

# **RED DROP – BLOOD DONOR FINDER**

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This Report Presented in Partial Fulfillment of the Requirements for the  
Degree of Bachelor of Science in Computer Science and Engineering

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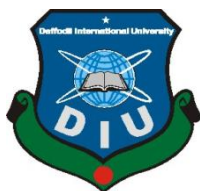
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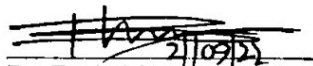


**DAFFODIL INTERNATIONAL UNIVERSITY**  
**DHAKA, BANGLADESH**  
**SEPTEMBER 2022**

## APPROVAL

This Project titled “Red Drop: A smart Approach for Blood Donation”, submitted by Md. Nadim Hasan Tushar, ID No: 183-15-11887 and Riazul Islam, ID No- 183-15-11909 to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 13 August, 2022.

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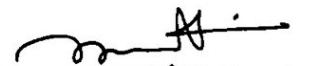


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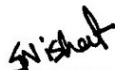
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## DECLARATION

We hereby declare that this project has been done by us under the supervision of **Nishat Sultana, Lecturer, Department of CSE** and co-supervision of **Mr. Abdus Sattar, Assistant Professor, Department of CSE, Daffodil International University**. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.


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## **ABSTRACT**

Blood is fundamental for our life. All ongoing lives can be saved by blood in a crisis. A blood donation center's obligations incorporate gathering blood from different givers, monitoring the blood classifications data set, and conveying the fundamental blood when it's expected to medical clinics in the event of crises. The issue lies with tracking down a reliable contributor at the right time, not the absence of givers. To help each other in the midst of hardship, we wish to make an organization of individuals. The head approaches all of the data about the blood donation center administration framework, and this application quickly refreshes the data with respect to contributors. Contributors will be approached to present a giver's data, including name, telephone number, and blood classification. At the point when you really want blood immediately, you can quickly look for blood donation centers or emergency clinics that match a fundamental or pertinent blood gathering and get in touch with them through the application. An application for blood donation centers gives a rundown of blood donation centers close by. The utilization of an Android application attracts a lot of blood givers. Essentially everybody conveys a cell phone with them; this considers moment correspondence and area following. Just the individuals who have enlisted and are anxious to give blood will approach the program. We are using GPS innovation in our application to follow the course to the blood donation center. Time can be saved in light of the fact that the client will not need to ask physically for the course to the ideal area.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

Life is impossible without blood. Our blood circulates throughout our body, supplying the cells with nutrients and oxygen that are necessary for life. Additionally, it moves metabolic waste out of those cells. Blood cannot be substituted. In the pandemic time, our medical system became very weak. In this modern era, we need a modern solution. Nowadays people have smartphones. 98% of people have phones in our country. And 80% of people are smartphone users. If we count 80% as 100%, in this 100% of the people 80% people use android phones. These days, we use mobile applications on a regular basis. Numerous features have been added to the field of mobile computing as a result of the revolution. At the point when somebody willfully has their blood drawn, they are making a blood gift. Entire blood or concentrated parts might be straightforwardly given. Blood donation centers as often as possible partake in both the cycles that previously followed blood assortment. Most blood givers these days in the industrialized world are neglected workers who give blood for a gathering supply. Benefactors commonly give blood when family or companions require a bonding since blood supplies are scant in immature countries. Blood can likewise be taken from givers for sometime in the future. Nowadays, we utilize versatile put together applications with respect to a regular schedule. Various elements have been added to the field of versatile figuring because of the unrest. This Android app was created to help you quickly find blood donors nearby in an emergency. So that we can spread the availability of blood and also people can get their medical care. By this, we can also reduce the traveling time. And those patients who are not able to find their needed blood can find it very easily. We can build a modern and affordable health care system with this application. We are living in a developing country. Everything is converted to an android based application. In this era, collecting blood is very hard. Individuals lose their lives every year because of hazardous blood deficiencies. Blood is fundamental for patients with various problems and wounds. Patients with malignant growth, sickle cell illness, and thalassemia specifically require routine blood bondings. Blood that has been gathered or safeguarded should be utilized inside a specific measure of time. In any case, blood that has been taken or put away is futile. That's why we wish to develop a blood donation

application. The framework is planned and created keeping in view that it ought to be user friendly, Searching ought to be basic, and it ought to have the high-grade and light presentation and client ease is given to the client. The Interface of the framework is created remembering that it ought to be gorgeous, interesting, from the start, simple to comprehend and clear as crystal. In these circumstances, we analyze some problems and try to make a solution to get rid of the problem.

### **1.2 Motivation:**

We have seen how hard it is to find a blood donor and how much time it takes. When we had to find blood donor for our patient, we found it very difficult to find a blood donor, we could find a blood donor but the location was far away, we couldn't find one around us, So we wanted to create an application that would find a blood donor around the user and in a very short time.

### **1.3 Objective Of Project**

We have set a few goals to accomplish our points. This will advance a lot more straightforwardly. Objective is pointed beneath.

- To be able to achieve a sustainable and continuous supply of blood.
- To cultivate a caring attitude towards communities that need a blood donor.
- We will try to collaborate with blood banks so people can find blood, if someone can't find the appropriate blood donor.
- To create awareness towards people of the importance of blood donation.
- To allow the probable recipients to search and match voluntary donors make requests for the blood.

### **1.4 Expected Outcome**

We are hoping to offer this assistance all around the country. Ideally, it will function admirably.

1. An easy and useful android based blood donation system.
2. Provide blood at a short time.
3. Saving time and work pressure
4. Reduce the paperwork system

5. Making a swift and easy way for both blood donors and patients

### **1.5 Project Management and Finance**

In our ventures there are heaps of expenses. Like information base expense, warning expense and designer cost. In the data set segment we use Google firebase data set so it has a few distinct expenses. We can involve this data set for nothing, yet as the quantity of clients and the volume of information develops, we should update our membership. To construct this undertaking, the engineer needs a financial plan between BDT 20,000 and BDT 250,000. As well as the expense of support, not entirely settled by the designer.

### **1.6 Problem Statement**

Blood is the most crucial life-saving necessity in an emergency. Blood banks are the primary sources of blood; they collect blood from a variety of donors, keep track of the blood types used in emergencies, and make it available to hospitals as needed. The main issue that the main blood providers and the need are facing is the timely availability of donors. By doing this, we moved closer to developing an application (RED DROP) to build a community of people who can support one another.

### **1.7 Proposed System**

We are proposing an android base application which will assist patients with figuring out their required blood on time. The framework, most importantly, is a portable application local to android stage. The intercommunication of every client with the application relies upon who the end client is. By this application blood givers and patients can convey and patients can get their administrations.

### **1.8 Conclusion**

We can visualize a potential result in the event that this undertaking is in the field. Individuals can plan meetings with their blood givers. Patients who can't get the blood on time can in any case get clinical consideration. This likewise permits clients to save a very long time of time. Laying out an ideal medical services system will be conceivable.

### **1.9 Chapter's Layout**

- » Chapter 1 have illustrated an Introduction to the project with its introduction, inspiration, objectives and proposal.
- » Chapter 2 will have “Background” consisted of introduction, related work, problem, research summary and challenges.
- » Chapter 3 will have Requirement Specification.
- » Chapter 4 will have Design Specification.
- » Chapter 5 will interpret Experimental Results and performance for Application.
- » Chapter 6 will discuss about Summary and Conclusion also demonstrate the future works.

## **CHAPTER 2**

### **BACKGROUND STUDIES**

#### **2.1 Introduction**

In this section, we provide some related study and describe some Blood Donation applications in our country and also different countries.

#### **2.2 Related Work**

Many mobile applications are being created today to carry out various academic tasks. This is employed by numerous educational establishments globally. The following are some examples of outstanding contributions made to this subject:

M-Health. It is another wellbeing skyline that offers medical care conveniences utilizing organizing advancements and cell phones. In the clinical field, picking a benefactor with a similar blood classification as the beneficiary is a troublesome cycle that requires a very long time to finish. A M-Health arrangement that interfaces the requester and giver whenever and from any area is the Android-based blood gift application. [1]

An android-based device that monitors volunteer blood benefactors' data is the Android Smartphone Blood Donation application [8]. In a crisis, the solicitation can make an impression on all givers who are able to give blood, along with data from the blood donation center and facility. To keep application information open consistently and from any area, they utilized the cloud facilitating design. The best component of our accommodation is likewise a deliberate blood gift with respect to an asking candidate. The message will be shipped off all willing blood contributors. The requester can send the message to the enrolled clients alongside a crisis sign for the blood mentioned.

