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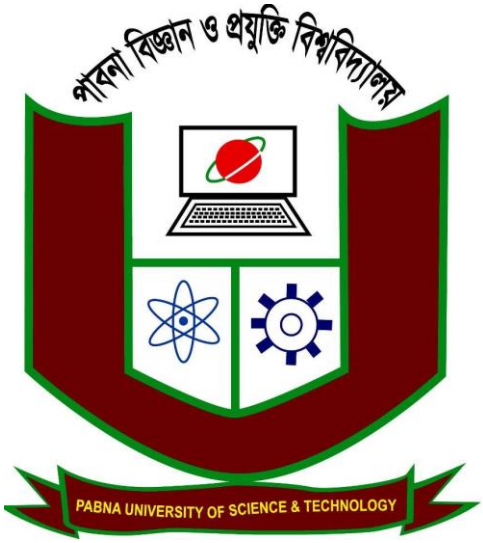

Department of Computer Science &Engineering (CSE)

Faculty of Engineering & Technology

Project Report

Project Name: Blood Zone APPS

Course Code: CSE-3200

Course Title: Project

Submitted by:

Group-04

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160129,160144

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Dept. Of CSE, PUST

Submitted to:

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Chairman at

Dept. of CSE, PUST

Submission Date: 14-10-2019

A

Project Report

On

"Blood Zone Apps"

SUBMITTED BY

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CHAPTER-1: INTRODUCTION

1.1 PURPOSE

Donating blood is not easy, only great mind can do this enormous work. Blood collection is tougher work than ever especially when it's urgent; Blood Zone Apps is doing this hard work indefatigably. This app helps to find out specific blood group donor when in need and keeps patient's relative tension free which is a great relief one can imagine inasmuch everyone more or less went under this type of situation.

1.2 METHODS

To develop the Blood Zone Apps we will go through some steps. These steps are listed below:

Step-1: We want to develop this app in such a way that users must be registered access the app and so we will give a register page for the user every register User can view the information of another registered user.

Step-2: The user's data will be stored in database system and so we will give the best security of user's personal information Data security and integrity is our topmast priority. We will make sure that private data of every single user mu remain confidential and reliable for this purpose we will use effective secure mechanisms.

Step-3: The users are categorized according to their own district followed their blood group also. For this purpose we will create lists for each district

Step-4: For easily finding a required blood donor we will also give the facility location tracking system.

Step-5: We will keep the users in a list whose blood groups are same

Step-6: Users notification system will help the people to easily find the blood.

Step-7: We will give a very efficient searching system so that when a user search a particular blood group, this app will show the available list in the near area to the user.

Step-8: When the users will want to update or delete their own information, this would be able to easily maintain it. This application will regularly update user's information.

Step-9: We will make sure that best linked up among the files

Step-10: We will also add user feedback option where a user can give Feedback

Step-11: We will also add Different Blood Bank related organizations address from where a user can be easily found them in any need.

1.3 SCOPE

The system will be used for maintaining all the process and blood related system the system can be also extended for maintaining the records of hospital, organ donation and other similar sectors.

Initially we will try to give the facility of this app in our own district. Then we will increase our scope facility all over the country.

CHAPTER-2 BACKGROUND KNOWLEDGE

2.1 BACKGROUND STUDY

Blood is very important part of our body because for the Lacking of blood no one can live. In our daily life a lot of blood is needed to save the people's life. So the necessity of blood in our life is very important. The all Blood is not needed at a time there are various situation when the blood is

Needed by the peoples. Sometimes the blood is needed very emergency tor the Patient and sometimes the blood is needed after some days in these two Situations, we require two types of blood donor. Because it can't be possible fora Man to give blood anytime so, when we need a particular blood group, we can't Manage that blood group very easily. Thus situation is very troublesome for any People But most of the time we see that there are availability of blood but a great Upset that we can't find our necessary blood group for the lacking of information Of the nearest blood donors. Besides there are many blood donors at our nearest Are those blood donors are willing to donate their blood but they can donate Their blood. Because they don't know about the sufferer people and how and When they donate their blood

2.1 PROBLEM STATEMENT

There are various situation when the blood in needed very emergency. And sometimes blood in needed after some days. We require two types of blood donor. It can't be possible for a man to give blood anytime. That is a problem.

Beside there is money blood donor who want to donate blood, but they can't for proper information

Based on this problem we want to make this kind of apps which can solve the problem of people.

2.2 SOCIAL IMPACT

There will be a huge social impact of our apps in our society. Because people whose lives are under threat for need of blood are easily benefitted.

2.3 ECONOMIC IMPACT

Mainly this apps will be a mankind's apps .Economic issue are less important. People are easily download it from Google play store. We mainly earn money from it.

2.4 PREVIOUS SOLUTION

There are many organizations who made this type of apps. But in every apps there are some lacking of feature. So we want remove this problem and add some new feature which made this apps more user friendly.

CHAPTER-3: ANALYSIS AND DESIGN

3.1 Feasibility study

Feasibility study tried to determine whether a given solution work or not. Its main objective is not to solve the problem, but to acquire its scope. It focuses on following:

1. Meet user requirements.
2. Best utilization of available resources.
3. Develop a cost effective system.
4. Develop a technically feasible system.

There are four types of feasibility:

1. Technical feasibility.
2. Economic feasibility.
3. Behavior feasibility.
4. Operational feasibility.

Now will discuss the above four feasibility study with respect to our blood zone apps project.

3.1.1 Technical feasibility

The technical feasibility is used to identify whether the technical resources are available to form the project or system completely. It suggests efficient input and output devices to manage large amount of data. Technical feasibility also involves evaluation of hardware, software and other technology requirements of the proposed blood zone apps.

To develop our apps, the technical feasibility arises same questions:

1. It the project possible with current technology?
2. What technical risk is there?

To answer the first question, we can strongly say that it is technically feasible. Since there will not be much difficulty in getting required resources. For the development and maintaining the system as well. All the resources for the development of the software as well as the maintenance are available already. Besides, our team is capable of converting the idea into working systems.

Development of the system requires tools like:

1. Android Studio.
2. Android Database.
3. JAVA.

But there are some technical risk. Because when we want to implement our project. It seems to very difficult for us. It the current computer is operating at the speed of 90% capacity, when it needs to run one or more applications at the same time. The system may get overloaded. This involves financial considerations to accommodate technical enhancements. It the budget is a serious constraint, then the project is not feasible.

