United International University

Department of Computer Science and Engineering

Project Report:
Database Management System Laboratory
Trimester -Fall-2017

Project Name:
RED DROP

Team ID: FL17DBMS02

Project Members

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1. Project Description

People who are in need of blood in critical situations, often unable to get blood due to unavailability in hospitals or blood banks. In many cases, people seek help from social networks by posting requests. Sometimes these requests do not even get much attention as the social sites are filled with tons of contents.

Taking this as an idea, this project is made to connect people who are in need of blood and can request directly for it. With one account people can donate and receive blood as well. People can in fact request blood for other persons who do not hold an account here. Request for donating or receiving will be notified to all other account holders. Security is maintained by connection building. One person can connect with another via chat system. Contact information is stored if added to contacts once trusted. Each transaction of donation and receival is counted, and other users can see this information for security purposes. One can search others by blood type and location or name. One can also delete his account if wanted.

2 .Project Features

- User Account: Registered with phone number and basic user information
- Edit Profile: Uploads profile picture, changes user information or profile picture if needed, deletes account if wished
- Settings: Adds more information on availability (extra phone number and location)
- Folder: Holds health documents (e.g. blood reports, medical examinations) of user if user intends to show people only with connection
- Notification: Notifies all other account holders when donation or receival is requested
- Search: Allows users to search other account holders for receiving or donating blood
- Chat Box: Users can send message to request personally or other chatting purposes
- Contacts: Chat box gives the option to add sender/receiver to contact list, which allows to get contact information(e.g. phone number, area) and personal details(e.g. age, status) of receiver/sender
- Transactions: Records the transaction of donation or receival with date and to whom is given or from whom is taken, the number of donation or receival is shown in profile