A geo-localized system for managing blood donors. It makes use of mobile crowdsourcing as a substitute technology. This is the process of assigning or asking a task from a large group of people. technologies that use crowdsourcing to enlist a large number of people to work on a variety of problems. Millions of users are gathered to build a product that will benefit society as a whole. A wide range of subjects can be related to crowdsourcing, which also presents some exciting technological and societal challenges [7].

There are websites for blood donation where donors' phone numbers are included, however they are unreliable because they are rarely updated. There aren't any reliable websites at the moment[5].

Blood donors are not given the proper care they need. That instance, the website does not provide the donor's medical history. A threat may result if a donor offers to donate blood to a patient who has or has had any medical issues[2].

In “Benefits of Management information system in Blood Bank”,Vikas Kulshreshtha and Dr. Sharad Maheshwari depicts the advantages of a data management architecture in blood banks. The data structure for blood bank administration is the main focus of the article. It looks at the blood bank administration data framework's recipients[10].

An information management framework is presented in "A Study on Blood Bank Management System" by A. Clemen Teena, K. Sankar, and S. Kannan. The system will let the designated blood bank officer log in using a password and efficiently manage the data on donors of blood and patients in need of blood[11].

The structure that will link all donors has been proposed by Narendra Gupta, Ramakant Gawande, and Nikhil Thengadi in "MBB: A Life-Saving Application" . The framework will provide assistance control, a benefit for blood transfusions, and create a database to store data on blood stocks in each region as well as data on donors in each city. The program will also allow users to view which patients are in need of blood supplies. They will be able to sign up as donors, and as a result, their local clients who want blood will ask them to donate when necessary[12].

They have presented a competent and reliable blood donor data and management system based on GIS coordinates in an android portable application in "The Optimization of Blood Donor Information and Management System by Technopedia" by P. Priya and V. Saranya. The benefits provided by the suggested method are valuable to and profitable for the human population.Our effort aims to provide information on the types of qualified donors in the organizations as well as the required blood. The software program updates the recipient who is inclined to donate the blood and helps the requester transmit the message within the maintained blood donation network.requested for blood simultaneously. In order to verify



our requests, we also developed request-donor profiles. reviewing them to enhance quick response times and timely access to statistics in the event of an emergency[13].

### **2.3 Comparative Analysis**

Here we've seen that most of the research papers are web based. But our project is android based. Some of them just use location . But in our project we've used the donor's live location. So that the user can track and search his/her nearby donor. Anything interesting that is our emergency system. All the app's first condition is to signup and log in but we've added a function so that if anybody needs an emergency then she/he can enter the app with the help of the emergency function. They 'll not have to log in.

### **2.4 Scope of the Problem**

Here we've seen that most of the project is based on the web . But we do our project in android based. Because we know most people use mobile phones. On the other hand, Android is more user friendly than web. In our task we utilized a firebase data set which is totally free & gives the continuous update and clients will get warning. We've seen that the mentioned works are lots of complexity and costly but our work is free. It is also a user-friendly android application.

### **2.5 Challenges**

We faced a lot of problems when we're working on our project. As we've many functions, it became a serious issue for tracking the users. As it was for mankind , we've to make it easier.

## **CHAPTER 3**

### **REQUIREMENT SPECIFICATION**

#### **3.1 Business Process Modeling**

A data flow diagram is a graphical or visual portrayal utilizing a normalized set of images and documentations to depict a business' tasks through information development. They are in many cases components of a proper philosophy like Structured Systems Analysis and Design Method. It makes it simple to portray the business necessities of utilizations by addressing the grouping of interaction steps and stream of data utilizing a graphical portrayal. There are two types of DFD models. Such as: Logical DFD and Physical DFD. Logical DFDs address legitimate data streams in somewhat unique terms. This implies that they will distinguish general cycles, frameworks and exercises however not give innovation detail. Physical DFDs show more actual data stream detail, especially subtleties of data frameworks, applications and information bases. They will likewise frequently have more components to more readily portray what data is streaming, what moves are initiated on or with the information and the assets related with those activities.

Our Application User Interface Diagram is given below:

#### **3.2 Flowchart Diagram**

Exactly when we address the central parts or components of a system by blocks related by lines is known as a flowchart. This is a diagram of a structure which is used to show the relationship of the blocks. It contains the working of the system, what are its confirmations or commitments according to the given information sources, what are the outcomes and the primary thing is how the information, disclosures or materials course through it. The block framework of our application is presenting under

This insightful activity application has a client server plan. Every one of the clients' information is kept in the Real-time informational index server. A steady informational collection server is as of now the request. This is an informational collection system which uses an outstanding strategy for dealing with the data and the remarkable way is Real-time taking care of. For this present circumstance expecting the state is constantly changing, there is no effect on database access. Anyway, information can be gotten to by clients yet before that they ought to present the application on their mobile phone.

Every client will notice an alternate UI (User Interface) contingent upon client type. That implies, every classification of client will have an alternate UI based on the approval given upon him. We've tried to make a block diagram so that you can easily understand our application.

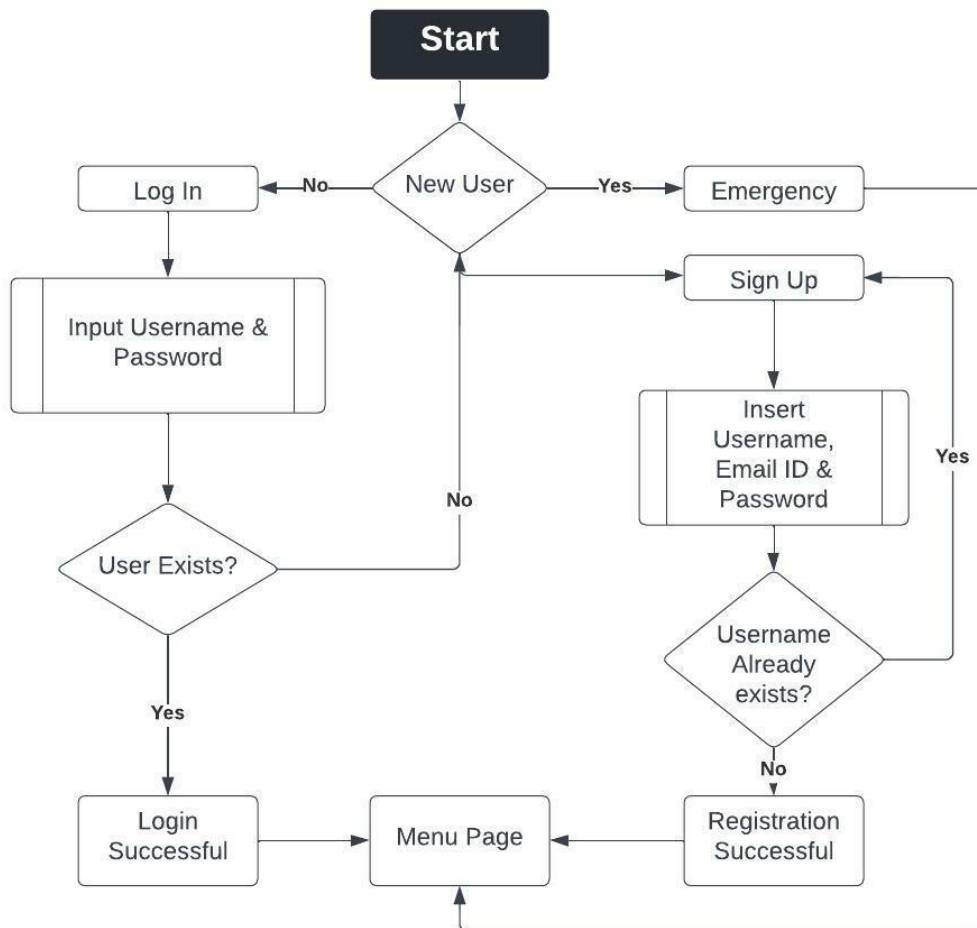


Figure 3.2.1: Flowchart Diagram

### 3.3 Requirement Collection and Analysis

Our project is an Android Based application. We've used Java to develop it. It has some requirements . Those are mentioned below:

- **Hardware Configuration**
  1. Figure 3.1.1: Data flow Diagram, A pc with internet connection.
  2. Figure 3.2.1: Block Diagram, A pc with internet connection.
  3. A Pc .
- **Software Configuration**
  1. Java
  2. Tools: Android Studio IDE( 3.0.1 version)
  3. Database: Firebase
- **Features:**
  1. Sign up function. For this the user will have to fill up the information. Such as: Email, Phone number and password registration.
  2. User can sign in
  3. Emergency option. By this option a user could enter the application without signing in.
  4. Registered users will get the hospital blood bank list.
  5. The user can search the location and also can share the live location
  6. Anybody could find a donor & also their location.
  7. Users can update their profile information.
  8. The user can be posted in the newsfeed.
  9. Will get the Emergency number list from the government.
  10. Could request for blood with the help of the request section.
  11. Log out option for users privacy

## **CHAPTER 4**

### **DESIGN SPECIFICATION**

#### **4.1 Introduction**

The most common way of characterizing, making, or carrying out a framework in view of framework examination and configuration is known as framework advancement or framework improvement. Since it is the general construction of how a framework is delivered or kept up with, it is a significant design in the field of programming improvement. Any data framework's prosperity is reliant upon each period of its turn of events.

