

DBMS Assignment 3

Hospital Bed database during Covid

Trigger function

1. Inserts h_regno, p_id and entry_date to entrylog_patient for a new insert query in Patient.

```
covidhospital=# select * from entrylog_patient;
 h_regno | p_id |          entry_date
-----+-----+-----
  241487 | 211897 | 2021-11-08 20:09:03.846479+05:30
(1 row)
```

2. Inserts h_regno, p_id and entry_date to entrylog_doctor for a new insert query in Doctor.

```
covidhospital=# select * from entrylog_doctor;
 h_regno | d_id |          entry_date
-----+-----+-----
  241487 | 624473 | 2021-11-08 20:09:03.855918+05:30
(1 row)
```

3. Inserts med_id, med_name and entry_date to new_medicines for a new insert query in Medicines.

```
covidhospital=# select * from new_medicines;
 med_id | med_name |          entry_date
-----+-----+-----
  145653 | cetirizine | 2021-11-08 20:09:03.861259+05:30
(1 row)
```

4. Inserts h_location, h_regno and availability to new_hospital for a new insert query in Hospital.

```
covidhospital=# select * from new_hospital;
 h_location | h_regno | availability
-----+-----+-----
 Indira Nagar | 654327 | 56
(1 row)
```

Cursor function

1. Cursor function patient_list to find p_id and p_name for given p_id.

```
covidhospital=# select patient_list(210021);
patient_list
-----
210021 : Satish
(1 row)
```

2. Cursor function hospital_avail to find h_regno and availability for given h_regno.

```
covidhospital=# select hospital_avail(143806);
hospital_avail
-----
143806 : 11
(1 row)
```

Simple Queries:

1. Retrieve patients based on hospital registration number (h_regno).

```
select * from patient where h_regno=172501;
```

```
covidhospital=# select * from
covidhospital-# PATIENT where h_regno=172501;
 h_regno | p_id | p_name | p_age | p_phone | severity
-----+-----+-----+-----+-----+-----
  172501 | 212897 | Arathi | 51 | 8712324598 | 2
  172501 | 928752 | Megha | 37 | 7203756142 | 8
(2 rows)
```

2. Update doctor's phone number whose name is Manish Rao.

```
update DOCTOR set d_phone=9876553481 where d_name='Manish Rao';
select * from DOCTOR;
```

```
covidhospital=# update DOCTOR set d_phone=9876553481 where d_name='Manish Rao';
UPDATE 1
covidhospital=# select * from DOCTOR;
```

d_id	d_name	d_phone	h_regno
681473	Shrivatsa Sarna	9087622972	241487
846198	Vedanti Krishna	5949107414	109468
149681	Adnan Kalita	8973471358	518651
980716	Prabhat Atwal	6148038031	172501
261090	Janya Garg	9831551571	834781
541740	Nakul Krishnamurthy	9874376177	143806
807466	Dhruv Andra	9908787321	737863
187346	Lata Deep	9838477317	172501
105846	Akanksha Narayanan	9875102875	241487
624473	Pruthvi Kumar	8578272287	241487
194282	Manish Rao	9876553481	431276

```
(11 rows)
```

3. Select total sum of available bed in all hospitals.

```
select SUM(availability) from HOSPITAL;
```

```
covidhospital=# select SUM(availability) from HOSPITAL;
sum
-----
152
(1 row)
```

4. Select h_regno, p_name, p_phone, p_age from patient for given p_id.

```
select h_regno,p_name,p_phone,p_age from PATIENT where p_id=278248;
```

```
covidhospital=# select h_regno,p_name,p_phone,p_age from PATIENT where p_id=278248;
h_regno | p_name | p_phone | p_age
-----+-----+-----+-----
241487 | Parushuram | 8765121278 | 43
(1 row)
```

5. Counting total number of entries with severity>=5.

```
select count(*) from WAITING where severity>=5;
```

```
covidhospital=# select count(*) from WAITING where severity>=5;
count
-----
      7
(1 row)
```

Complex Queries:

1. Selecting p_id and p_name from PATIENT for either of the given h_regno values.

```
select PATIENT.p_id, p_name
from PATIENT where h_regno=109468 or h_regno=834781;
```

```
covidhospital=# select PATIENT.p_id, p_name
covidhospital-# from PATIENT where h_regno=109468 or h_regno=834781;
 p_id | p_name
-----+-----
 712804 | Vishal
 258702 | Veena
(2 rows)
```

2. Selecting phone_no from WAITING except numbers with severity<=5 and age>40.

```
select WAITING.phone_no from WAITING
except(select WAITING.phone_no from WAITING where severity<=5 or age>40);
```

```
covidhospital=# select WAITING.phone_no from WAITING
covidhospital-# except(select WAITING.phone_no from WAITING where severity<=5 or age>40);
phone_no
-----
8974693524
6879878624
(2 rows)
```

3. Selecting p_name across two entities with common p_id and given med_id and d_id.

```
select p_name from PATIENT,PREScription
where PATIENT.p_id=PRESCRIPTION.p_id
and PRESCRIPTION.med_id=431851 and PRESCRIPTION.d_id=194282;
```

```
covidhospital=# select p_name from PATIENT,PREScription
covidhospital=# where PATIENT.p_id=PRESCRIPTION.p_id
covidhospital=# and PRESCRIPTION.med_id=431851 and PRESCRIPTION.d_id=194282;
 p_name
-----
Satish
Rohan
(2 rows)
```

4. Selecting d_name, d_phone from DOCTOR for either of the two h_regno.

```
select d_name,d_phone from DOCTOR
where h_regno=172501 or h_regno=737863;
```

```
covidhospital=# select d_name,d_phone from DOCTOR
covidhospital=# where h_regno=172501 or h_regno=737863;
 d_name | d_phone
-----+-----
Prabhat Atwal | 6148038031
Dhruv Andra | 9908787321
Lata Deep | 9838477317
(3 rows)
```

5. Using Union to select p_name and p_phone for given med_id and p_id.

```
select p_name,p_phone from PATIENT,PREScription
covidhospital=# where PRESCRIPTION.p_id=PATIENT.p_id union
covidhospital=# select p_name,p_phone from PATIENT,PREScription
covidhospital=# where PRESCRIPTION.med_id=431851;
```

```
covidhospital=# select p_name,p_phone from PATIENT,PREScription
covidhospital=# where PRESCRIPTION.p_id=PATIENT.p_id union
covidhospital=# select p_name,p_phone from PATIENT,PREScription
covidhospital=# where PRESCRIPTION.med_id=431851;
 p_name | p_phone
-----+-----
Vasu | 7203756142
John | 7203756142
Veena | 4870922531
Rohan | 7203756142
Megha | 7203756142
Hamsa | 9786584268
Arathi | 8712324598
Parushuram | 8765121278
Satish | 7203756142
Verma | 7203756142
Vishal | 7203756142
Vijay | 8712324398
(12 rows)
```

User privileges:

1. Creating roles with user names and passwords.

```
covidhospital=# create user apurva with password 'apurva60' createdb;  
CREATE ROLE  
covidhospital=# create user anjali with password 'anjali47' createdb;  
CREATE ROLE  
covidhospital=# create user anusha with password 'anusha55' createdb;  
CREATE ROLE  
covidhospital=#
```

2. Granting specific privileges to different users.

```
covidhospital=# grant all privileges on database "covidhospital" to anjali;  
GRANT  
covidhospital=# grant update on PRESCRIPTION to anusha;  
GRANT  
covidhospital=# grant insert on PATIENT to apurva;  
GRANT  
covidhospital=#
```

3. Revoking privileges from users.

```
covidhospital=# revoke update on PRESCRIPTION from anusha;  
REVOKE  
covidhospital=# revoke insert on PATIENT from apurva;  
REVOKE  
covidhospital=#
```

Contribution of each member:

Anjali Praveen (PES2UG19CS047): Triggers and report. Time taken: 30 minutes.

Anusha M S (PES2UG19CS055): Simple and Complex Queries. Time taken: 45 minutes.

Apurva Pothumarthi (PES2UG19CS060): Cursors and user privileges. Time taken: 30 minutes.