

DATABASE MANAGEMENT SYSTEM PROJECT

HOSPITAL MANAGEMENT SYSTEM

SUBMITTED BY,

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DDL statements:

```
CREATE TABLE Patient(  
patient_id int not null AUTO_INCREMENT,  
p_name varchar(255),  
gender char(1) not null,  
constraint gender check (gender in ('M','F')),  
age int,  
email varchar(255),  
phone_no varchar(10),  
PRIMARY KEY (patient_id),  
UNIQUE (email)  
);
```

```
CREATE TABLE Departments(  
department varchar(255),  
treatment varchar(255),  
PRIMARY KEY (department)  
);
```

```
CREATE TABLE Doctor(  
doc_id int NOT NULL AUTO_INCREMENT,  
doc_name varchar(255),  
d_gender char(1) not null ,  
constraint d_gender check (d_gender in ('M','F')),  
age int,
```

```
email varchar(255),
phone_no varchar(10),
department varchar(255),
salary int,
UNIQUE(email),
PRIMARY KEY (doc_id),
FOREIGN KEY(department) REFERENCES Departments(department)ON
UPDATE CASCADE
);
ALTER TABLE Doctor AUTO_INCREMENT=10;
```

```
CREATE TABLE labTest(
lab_id int NOT NULL AUTO_INCREMENT,
test_name varchar(255),
test_details varchar(255),
fee int,
PRIMARY KEY (lab_id)
);
```

```
CREATE TABLE assistTable(
serial_no int NOT NULL AUTO_INCREMENT,
lab_id int,
patient_id int,
doc_id int,
issue_date date,
PRIMARY KEY (serial_no, lab_id),
FOREIGN KEY(patient_id) REFERENCES Patient(patient_id)ON UPDATE
CASCADE,
FOREIGN KEY(doc_id) REFERENCES Doctor(doc_id)ON UPDATE
CASCADE,
FOREIGN KEY(lab_id) REFERENCES labTest(lab_id)ON UPDATE
CASCADE
);
ALTER TABLE assistTable AUTO_INCREMENT=25;
```

```
CREATE TABLE Appointment(
app_id int NOT NULL AUTO_INCREMENT,
patient_id int,
doc_id int,
app_date date,
PRIMARY KEY (app_id,patient_id,doc_id),
```

```
FOREIGN KEY(patient_id) REFERENCES Patient(patient_id)ON UPDATE  
CASCADE,  
FOREIGN KEY(doc_id) REFERENCES Doctor(doc_id)ON UPDATE  
CASCADE  
);  
ALTER TABLE Appointment AUTO_INCREMENT=100;
```

```
CREATE TABLE Room(  
room_no int NOT NULL AUTO_INCREMENT,  
room_type varchar(255),  
status varchar(255),  
PRIMARY KEY (room_no)  
);
```

```
CREATE TABLE inpatientInfo(  
adm_id int NOT NULL AUTO_INCREMENT,  
patient_id int,  
room_no int,  
adm_date date,  
PRIMARY KEY (adm_id),  
FOREIGN KEY(patient_id) REFERENCES Patient(patient_id)ON UPDATE  
CASCADE,  
FOREIGN KEY(room_no) REFERENCES Room(room_no)ON UPDATE  
CASCADE  
);  
ALTER TABLE inpatientInfo AUTO_INCREMENT=200;
```

```
CREATE TABLE Bill(  
bill_no int NOT NULL AUTO_INCREMENT,  
billed_for varchar(255),  
bill_amt int,  
bill_status varchar(255),  
bill_date date,  
patient_id int,  
PRIMARY KEY (bill_no),  
FOREIGN KEY(patient_id) REFERENCES Patient(patient_id)ON UPDATE  
CASCADE  
);  
ALTER TABLE Bill AUTO_INCREMENT=20;
```

```
CREATE TABLE Medicine(  
m_id int NOT NULL AUTO_INCREMENT,
```

```
m_name varchar(255),
m_date date,
e_date date,
company varchar(255),
PRIMARY KEY (m_id)
);
```

```
CREATE TABLE Prescription(
prs_id int NOT NULL AUTO_INCREMENT,
patient_id int,
doc_id int,
m_id int,
PRIMARY KEY (prs_id,m_id),
FOREIGN KEY(patient_id) REFERENCES Patient(patient_id)ON UPDATE
CASCADE,
FOREIGN KEY(doc_id) REFERENCES Doctor(doc_id)ON UPDATE
CASCADE,
FOREIGN KEY(m_id) REFERENCES Medicine(m_id)ON UPDATE
CASCADE
);
```

```
ALTER TABLE Prescription AUTO_INCREMENT=200;
```