#### **4.2 Our Proposed System**

The proposed technique is to make an android/iOS application in which the blood contributors are accessible effectively when called for investment. The contributor who registers in This application is recorded in the contributor's part in which we can channel them in light of the blood bunch type. The enrolled Recipients can ready to see the contributors list and can likewise see the closest benefactor and closest blood donation centers utilizing google maps Api. We utilized Google map Api to get the quickest close by reaction from the server. The reason for this application is to conquer the challenges looking during the accessibility of the intriguing blood gatherings. We do to save lives by fast admittance to blood-related data whenever, anyplace. Many lives are kicking the bucket because of inaccessibility of blood in the blood donation center which assists with settling the issue.

#### **4.3 Front-end Design**

Android Studio, Visual Studio, and Droid Script are only a couple of the IDEs accessible for planning Android applications. We used Android Studio for our task. Since one of the best IDEs for Android writing computer programs is Android Studio. Google made this advancement instrument, which has been adulated by portable application designers from one side of the planet to the other. The benefits of using Android Studio as an Android advancement climate are various. Front-end and back-end improvement might be finished in a liquid climate utilizing this product.

#### 4.4 Functions

There are nine functions of our system. We've tried to develop our application as much as possible. The functions are: Find Donor, Nearby, Blood Bank, News feed, Request, Profile, setting, helpline. We've also tried to add a function which is totally different from the existing app. That is Emergency function. If some user wants to search for a blood donor then he/she can enter the app without log in.

##### 4.4.1 Splash Screen and Dashboard:

This is the first screen that will be visible to the user's. By this the user will get a positive view. Then user will reach to dashboard of this application. There about eleven option for user to make their experience as useful and friendly possible.

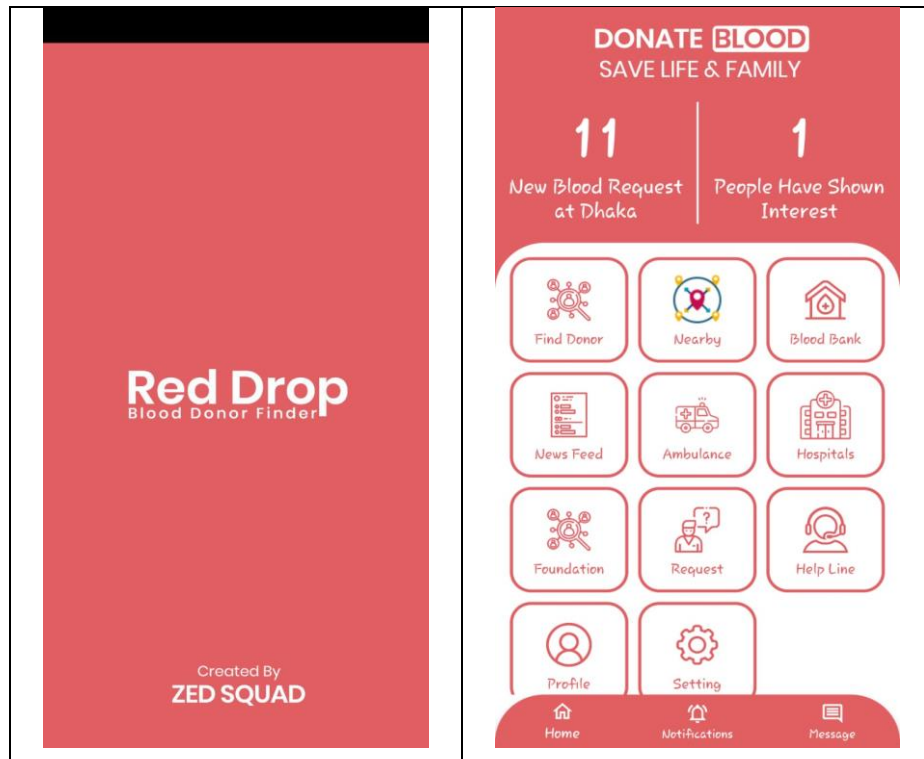


Figure 4.4.1.1: Splash Screen and Dashboard

#### 4.4.2 Log in Function

For entering the app a user must complete the signup phase. After signing up the user will have to complete the login function. By using email and password the user can enter the app. After login a user can see the home page. Also user a option of sign in with google account. And for emergency there is an emergency button. By using this button user can easily access the full application facilities without any account.

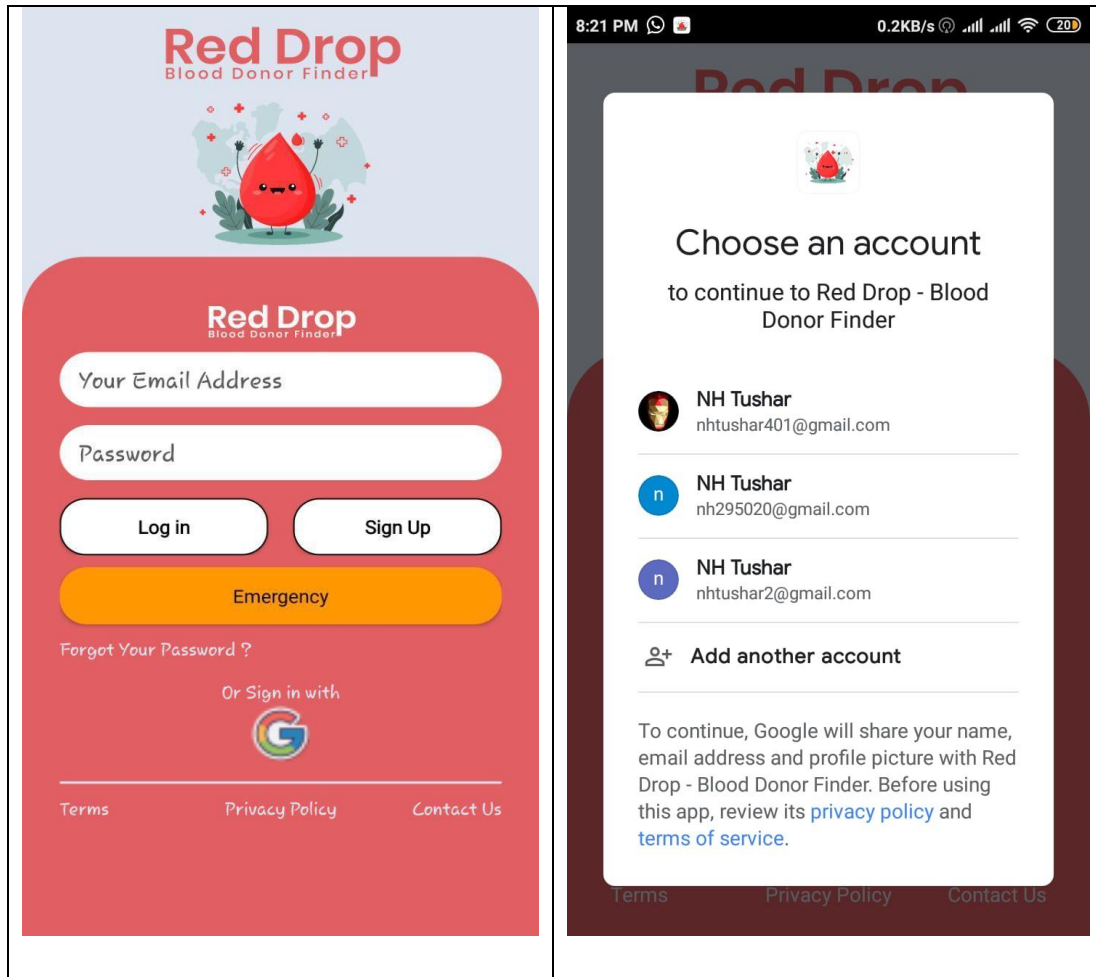


Figure: 4.4.2.1: Application Login and Sign Up Function

### 4.4.3 Donor Function:

This part is for those who are interested in giving blood . First they'll fill up the sign up part. There all information of a donor will be all inserted. If any user want to be a donor then by just clicking the Ability Yes button. They will add to Donor list as their location. Also other user can see them in map as well. After signup they'll be able to see the newsfeed layout and other functions.

