



United International University
Department of Computer Science and Engineering

December 30, 2017

Project Report:
CSI 222
Database Management System Laboratory
Fall - 2017

Project Name:
RED DROP

Group 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 request personally and 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

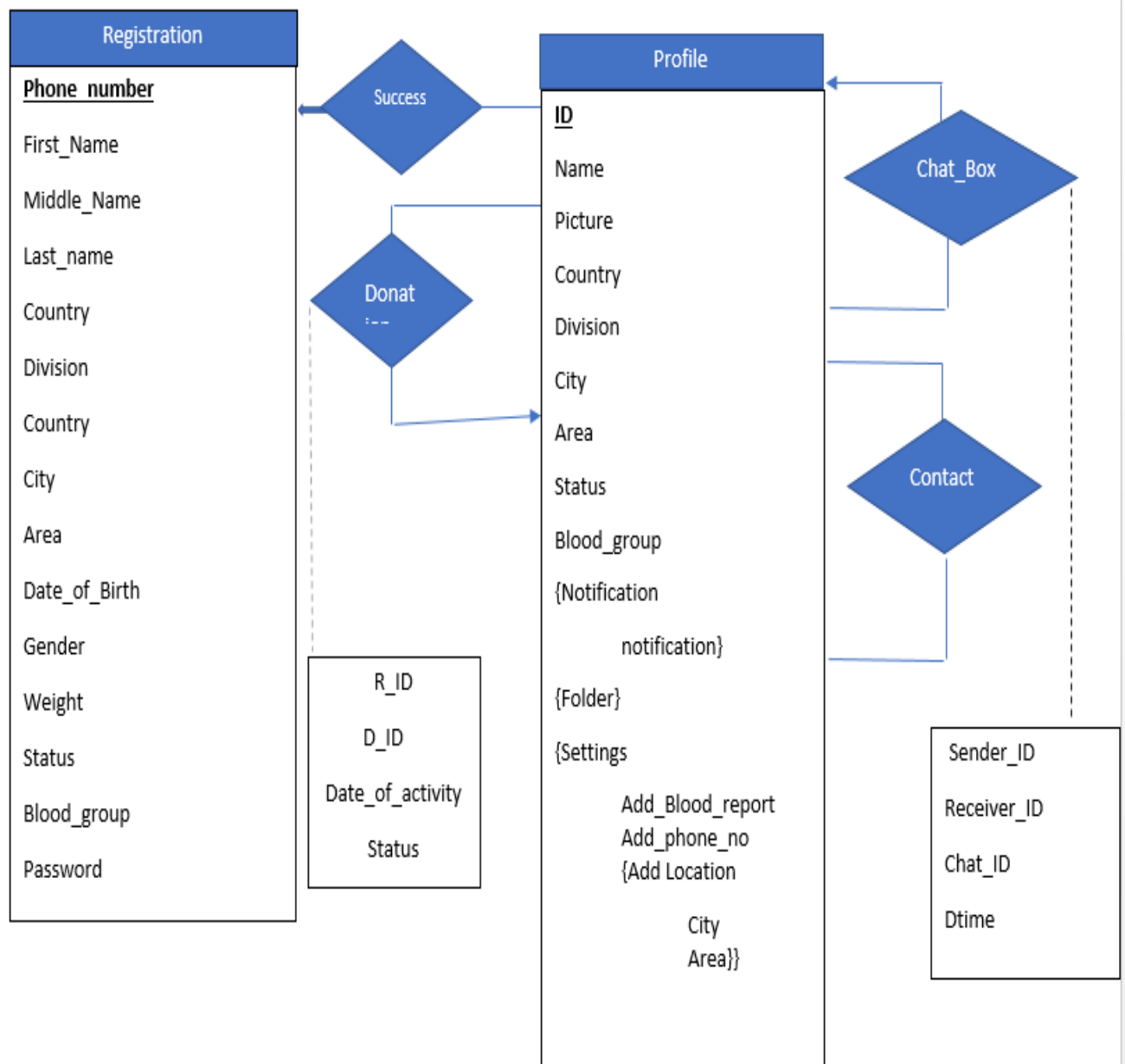


Figure 1: ER Diagram

4 Project Schema Diagram

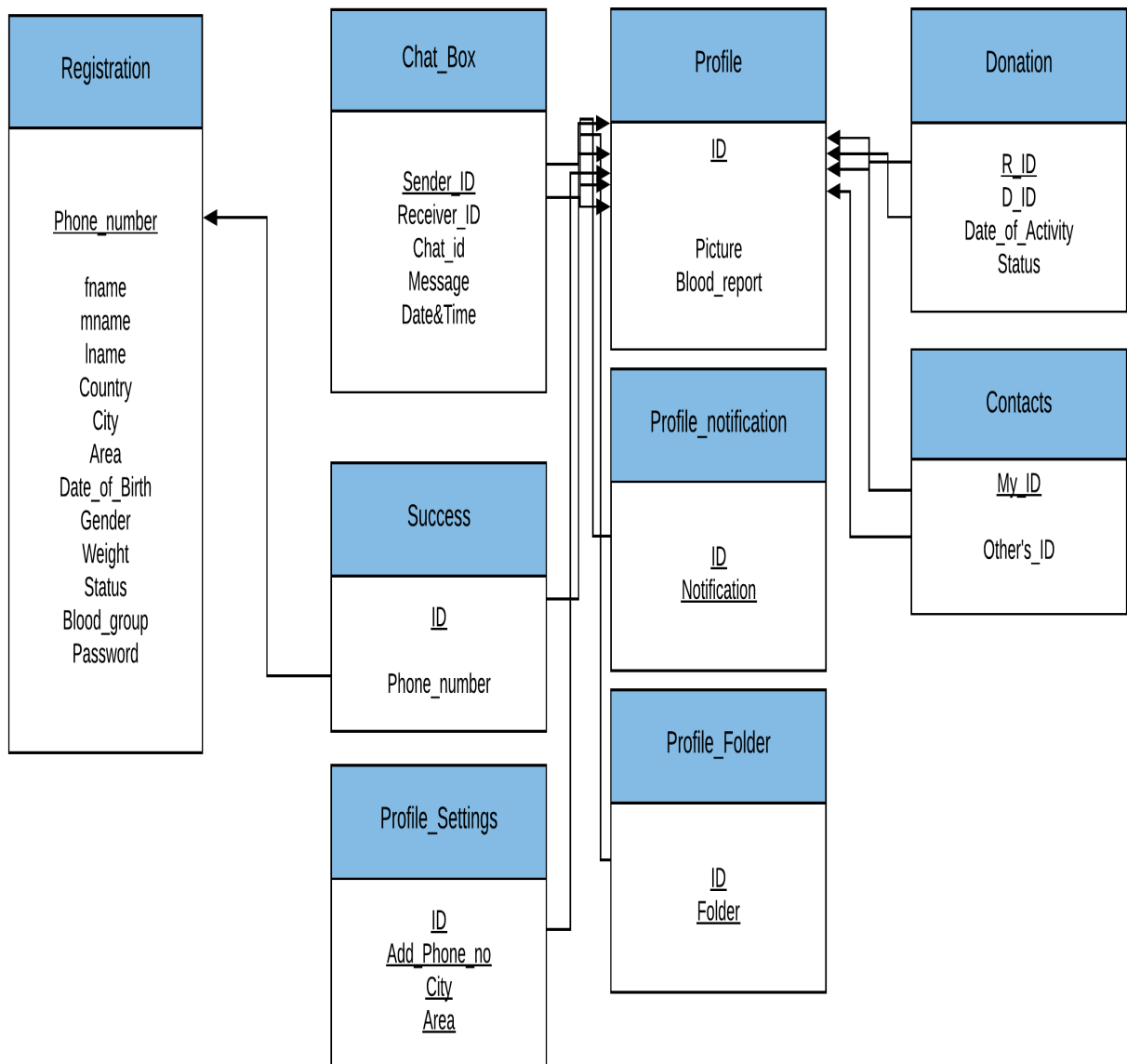


Figure 2: Schema Diagram

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 (r_ID) references profile(ID) on delete cascade,
    foreign key (d_ID) references profile(ID) on delete cascade
);

```

6 Query Details

```
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 from this query inserts all the data into database table.

```
2. $id = uniqid();
   $a = "INSERT INTO profile (ID) VALUES ('$id')";
```

Description: Generates random id and inserts into 'profile' table.