3.1.2 Economic feasibility

Economic feasibility is the most frequently used method for evaluating the effectiveness of a candidate system. It is used to determine the financial resources of the project. It measures all costs incurred in development of new system. Economic feasibility is called cost benefit analysis because it determines the total cost for development of new system and benefits derived from the new system. Economic feasibility is critical, when the project is non-profit in nature.

In respect our blood zone apps, development of this application is highly economically feasible. The organization needed not spend much money for the development of the system because these are already available. The only thing is to be done is making an environment for the development with an effective supervision. If we are doing so, we can attain the maximum usability of the corresponding resources. After the development of this apps, the organization will not be spend much money to maintain it. Therefore the system is economically feasible.

3.2.1 Performing Cost Benefit Analysis (CBA)

We need to buy 4GB RAM 3,000 Tk. We have another like personnel, maintenance cost. The cost of our project given below table:

Cost for the proposed system (Table in Taka)

Cost Category	Year	
	1	2
Hardware	18,000	
Software	0	
Personnel	8,000	
Maintenance	6,000	5,000
Cost at year end	30,000	6,000
Cumulative costs	30,000	35,000

Benefit for the propose system given below:

From play store ads, by selling equipment we can earn money. The benefits of our project given below table:

Benefits for the proposed system (Table in Taka)

Benefits	Year	
	1	2
Paly Store(ads)	3,000	6,000
Mobile app	33,000	36,000
Benefits at year end	35,000	40,000
Cumulative benefits	35,000	85,000

Profit for two year= Benefits - Costs

= 85,000 -35, 000

= 50,000 TK.

Since we are gaining, this system is feasible.

3.1.3 Operational Feasibility

In operational feasibility, we consider whether the current system be implemented using existing manpower and resources or not. It is used for identify the importance of certain problem in project and how it is to be solved. It also measures how solution of the problems will work for any project or any organization. It also analysis the behavior of the proposed system and whether the proposed system is easier than the existing system for the users of the system. It is consider how the system will work after installation. Our proposed system would be beneficial to its user as their needs are fully satisfied. As this project, satisfies all the requirements of the users it is operationally feasible. All the operational aspects are considered carefully here. We can strongly say that our proposed system will be used after the development of our apps. The proposed system is easier than the existing system for the users so we are hopeful that our proposed system will acquire best social acceptability. When our proposed system is developed, there can have many resistance from users. To solve this resistances we will involve user's expectation. User's involvement is very important. Besides an application will not be acceptable to the uses. Thus considering the above facts that the project is operationally feasible.

3.1.4 Behavioral Feasibility

Behavioral feasibility consists of human issues. All system development project introduce change and people are general resist the change. It includes how strong the reaction of staff will be towards the development of new system that involves computer's use in their daily life. For this thing when we develop our apps we read the mind setup of user. We also study the effect of previous app and behavior of user. Therefore it is understandable that the introduction of our new system requires special offer to educate all and then the staff on new ways of conducting business.

3.2 FEATURES

- Search for blood
- Blood donors near.
- Add Organizations.
- View Thousands of Donors around.
- Search through Blood Group, Location/Area.
- Post blood donation request.
- Thousands of Donors immediately get a push notification/SMS of your Request.
- All pending Blood request.
- Editable Profile.
- Opportunity to Add verified Donor.
- Getting Public blood bank information and voluntarily organization information of Bangladesh.
- Small size
- Edit you data anytime you want.
- Get notify when you are able to donate blood.
- Know important facts about donating blood.

CHAPTER – 4: SYSTEM DESIGN

4.1 Process Flow Diagram

Process flow diagram or Flowchart is a diagram which use geometric symbols and arrows to define the relationships. It is a diagrammatic representation of the algorithm. The process flow diagram of our application is shown below:

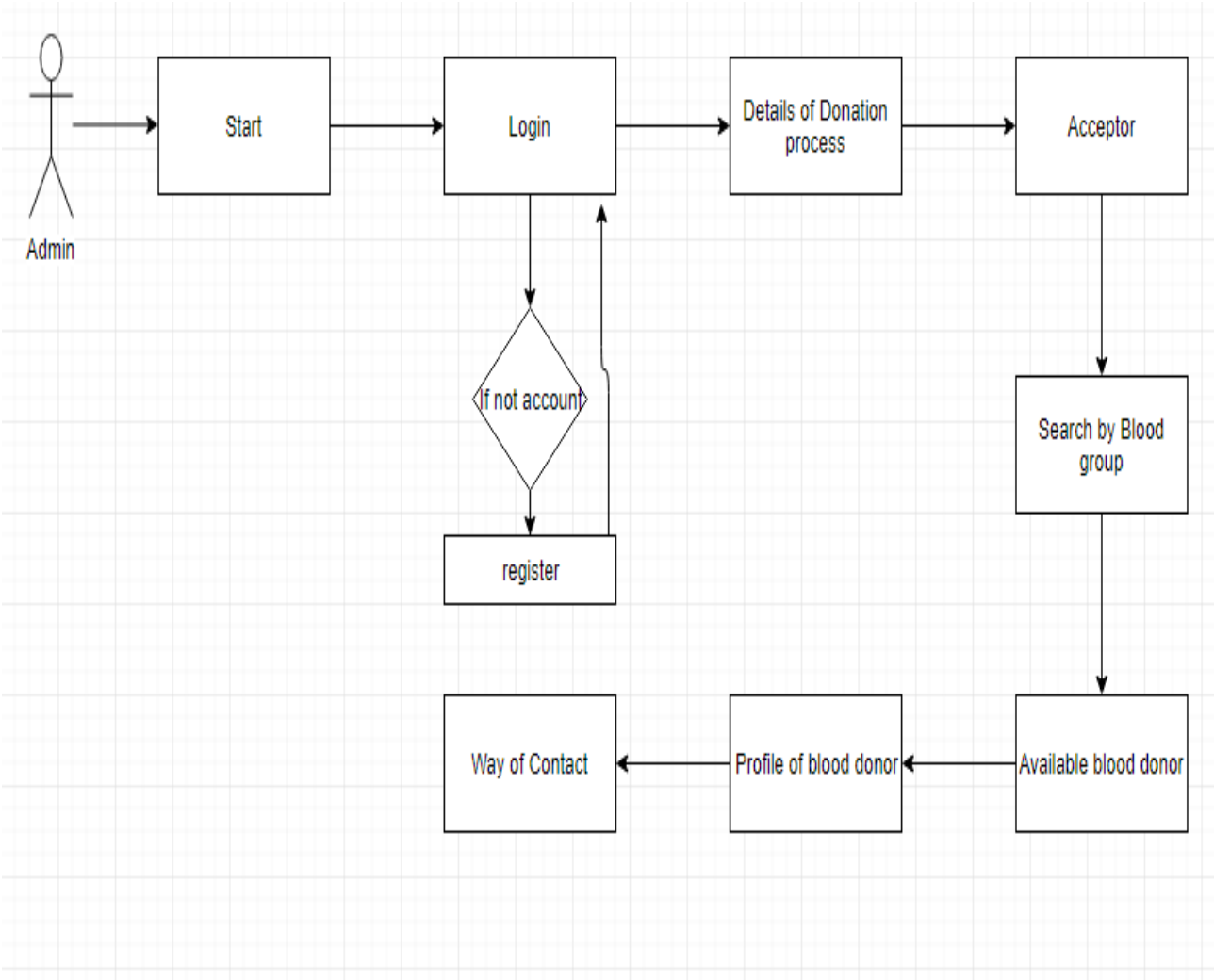


Figure 4.1: Blood Zone Process Flow Diagram

4.2 Use Case Diagram

Its purpose is to present a graphical overview of the functionality provided by a system in terms of actors and their goals.

The main purpose of a use case diagram is to show that system functions are performed for which actors.

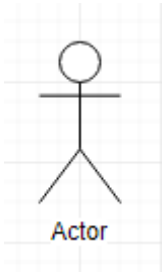
4.2.1 Diagram Building Block

Use Cases

A use case describes a sequence of actions that provide something of measurable value to an actor and is drawn as a horizontal ellipse.

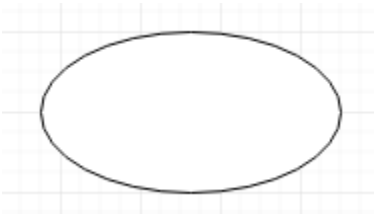
Actor

An actor is a person, organization or external system that plays a role in one or more interactions with the system.



System boundary boxes (optional)

A rectangle is drawn around the use case called the system boundary box to indicate scope of the system.