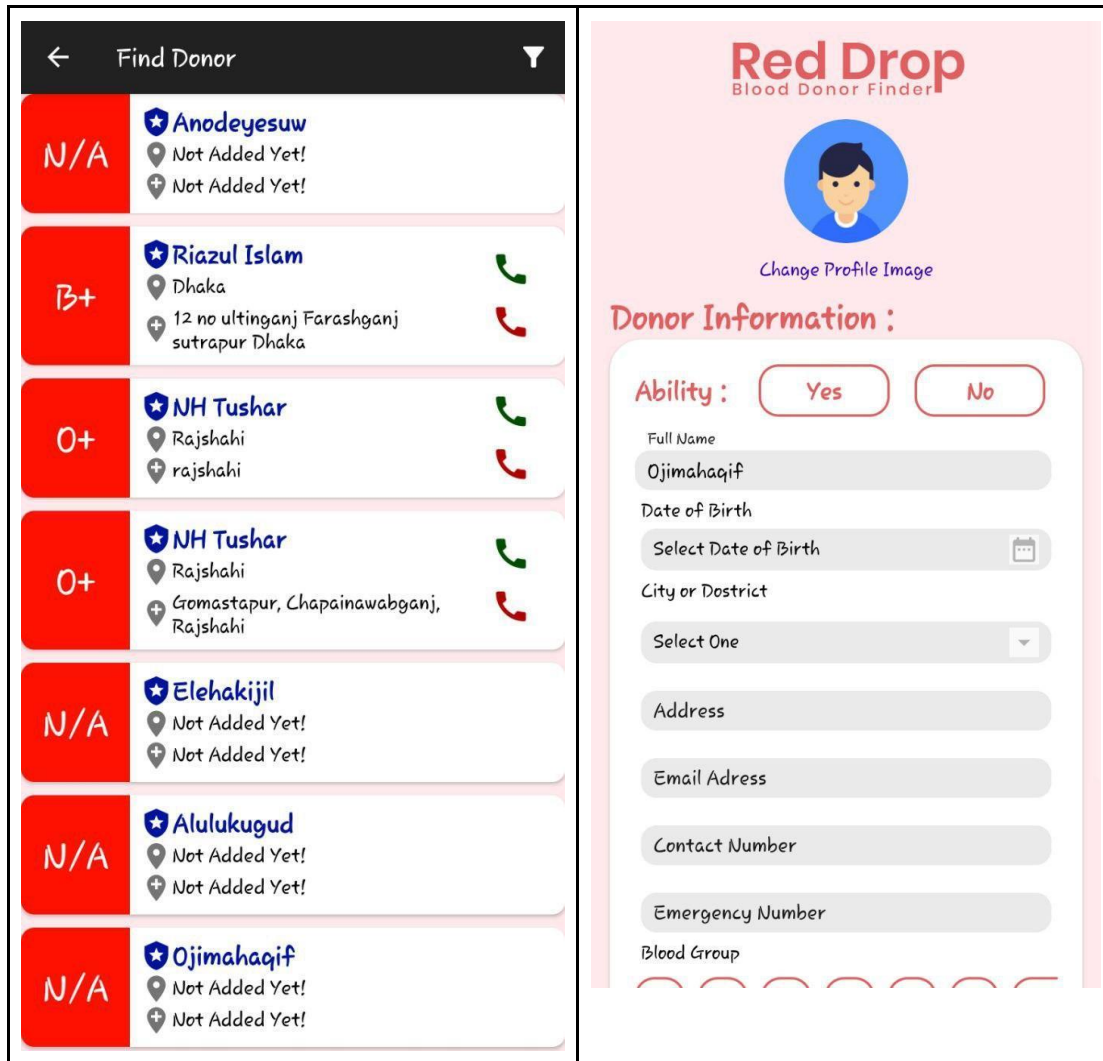


Figure 4.4.3.1: Donor Finder Function



#### 4.4.4 Nearby

As the donor adds their location. So a patient can find the nearest donor . A patient can also find the nearest blood bank by this function. By using Nearby function of this application, user can easily find donor location and other information by tap the location icon on the application. They will get the contact information and location as well. If any user want to go to the donor location by tapping the direction location in left user will get the full live direction in google map.

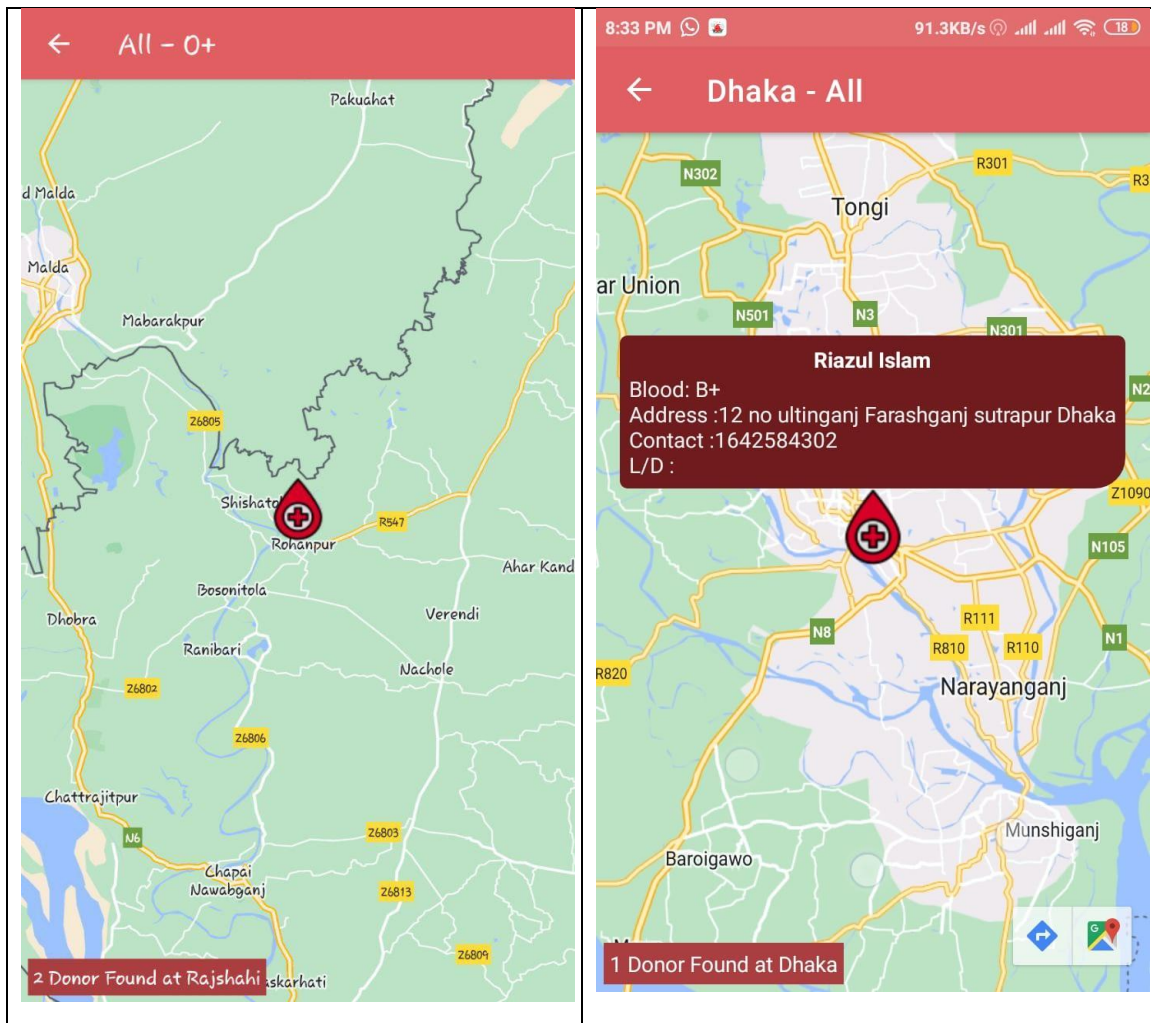


Figure 4.4.4.1 : Nearby Function

#### 4.4.5 Request Function

When user need to request post the community they will get that option in Request Option. User will get these option as like which blood group need and other option as like Name, Location, Hospital location, Contact information and photo upload option as well. If any user want to upload patient condition or hospital photo they can upload here.