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

Description: Inserts id and phone number into 'success' table

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

Description: Gets Session phone number.

```
5. $strSQL = $db->query("SELECT * FROM success WHERE phone_number = $_SESSION['phone_number']");
   $_SESSION['id'] = $row['ID'];
```

Description: Gets Session id.

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

Description: Inserts the name of profile picture in profile table

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

Description: Edits data in registration table

```
8. $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: Inserts notifications in notification table as role requested

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

Description: Shows the notifications in profile page

```
10. $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

```
11.$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: Count transactions and shows in profile page

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

Description: Retrieves data from settings table

```
13.$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

```
14. $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)

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

Description: Shows folder files.

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

Description: Searches by blood group.

```
17.$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 sting match

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

Description: Retrieves id from phone number

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

Description: Retrieves phone number from id

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

Description: Checks for contact id

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

Description: Matches phone number based on sender id

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

Description: Inserts chat details in chat table

```
21. $sql = "INSERT INTO contacts (contact_ID, me) VALUES('$contact', '$me');";
```

Description: Inserts connected ids' into contact table


```
22. 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 information of of user

```
23. $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



Log In


Phone Number

Password

☒ Keep me logged in

Not yet a member? [Sign up](#)

Figure 3: Login Page



Registration

Phone Number

Name:
First Name

Middle Name

Last Name

Location:
Country

Division

City

Area

Date of Birth

Blood Group

Gender

Weight

Status

Password

Already a member? [Sign in](#)

