MIST BLOOD BANK APPLICATION

Introduction:

Looking for the perfect blood donor with matching blood group becomes a very dreadful

task in the very last moment. For that reason many Blood Bank Applications have made.

Some are very efficient, some are not. The aim of these apps is that they will give the suffered people looking for blood access to all the available donors nearby. They also allow

willing volunteers to register for donor ship so that people can find them easily when in

need. Save time, save your close ones.

**Various Blood Bank Applications:** 

There are many blood bank applications all over the world. They are made to help the man

kind in time of need. The information of some blood bank applications is given below.

1. Blood Bank:

Name: Blood Bank

Created By: B Crop Medical

Rating: 5

Blood Bank - Donate blood save Life. Thais App helps you to find peoples donating blood in

your area. People can contact them through phone number or email address.

One can see the location of user in map and if register thyself with App one can get push

notification in case your blood group matches with the need of blood.

**Blood Bank Features:** 

1. Donate blood on 1 click.

2. Find state, city and blood group wise blood.

3. Directly call or message to blood donor.

This App also has a very good interface. This is very user friendly also.

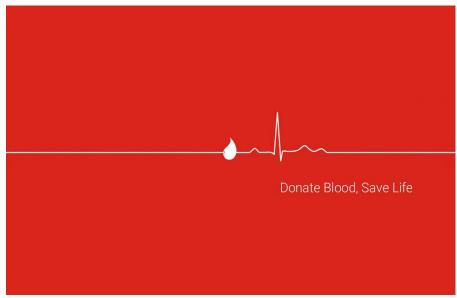
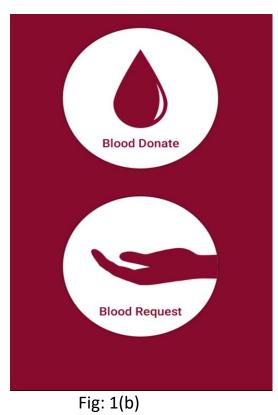


Fig: 1(a)



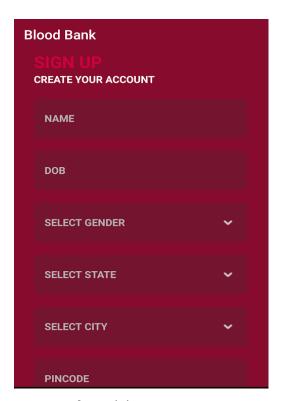


fig: 1(c)

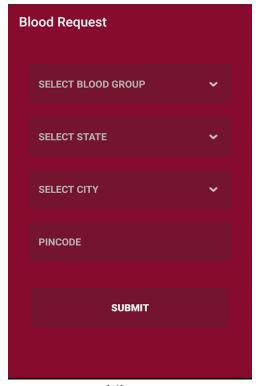


Fig: 1(d)



Fig: 1(e)

Fig: 1(a): Home page

Fig: 1(b): Page for select a category –blood donate, blood request

Fig: 1(c): Registration form page to be a donor

Fig: 1(d): Blood request page

Fig: 1(e): Donor list page

## 2. DYFI Manusham:

Name: DYFI Manusham

Created By: Sreejesh Pillai Medical

Rating: 4.9

Manusham is an application to search for blood donors in the Thiruvananthapuram district. The application has more than 10,000 donors. The application is developed such a way that the users can find the donors near their current location and can call them.



Fig: 2(a)

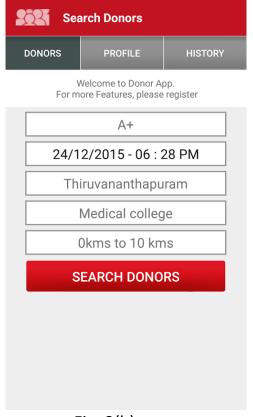


Fig: 2(b)



Fig: 2(c)

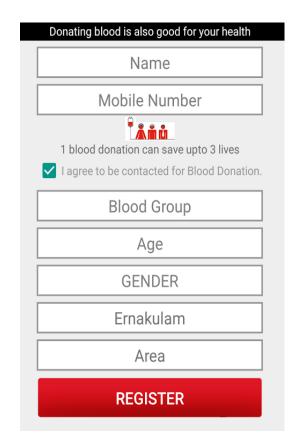


Fig: 2(d)