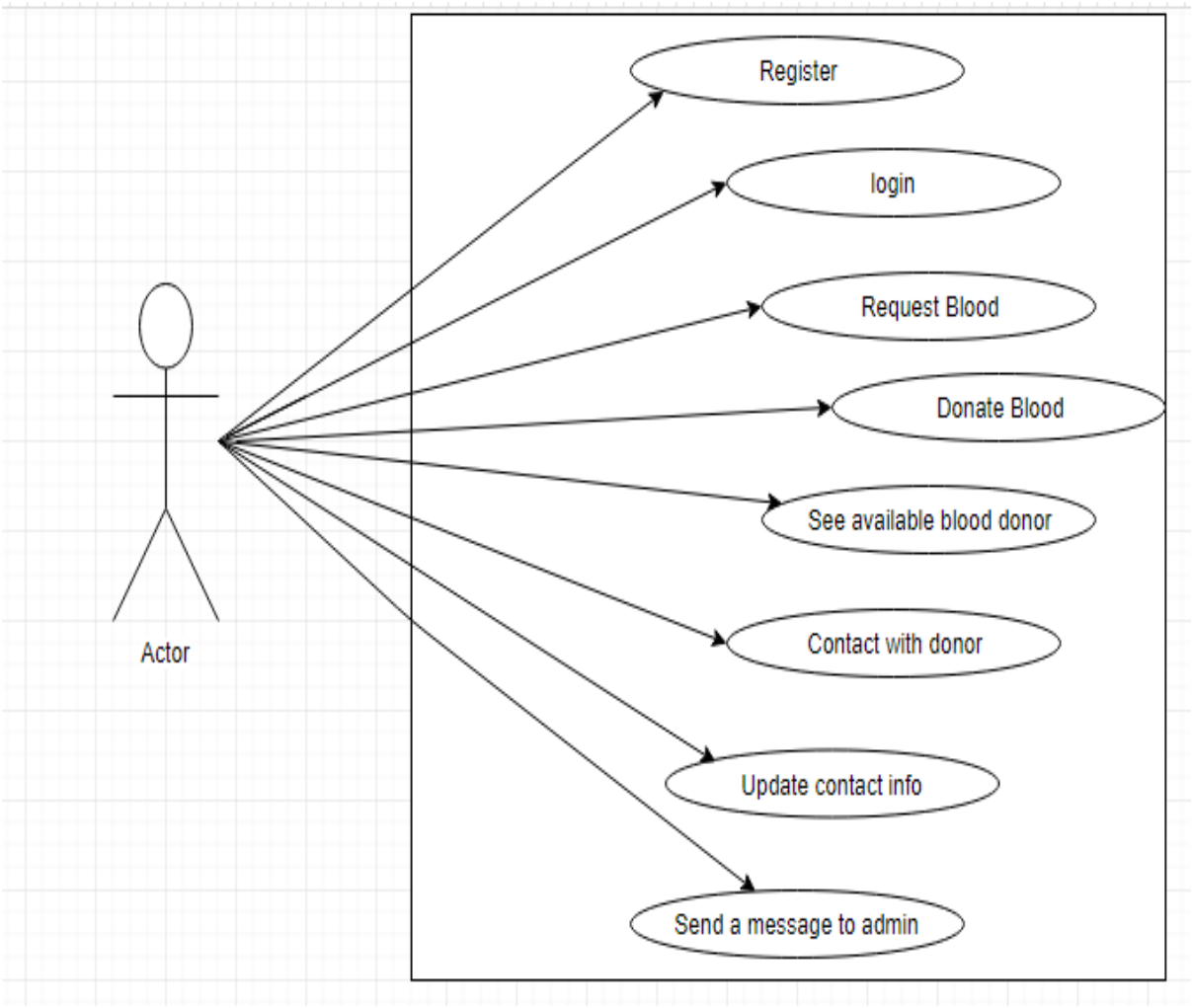


Figure 4.2.1: Blood Zone Use Case Diagram

CHAPTER – 5: TOOLS AND TECHNOLOGY USED

5.1 Front End: Android Sdk

5.2 Backend: Sql

5.3 Software Requirements:

5.3.1 Windows Xp, Windows 7(ultimate, enterprise)

5.3.2 Android Development Toolkit (ADT)

5.3.3 Visual Studio 2010

5.4 Hardware Components:

5.3.1 Processor – Intel CORE i5

5.3.2 Memory – 8 GB RAM

5.3.3 Hard Disk – 1TB

CHAPTER – 6: PROJECT SCREENSHOT

Figure 6.1: Welcome page

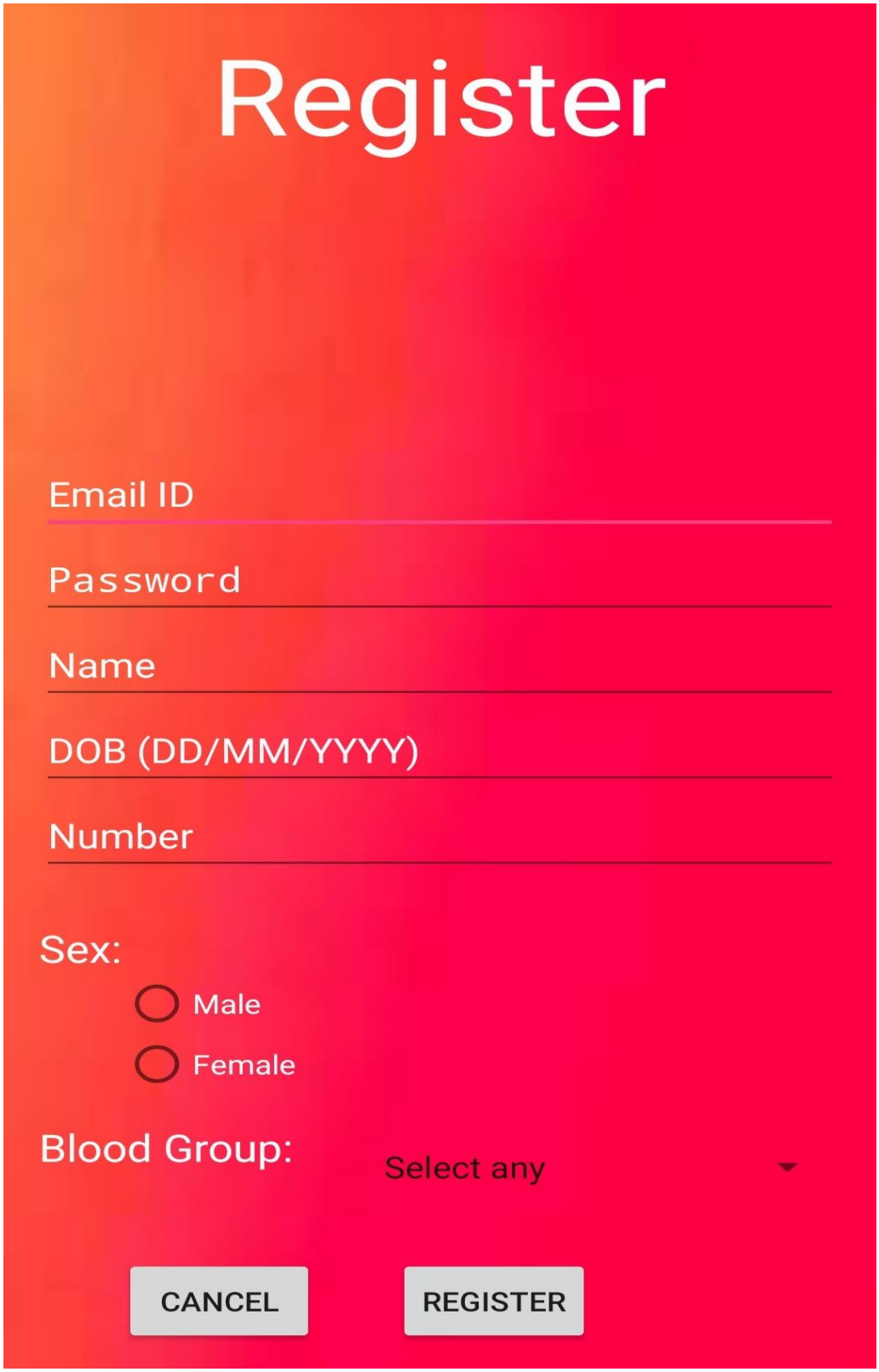


Figure 6.2: Registration page

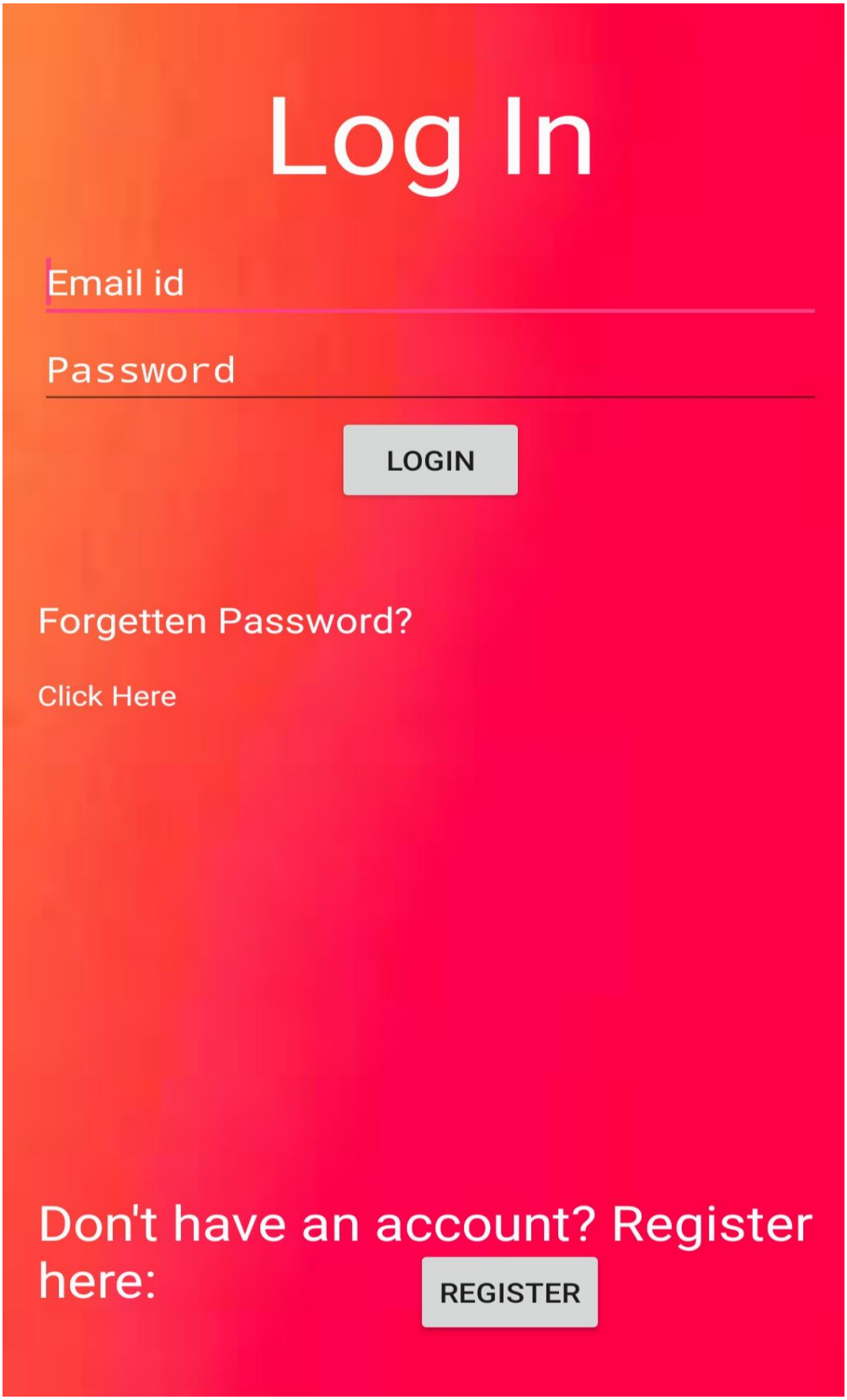


Figure 6.3: Login page

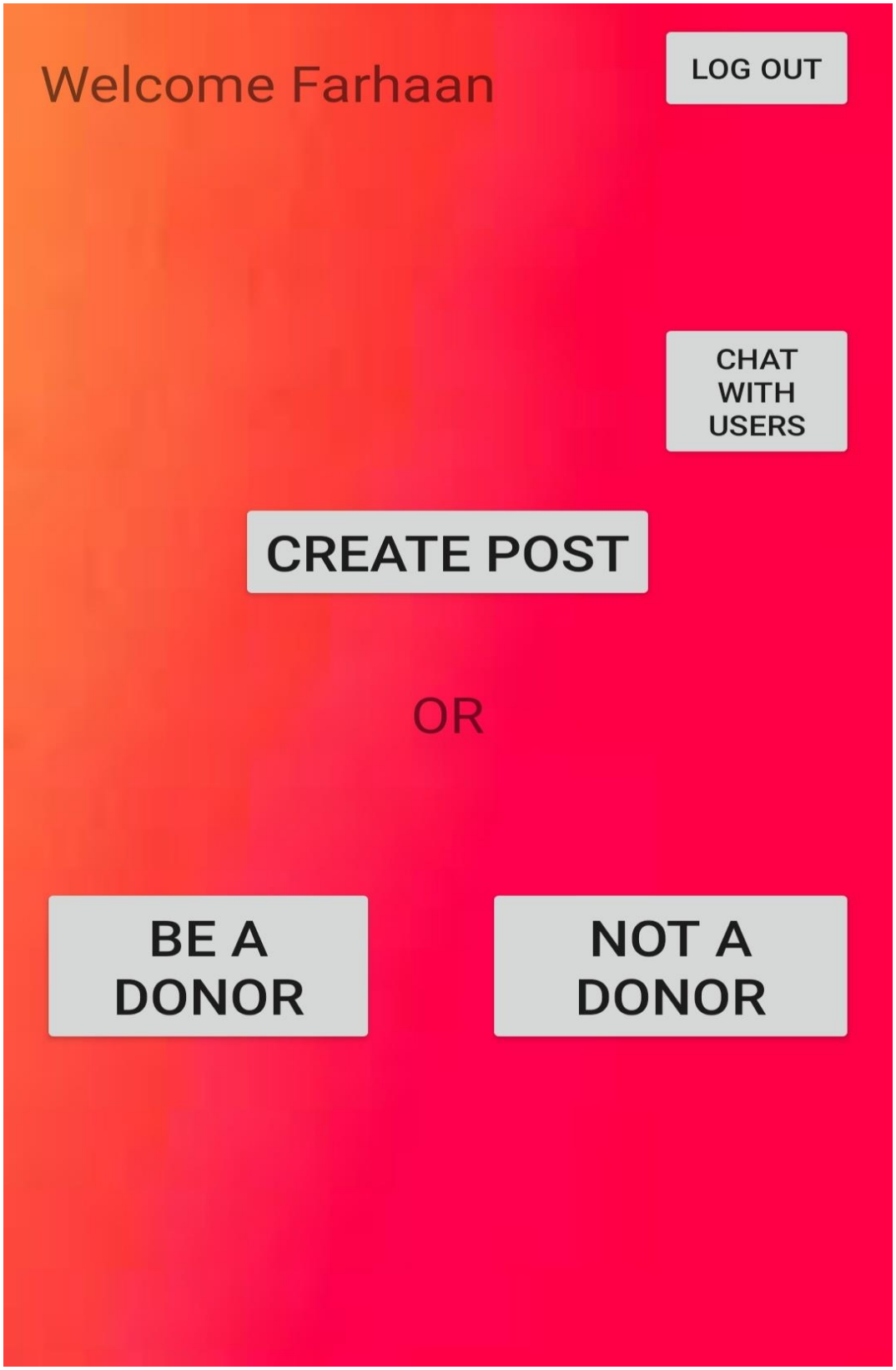


Figure 6.4: Home page

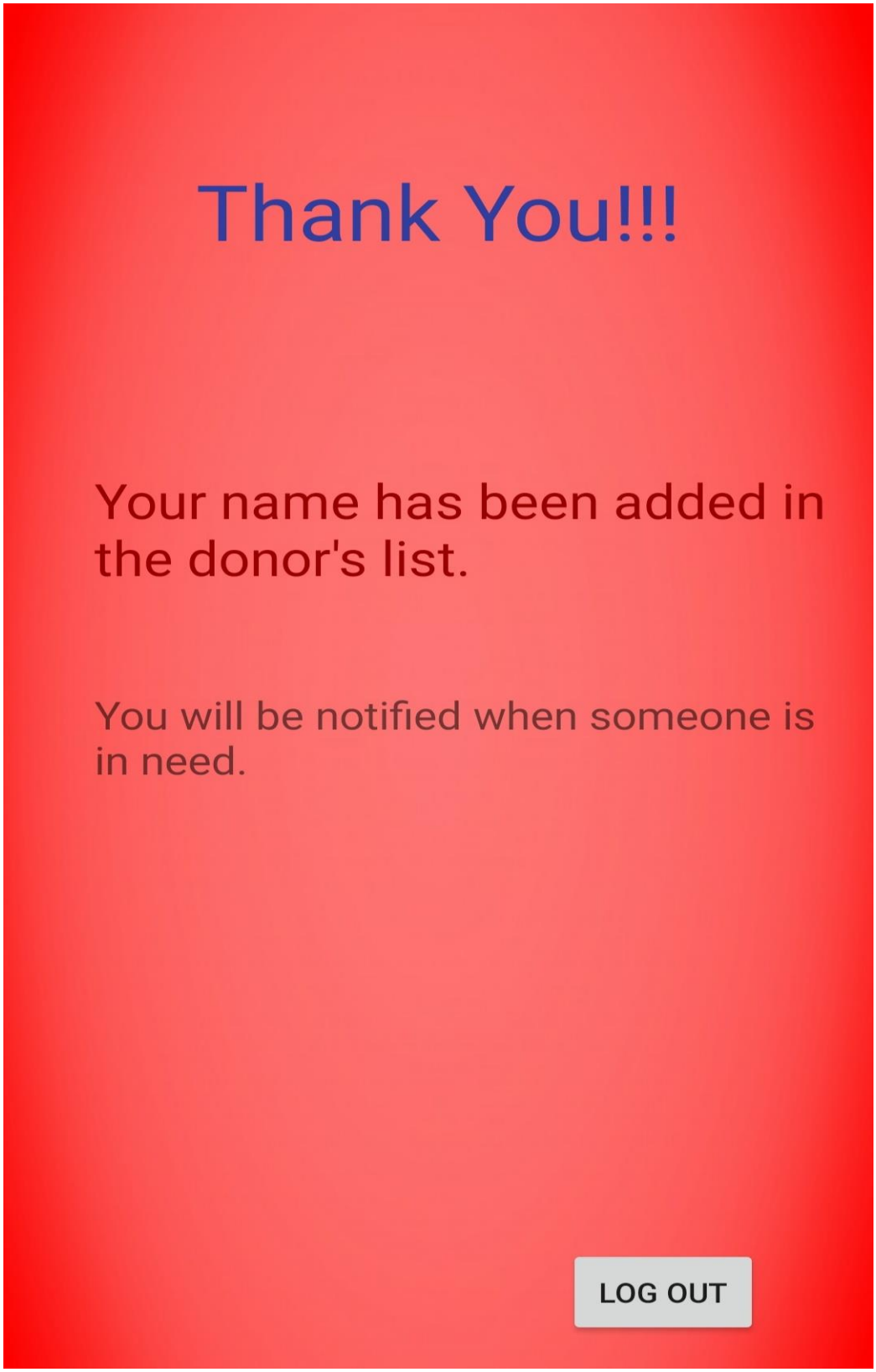


Figure 6.5: Blood Group Added Page

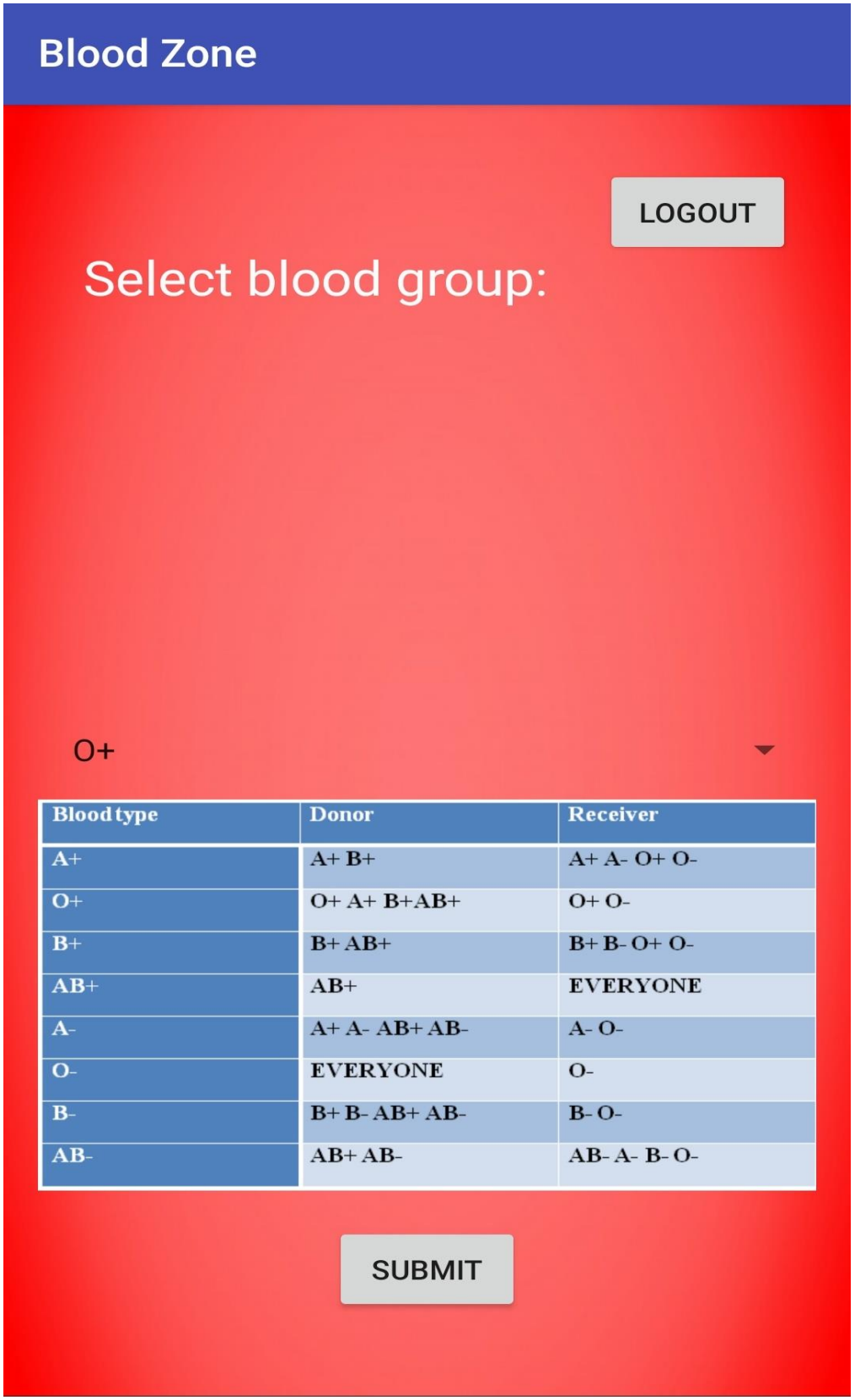


Figure 6.6: Search/Post Page

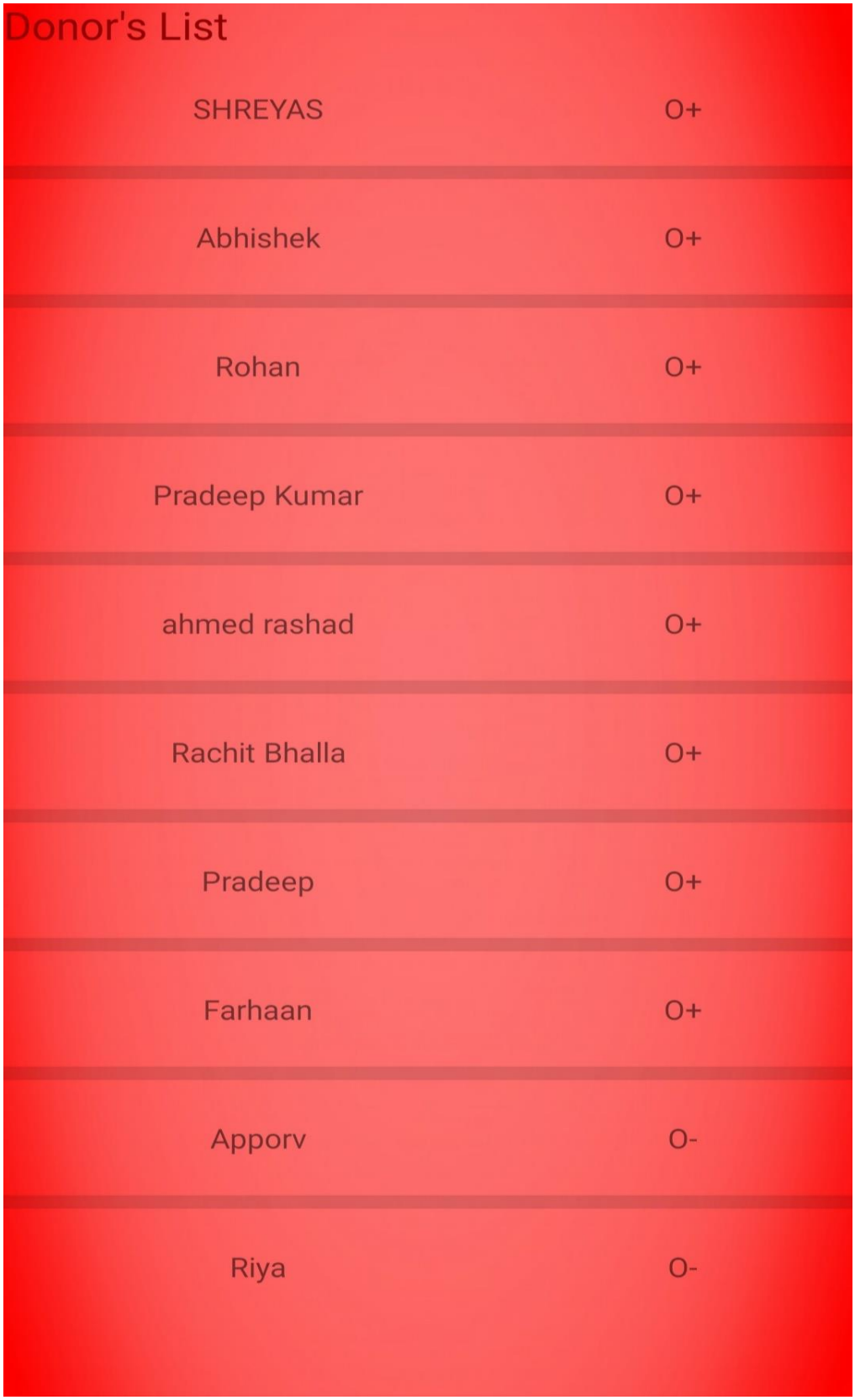


Figure 6.7: Donor List Page

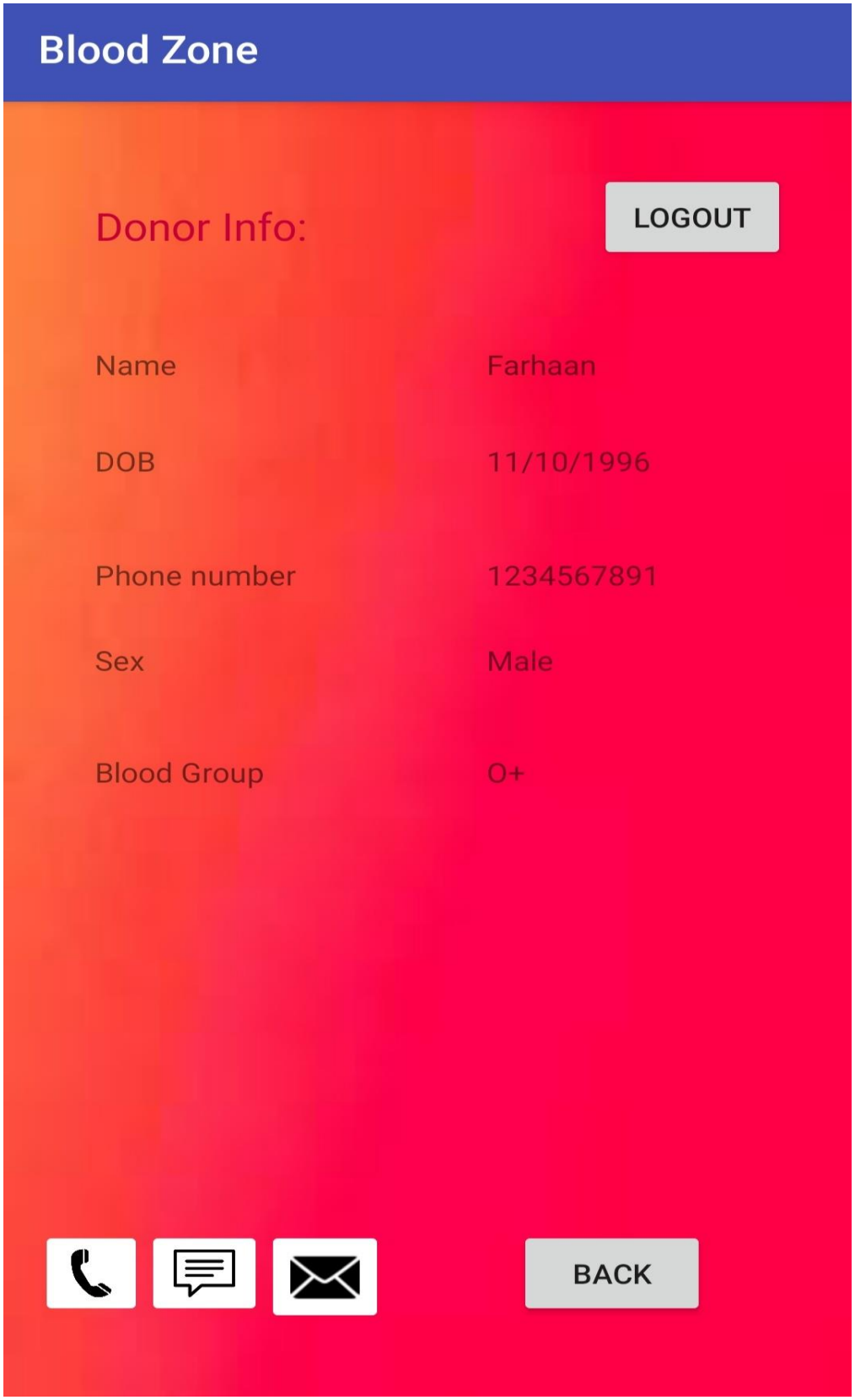


Figure 6.8: Donor Info Page

Chapter-7: DEVELOPMENT EFFORT TABLE

Sl No	Module	Sub-module	Working Section		Working Hours
1	Registration	User Interface	Property/Function	Property/Function Details	2
			Spinner	Provide a quick way to select one value from a set.	
			Button	Perform a specific action by clicking of the user.	
