DBMS Project File

ORGAN DONATION
MANAGEMENT SYSTEM

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Problem Statement

The database is an ORGAN DONATION MANAGEMENT DATABASE.

Organ transplantation is a medical procedure in which an organ is removed from one body and placed in the body of a recipient, to replace a damaged or missing organ. The donor and recipient may be at the same location, or organs may be transported from a donor site to another location.

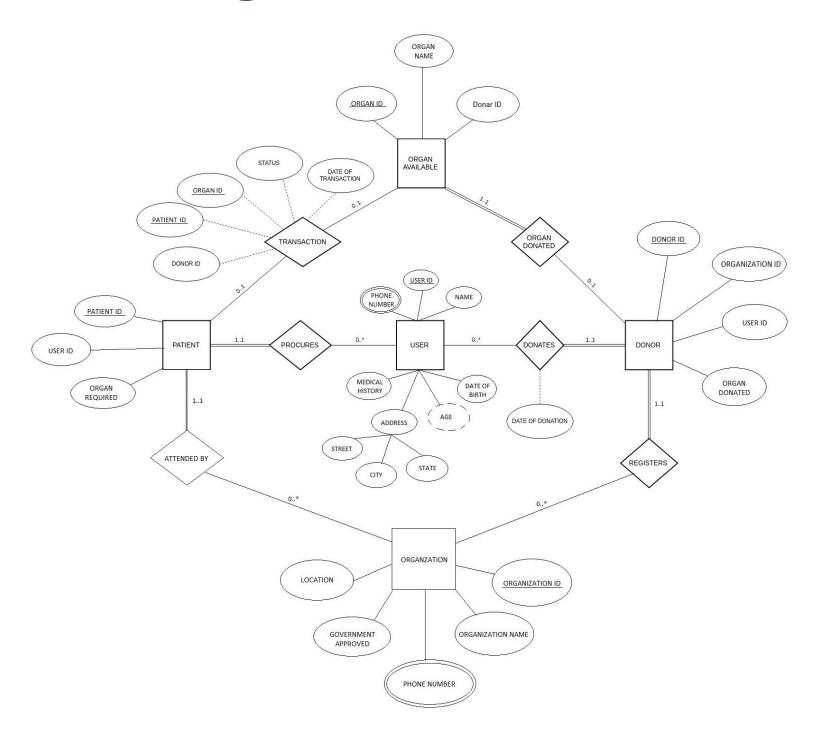
Organ Donation and Procurement Organizations play a pivotal role in today's medical institutions. Such organizations are responsible for the evaluation and procurement of organs for organ transplantation. These organizations represent the front-line of organ procurement, having direct contact with the hospital and the family of a recently deceased donor.

The work of such organizations includes to identify the best candidates for the available organs and to coordinate with the medical institutions to decide on each organ recipient. They are also responsible for educating the public to increase the awareness of and participation in the organ donation process.

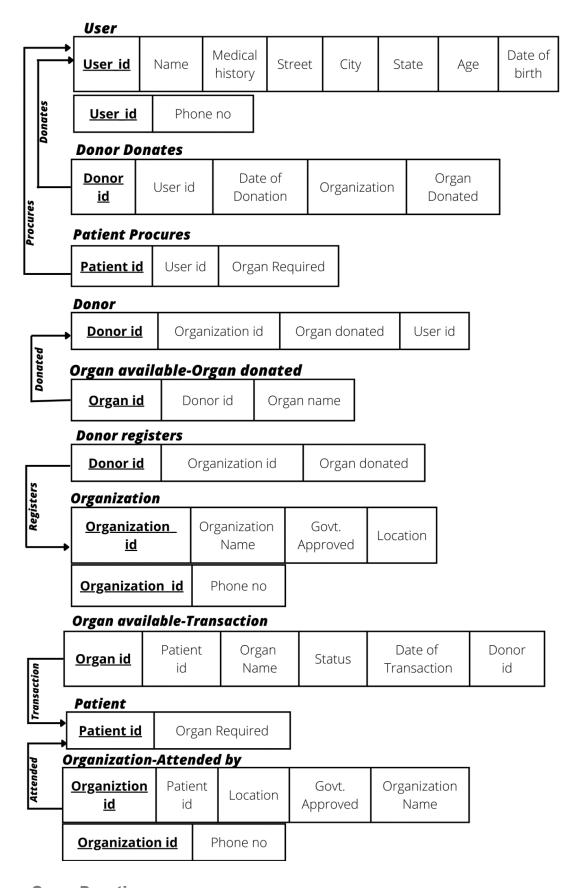
Also, it keeps track of all transplantation operations carried till date. The Organ Donation and Procurement Network Management System is a database management system that uses database technology to construct, maintain and manipulate various kinds of data about a person's donation or procurement of a particular organ. It maintains a comprehensive medical history and other critical information like blood group, age, etc. of every person in the database design.