Fig: 2(a): App home page

Fig: 2(b): Donor search page

Fig: 2(c): Donor list for specific blood group page

Fig: 2(d): Donor registration page

### 3. Blood For Sure:

Name: Blood For Sure

Created By: Arera Technologies Pvt Ltd Health & Fitness

Rating: 4.6

Blood For sure is the cloud based Medical emergency response network, which assist people during their medical emergencies by connecting to the nearest emergency responder (First aid, ambulance, hospital, blood bank, blood donor etc.)According to WHO estimate, more people die due to lack of timely emergency care than AIDS,TB and malaria combined. Over 6 billion people lack access to reliable emergency response during medical emergencies, and

the people who get the response need to deal with delay and unusual costing. During emergency every single second plays a very important role a delay in any of the emergency response could lead to the death. To address this global issue blood for sure has taken an initiation to build the world most reliable emergency response network and make it accessible to everyone, everywhere and every time.

Application is built with some of the finest features to assist people during medical emergencies and few features to encourage volunteer activity and help saving people life. In addition to adding lot of features and functionalities at most care is taken to make is user friendly, quick, light and secure.

- 1. First aid: This is the first aid assistance tool, which have step by step first aid tips for over 42 different emergency situations. This feature will work even if there is no internet connection.
- 2. Find ambulance: This feature assist people to find out the nearest ambulance during emergencies.
- 3. Find blood: This feature assist people to find the nearest blood bank, blood donor during emergencies.
- 4. Health tools: It has got over 8 health tools like BMI, Heart rate calculator etc.



Fig: 3(a)

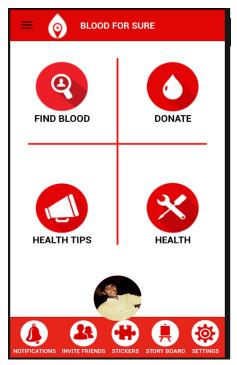
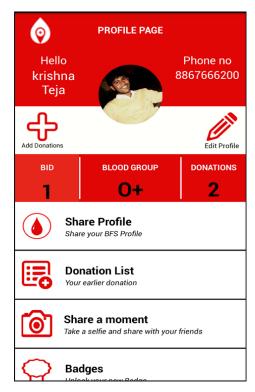


Fig: 3(b)





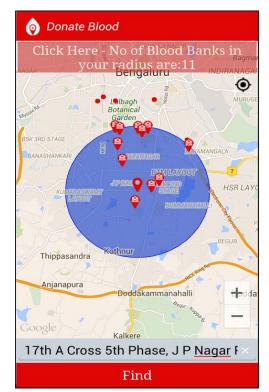


Fig: 3(d)

Fig: 3(a): Home page

Fig: 3(b): Option selection page

Fig: 3(c): Donor profile page

Fig: 3(d): Donor location shown by map

## 4. BloodConnect:

Name: Bloodconnect

Created By: Blood Connect Medical

Rating: 4.6

BloodConnect is your very own completely free end-to-end blood donation solution that connects blood donors and recipients in a way like never before. It is a self-serving platform created to assist people in donating and receiving blood in their need of hour. Not only this, with BloodConnect, you can easily track blood donation camps and other exciting events happening across the country throughout the year, and attend the ones near you. The

working of the app is both novel and simplistic. Once the user posts a request for blood on BloodConnect, the request is immediately forwarded to matching donors nearby. The donors are comprehensively decided in real-time by taking into account the distance between the hospital and the latest GPS location of the donors. A notification is then displayed on the potential donor's mobile phone to which he can instantly respond. Once the request has been accepted, the requester is notified with the donor's details and the contact details of both the donor and the recipient are shared with each other to facilitate coordination.

Every request stays on-line for a week, beyond which the user can extend it for another week or delete it if the requirement has been fulfilled. Further, it is easy to view a complete list of all the donors in the user's vicinity to request them directly for blood.

BloodConnect goes a notch further and enables you to attend blood donation events in your area as well. Registering for these events, be it as audience, participants or volunteers, is now just a click away. Simply access an event in the time slot of your preference and then use the navigation feature to reach the venue or call the organizers for further assistance. BloodConnect is an app that provides you with complete peace of mind for the most crucial resource on the planet. The people who share your dream of a world without blood shortage, are now just the touch of a button away.