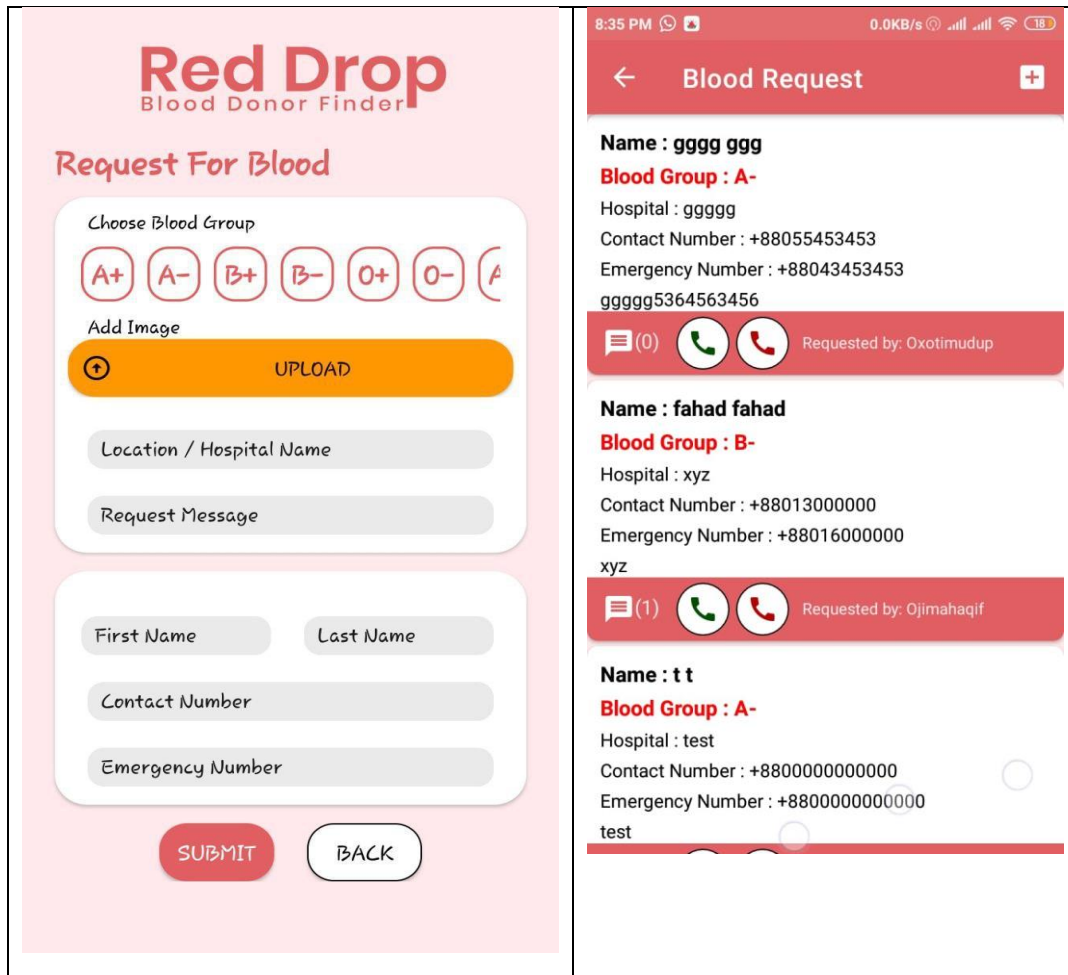


Figure 4.4.5.1: Request For Blood Function

#### 4.4.6 Newsfeed Function:

After completion of signup a donor will be able to see the newsfeed. Also if anyone want to share their patient condition or anyone want to share their feedback about

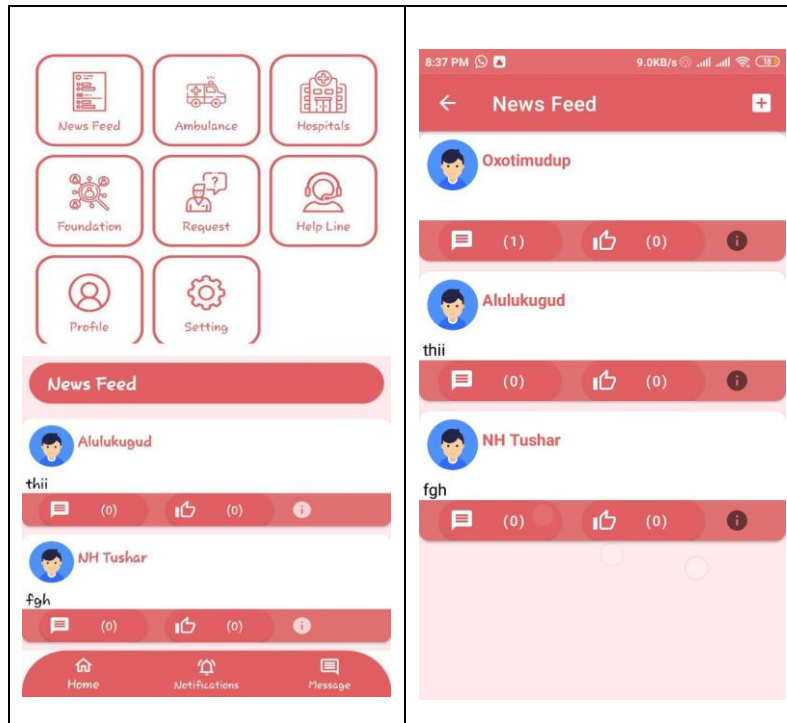


Figure 4.4.6.1: Newsfeed Function

#### 4.4.7 Helpline :

If a patient or donor wants to know something then they can ask their questions. On the other hand they can get help from the government emergency number.



Figure 4.4.7.1: Helpline function

#### 4.4.8 Chat Function:

User can directly chat with a donor and can also make a direct call. Also user can see that is donor available online or not by seeing the red or green dot. So that will help user to contact with donor. Or user can direct call the donor to contact. Message option is added for if any donor dont response so user can message to contact.

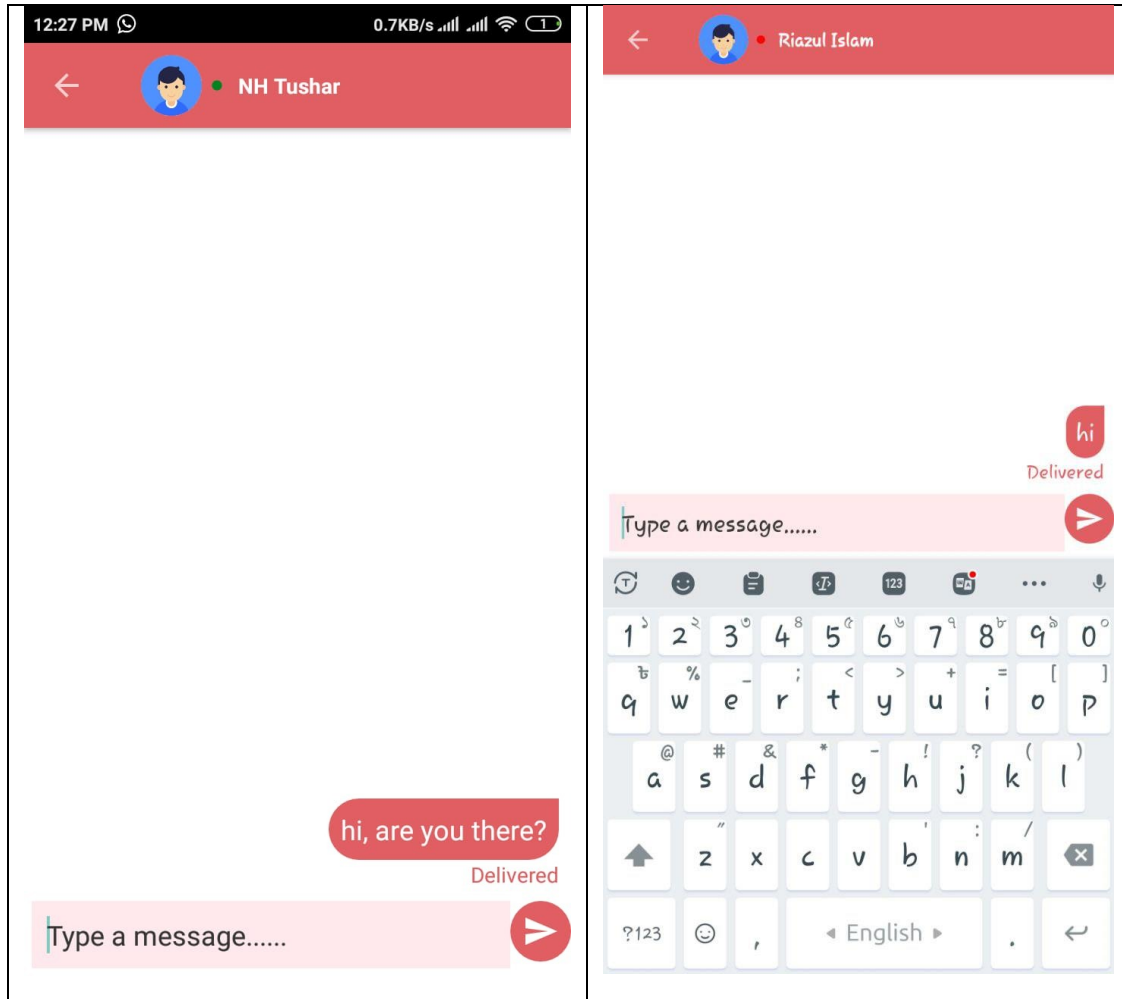


Figure 4.4.8.1 : Live Chat Function

#### 4.4.9 Find Ambulance:

For emergency we have added Ambulance function so if any user need ambulance. Then user can just select the district and user will get the ambulance agency list with contact information. That will help to find Ambulance easily in short time as well.