DML statements:

#for patient table:

```
insert into patient(p_name,gender,age,email,phone_no)
values('Apeksha','F','20','apekshahk@gmail.com','9862347561'),
```

```
('Varidi','F','12','varidik141@gmail.com','9564312864'),
```

```
('Milan','M','13','milan644@gmail.com','9632587410'),
```

```
('Akarsh','M','18','akarshbg@gmail.com','9562147308'),
```

```
('Bhanu','F','22','bhanuvgowda@gmail.com','9856320147'),
```

```
('Vijay','M','30','viji242@gmail.com','9326587401'),
```

```
('Sakshi','F','17','sakshim@gmail.com','9823647560'),
```

```
('Darshan','M','27','darshanck@gmil.com','9654123870'),
```

```
('Gowri','F','40','gowri@gmail.com','9563214857'),
```

```
('Vishwa','M','42','vishwa184@gmail.com','9568470231');
```

```
#for departments table:
```

```
insert into departments values ('Cardiology','Heart'),  
                                ('Ear,Nose and throat(ENT)','Ear,Nose and  
throat'),
```

```
                                ('Gastroenterology','bowel'),  
                                ('Neurology','Nervous system'),  
                                ('Onchology','cancer'),  
                                ('Orthopedics','bone');
```

```
#for doctor table:
```

```
insert into
```

```
doctor(doc_name,d_gender,age,email,phone_no,department,salary)  
values('Prakash','M','42','prakash144@gmail.com','9862357530','Cardiology','  
45000'),
```

```
('Smitha','F','40','smitha244@gmail.com','9653214786','Ear,Nose and  
throat(ENT)','50000'),
```

```
('Surya','M','38','suryagowda@gmail.com','9865327410','Onchology','60000'),
```

```
('Jaya','F','32','jaya522@gmail.com','9348753201','Gastroenterology','40000'),
```

```
('Vijay','M','35','vijaydesai@gmail.com','9632541087','Orthopedics','70000'),
```

```
('Sharanya','F','30','sharanya@gmail.com','9654872031','Neurology','65000');
```

```
#for labtest table:
```

```
insert into labtest(test_name,test_details,fee) values('blood test','measure the  
content of different components in blood','2000'),
```

```
                                ('urinalysis','measure any chemical component  
in urine','1500'),
```

```
                                ('thyroid test','measure the amount of thyroid  
hormones in blood','2500');
```

```
#for assistTable:
```

```

insert into assisttable(lab_id,patient_id,doc_id,issue_date)
values('1','2','10','2018-11-20'),
                                             ('2','5','12','2020-02-29'),
                                             ('3','7','13','2020-04-20'),
                                             ('2','8','14','2020-06-22'),
                                             ('1','9','11','2020-07-17'),
                                             ('2','10','10','2020-09-
19');

```

#for appointment table:

```

insert into appointment(patient_id,doc_id,app_date) values('2','10','2018-11-
16'),
                                             ('3','11','2019-04-19'),
                                             ('5','12','2020-02-29'),
                                             ('7','13','2020-04-15'),
                                             ('8','14','2020-06-19'),
                                             ('9','11','2020-07-14'),
                                             ('10','10','2020-09-16');

```

#for room table:

```

insert into room(room_type,status) values('private','occupied'),
                                             ('private','vacant'),
                                             ('general','occupied'),
                                             ('private','vacant'),
                                             ('general','vacant');

```

#for inpatientinfo table:

```

insert into inpatientinfo(adm_id,patient_id,room_no,adm_date)
values('1','2','2','2018-11-22'),
                                             ('2','8','3','2020-06-25'),
                                             ('3','10','1','2020-09-25');

```

#for medicine table:

```

insert into medicine(m_name,m_date,e_date,company) values('Dolo
650','2019-11-20','2022-03-15','micro lab ltd'),
                                             ('Benedryl','2018-02-15','2024-06-
09','Johnson and Johnson ltd'),
                                             ('Crocin','2019-11-05','2021-03-
16','GlaxoSmithKline consumer healthcare'),