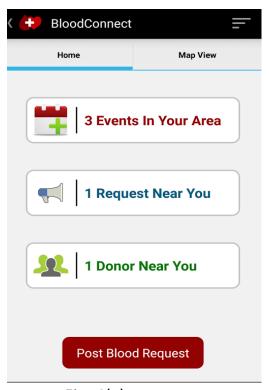


Fig: 4(a)

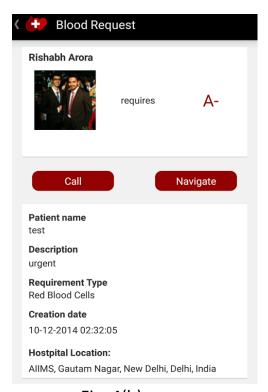


Fig: 4(b)

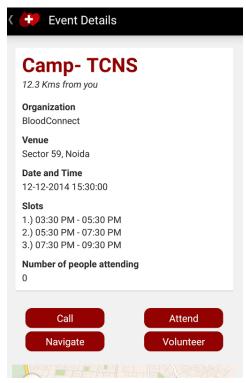


Fig: 4(c)

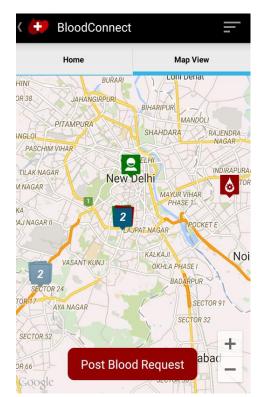


Fig: 4(d)

Fig: 4(a): Home page

Fig: 4(b): Donor request

Fig: 4(c): Event detail page

Fig: 4(d): Donor location shown by map

## 5. Indian Blood Donor:

Name: Indian Blood Donor

Created By: Indian Blood Donors Health & Fitness

Rating: 4.4

**Indianblooddonors.com** is an IVRS and Mobile App helpline which connects needy patients with blood donors in India. So if anyone needs blood, it's a good place to turn to. It's simple. It's effective. It's Free. User can also Sign up as a blood Donor and help build a Community that cares. It has a beautiful interface.

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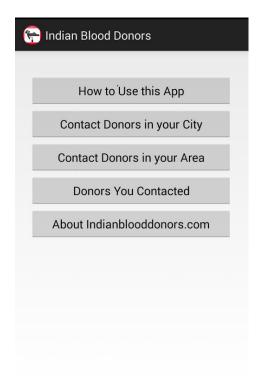




Fig: 5(a) Fig: 5(b)

Fig: 5(a): Option selection page

Fig: 5(b): Donor profile where they use a code instead of name.

### 6. Blood Hero:

Name: Blood Hero

Created By: Creative IT Limited Health & Fitness

Rating: 4.4

This app is built to help a blood needed person to find a blood donor of a specific blood group based on a geographic location.

Receiver can choose a location where he needs a donor. He can see some public information of the donor and can call or send SMS to contact him. On the other hand anyone can be a donor if he/she is illegible to donate blood. For safety, donor can keep his/her phone number private, in this case the number will not be visible to the receiver but till he can contact. Both, donor and receiver can submit complain to the authority if needed. Any user need to be registered first to prevent any kind of unwanted situation.

#### Use of Blood Hero:

- 1. User has to SIGN UP first on the BLOOD HERO.
- 2. After completing the sign up procedure user will get his password (changeable) through his email address.
- 3. Using his password user can login to the apps.
- 4. After login user can be registrar as a donor.
- 5. Each and every user can search for the donor of several Blood Group.
- 6. The apps will show the donor by the basis of your location.
- 7. For that you will get a list of your nearest donor.
- 8. You can also search the donor by basis of your selected location.
- 9. You can create your friends and family list in the apps.
- 10. The receiver can send SMS through the apps to each and every donor from receiver searched list.
- 11. The receiver can also make call to these donor whose number will be public.
- 12. The Blood Hero authority will make sure that some of our user will be verified and some are not.
- 13. For each verified user WE (Blood Hero Authority) will take responsibilities in case of any kind unwanted situation.
- 14. Any user can update his some information (as it changed) from the settings option.
- 15. You can share the best story of your life as it can inspired people to donate blood and we can save more life.
- 16. User can registrar more people as donor.
- 17. By that kind of contribution we will declare some best contributor per month publicly through the apps and our web site.
- 18. User also be informed about the events of blood through the apps.
- 19. User also can find the blood bank numbers.