In short, it maintains a database containing statistical information regarding network of organ donation and procurement of different countries.

ER Diagram



ER to Table



SQL Code

```
CREATE TABLE Users(
  User ID int NOT NULL,
 Name varchar(20) NOT NULL,
 Date of Birth date NOT NULL,
 Medical history varchar(20),
 Street varchar(20),
 City varchar(20),
 State varchar(20),
 PRIMARY KEY(User ID)
);
CREATE TABLE User_phone_no(
 User ID int NOT NULL,
 phone no varchar(15),
 FOREIGN KEY(User ID) REFERENCES Users(User ID) ON DELETE CASCADE
);
CREATE TABLE Organization(
 Organization ID int NOT NULL,
 Organization name varchar(20) NOT NULL,
Location varchar(20).
Government_approved int,
PRIMARY KEY(Organization ID)
);
CREATE TABLE Organization phone no(
 Organization ID int NOT NULL,
Phone no varchar(15),
FOREIGN KEY(Organization ID) REFERENCES Organization(Organization ID) ON DELETE
CASCADE
);
CREATE TABLE Patient(
 Patient ID int NOT NULL,
 organ req varchar(20) NOT NULL,
 User ID int NOT NULL,
 FOREIGN KEY(User ID) REFERENCES Users(User ID) ON DELETE CASCADE,
 PRIMARY KEY(Patient Id)
);
CREATE TABLE Donor(
Donor ID int NOT NULL,
organ donated varchar(20) NOT NULL,
 Organization ID int NOT NULL,
 User ID int NOT NULL,
FOREIGN KEY(User ID) REFERENCES Users(User ID) ON DELETE CASCADE,
```

```
FOREIGN KEY(Organization ID) REFERENCES Organization(Organization ID) ON DELETE
CASCADE,
 PRIMARY KEY(Donor ID)
);
CREATE TABLE Organ available(
 Organ ID int GENERATED ALWAYS AS IDENTITY Primary key,
 Organ name varchar(20) NOT NULL,
 Donor ID int NOT NULL,
 FOREIGN KEY(Donor ID) REFERENCES Donor(Donor ID) ON DELETE CASCADE
);
CREATE TABLE Transaction(
 Patient ID int NOT NULL,
 Organ ID int NOT NULL,
 Donor ID int NOT NULL.
 Date of transaction date NOT NULL,
 Status int NOT NULL,
 FOREIGN KEY(Patient ID) REFERENCES Patient(Patient ID) ON DELETE CASCADE,
 FOREIGN KEY(Donor ID) REFERENCES Donor(Donor ID) ON DELETE CASCADE,
 FOREIGN KEY(Organ ID) REFERENCES Organ available(Organ ID) ON DELETE CASCADE,
 PRIMARY KEY(Patient ID,Organ ID)
);
insert into Users values (1, 'Name-1', '21-Aug-1978', 'NIL', 'Street-1', 'New Delhi', 'Delhi');
insert into Users values (2, 'Name-2', '10-Dec-1975', 'NIL', 'Street-2', 'Mumbai', 'Maharashtra');
insert into Users values (3, 'Name-3', '04-Jun-1976', 'NIL', 'Street-3', 'Mumbai', 'Maharashtra');
insert into Users values (4, 'Name-4', '13-Oct-1985', 'NIL', 'Street-4', 'Ahmedabad', 'Gujarat');
insert into Users values (5, 'Name-5', '12-Oct-1983', 'NIL', 'Street-5', 'Kolkata', 'West Bengal');
insert into Users values (6, 'Name-6', '18-Jan-1977', 'NIL', 'Street-6', 'Kolkata', 'West Bengal');
insert into Users values (7, 'Name-7', '26-Feb-1976', 'NIL', 'Street-7', 'New Delhi', 'Delhi');
insert into Users values (8, 'Name-8', '12-Apr-1973', 'NIL', 'Street-8', 'Mumbai', 'Maharashtra');
insert into Users values (9, 'Name-9', '01-Nov-1976', 'NIL', 'Street-9', 'Mumbai', 'Maharashtra');
insert into Users values (10, 'Name-10', '18-Nov-1978', 'NIL', 'Street-10', 'New Delhi', 'Delhi');
insert into Users values (11, 'Name-11', '06-Jan-1975', 'NIL', 'Street-11', 'Mumbai', 'Maharashtra');
insert into Users values (12, 'Name-12', '01-Nov-1983', 'NIL', 'Street-12', 'Mumbai', 'Maharashtra');