			Radio Button	Allow the user to select one option from a set.	
			TextView	Displays text to the users.	
			EditText	Allow the users to enter or modify the text.	
		Validation	FirebaseAuth	Used for user authentication.	4
			Equals(),length()	For user input validation.	
			sendEmailVerification()	Used to send verification email to the users.	
		Database Connection	Create table	For storing user data.	5
			addRegister()	Used to store the user's data.	
2	Login	User Interface	Button	Perform a specific action by clicking of the user.	2
			TextView	Displays text to the users.	
			EditText	Allow the users to enter or modify the text.	
		Validation	onOptionsItemSelected()	Take appropriate action for each action item click.	5
			FirebaseAuth	Used for user authentication.	
			Equals(),length()	For user input validation.	

		Database Connection	signInWithEmailAndPassword()	Verify email and password with database	4
			firebaseAuth	Used for user authentication.	
Total Working Hours					22

S.N	Module	Working Section				Working Hours
		Layout Property	**Property Details**	**Function Used**	**Function Details**	**Time**
1	**User Profile page**	**Button**	make click event work add android:onClick attribute	**findViewById ()**	called through a "context", which is a way of getting at system resources	3 hours
		ImageButton	to display a normal button with a custom image in a button	**snapshot.child()**	efficiently-generated immutable copy of the data at a Firebase Location	2 hours
		TextView	TextView is a user interface control which is used to set and display the text to the user based on our requirements	**setOnClickListener()**	Public method of View class. Button class extends the View class and can therefore call	1 hours
		ProgressDialog	uses a progress indicator such as Progress Bar inline inside of an activity	**onDestroy()**	meant for final cleanup - freeing up resources	2 hours
		Button	make click event work add android:onClick attribute		used to store the data of activity whenever	

2	**List Of Donors**			**onCreate()**	above condition occur in app	1 hours
		ListView	groups several items and display them in vertical scrollable list	**getWindow()**	For finding new window	3 hours
				onClick()	For button clickable.	3 hours
Total Time					**15 Hours**	

S.N	Module	Working Section				Working Hours
		Layout Property	**Property Details**	**Function Used**	**Function Details**	**Time**
1	Homescreen	**TextView**	TextView is a user interface control which is used to set and display the text to the user based on our requirements	**onCreate()**	used to store the data of activity whenever above condition occur in app	2 hours