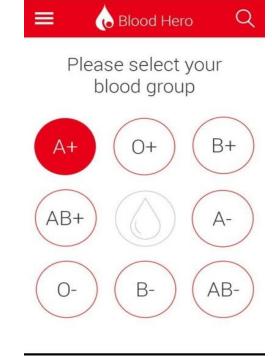


Fig: 6(c) Fig: 6(d)



Fig: 6(e)

Fig: 6(a): Home page

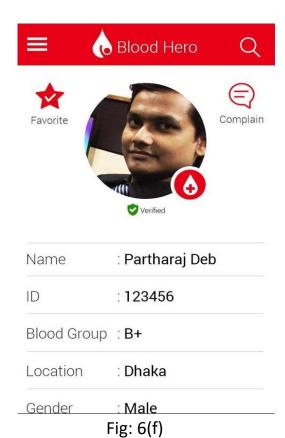
Fig: 6(b): Log in page

Fig: 6(c): Option selection page

Fig: 6(d): Blood group option selection

Fig: 6(e): Donor list for specific blood group

Fig: 6(f): Donor profile



## 7. Blood Donor Finder:

Name: Blood Donor Finder

Created By: Neologix Health & Fitness

Rating: 4.3

This is a free application that helps users in need for blood to find nearest donors. Blood Donor Finder is intended to gather the biggest database possible of blood donors in the world. This application is a blood bank in your hand where you can save lives.



Fig: 7(a) Fig: 7(b)

< Request Blood				
Name				
Location				
Contact Number				
Blood Group				
Number Of Units				
Blood Required Date				
03/02/2015				
All Fields Required  Request				
Save a life Give Blood				
Fig: 7(c)				

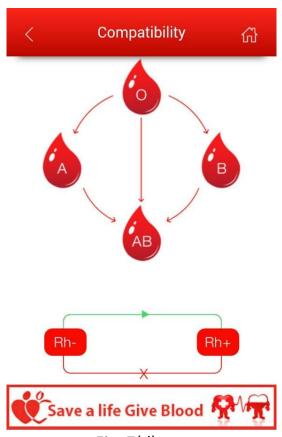


Fig: 7(d)

Fig: 7(a): Home page

Fig: 7(b): Option selection page

Fig: 7(c): Request for blood

Fig: 7(d): Compatibility-which gives a little knowledge about which type of blood can be given to whom.

# 8. Blood Bank:

Name: Blood Bank

Created By: Mobile Web Pixels Medical

Rating: 4.2

Blood Bank - Give blood save Life. App helps you to find peoples donating blood in your area. You can contact them through phone number or email address.

You can see the location of user in map and if register yourself with App you can get push notification in case your blood group matches with the need of blood. You can find nearby Hospitals and access them

### Features:

- 1. Find donor with your specific blood group and with your respective states and cities.
- 2. Send notification will help you know who all are having the same blood group in your local area.
- 3. Find nearby Hospitals in Maps
- 4. Provided helpline numbers in case of emergency.

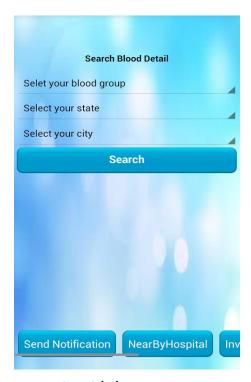


Fig: 8(a)

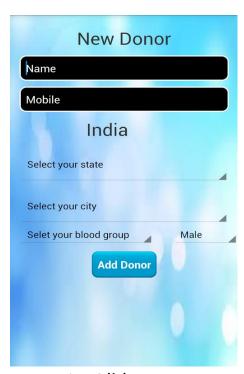


Fig: 8(b)

Fig: 8(a): Search for Blood details

Fig: 8(b): Donor registration page

### 9. Blood Donor:

Name: Blood Donor

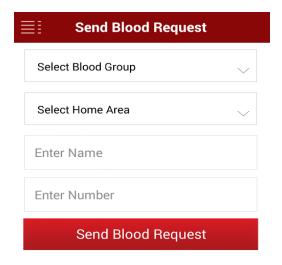
Created By: American Red Cross Medical

Rating: 4.1

The American Red Cross Blood Donor App puts the power to save lives in the palm of your hand. Donating blood and platelets is easier than ever. Find nearby Red Cross blood drives, schedule appointments, earn rewards from premier retailers, and follow your blood's journey from donation through delivery (when possible), and create or join a lifesaving team and track its impact on a national leaderboard.

