Area = "Sola" or hospital_area.Area = "Karnavati") group by hospital.Hospital_id having count(doctor.Doctor_id) >= 3;

```

348 # 28. All hospitals with more than 3 doctors in a particular area
349 • Select hospital.Hospital_name, hospital.Hospital_contact_no, hospital.Hospital_type, count(hospital.Hospital_id) as '
350 where doctor.Doctor_id = hospital_doctors.Doctor_id and hospital.Hospital_id = hospital_doctors.Hospital_id
351 and hospital.Hospital_id in (select hospital_area.Hospital_id from hospital_area
352 where hospital_area.Area = "Sola" or hospital_area.Area = "Karnavati") group by hospital.Hospital_id having count(do
353

```

Hospital_name	Hospital_contact_no	Hospital_type	number of doctors
Zydus	7874412345	P	4
Shalby	7940203333	P	3

29. Count number of hospitals offering a particular treatment

Select count(hospital_treatment.Index_id) from hospital_treatment where hospital_treatment.Treatment = 'TREATMENT_NAME';

```

325
326 # 29. Count number of hospitals offering a particular treatment
327 • Select count(hospital_treatment.Index_id) from hospital_treatment where hospital_treatment.Treatment = 'cancer';
328

```

count(hospital_treatment.Index_id)
2

30. Remove doctors from govt hospitals above age 60

delete from hospital_doctors

where doctor.doctor_id = Hospital_doctors.doctor_id and

datediff(now(),doctor.DOB)>=(21900) and hospital_doctors.hospital_id = hospital.hospital_id and hospital.hospital_type = "G";

31. Remove doctors having no record in hospital doctor table

DELETE FROM doctor

WHERE NOT EXISTS (

SELECT *

FROM hospital_doctors

WHERE doctor_id = doctor.doctor_id

);

32. Update doc from temp to permanent

update hospital_doctors

set hospital_doctors.type = "P"

where hospital.type = "T" and doctor.doctor_id = Hospital_doctors.doctor_id and

hospital_doctors.hospital_id = hospital.hospital_id and hospital.hospital_type = "G";

33. Doctor resigns from a hospital

delete from hospital_doctors

where hospital_doctors.doctor_id = doctor.doctor_id and doctor.doctor_id = "101";

#Stored Procedures:

```
USE `hospital_search`;
DROP procedure IF EXISTS `h_area`;

DELIMITER $$
USE `hospital_search`$$
CREATE PROCEDURE `h_area` (IN s1 varchar(45))
BEGIN
select hospital.Hospital_name, hospital.Hospital_address, hospital_area.location_link,
hospital.Hospital_contact_no from hospital inner join hospital_area where hospital_area.area
= s1 and hospital.close_time > curtime() and hospital.open_time < curtime();
END$$

DELIMITER ;
```

Stored Procedure of Query 16

```
USE `hospital_search`;
DROP procedure IF EXISTS `d_available_area`;

DELIMITER $$
USE `hospital_search`$$
CREATE PROCEDURE `d_available_area` (IN s1 varchar(45))
BEGIN
select doctor.doctor_name, doctor.qualification, doctor.contact_no, hospital.hospital_name,
hospital.hospital_contact_no from doctor inner join hospitalDoctors inner join hospital inner
join hospital_area where hospitalDoctors.opening_time < curtime() and
hospitalDoctors.closing_time > curtime() and hospital_area.area = s1 and
hospital.close_time > curtime() and hospital.open_time < curtime();
END$$

DELIMITER ;
```

Stored Procedure of Query 17 (1)

```
USE `hospital_search`;
DROP procedure IF EXISTS `sort_h_particular_treatment`;

DELIMITER $$
USE `hospital_search`$$
CREATE PROCEDURE `sort_h_particular_treatment` (IN s1 varchar(45))
BEGIN
select * from hospital as h inner join hospital_treatment as ht on h.hospital_id =
ht.hospital_id where ht.treatment = s1 order by ht.expense_level;

END$$
```

DELIMITER ;

Stored Procedure of Query 17 (2)

USE `hospital_search`;

DROP procedure IF EXISTS `sort_h_particular_treatment_desc`;

DELIMITER \$\$

USE `hospital_search`\$\$

CREATE PROCEDURE `sort_h_particular_treatment_desc` (IN s1 varchar(45))

BEGIN

select * from hospital as h inner join hospital_treatment as ht on h.hospital_id =
ht.hospital_id where ht.treatment = s1 order by ht.expense_level desc;

END\$\$

DELIMITER ;

Stored Procedure of Query 18 (1)

USE `hospital_search`;

DROP procedure IF EXISTS `sort_d_particular_treatment_asc`;

DELIMITER \$\$

USE `hospital_search`\$\$

CREATE PROCEDURE `sort_d_particular_treatment_asc` (IN s1 varchar(45))

BEGIN

select * from doctor as d inner join doctor_treatment as dt on d.doctor_id = dt.doctor_id
where dt.treatment = s1 order by dt.expense_level;

END\$\$

DELIMITER ;

Stored Procedure of Query 18 (2)

USE `hospital_search`;

DROP procedure IF EXISTS `sort_d_particular_treatment_desc`;

DELIMITER \$\$

USE `hospital_search`\$\$

CREATE PROCEDURE `sort_d_particular_treatment_desc` (IN s1 varchar(45))

BEGIN

select * from doctor as d inner join doctor_treatment as dt on d.doctor_id = dt.doctor_id
where dt.treatment = s1 order by dt.expense_level desc;END\$\$

DELIMITER ;

Stored Procedure of Query 20

USE `hospital_search`;


```
DROP procedure IF EXISTS `treatments_in_particular_hospital`;
```

```
DELIMITER $$
```

```
USE `hospital_search`$$
```

```
CREATE PROCEDURE `treatments_in_particular_hospital` (IN s1 varchar(45))
```

```
BEGIN
```

```
select Treatment from hospital_treatment as ht inner join hospital as h on h.hospital_id =  
ht.hospital_id where h.hospital_name = s1;
```

```
END$$
```

```
DELIMITER ;
```

TRIGGERS:

```
DELIMITER $$
```

```
CREATE TRIGGER retired_doctor
```

```
BEFORE UPDATE ON doctor
```

```
FOR EACH ROW
```

```
BEGIN
```

```
DELETE FROM doctor WHERE YEAR(curdate()) - YEAR(doctor.DOB) > 60;
```

```
DELETE FROM hospital_doctors WHERE hospital_doctors.Doctor_id = doctor.Doctor_id;
```

```
END; $$
```

```
DELIMITER $$
```

SEQUENCE :

```
create SEQUENCE autoinc
```

```
MINVALUE 1
```

```
START WITH 1
```

```
INCREMENT BY 1
```

```
CACHE 10;
```