3.Project ER Diagram

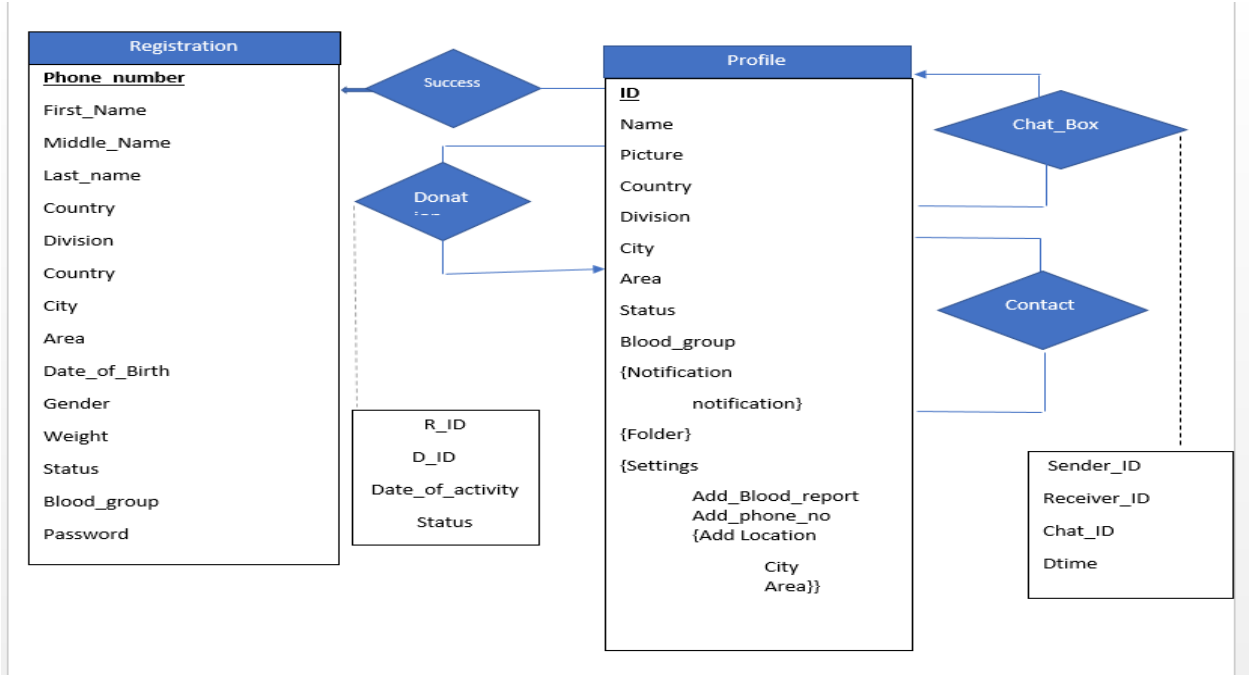

Figure 1: ER Diagram

4.Project Schema Diagram

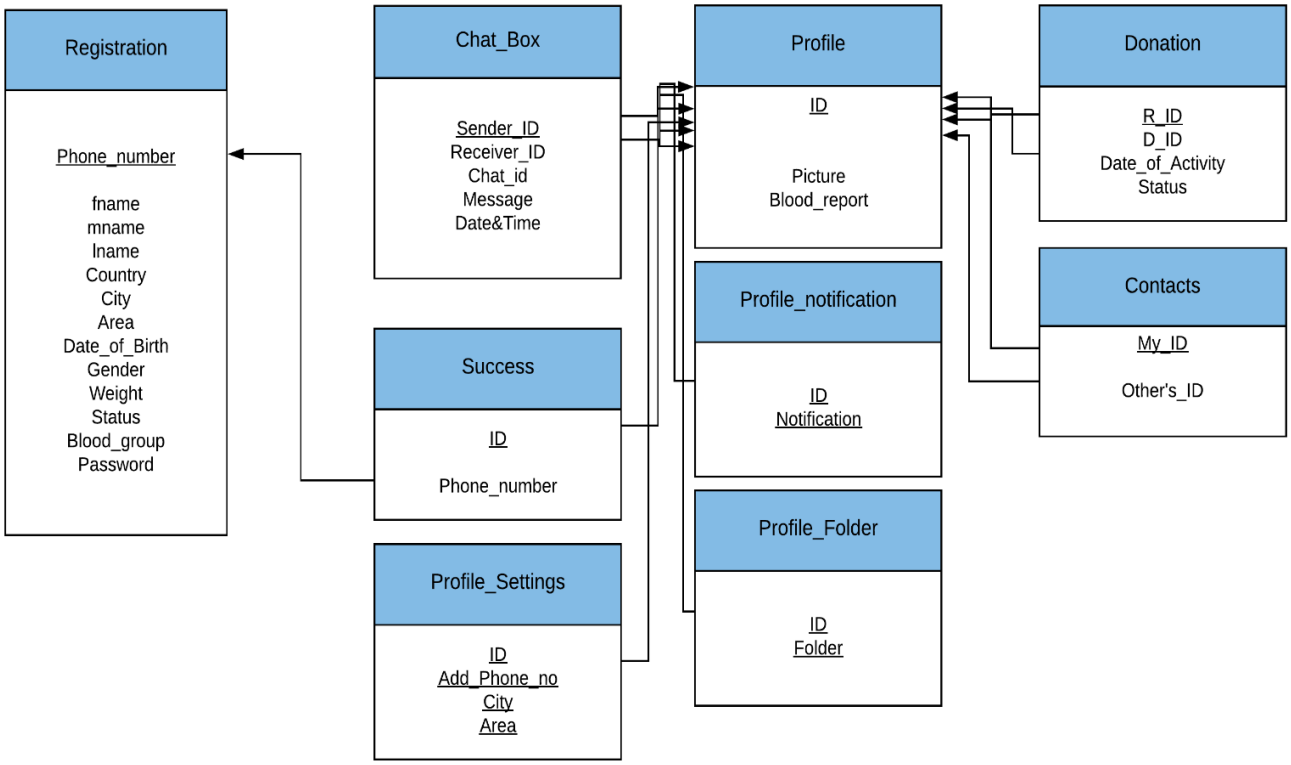

Figure 2: Schema Diagram

5. Source of Database

```
create table  registration
(
  fname                 varchar(20) not null,
  mname                 varchar (20),
  lname                 varchar (20) not null,
  phone_number    numeric (11,0) not null,
  country               varchar(20) not null,
  division              varchar(20) not null,
  city                  varchar(20) not null,
  area                  varchar(30),
  date_of_birth         date not null,
  blood_group           varchar(5),
  gender          varchar(10) not null,
  weight          numeric (3,0) check (weight>45),
  status          varchar (15),
  password        varchar (20) not null,
  primary key           (phone_number)
);

create Table profile
(
  ID                    varchar (20) not null,
  picture               varchar(50),
  blood_report          varchar(30),
  primary key (ID)
);

create table profile_notification
(
  id                    int(255) AUTO_INCREMENT,
  sender_ID             varchar(20) not null,
  notification          varchar(50),
  primary key (id, sender_ID, notification),
  foreign key(sender_ID) references profile (ID)
  on delete cascade
);
```

```
create table profile_folder
(
  id                        int(255) AUTO_INCREMENT,
  profile_ID          varchar(20) not null,
  folder                    varchar(30),
  primary key (id,profile_ID, folder),
  foreign key(profile_ID) references profile (ID)
  on delete cascade
);

create Table profile_settings
(
  id                        int(255) AUTO_INCREMENT,
  profile_ID                      varchar (20) not null,
  add_phone_number      numeric (11,0),
  city                      varchar(20),
  area                      varchar(30),
  primary key(id,profile_ID, add_phone_number,city,area),
  foreign key (profile_ID) references profile(ID) on delete cascade
);

create Table success
(
  ID                        varchar(20) not null,
  phone_number     numeric (11,0) not null,
  primary key (ID),
  foreign key (ID) references profile(ID) on delete cascade,
  foreign key (phone_number) references registration(phone_number) on delete
cascade
);

create table chat_box
(
  id                        int(255) AUTO_INCREMENT,
  sender_ID                 varchar(20),
  receiver_ID               varchar(20),
```

```
  chat_ID                 int(255),
  message                 text,
  dtime                       timestamp,
  foreign key (sender_ID) references profile(ID) on delete cascade,
  foreign key (receiver_ID) references profile(ID) on delete cascade,
  primary key (id)
  );
Create table contacts
(
  id                int(255) AUTO_INCREMENT,
  contact_ID            varchar(20) not null,
  me                varchar (20) not null,
  primary key(id),
  foreign key (contact_ID) references profile(ID) on delete cascade
);
create table donation
(
  id                      int(255) AUTO_INCREMENT,
  r_ID                        varchar (20) not null,
  d_ID                        varchar (20) not null,
  date_of_activity   date,
  status                  varchar(20),
  primary key (id),
  foreign key (d_ID) references profile(ID) on delete cascade,
  foreign key (r_ID) references profile(ID) on delete cascade
);
```

6.SQL Queries

1. $q1 = "INSERT INTO registration (fname, mname, lname, phone_number, country, division, city, area, date_of_birth, blood_group, gender, weight, status, password)
VALUES('$fname','$mname','$lname','$phone_number','$country','$division','$city','$area', '$date_of_birth', '$blood_group', '$gender', '$weight', '$status', '$password')";

Description: after putting value in registration form . this query insert all the data to database

2. $id=uniqid();

Description: generates random id

3. $a = "INSERT INTO profile (ID) VALUES ('$id')";

Description: Insert id in profile table

4. $f = "INSERT INTO success (ID, phone_number) VALUES ('$id','$phone_number')";

Description: insert od and phone number in success id

5.$sql = "SELECT * FROM registration WHERE phone_number='$phone_number'";
$_SESSION['phone_number'] = $phone_number;

Description: gets session phone number

6.$strSQL = $db->query("SELECT * FROM success WHERE phone_number=" . $_SESSION['phone_number']);
$_SESSION['id'] = $row['ID'];
Description: get session id

7.$c = $db->query("UPDATE profile SET picture='$picture' WHERE ID = '" . $_SESSION['id'] . "'")

Description= Inserts profile picture in profile table

8. $ae = "UPDATE registration SET password = '$password' where phone_number=" . $_SESSION['phone_number'];

Description: Edit data in registration table

9.$msg = "wants to donate blood.";
$d = $db->query("INSERT INTO profile_notification (sender_ID,notification) VALUES('" . $_SESSION['id'] . "','$msg')");
$msg = "needs blood.";
$d = $db->query("INSERT INTO profile_notification (sender_ID,notification) VALUES('" . $_SESSION['id'] . "','$msg')");

Description: insert notifications in notification table as role requested

10.$n = $db->query("SELECT * FROM profile_notification WHERE sender_ID !='" . $_SESSION['id'] . "'");

Description : shows notifications in profile page

11.$donate = $_REQUEST['donation'];
switch ($donate) {
case 1:
$ai = "INSERT INTO donation(r_ID,d_ID,date_of_activity,status) VALUES('" . $_SESSION['id'] . "','$i','$date','Donated')";
mysqli_query($db, $ai);
$ao = "INSERT INTO donation(r_ID,d_ID,date_of_activity,status) VALUES('$i','" . $_SESSION['id'] . "','$date','Received')";
mysqli_query($db, $ao);
break;

Description: inserts into donation table for the donor and receiver

12.$d = $db->query("SELECT COUNT(r_ID) FROM donation WHERE ((r_ID='" . $_SESSION['id'] . "') AND (status = 'Donated'))");
$r = $db->query("SELECT COUNT(d_ID) FROM donation WHERE (d_ID='" . $_SESSION['id'] . "' AND (status = 'Received'))");

Description: Counts transaction and shows in profile page

13.$s = $db->query("SELECT * FROM profile_settings WHERE profile_ID='" . $_SESSION['id'] . "'");

Description: retrieves data from settings table

14.$d = $db->query("DELETE FROM registration WHERE phone_number='".$_SESSION['phone_number']) $dd = $db->query("DELETE FROM profile WHERE ID='".$_SESSION['id']."'");

Description: Deletes user account

15.$c = $db->query("UPDATE profile SET blood_report='$blood_report' WHERE ID = '" . $_SESSION['id'] . "'");

Description: Inserts file name into profile (similar query for folder table)

16.$q = $db->query("SELECT * FROM profile_folder WHERE profile_ID='" . $_SESSION['id'] . "'");

Description: shows folder files .

17.$s = $db->query("SELECT * FROM registration WHERE blood_group = '$blood_group'");

Description: searches by blood group.