#### Features:

- 1. Convenient, easy appointment scheduling and rescheduling
- 2. Receive appointment reminders
- 3. View donation history to see how many lives you've helped save
- 4. Get geo-targeted blood shortage alerts let you know if your blood type is needed in your area
- 5. Claim rewards from participating retailers for your donation efforts
- 6. Track your blood via Blood Journey and get notified when your blood has reached a hospital (when available)
- 7. Join or create a lifesaving team based around your favorite organization (school, business, sports team, etc.) or create your own, recruit others and view rankings on a national scoreboard.
- 8. Earn unique badges to proudly share your achievements via social media, text, or email whether you're a first-timer or a gallon donor.



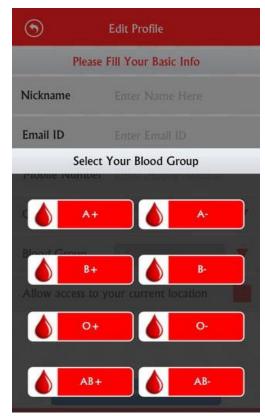


Fig: 9(b)

Fig: 9(a)

Fig: 9(a): Request for blood

Fig: 9(b): profile editing

### 10. GiveBlood:

Name: GiveBlood

Created By: Canadian Blood Services Medical

Rating: 4

GiveBlood is the Canadian Blood Services mobile app for Canadians looking to save lives. Quickly and easily find a clinic and book an appointment. Not only will this app automatically place a reminder in your calendar, it will track your donations each and every time, keeping your life saving gift top of mind all the time. With instant reminders, dynamic location services and embedded social networking, all you need to do is log in and find an open appointment slot. So why not save a life today? It's in you to give.

Features:

- 1. Search for donation clinics near you
- 2. Use your current location to map local clinics, and view their services and amenities
- 3. View available time slots
- 4. Book, view or cancel a donation appointment
- 5. Add appointments and reminders to your calendar
- 6. Easily sign-up or sign-in to access your account information
- 7. View and modify your personal details.
- 8. View your donation history.



Fig: 10(a)



Fig: 10(b)

Fig: 10(a): Sign In page

Fig: 10(b): Donor registration form

# **Various Blood Bank Applications in BANLADESH:**

There are many similar blood bank apps in Bangladesh. Some of them are user friendly and helpful but many of them are not. Some apps information is given below.

## 1. Blood Donor Finder:

Name: Blood Donor Finder

Created By: DreamOgrammerS Health & Fitness

Rating: 4.8

Till now, this app is only for Bangladesh.

In this app, you have to create an account and the User name is unique and unchangeable. Internet has to available to use this app. In this update there are three features.

- 1. Profile: Donor can check their details. They can edit your information except User Name and some information.
- 2. Donor List: User can check the list of all donors. They can Sort them by User ID, Blood Group, Place. Press any donor to check his/her profile. They can call or SMS him/her if he/she is available to donate blood.
- 3. Donor Filter: One can filter donor by Blood Group and Place.
- 4. Blood Bank: In our country, there are many Hospitals, NGOs and Groups are working on it. So we have shared the addresses of these Blood Banks.
- 05. Blood Types: About the Blood Groups.



Fig: 1(a)



Fig: 1(c)



Fig: 1(b)

Sunnat 💉					
Mohi Us Sunnat					
6-8-1992	175 cm		8-1992 175 cm		70 kg
22 years	Male		O +ve		
Sometimes (twice in a year)					
Non-Smoke	r	Non-Drinker			
Non-Drug Addic	tions	No Major Diseases			
suncha629@gmail.com					
01717047327					
Dhaka					
Donate 0 time	es es		Last Time:		
Today I have donated Blood !!!					

Fig: 1(d)



Fig: 1(e)

Fig: 1(a): Home page

Fig: 1(b): Sign In page

Fig: 1(c): List of Blood Banks

Fig: 1(d): Donor profile

Fig: 1(e): Donor list

# 2. | | | | | | | | | | | | (Blood group):

Name: | | | | | | | | | | (Blood group)

Created By: Diziito Health & Fitness

Rating: 4.1

The app provides knowledge about blood group in Bengali language. It contains:

- 1. What will be your children's probable blood group.
- 2. From which group you can receive your blood

- 3. To which group you can donate your blood
- 4. Some important facts about blood group
- 5. Address of local and major Blood bank, hospital of Bangladesh.