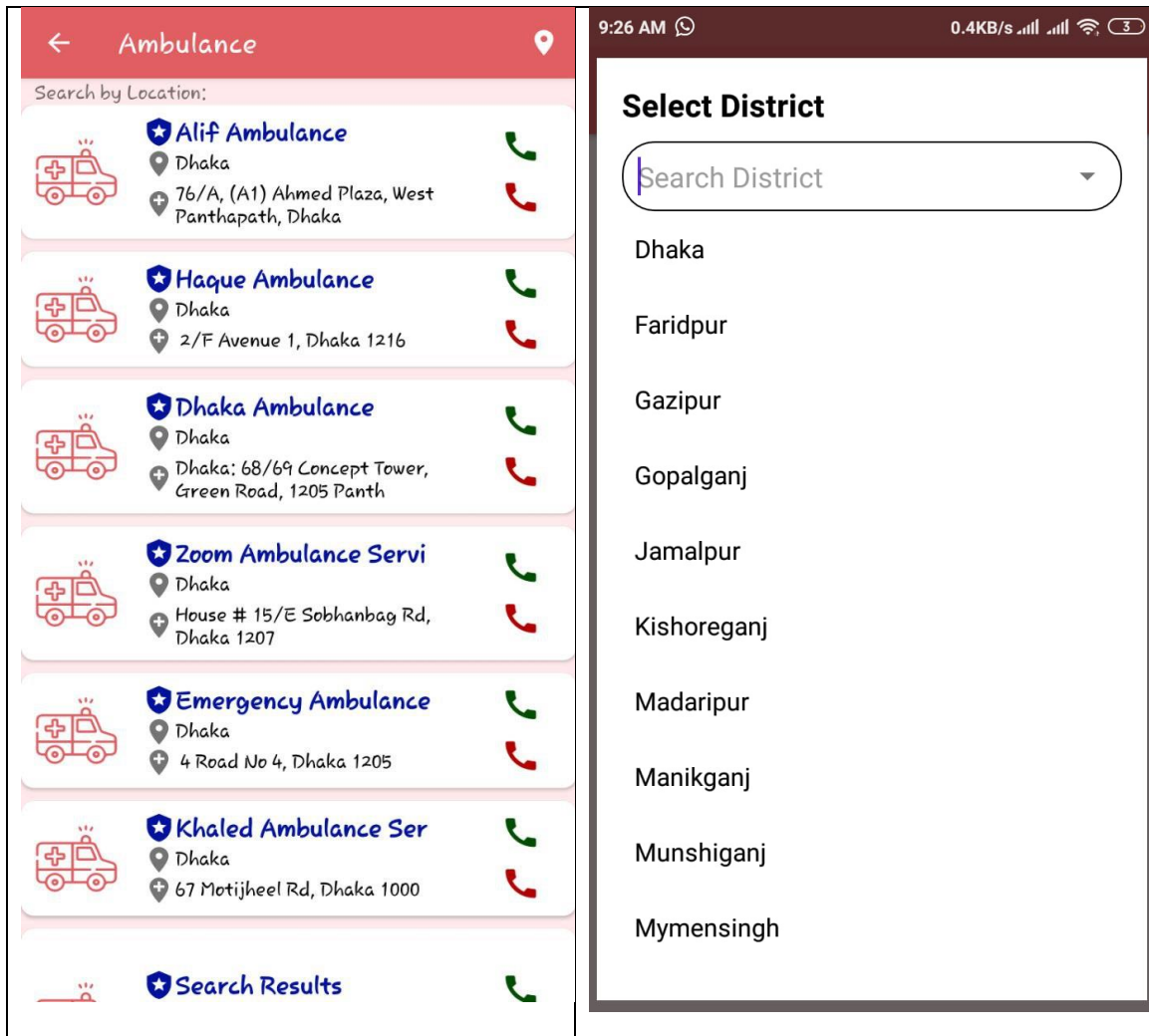


Figure 4.4.9.1: Find Ambulance

#### 4.4.10 Find Blood Bank

With the help of our app a user can find the blood bank as soon as possible. User will just select the District and our application will show them the blood bank list around the user with the contact details and information to contact with them.

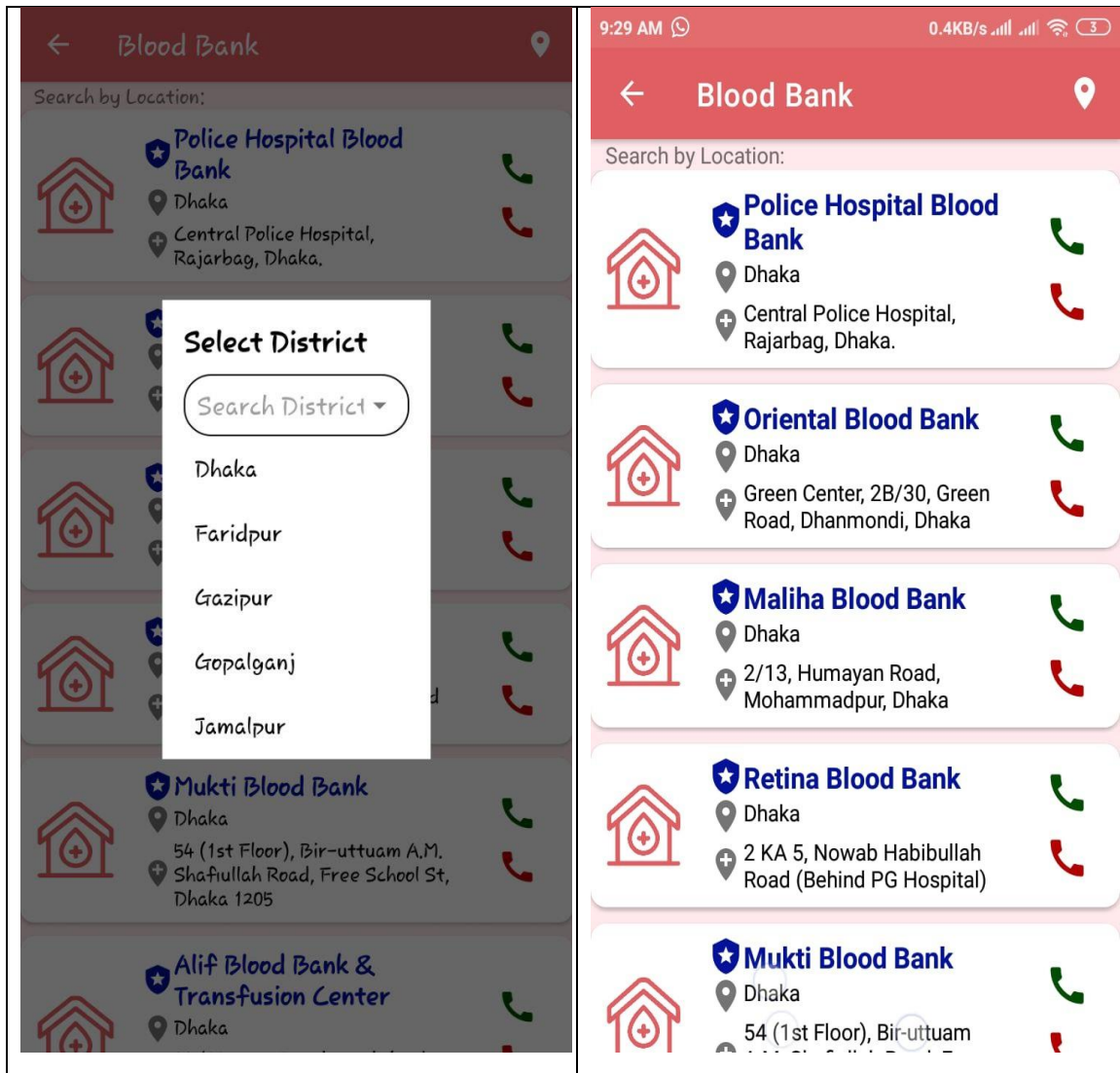


Figure 4.4.10.1: Blood Bank

#### 4.4.11 Filter

When user come to dashboard, there is a second option Nearby, By using this they can easily find a donor around the user. User will get few option to filter the search. They can select which blood group user need. Then which district of user. After the all selection user just click the filter button. Then user will get the blood donors with the map view also. So that user can easily find the donor and contact with them.