18. $searchfield = $_REQUEST['searchbar'];
$ss = $db->query("SELECT * FROM registration WHERE blood_group= '$blood_group AND ((fname like '%" . $searchfield . "%') OR (mname like '%" . $searchfield . "%') OR (lname like '%" . $searchfield . "%') OR(division like '%" . $searchfield . "%')OR (city like '%" . $searchfield . "%')OR (area like '%" . $searchfield . "%'))");

Description : search with string match

19.$query = "select * from success where phone_number='".mysqli_escape_string($db,$phone)."';";

Description: retrieves id from phone number

20.$query = "select * from success where ID='".mysqli_escape_string($db, $id)."';";

Description: retrieves phone from id

21.$query = "select * from contacts where contact_ID='".mysqli_escape_string($db, $id)."';";

Description: Checks for contact id.

22.$sql2 = "select * from registration where phone_number='" . getPhoneById($row['sender_ID']) . "';";

Description: matches phone number based on sender Id

23.$sql = "INSERT INTO chat_box (sender_ID, receiver_ID,chat_ID, message) VALUES('$sender_id','$reciever_id','$chat_id','$message');";

Description: insert chat details in chat box.

24.$sq1 = "INSERT INTO contacts (contact_ID, me) VALUES('$contact', '$me')";

Description: insert connected ids into contact table.

25.if (!empty($add_phone_number) && !empty($city) && !empty($area)) { $aq = "UPDATE profile_settings SET add_phone_number='$add_phone_number',city='$city',area='$area' WHERE profile_ID='" . $_SESSION['id'] . "'";
mysqli_query($db, $aq);

}

Description: Inserts extra informations of user

```
26.$s = $db->query("SELECT * FROM donation");
    $i = $db->query("SELECT * FROM success WHERE ID = '"
.$row['d_ID'] . "'");
$a = $db->query("SELECT fname,mname,lname FROM registration WHERE
phone_number = '$p'");
```

Description: shows transaction records.

7.Screenshots:

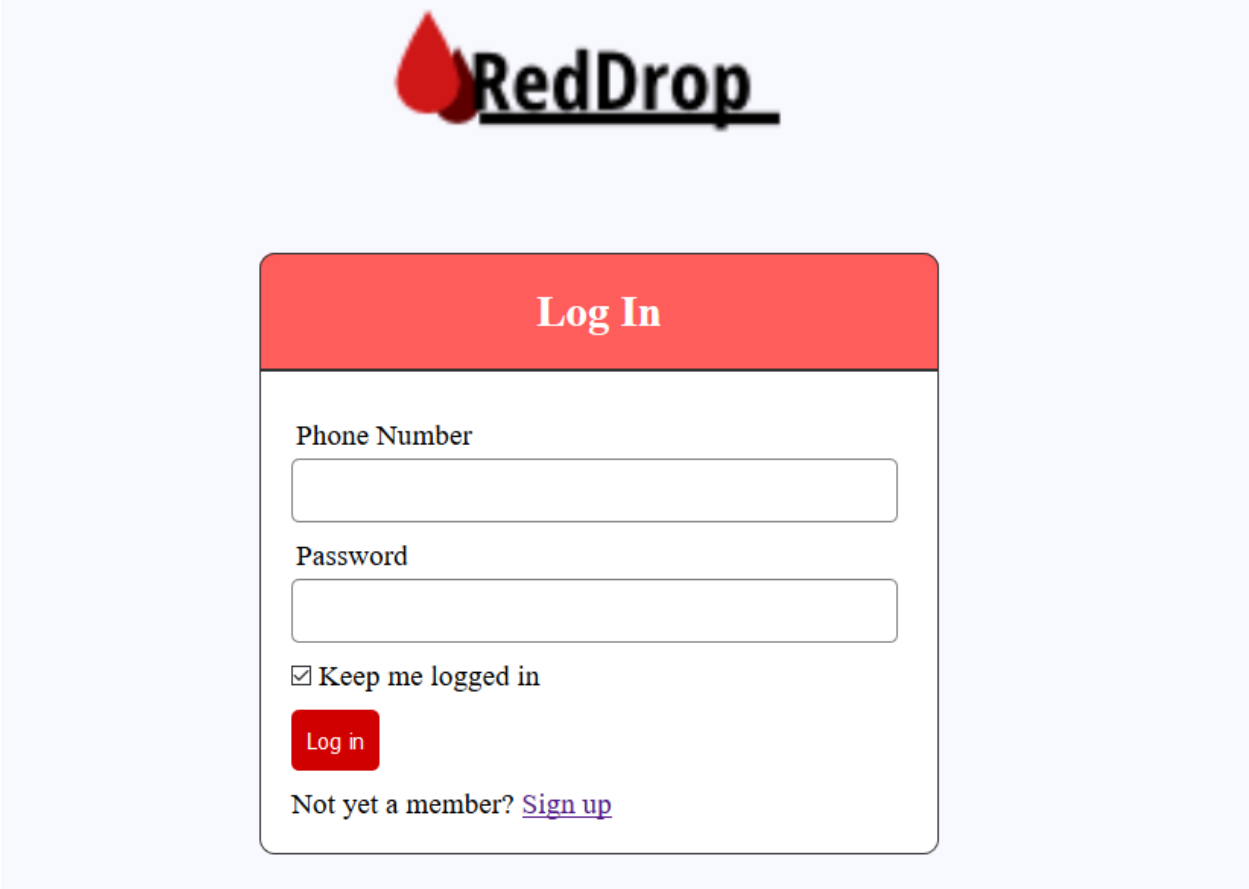

Figure 3: Login Page

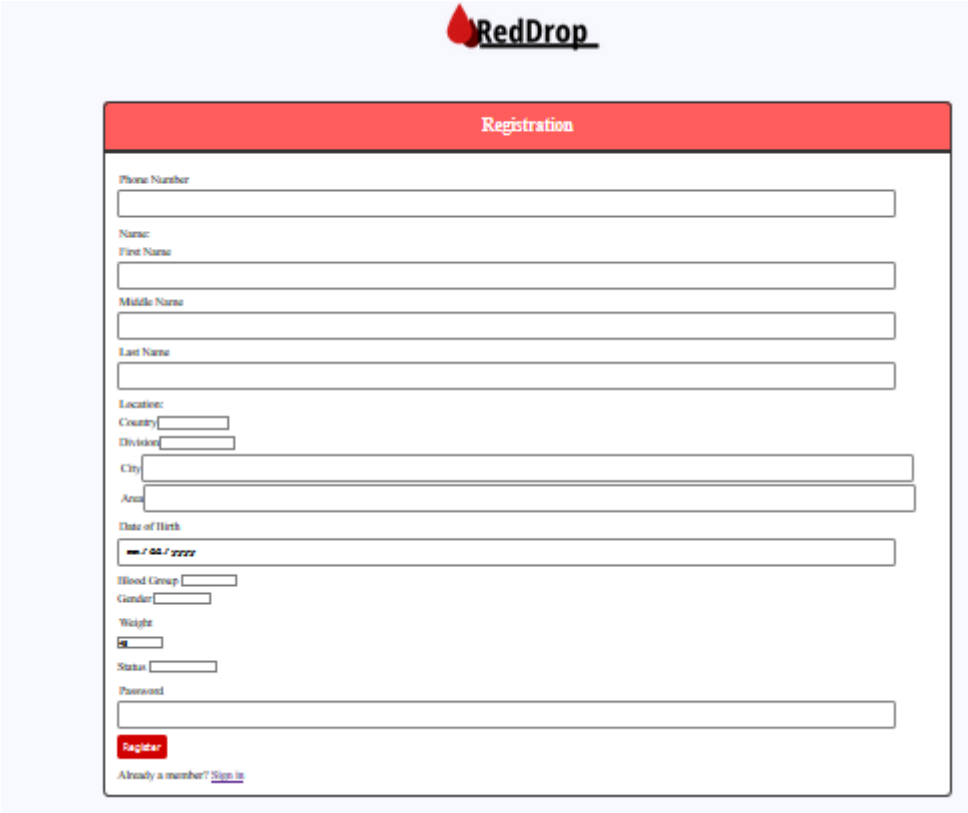

Figure 4: Registration Page

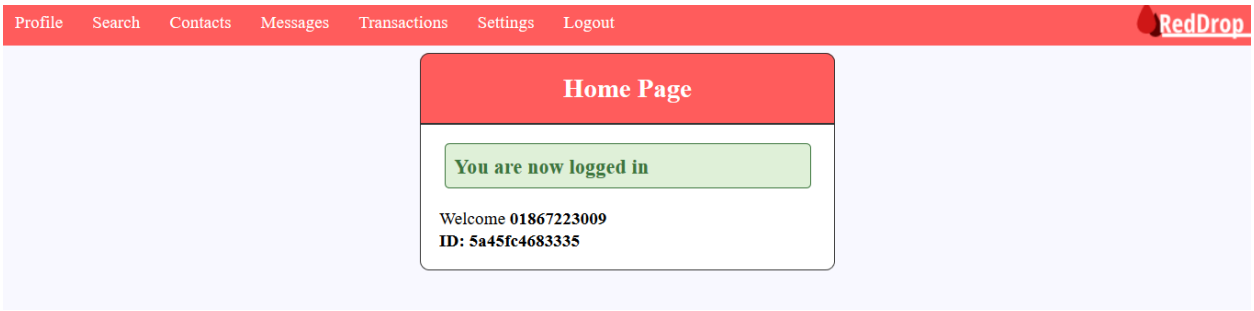

Figure 5. Home Page with automatically generated ID

Figure 6: Profile Page

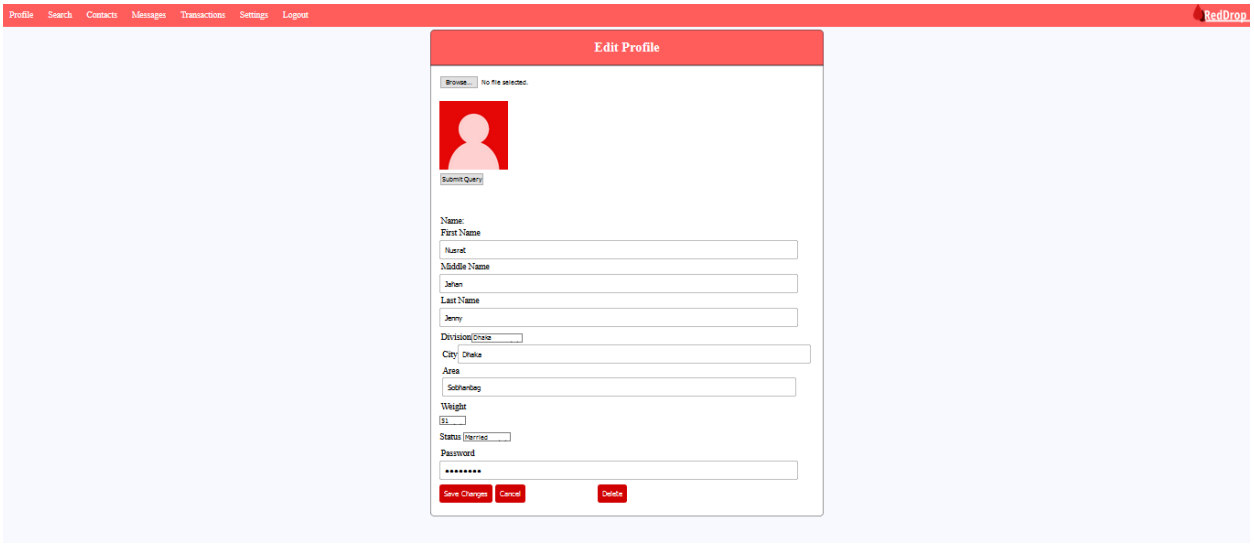

Figure 7: Editing Page

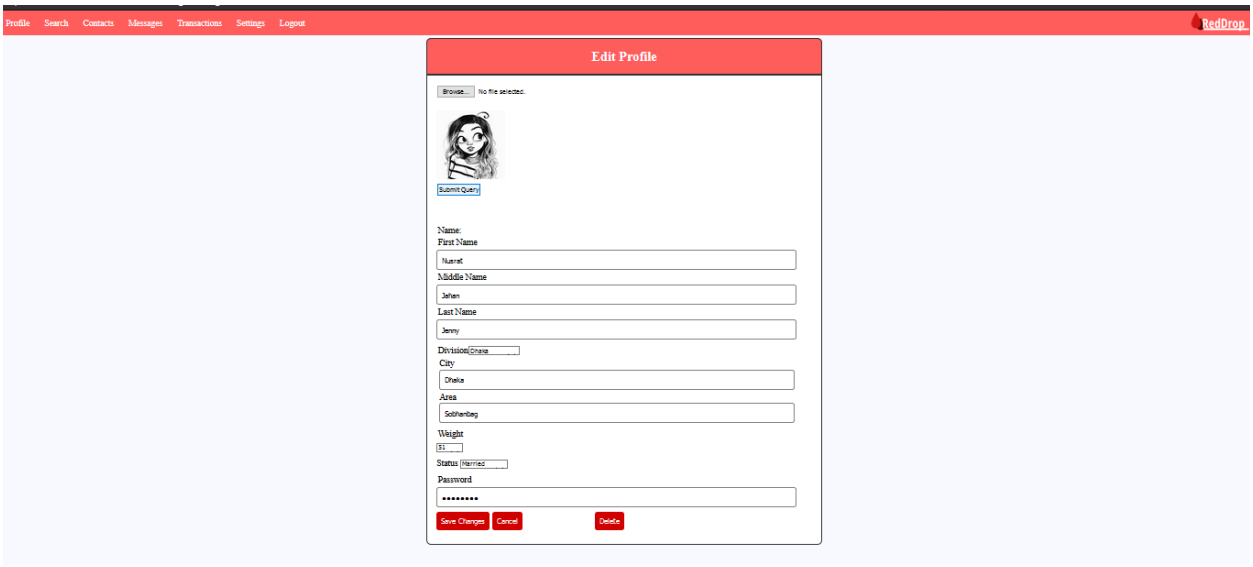

Figure 8: Upload or change profile picture

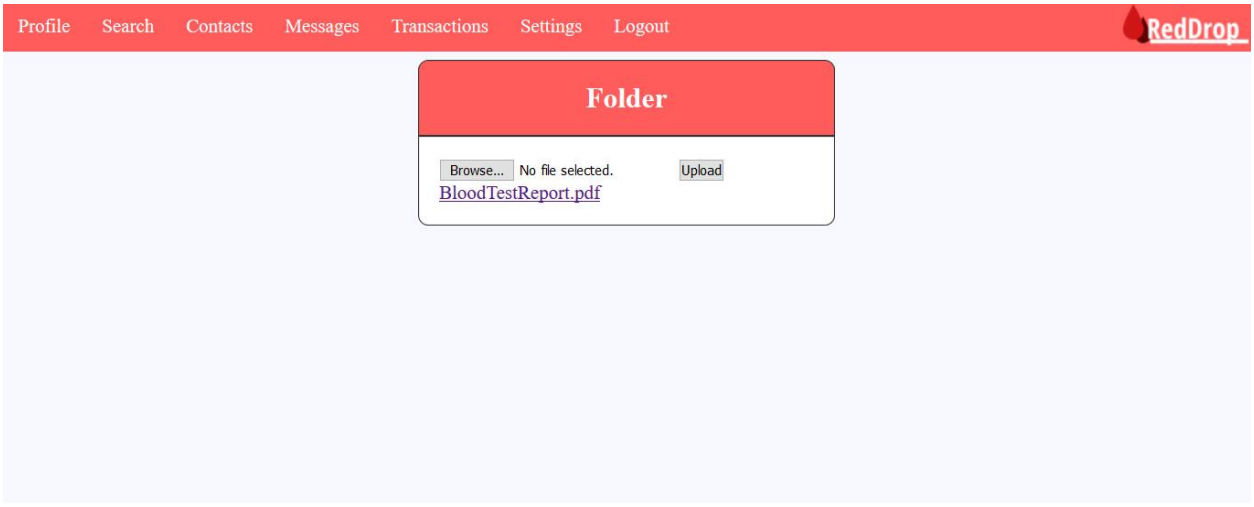

Figure 9: Folder page to show user's health documents

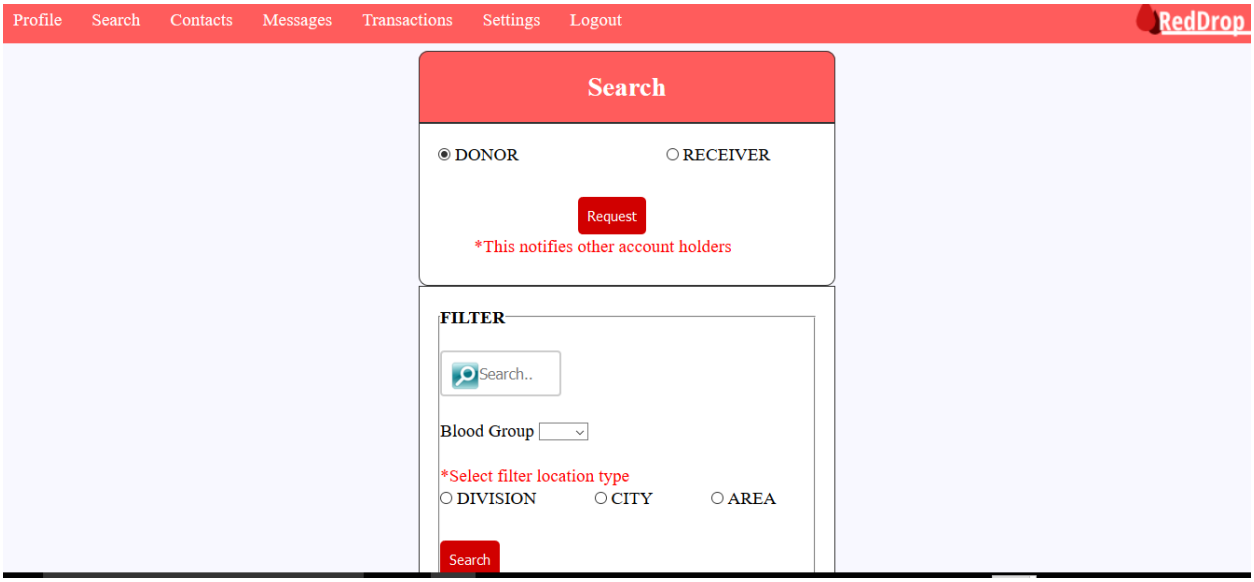

Figure 10: Role play: generates notification with request