Fig: 2(a)

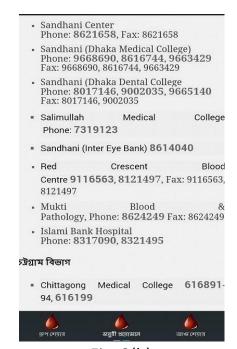


Fig: 2(b)

Fig: 2(a): Blood Group List

Fig: 2(b): Blood bank list with contact number

Fig: 2(c): Information page

## **Our Blood Bank Application:**

# MIST BLOOD BANK APPLICATION

### Introduction:

A life may depend on a gesture from you, a bottle of blood. A blood bank is a cache or a bank of blood or blood components, gathered as a result of blood donation or collection, stored and preserved for later use in blood transfusion. The blood bank application is a platform where user can find out the required type of blood in the shortest possible time.

# **Objective:**

- 1. The blood bank application's purpose is to meet the challenging requirement of modern day blood to efficiently collect blood during emergency.
- 2. It aims at bringing the donor under one roof so that user can find them easily without any waste of time.
- 3. User can also get informed about the availability of stored blood and blood components in various hospitals.
- 4. Users can get information about donors and the hospitals located nearby their location and can contact them by the numbers provided in the application.

### **Features:**

The blood bank application has some features. They are given below:

### Homepage:

This application will have a home page. User can see options on the homepage. The following options will be shown on the home page.



## 1. Search Option:

There will be a search option in case of searching the types of blood and also for the availability of blood in various hospitals. User also can search for donors.

### 2. How to become a donor:

There will be a donor registration form. If anyone wants to be a donor he/she has to fill up and submit the form. The registration will contain the following things.

NAME :

AGE :

BLOOD GROUP :

GENDER :

Email ID :

NATION ID NUMBER:

CONTACT NUMBER :

ADDRESS :

AREA :

USER NAME :

PASSWORD :

### 3. Donor List:

There will be a list of registered donors. Users can see the donors name, blood group, contact number, email id and area.

### 4. Blood available in the hospitals:

Users can see the availability of different types of blood in various hospitals.

#### 5. About Us:

There will be some information about the application. Some information will be provided to help the users of using the application.

# Admin login page:

There will be admin login page with user name and password.

## Admin home page:

When an admin logs in there will be an admin home page. Admin has the right to access all the information of the donors and the hospitals.

# **Donor login page:**

On the donor admin page there will be username and password options.

## Donor home page:

There will be a donor home page. Donors can only update their information.

# **Our Proposed UI:**



Fig 1: Welcome Page



Fig 2: Home Page

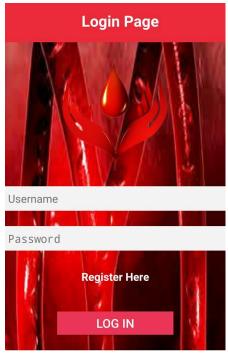


Fig 3: Login Page



Fig 4: Registration Form

# **Our Final App:**

We worked on this project for past some weeks. Now we are successful to establish our dream app. We worked so hard to make this app as useful one to the blood needed people.

 We have added a welcome page for our users and as well as for those people who will use this app for the first time.



Fig 1: Welcome Page

• Then we made a page for the required fields that a user needs. Here we put options of Donor, Hospital list, About Us, Contact Us.

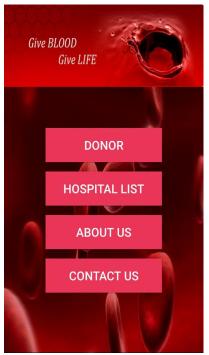


Fig 2: Home Page

 After that we made a registration form page and login page for the user. To use our app they have to be our member. To be our registered donor a person has to fill up the registration form.



Fig 3: Login Page



Fig 4: Registration Form

• Then we customized the app it this way that when a user search for a donor he/she needs to click the NEED A DONOR button. Then we made a registered donor and search page. A user can search for a donor area wise and blood group wise.



Fig 5: Need A Donor Page



Fig 6: Search Options



Fig 7: Search By Area

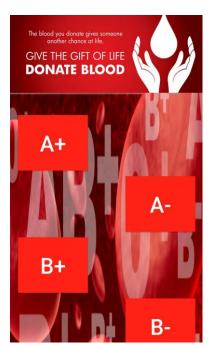


Fig 8: Search By Blood Group

- We have a database. Donors who filled up the registration form, their information
  will store in the database. We have free hosting. So the database for the app and for
  the web is same.
- We also added the direct call system. User can direct call the required donor through our app. All the numbers of the donors' are saved in the database.