```

```
16','wellona pharma pvt ltd'),  
14','dolvis bio pharma pvt ltd');  
('aspirin','2018-03-25','2022-03-  
('paracetamol','2019-05-19','2023-09-
```

#for Prescription table:

```
insert into prescription(prs_id,patient_id,doc_id,m_id) values('1','2','10','5'),  
('2','3','11','3'),  
('3','7','13','4'),  
('4','8','14','2');
```

#for bill table:

```
insert into bill(billed_for,bill_amt,bill_status,bill_date,patient_id)  
values('surgery','100000','paid','2018-12-15','2'),  
('medicine','2000','not  
paid','2020-08-10','8'),  
('lab test','2500','paid','2020-  
08-15','9'),  
('room','3000','paid','2020-09-  
29','10');
```

1. #LIST OF FEMALE PATIENTS

```
select *from patient where gender='F';
```

2.#LIST OF MALE PATIENTS

```
select *from patient where gender='M';
```

3.#LIST OF PATIENTS IN THE INCREASING ORDER OF THEIR AGE

```
select *from patient order by age;
```

4.#LIST OF ROOM NOS. OF VACANT ROOMS

```
select room_no from room where status='vacant';
```

5.#LIST OF ROOM NOS. OF VACANT PRIVATE ROOMS

```
select room_no from room where status='vacant' and room_type='private';
```

6.#LIST OF ROOM NOS. OF GENERAL ROOMS

```
select room_no from room where room_type='general';
```

7.#LIST OF ROOM NOS. OF VACANT GENERAL ROOMS

```
select room_no from room where status='vacant' and room_type='general';
```

8.#LIST OF ROOM NOS. OF OCCUPIED ROOMS

select room_no from room where status='occupied';

9.#LIST OF LAB TESTS AND THEIR FEES

select * from labtest;

10.#LIST OF PATIENTS BELOW AGE OF 18 WHO HAS UNDERGONE A LABTEST

select patient_id,p_name from patient natural join assisttable where age<18;

11.#LIST OF PATIENTS WHO HAS UNDERGONE A LABTEST AND WHO'S AGE IS IN BETWEEN 18 TO 40

select patient_id,p_name from patient natural join assisttable where 18<age<40;

12.#LIST OF PATIENTS WHO HAVE TOTAL CHARGES ARE GREATER THAN OR EQUAL TO 50000

select p_name,phone_no from patient natural join bill where bill_amt>=50000;

13.#LIST OF FEMALE PATIENTS OVER THE AGE OF 40 THAT HAVE UNDERGONE BLOOD TEST

select patient_id,p_name as patientname from patient natural join assisttable where age>=40 and gender='F' and lab_id='1';

14.#LIST THE NAME OF THE PATIENTS WITH THE LABTEST TO WHICH THEY HAVE UNDERGONE

select patient_id,p_name as patientname,lab_id,test_name from patient,labtest where exists (select * from assisttable where assisttable.patient_id=patient.patient_id and assisttable.lab_id=labtest.lab_id);

15.#LIST OF PATIENTS WHO TAKES APPOINTMENT ON PARTICULAR DATE

select patient_id,p_name from patient natural join appointment where app_date='2020-06-15';

16.#LIST OF PATIENTS WHO'S NAME STARTS WITH "S"

select * from patient where p_name like "s%";

17.#LIST OF PATIENTS WHO'S NAME STARTS WITH "A"

select * from patient where p_name like "a%";

18.#OBTAIN THE MAXIMUM SALARY OF THE DOCTOR AMONG ALL DOCTORS

select max(age) as max_age from patient;

19.#OBTAIN THE MINIMUM SALARY OF THE DOCTOR AMONG ALL DOCTORS

```
select min(age) as min_age from patient;
```

20.#LIST OF DEPARTMENTS

```
select * from departments;
```

19.#LIST OF FEMALE DOCTORS

```
select * from doctor where d_gender='F';
```

20.#LIST OF MALE DOCTORS

```
select * from doctor where d_gender='M';
```

21.#LIST OF DOCTORS FROM EACH DEPARTMENT

```
select doc_id,doc_name,department from doctor group by department;
```

22.#LIST OF DOCTORS FROM CARDIOLOGY DEPARTMENT

```
select doc_id,doc_name from doctor where department='Cardiology';
```