Figure 4: Registration Page

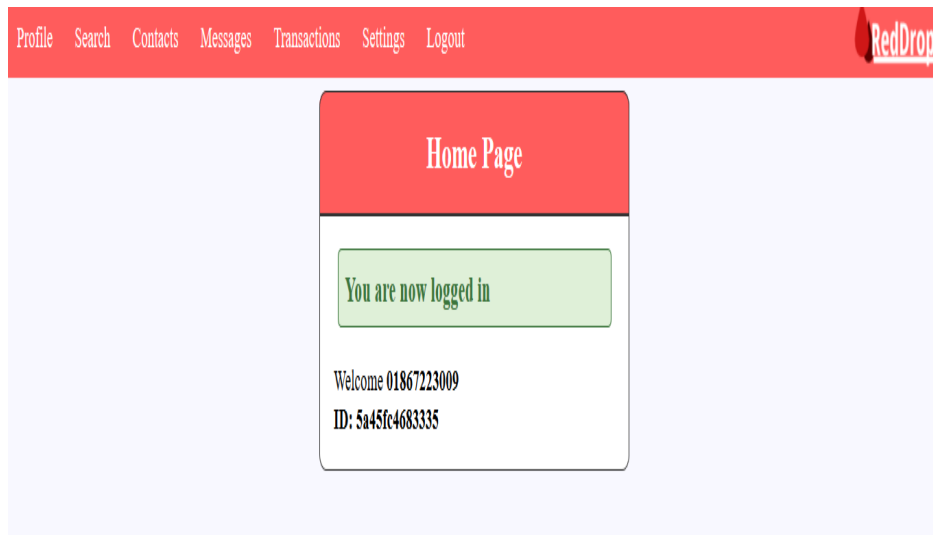


Figure 5: Home page with an automatically generated ID

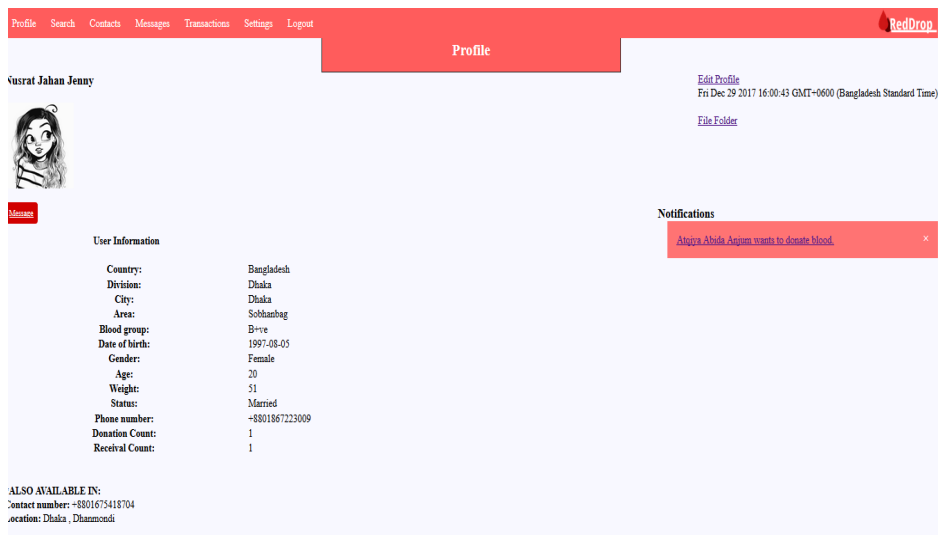


Figure 6: Profile Page

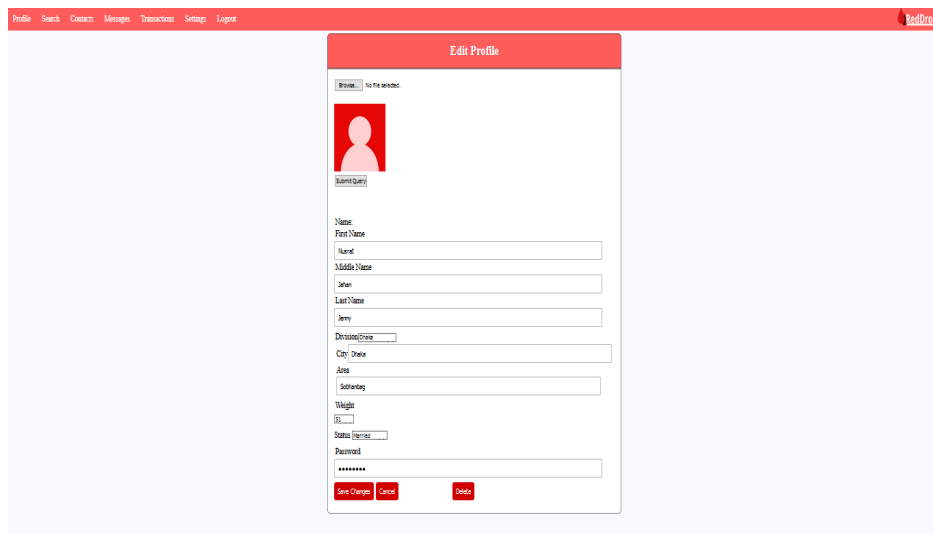


Figure 7: Editing page

Edit Profile

Browse... No file selected.

[Submit Query](#)

Name:

First Name

Middle

Middle Name

Surname

Last Name

Surname

Division/Zone

City

District

Area

Subward

Village

Sex

Status (Married)

Password

[Save Changes](#) [Cancel](#) [Save](#)

Figure 8: Upload or change profile picture

Folder

Browse... No file selected. [Upload](#)

[BloodTestReport.pdf](#)

Figure 9: Folder page to show user health documents

Search

☒ DONOR ☐ RECEIVER

[Request](#)

*This notifies other account holders

FILTER

Blood Group

*Select filter location type

☐ DIVISION ☐ CITY ☐ AREA

[Search](#)