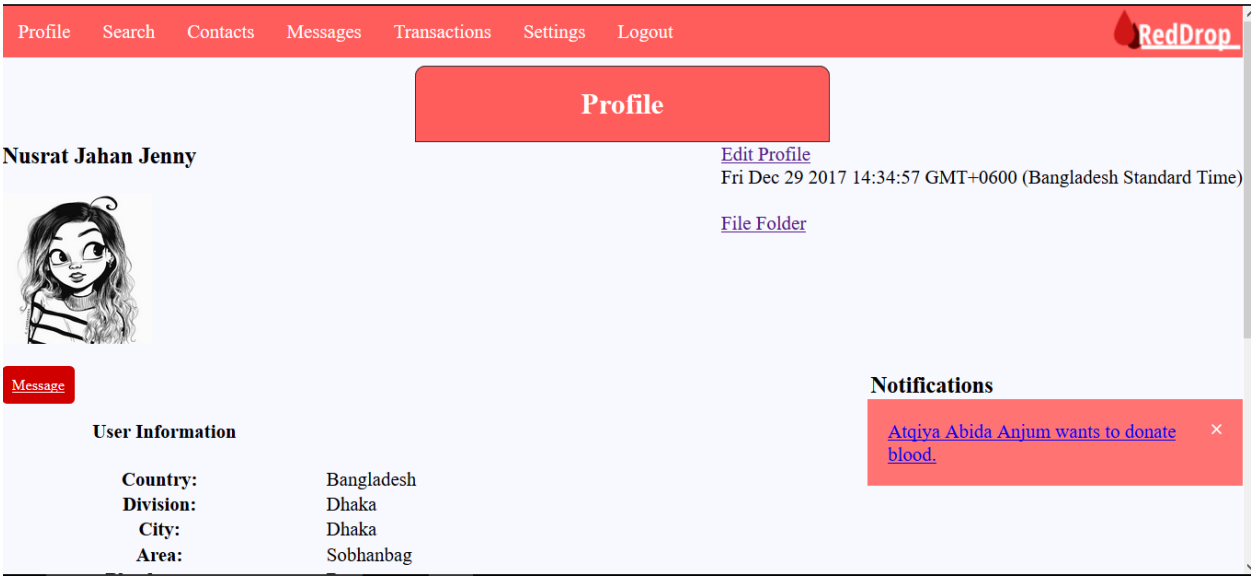

Figure 11: Notification Panel

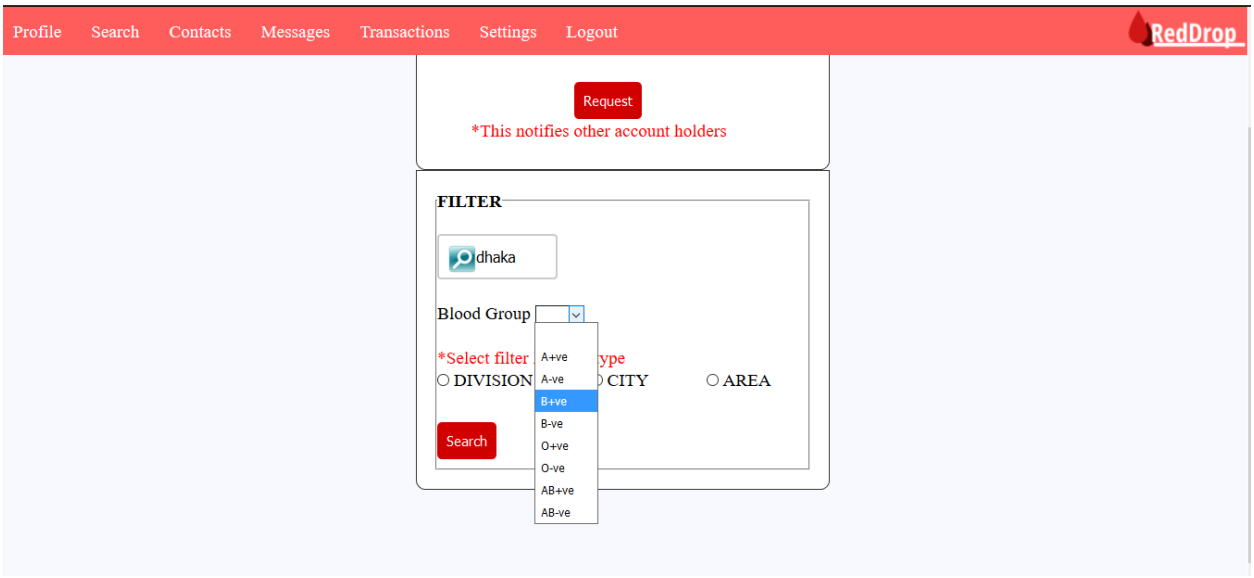

Figure 12: Search with searchbar

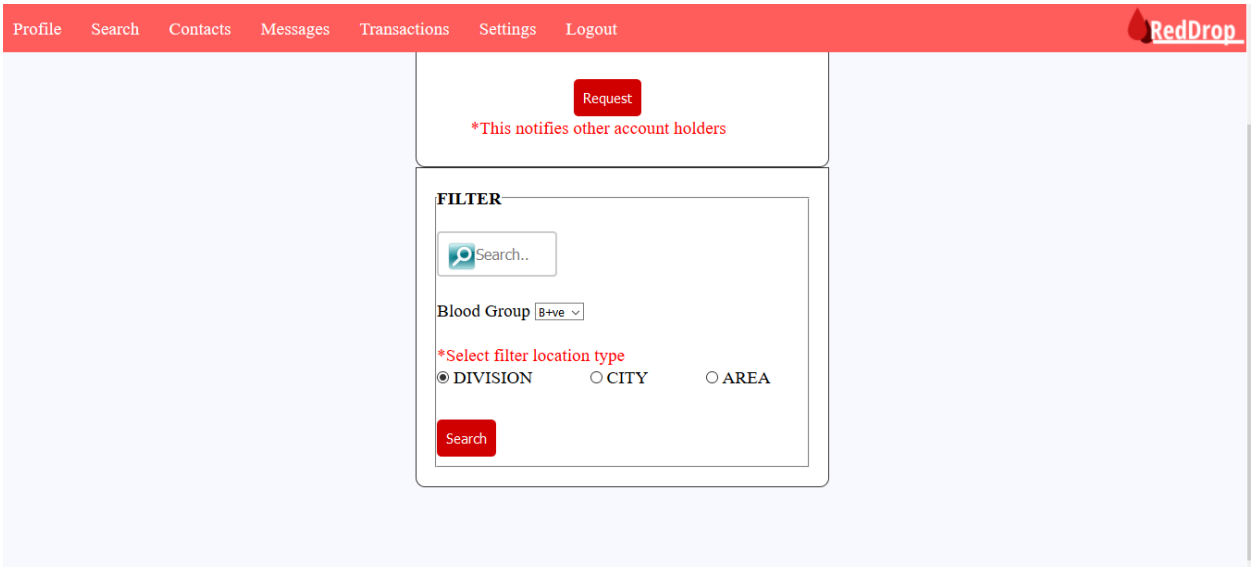

Figure 13: Filter search with user location

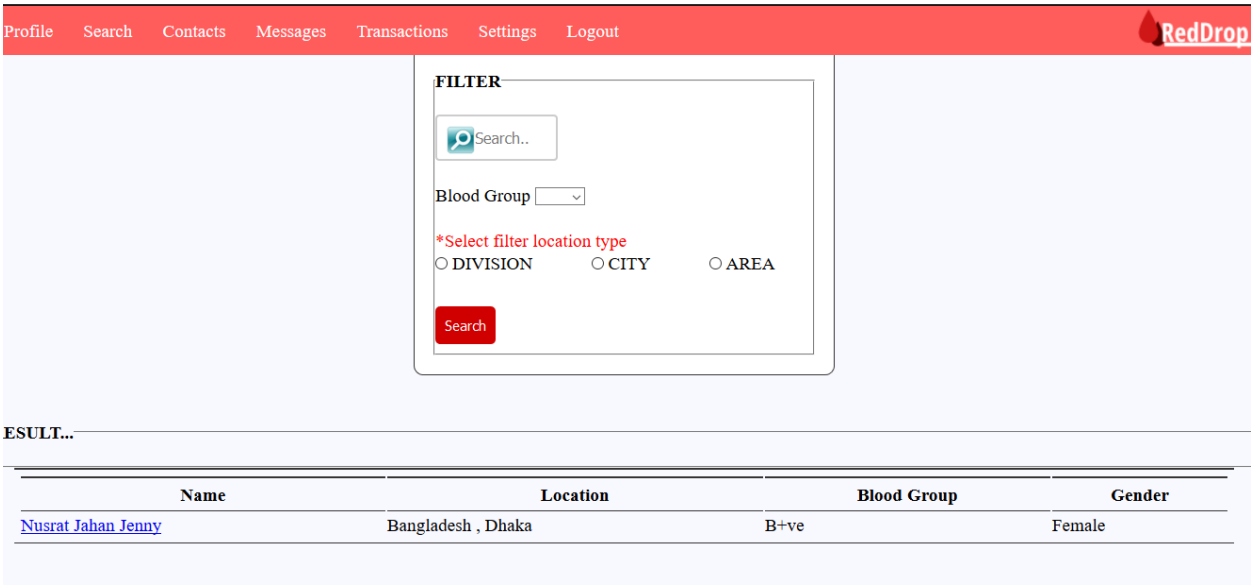

Figure 14: User Found

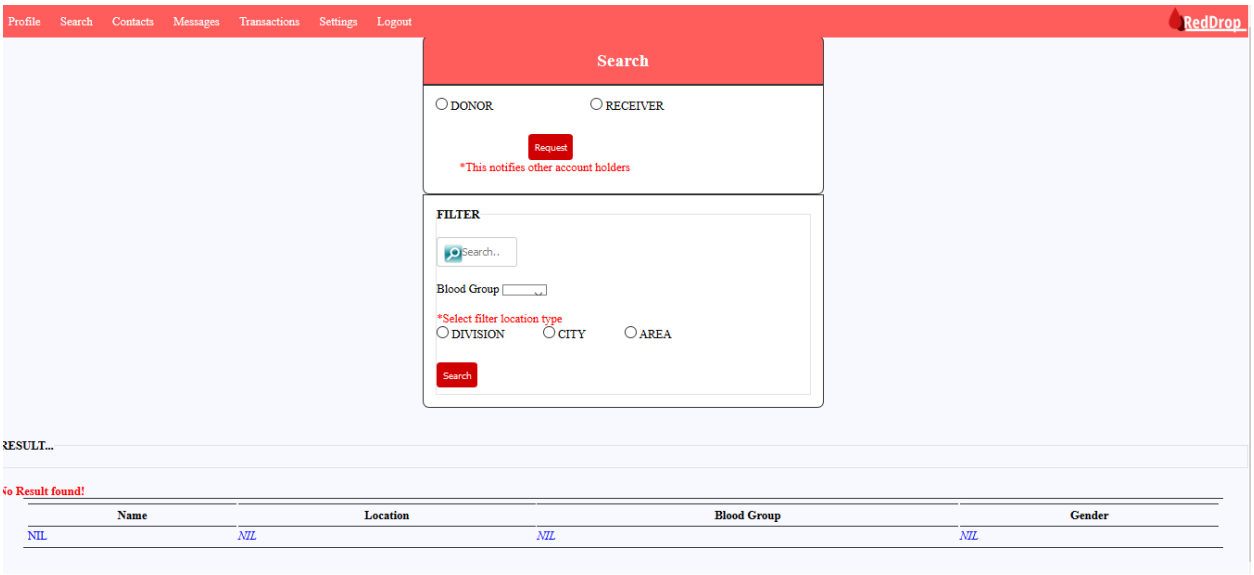

Figure 15: User not found

Figure 16: View other profile not with connection

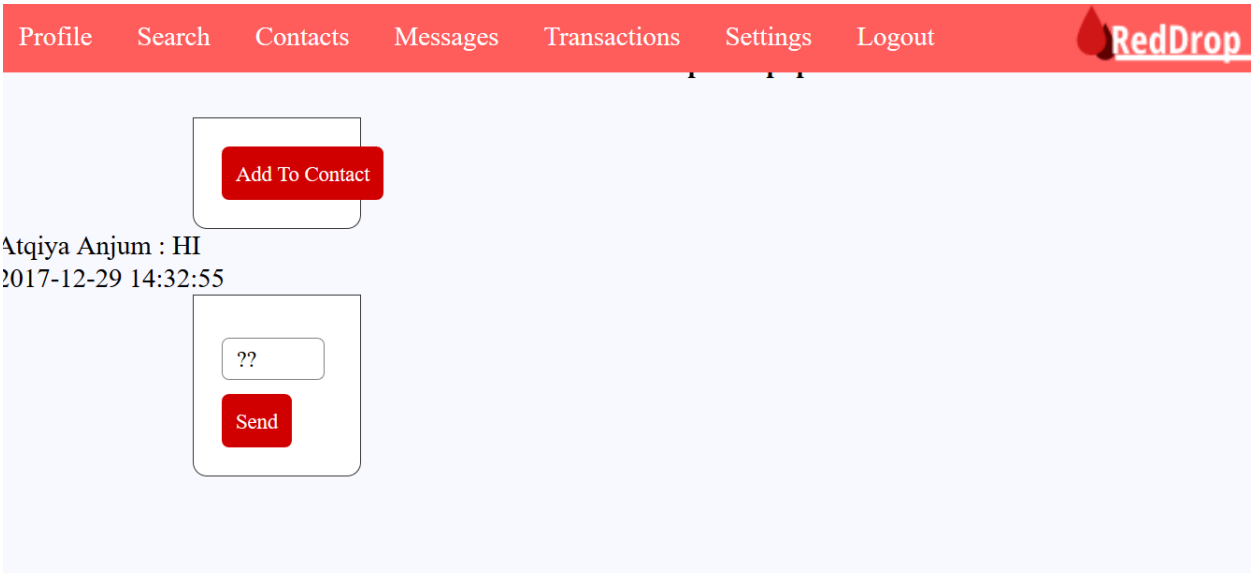

Figure 17: Chat Box

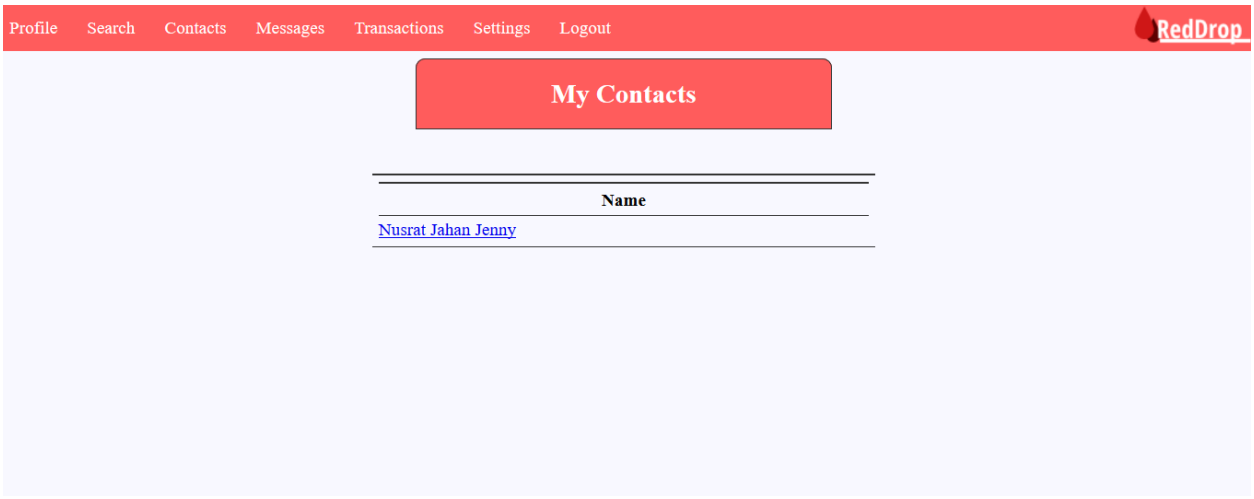

Figure 18: Contact list