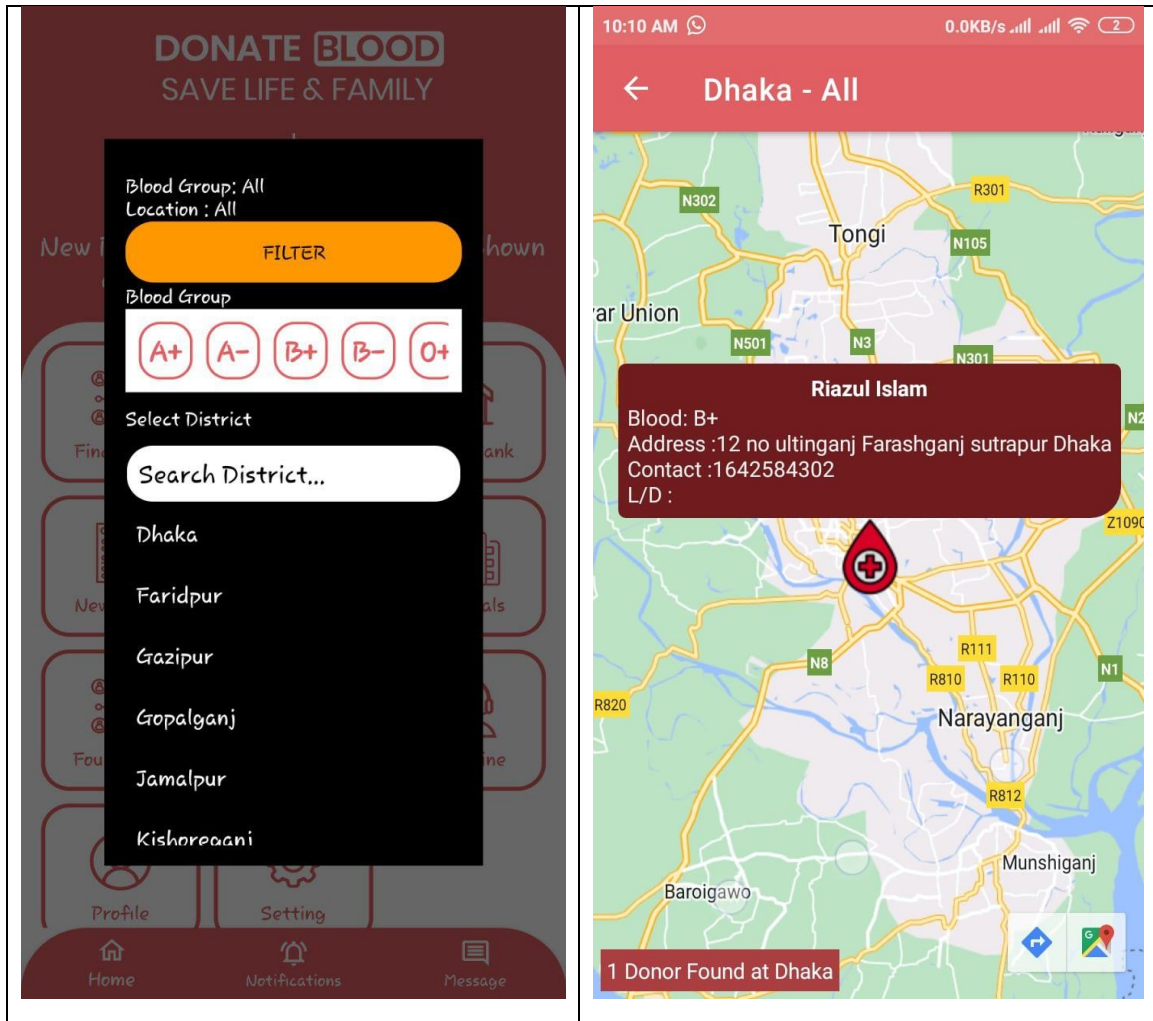


Figure 4.4.11.1: Filter Function

#### 4.4.12 Foundation

When user come to dashboard, there is a function name Foundation, By using user can get a list of Blood Donor Foundation list.

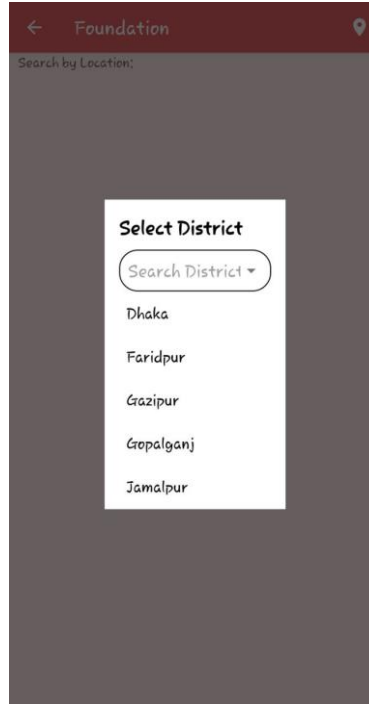


Figure 4.4.12.1: Foundation

#### 4.5 Back-end Design

We utilized the JAVA programming language to fabricate the undertaker's back end. We realize that Java is an item situated programming language. It is a stage impartial, class-based universally useful programming language. It is quite impressive that it requires as few dependencies as possible. The Java Virtual Machine executes the run-time code as compiled code (JVM). Typically, Android applications are created using the Java programming language and the Android SDK. It is the most well-known and often employed programming language for creating Android applications.