Figure 10: Role Play: generates notification with request



Figure 11: Notification Panel

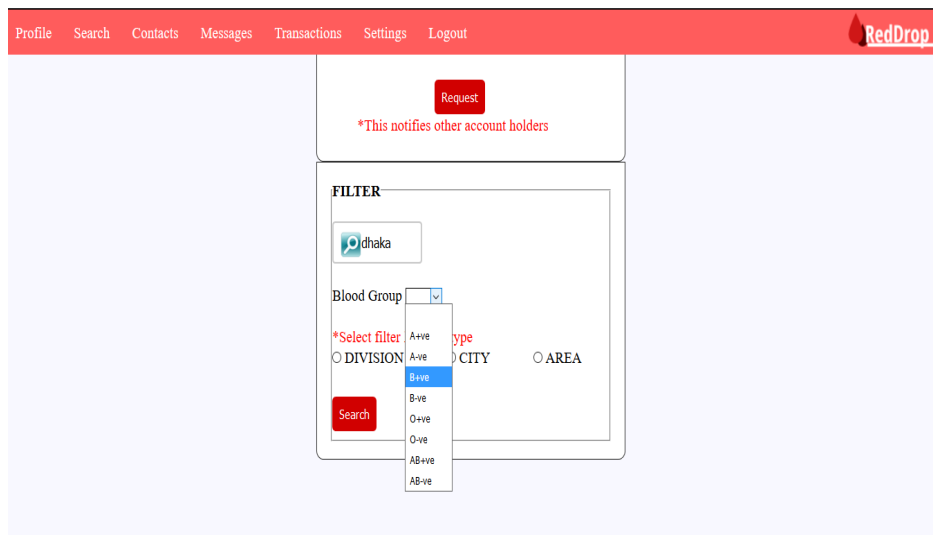


Figure 12: Search with searchbar

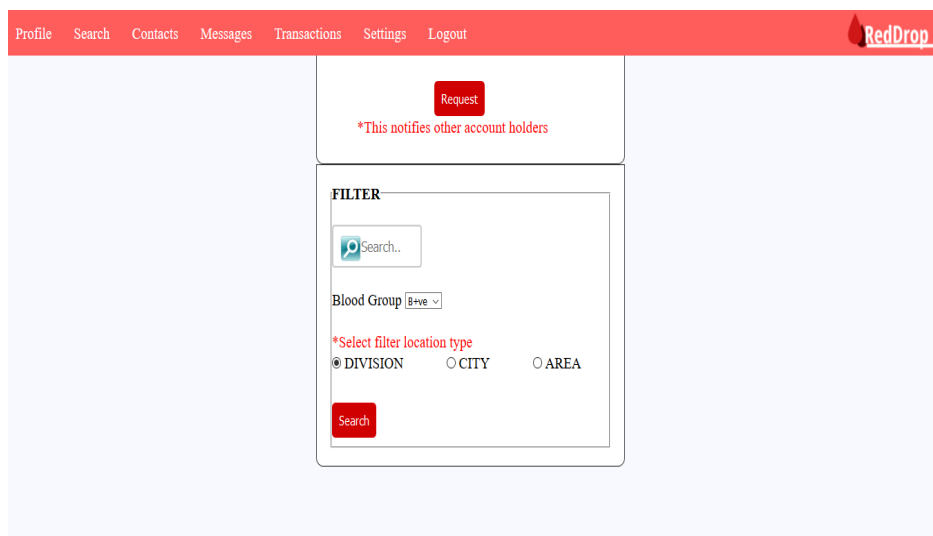


Figure 13: Filter Search with user location

Profile Search Contacts Messages Transactions Settings Logout
RedDrop

Search

☐ DONOR
☐ RECEIVER

Request

*This notifies other account holders

FILTER

Search...

Blood Group

*Select filter location type

☐ DIVISION
☐ CITY
☐ AREA

Search

RESULT...

Name	Location	Blood Group	Gender
Nusrat Jahan Jenny	Bangladesh, Dhaka	B+ve	Female

Figure 14: User found

Profile Search Contacts Messages Transactions Settings Logout

RedDrop

Search

☐ DONOR
☐ RECEIVER

Request

*This notifies other account holders

FILTER

Search...

Blood Group

*Select filter location type

☐ DIVISION
☐ CITY
☐ AREA

Search

RESULT...

0 Result found!

Name	Location	Blood Group	Gender
NIL	NIL	NIL	NIL

Figure 15: User not found

Profile Search Contacts Messages Transactions Settings Logout

RedDrop

User Profile

Nusrat Jahan Jenny

Message



User Information

Country:

Division:

City:

Blood group:

Gender:

Donation Count:

Receival Count:

Bangladesh

Dhaka

Dhaka

B+ve

Female

0

0

Figure 16: View other profile not with connection

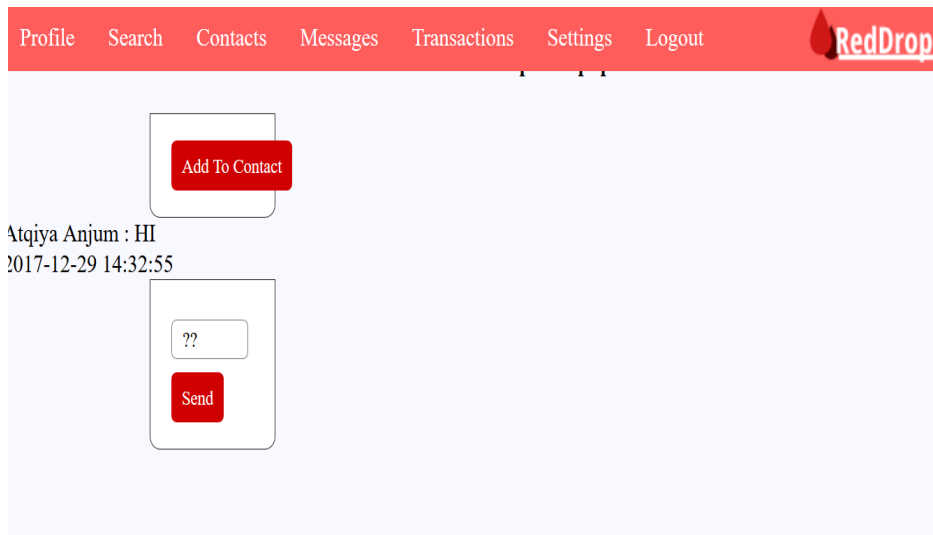


Figure 17: Chat Box

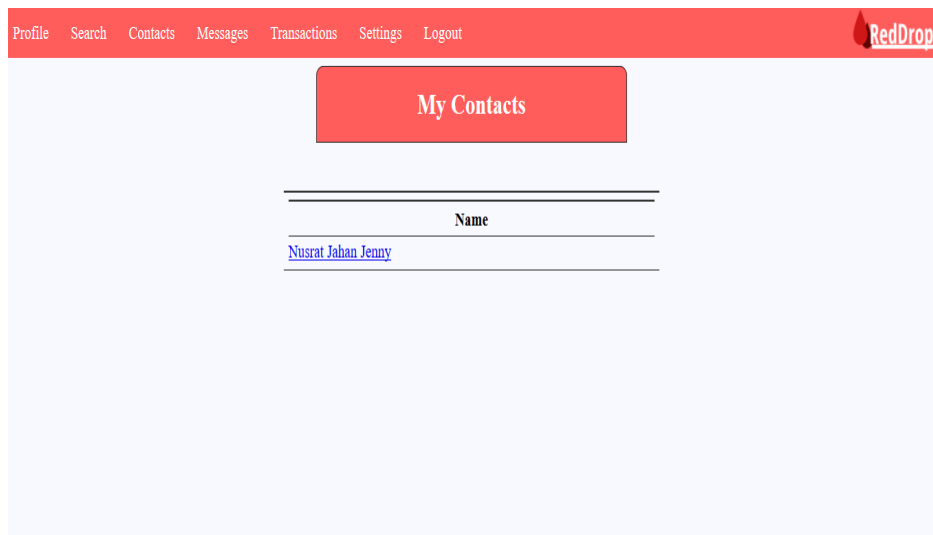


Figure 18: Contact List

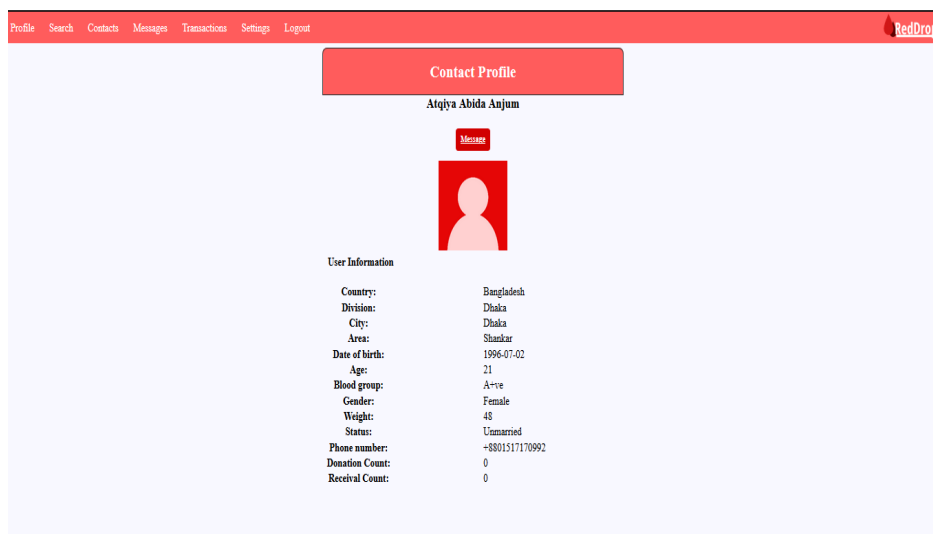


Figure 19: View other profile with connection

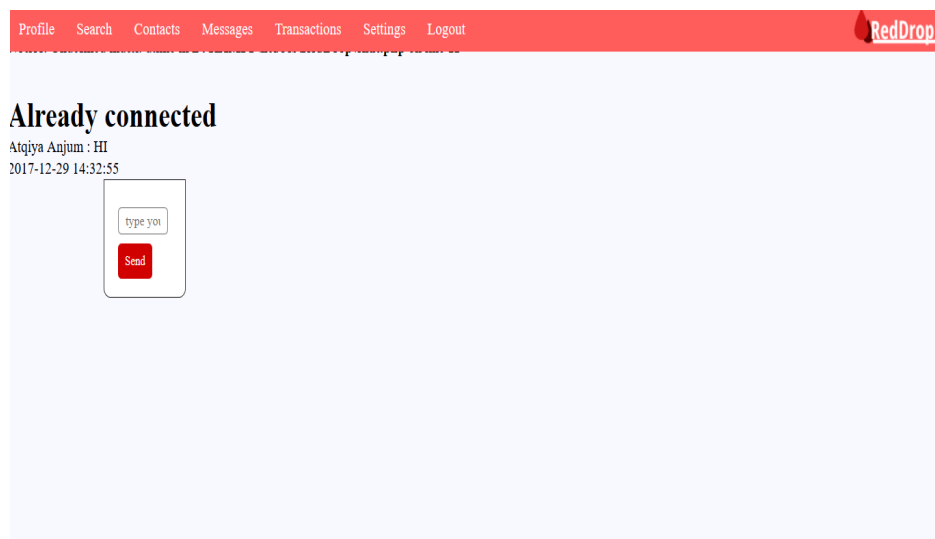


Figure 20: Chat with connected people

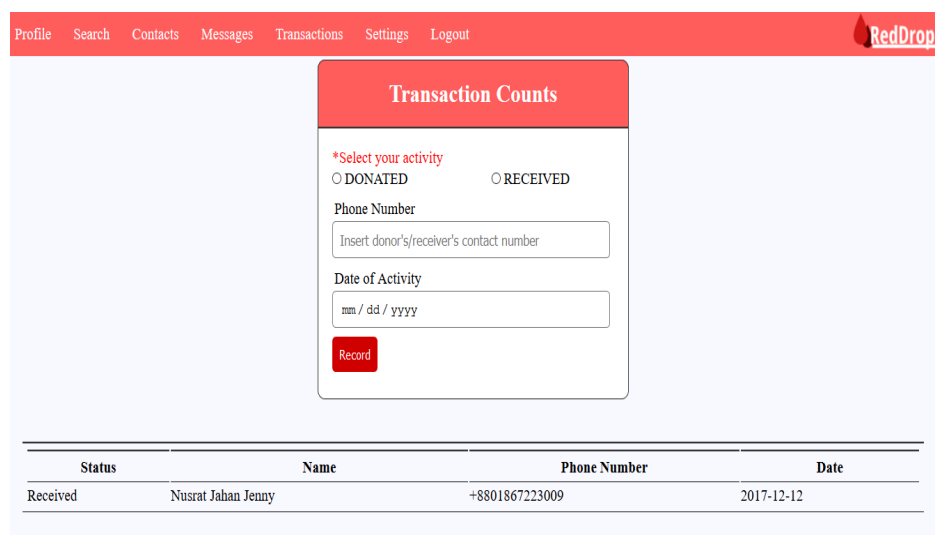


Figure 21: Transaction Record

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. Designing 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 design 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>
- https://www.w3schools.com/css/css_navbar.asp
- https://www.w3schools.com/howto/howto_js_alert.asp
- https://www.youtube.com/watch?v=Ipa9xAs_nTg
- https://www.w3schools.com/howto/howto_css_animated_search.asp
- <https://www.freelogodesign.org/index.html>