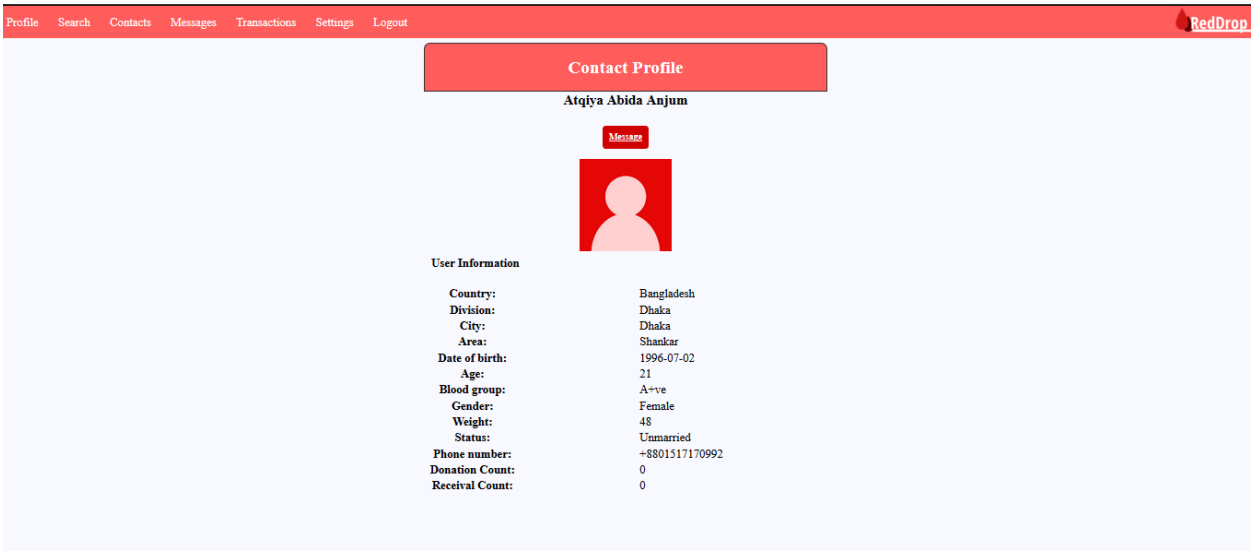

Figure 19: View other Profile with connection

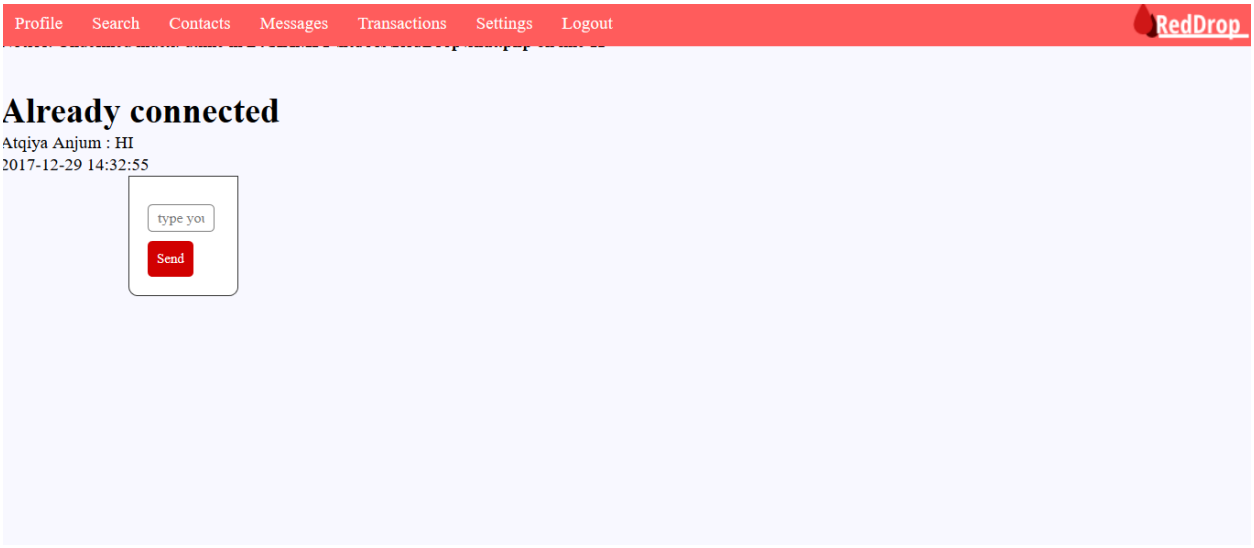

Figure 20: Chat with connected people

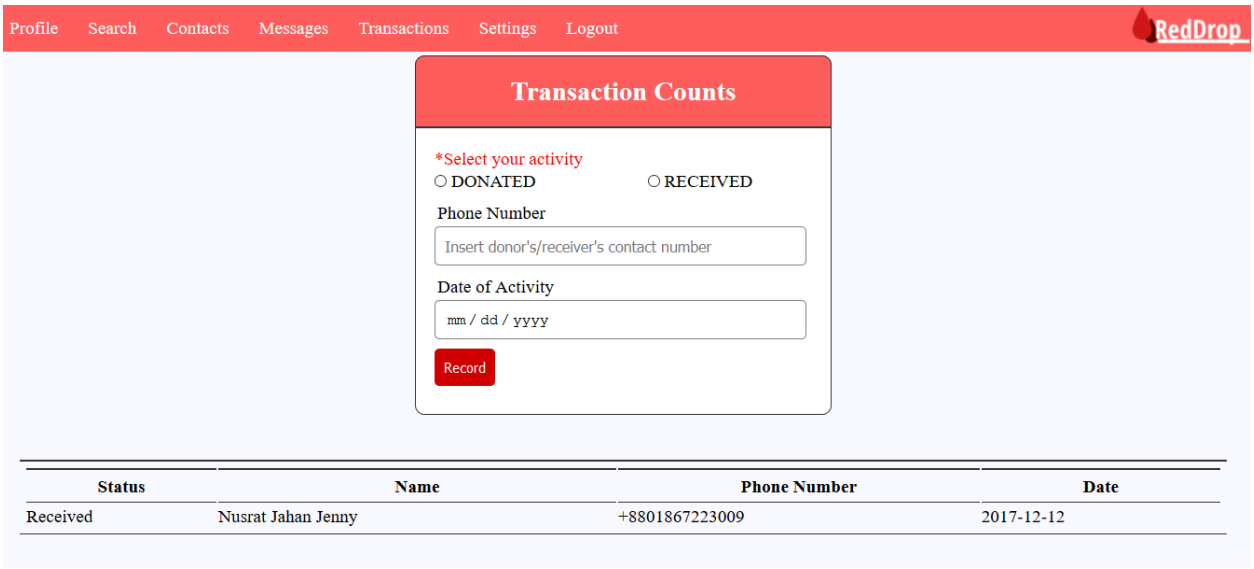

Figure 21: Transaction Records

8.Conclusions

This project's purpose is to help people in medical needs as in many cases people had died due to not getting blood in due time. And instead of using various social sites for requesting blood or donating blood in blood banks not knowing if it is provided or not, this project can be used as a social site to help people personally.

Doing this project has made us learn the vast meaning of database and how to manage it. Descriptionigning and retrieving data from the original database. Learning different languages parallel and implementing those. Working in a group also taught us to think productively and how to work as a team. This also made us learn how to deal with uncertain problems and have patience with other members. All in all this whole project has enlighten us to think and make something innovative and present the new idea to the world.

Although we could not give the platform or enough features as we planned but in future we hope to bring this project to peoples' attention with more features, good front Descriptionign and proper security system, that people will be interested to use this and be benefited with.

9 References

- https://www.youtube.com/watch?v=GBbw-SDBWq0t=212s
- https://www.youtube.com/watch?v=PRCobMXhnywt=500s
- https://www.youtube.com/watch?v=V8sIWh sdvs
- https://www.youtube.com/watch?v=fXvgoFESnVc
- https://www.youtube.com/watch?v=C{mu07uhQwt=102s
- https://www.youtube.com/watch?v=5RuNjLzq4ZYlist=PL97E5F049784B72C4
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