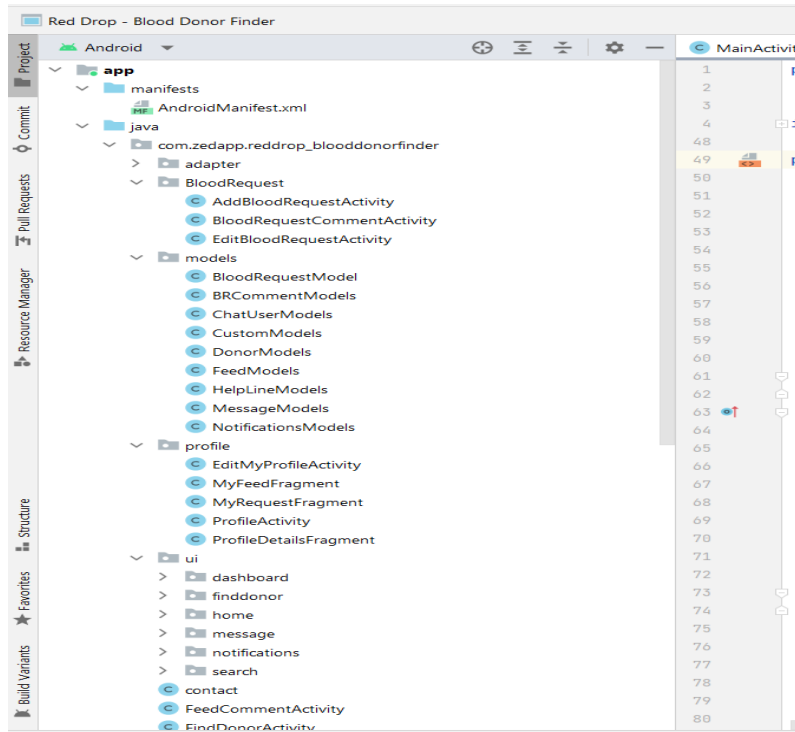


Figure 4.5.1 : Back-end Design which showing Java divided some part

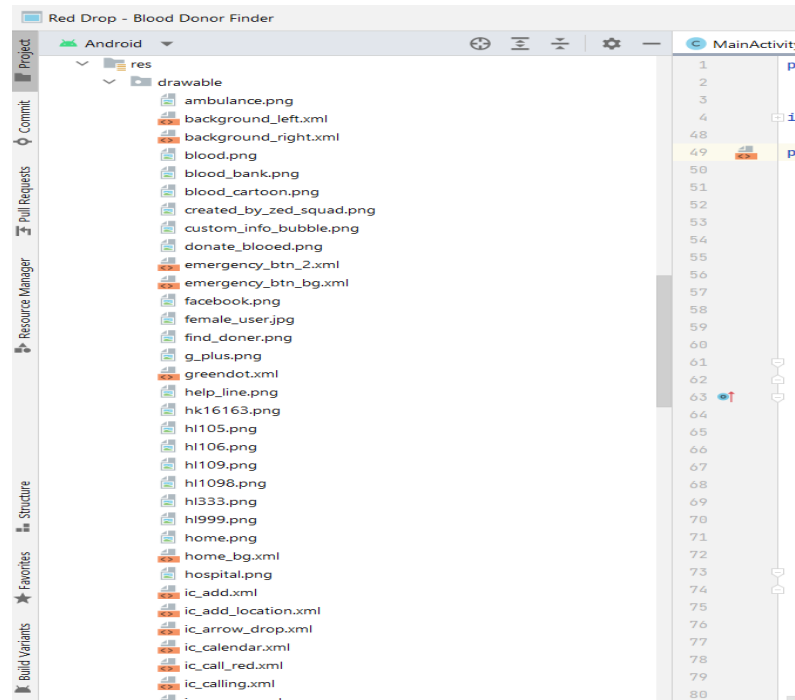


Figure 4.5.2: Back-end design which shown Here are the resources files.

```

1 package com.zedapp.reddrop_blooddonorfinder;
2
3
4 import ...
48
49 public class MainActivity extends AppCompatActivity {
50     private DatabaseReference reference;
51     private ValueEventListener seenListener;
52     ActivityMainBinding binding;
53     private FirebaseAuth fuser;
54     private static final int REQUEST_LOCATION = 1;
55     LocationManager locationManager;
56     double latitude;
57     double longitude;
58
59     int PERMISSION_ID = 44;
60     FusedLocationProviderClient mFusedLocationClient;
61     @RequiresApi(api = Build.VERSION_CODES.M)
62     @Override
63     protected void onCreate(Bundle savedInstanceState) {
64         super.onCreate(savedInstanceState);
65
66         ActivityCompat.requestPermissions( activity: this,
67             new String[] {Manifest.permission.ACCESS_FINE_LOCATION, REQUEST_LOCATION});
68
69         binding = ActivityMainBinding.inflate(getLayoutInflater());
70         setContentView(binding.getRoot());
71         fuser= FirebaseAuth.getInstance().getCurrentUser();
72         BottomNavigationView navView = findViewById(R.id.nav_view);
73         // Passing each menu ID as a set of IDs because each
74         // menu should be considered as top level destinations.
75         AppBarConfiguration appBarConfiguration = new AppBarConfiguration.Builder(
76             R.id.navigation_home,R.id.navigation_notifications, R.id.navigation_message)
77             .build();
78         NavController navController = Navigation.findNavController( activity: this, R.id.nav_host_fragment_activity_main);
79         //NavigationUI.setupActionBarWithNavController(this, navController, appBarConfiguration);
80         NavigationUI.setupWithNavController(binding.navView, navController);

```

Figure 4.5.3: Back -end design which are showing the dashboard programs

## 4.6 Conclusion

In this chapter, we learnt about front-end design, and we constructed the back-end development on the front-end design. XML (Extension Markup Language), a human-language rather than a computer-language, is used to create user interfaces. Additionally, it's simple to read and understand, even for beginners, and it's not difficult to code. To design the front-end components as user listeners, we employ Java for backend development. Because of its outstanding features and performance, Java is a widely used language.

## **CHAPTER 5**

### **IMPLEMENTATION AND TESTING**

#### **5.1 Implementation of Database Design**

A database is a consistently requested assortment of coordinated information put away in a PC framework electronically. The security of data sets and the protecting of individual data are both stringently controlled. The center of a computerization framework is a protected information base. To store information in our application, we utilize a Firebase data set behind a room data set.

Firebase is a backend programming framework. A piece of programming allows clients to collaborate with a data set in a social configuration. It's a Google stage for making intelligent versatile applications and online applications. Therefore, we might group it as a Google backend application that conveys brilliant administrations, for example, application crash goal, investigation revealing, and following. A data set in Firebase is kept in a solitary record, which separates it from other data set motors.

The crucial objective of embracing Firebase is to make the application as continuous as could be expected. Since Firebase is the first stage through which we might get ongoing perused and compose administrations. Since the data set table is put away in a progressive way, getting to the principal key is essentially as basic as reaching the root information. It does, be that as it may, have a few unmistakable parts, for example, validation, capacity, cloud firestore, and ongoing information base.

We've likewise incorporated a report issue choice utilizing the Firebase advantage. Any client who experiences a foundational issue or unlawful bugs can report it to the designers. He should give the subject's name and subtleties for this. His ID will be sent with the report efficiently with genuine time and date inside the procedure. The designer might distinguish the individual and tackle the issue by using the ID. We can basically depict the particulars in the accompanying data set preview. For additional improvement we can utilize application informing administration from this firebase.

## 5.2 Testing Implementation and Results

We put our idea through a lot of hardship with various gadgets and info scenarios. The greater part of the time, our applications are fruitful. The result of testing implementation is given below:

Test Case	Test Input	Obtained Outcome	Result	Testing date
Install	Test in different version of Android phone Android Version's: Lollipop(5.0), Marshmallow (6.0), Nougat (7.0), Oreo (8.0), Pie (9.0), Android 10, Android 11.	Installed	Passed	25/07/22
Register	Enter invalid email	Not	Passed	25/07/22
Login	Without mail verification	Not Log in Displayed the warning	Passed	25/07/22
Login (At emergency)	Without mail verification	Login successfully	Passed	25/07/22
Password	Wrong Password	Invalid Displayed the warning	Passed	25/07/22
Login (After All step)	After all registration	Go to home page	Passed	25/07/22
Search Donor	Add Blood Group	Displayed The donor list	Passed	25/07/2022
Blood Collection Request	Add Blood Group and Location with other information	Displays at Request list	Passed	25/07/2022
Sign out	Successfully	Go to home page	Passed	25/07/22

Table 5.2.1: Testing Result

## **CHAPTER 6**

### **IMPACT ON SOCIETY, ENVIRONMENT ASPECT & SUSTAINABILITY**

#### **6.1 Impact on Society**

At the right time we didn't find the blood & we lost our familiar one. Furthermore, they Don't understand what to do at the emergency time . However, our application will direct them. By Using this application they will know about blood donors very fast and nearby The application additionally give close by medical clinic area.

#### **6.2 Impact on Environment**

Blood donation is a noble work. But it also has some risks. Many times we see that for emergencies some people give permission to inject blood without a pre testing step. It can be a serious threat. So by using our app there will be no risk. Because we'll try to deliver our best one. We'll be concerned about it. For this reason, now people will be able to get pure and right blood and they'll be stress free .

#### **6.3 Ethical Aspects**

This application will assemble geolocation information through GPS. These are innovative plan contemplations that integrate moral and legitimate worries including consent, reason impediment, information decrease, and information security. Whether information is put away locally on client gadgets or traded to incorporated data sets run by states or wellbeing specialists, Whether information is utilized for examination and whether clients have any command over who approaches their information are choices that decipher moral and lawful worries like assent, reason restriction, information minimization, and information assurance into specialized plan.

#### **6.4 Sustainability Plan**

Our application must be updated sequentially. Because without an update it can't be perfect. As it will be used for the health care sector then the update must. By providing every necessary criteria we'll be able to serve our users.

## **CHAPTER 7**

### **CONCLUSION & FUTURE SCOPE**

#### **7.1 Conclusion**

In this innovation subordinate world, since the coming of android the universe of versatile application has seen a gigantic change. The significant purposes for that are android being an open-source OS. However in each area android applications are accessible, in our nation it's really missing in the medical services area. This computerization framework can without a doubt change the viewpoint of conventional frameworks.

Health care system can not stop due to any situation. So. This project can ensure the health care system properly. By this project, people do not need to go to the hospital or wait for a blood bank. They can take their services from the home. In the not so distant future, we will foster this virtual medical care framework as more adaptable by bringing unimaginable highlights.

#### **7.2 Future Suggested Work**

We have found some lacking in the current system. Now we are using the realtime database of firebase. In the future we will use a dedicated server for the project. Donor and patient reports have limitations after setting up the dedicated server that can store a large amount of data of appointment.

Now, in the project, we are using megency system. In the future we will integrate more security based system. Then again, this framework is an android Operating framework based application IOS client will be denied. Thus, sooner rather than later we will form this framework into responsive web programming. Additionally, for guaranteeing different cell phones and assortment of clients we will foster this framework. We will likewise chip away at the connection point to make it more easy to understand.

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# PLAGIARISM REPORT

## Blood Bank Management

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