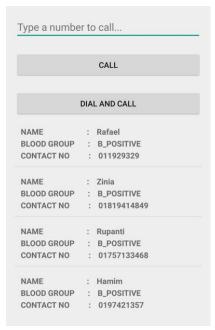


Fig 9: Direct Call Option

 We also provide the Google map. User can see all the donors around his/ her location.

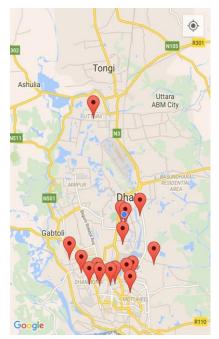


Fig 10: Map – Showing the Nearest Donors

• We also added hospital list. So the user will find the hospital address easily. They can also see the location of the hospital through the map. User can also direct call to the hospital through this app.



Fig 11: Hospital list

User can contact us. In any emergency they can call us or can email us. They can
direct email us.



Fig 12: Call to Admin



Fig 13: Email Us

# **Working Procedure of This App:**



### **Our Final Web:**

• We made a home page consists of information of our website.



Fig 1: Web Home Page

 After that we made a registration form page and login page for the user. To use our app and website they have to be our member. To be our registered donor a person has to fill up the registration form.



Fig 2: Registration Form

• User can find the registered donor list. But first they have to log in. They can also search for donor area wise and blood group wise.

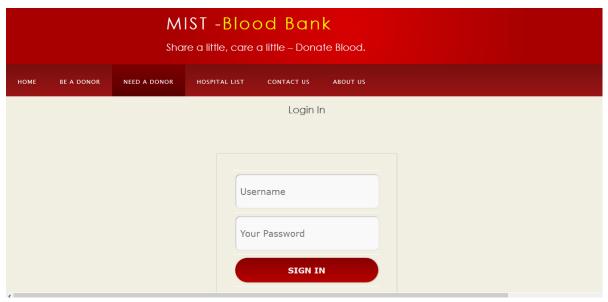


Fig 3: Login Page



Fig 4: Registered Donors

• We also added hospital list. So the user will find the hospital address easily. They can also see the location of the hospital through the map.



Fig 5: Hospital List

• User can contact us. In any emergency they can email us.



Fig 6: Contact Us

## **Working Procedure of This Web:**



## **Tools:**

- HTML: We developed our web page with the help of HTML (Hypertext Markup Language).
- CSS: Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in markup language
- PHP: PHP is a general purpose scripting language that is specially suited to web development. We used it for our back-end.
- ANDROID STUDIO: Android studio is the official integrated development environment for android platform development. We used it for our app development.

### **Future Expansion:**

- After every 3 months eligible blood donors will receive notification.
- Direct communication between users and donors will be established through email.
- Activate and deactivate button will be added.
- Feature of finding out the nearest ambulance during emergencies will be added.
- We will expand it throughout the whole country.

### **Conclusion:**

The conclusion is that the system which will help in better interaction between the blood receivers and the blood donors and also with the hospitals that store blood. This application will encourage donors to donate blood. Blood donation is our human duty. Our body does not get affected if we donate blood. The body can repair the loss within a few days. So we must come forward to donate blood as it can make sure the return of a dying man again into the light of life.

## **Supervisors:**

We are grateful to our respected teachers for giving us their logistical support and providing necessary guidance concerning projects implementation.

#### • Dr. Khondaker Abdullah Al Mamun

Associate Professor, Computer Science & Engineering Department, UIU.

### • Lt Commander S M Anisur Rahman

Assistant Professor, Faculty of Electrical & Computer Engineering, MIST.

### Sanjida Nasreen Tumpa

Lecturer, Faculty of Electrical & Computer Engineering, MIST.

### Rubyeat Islam

Lecturer, Faculty of Electrical & Computer Engineering, MIST.

### **References:**

- 1. <a href="http://www.redcross.org/m/mobile-apps/eula">http://www.redcross.org/m/mobile-apps/eula</a>
- 2. <a href="http://www.badhan.org">http://www.badhan.org</a>
- 3. http://www.centralbloodbank.org