insert into Users values (13, 'Name-13', '09-jan-1983', 'NIL', 'Street-13', 'New Delhi', 'Delhi');
insert into Users values (14, 'Name-14', '12-Oct-1975', 'NIL', 'Street-14', 'Mumbai', 'Maharashtra');
insert into Users values (15, 'Name-15', '23-Sep-1977', 'NIL', 'Street-15', 'Ahmedabad', 'Gujarat'); from
insert into Users values (16, 'Name-16', '29-Nov-1982', 'NIL', 'Street-16', 'New Delhi', 'Delhi');
insert into Users values (17, 'Name-17', '19-Mar-1974', 'NIL', 'Street-17', 'Mumbai', 'Maharashtra');
insert into Users values (18, 'Name-18', '27-Oct-1973', 'NIL', 'Street-18', 'New Delhi', 'Delhi');
insert into Users values (19, 'Name-19', '18-Mar-1980', 'NIL', 'Street-19', 'Kolkata', 'West Bengal');
insert into Users values (20, 'Name-20', '15-Aug-1978', 'NIL', 'Street-20', 'Kolkata', 'West Bengal');
select * from Users;
```

```
insert into User phone no values (1, '656563523');
insert into User phone no values (2, '2352354524');
insert into User phone no values (3, '768451255');
insert into User_phone_no values (4, '96385746');
insert into User phone no values (5, '668112746');
insert into User_phone_no values (6, '7535746746');
insert into User_phone_no values (7, '3985746746');
insert into User phone no values (8, '7785746746');
insert into User_phone_no values (9, '691212146');
insert into User phone no values (10, '694657646');
insert into User_phone_no values (11, '321746746');
insert into User phone no values (12, '6122334656');
insert into User_phone_no values (13, '985566746');
insert into User_phone_no values (14, '4485746746');
insert into User phone no values (15, '933746746');
insert into User phone no values (16, '985746746');
insert into User phone no values (17, '485746006');
insert into User_phone_no values (18, '9985746116');
insert into User_phone_no values (19, '75746746');
insert into User_phone_no values (20, '985676746');
select * from Users, User_phone_no where User_phone_no.User_ID = Users.User_ID;
insert into Organization values (1, 'Organization-1', 'New Delhi',1);
insert into Organization values (2, 'Organization-2', 'Mumbai', 0);
insert into Organization values (3, 'Organization-3', 'Kolkata', o);
insert into Organization values (4, 'Organization-4', 'Kolkata',1);
insert into Organization values (5, 'Organization-5','Ahmedabad',1);
insert into Organization values (6, 'Organization-6', 'Kolkata', 0);
insert into Organization values (7, 'Organization-7', 'Kolkata', 0);
insert into Organization values (8, 'Organization-8', 'Ahmedabad', 0);
insert into Organization values (9, 'Organization-9', 'Kolkata',1);
insert into Organization values (10, 'Organization-10', 'Ahmedabad', 1);
insert into Organization values (11, 'Organization-11','Ahmedabad',1);
insert into Organization values (12, 'Organization-12', 'Mumbai', 0);
insert into Organization values (13, 'Organization-13', 'Kolkata', 0);
insert into Organization values (14, 'Organization-14','Ahmedabad',1);
insert into Organization values (15, 'Organization-15', 'Ahmedabad', 0);
select * from Organization;
insert into Organization phone no values (1, '86451389');
insert into Organization phone no values (2, '97865431');