23.#LIST OF DOCTORS FROM ENT DEPARTMENT

```
select doc_id,doc_name from doctor where department='Ear,nose and throat(ENT)';
```

24.#LIST OF DOCTORS FROM ONCHOLOGY DEPARTMENT

```
select doc_id,doc_name from doctor where department='Onchology';
```

25.#LIST OF DOCTORS FROM GASTROENTEROLOGY DEPARTMENT

```
select doc_id,doc_name from doctor where department='Gastroenterology';
```

26.#LIST OF DOCTORS FROM ORTHOPEDICS DEPARTMENT

```
select doc_id,doc_name from doctor where department='Orthopedics';
```

27.#LIST OF DOCTORS FROM NEUROLOGY DEPARTMENT

```
select doc_id,doc_name from doctor where department='Neurology';
```

28.#OBTAIN MAXIMUM AGE OF THE PATIENT AMONG ALL PATIENTS

```
select max(salary) as max_salary from doctor;
```

29.#OBTAIN MINIMUM AGE OF THE PATIENT AMONG ALL PATIENTS

```
select min(salary) as min_salary from doctor;
```

30.#LIST OF DOCTORS WHO'S NAME STARTS WITH "S"

```
select * from doctor where doc_name like "s%";
```

31.#LIST OF DOCTORS WHO'S NAME STARTS WITH "V"

```
select * from doctor where doc_name like "v%";
```

32.#OBTAIN THE NO. OF DOCTORS FROM EACH DEPARTMENT

```
select count(doc_id),department from doctor group by department;
```

33.#LIST THE NAME OF THE PATIENTS WITH THEIR DOCTORS BY WHOM THEY HAVE TAKEN APPOINTMENT

```
select patient_id,p_name,doc_id,doc_name from patient,doctor where exists  
(select *from appointment where appointment.patient_id=patient.patient_id  
and appointment.doc_id=doctor.doc_id);
```

34.#UPDATE THE PHONE NUMBER OF THE PATIENT WHO'S PATIENT ID IS '1'

```
update patient set phone_no='9962307561' where patient_id='1';
```

35.#UPDATE THE EMAIL OF THE DOCTOR WHO'S DOCTOR ID IS '14'

```
update doctor set email='vijaydesai185@gmail.com' where doc_id='14';
```

36.#DELETE THE INFORMATION OF THE PATIENT WHO'S PATIENT ID IS '4'

```
delete from patient where patient_id='4';
```

37./* list the appontments*/

```
select d.doc_name,p.p_name from  
appointment as a  
inner join  
doctor as d  
inner join  
patient as p  
where a.doc_id=d.doc_id and a.patient_id=p.patient_id;
```

38./*list of medicines prescribed by dr.shiva to mahathi*/

```
select m.m_name from prescription as a,  
doctor as d,patient as p,medicine as m  
where a.doc_id=d.doc_id and a.patient_id=p.patient_id and a.m_id=m.m_id  
and d.doc_name='dr.shiva' and p.p_name ="mahathi" ;
```

39./* tests suggested by dr.shiva to his patients*/

```
select p_name,doc_name,test_name from  
patient as p,doctor as d, labtest as l,assitstable as a  
where d.doc_name='dr.shiva' and d.doc_id = a.doc_id and  
p.patient_id = a.patient_id and l.lab_id = a.lab_id;
```

40./*total number of doctors in each department*/

```
select dp.department, count(*) from
doctor as d , departments as dp
where d.department=dp.department
group by d.department;
```

views:

```
create view [tot_doc] as
select dp.department, count(*) from
doctor as d , departments as dp
where d.department=dp.department
group by d.department;
```

```
create view [maxSalary] as
select doc_name,age,department
from doctor
where salary>40000;
```

Trigger:

```
create trigger aft_insert
after insert
on patient
begin
insert into pat_log values(patient_id,p_name,cur_date)
values(new.patient_id,new.p_name,current_date);
end
create table pat_log(patient_id int ,p_name varchar(35),cur_date date);
```

```
create trigger aft_update
after update
on doctor
insert into upt_log values(doc_id,old_name,up_date)
values(new.doc_id,old.old_name,current_date);
```

```
create table upt_log(doc_id int ,old_name varchar(35),up_date date);
```