insert into Organization phone no values (3, '17684355');
```

```
insert into Organization_phone_no values (4, '786358125');
insert into Organization_phone_no values (5, '136487853');
insert into Organization_phone_no values (6, '36974185');
insert into Organization phone no values (7, '25874193');
insert into Organization_phone_no values (8, '25776465');
insert into Organization phone no values (9, '13686532');
insert into Organization_phone_no values (10, '98986575');
insert into Organization phone no values (11, '554879654');
insert into Organization_phone_no values (12, '546481213');
insert into Organization phone no values (13, '748596258');
insert into Organization_phone_no values (14, '5689731546');
insert into Organization phone no values (15, '445786578');
select * from Organization, Organization_phone_no where
Organization phone no. Organization ID = Organization. Organization ID
insert into Patient values (1,'Heart',2);
insert into Patient values (2, 'Kidney', 3);
insert into Patient values (3, 'Pancreas', 10);
insert into Patient values (4,'Kidney',1);
insert into Patient values (5,'Heart',4);
insert into Patient values (6,'Lung',7);
insert into Patient values (7,'Intestine',8);
insert into Patient values (8,'Intestine',5);
insert into Patient values (9, 'Lung',6);
insert into Patient values (10, 'Kidney', 9);
select * from Users, Patient where Patient.User ID = Users.User ID;
create trigger ADD DONOR
after insert or update
on Donor
for each row
begin
insert into Organ available(Organ name, Donor ID) values (:new.organ donated, :new.Donor ID);
end:
create trigger REMOVE ORGAN
after insert or update
on Transaction
for each row
begin
delete from Organ available
where Organ ID = :new.Organ ID;
end;
```

```
insert into Donor values (1,'Heart',1,20);
insert into Donor values (2,'Pancreas',2,19);
insert into Donor values (3,'Pancreas',3,18);
insert into Donor values (4,'Intestine',4,17);
insert into Donor values (5,'Kidney',5,16);
insert into Donor values (6,'Pancreas',6,15);
insert into Donor values (7,'Kidney',7,14);
insert into Donor values (8,'Kidney',8,13);
insert into Donor values (9,'Heart',9,12);
insert into Donor values (10,'Heart',10,11);
select * from Organ_available;
select * from Users, Donor, Organization where Donor.User_ID = Users.User_ID and Donor.Organization ID = Organization.Organization ID;
```

```
Organ Donation
Worksheet
         Query Builder
    CREATE TABLE Users (
         User_ID int NOT NULL,
         Name varchar(20) NOT NULL,
         Date_of_Birth date NOT NULL,
         Medical_history varchar(20),
         Street varchar (20),
         City varchar (20),
         State varchar (20),
         PRIMARY KEY (User ID)
     );
    CREATE TABLE User phone no (
        User ID int NOT NULL,
         phone_no varchar(15),
         FOREIGN KEY (User ID) REFERENCES Users (User ID) ON DELETE CASCADE
     );
   CREATE TABLE Organization(
      Organization ID int NOT NULL,
      Organization name varchar(20) NOT NULL,
      Location varchar(20),
      Government_approved int,
      PRIMARY KEY (Organization ID)
Script Output X
📌 🥢 🔡 📕 | Task completed in 0.301 seconds
Table USERS created.
Table USER PHONE NO created.
Table ORGANIZATION created.
```