		Button	to communicate what action occurs when the user touches itby click event work add the android:on Click attribute	**Requestwindowfeature()**	To ask the system To include or exclude some of window features	3 hours
		ProgressDialog	uses a progress indicator such as Progress Bar inline inside of an activity	**onPause()**	To pause or adjust Operstions that should not continue	3 hours
		Toast	it can be used to display information for the short period of time	**onBackpressed()**	To allow the user to navigate back through	3 hours
Total Time					**11 Hours**	

S.N	Module	Working Section				Working Hours
1	Post page	**Layout Property**	**Property Details**	**Function Used**	**Function Details**	**Time**
		Array Adapter	to create a view for each array item by calling a function	**toString()**	returns the string representation of the object	2 hours
		Button	to communicate what action occurs when the user touches itby click event work add the android:on Click attribute	**findViewById**	finds the view from the layout resource file that are attached with current activity	3 hours
		Spinner	it can be used to display the multiple options to the user in wchich only one item can be selected by the user	**SetDropDownViewReasource()**	to specify the layout the adapter should use to display the list of spinner choices	2 hours
		Toast	it can be used to display information for the short period of time	**getApplicationContext()**	returns the instance of context	3 hours
Total Time					**10 Hours**	

S.N	Module	Working Section				Working Hour
1	Welcome page	Layout Property	Property Details	Function Used	Function Details	Time
		Button	make click event work add android:onClick attribute	**findViewById ()**	called through a "context", which is a way of getting at system resources	3 hours
		Listview	Displays a vertically-scrollable collection of views	**OnClickListener()**	Public method of View class. Button class extends the View class and can therefore call	3 hours
2	Donor Activity	progressDialog	uses a progress indicator such as Progress Bar inline inside of an activity	**onClick()**	For button clickable.	3 hours

		Textview	TextView is a user interface control which is used to set and display the text to the user based on our requirements	getWindow()	For finding new window	2 hours
Total Time						11 hours

CHAPTER – 8: TEAM MEMBER ACTIVITY

MEMBER-1:

NAME: MD.ALFAZ HOSSAIN

ROLL: 160108

WORKING AREA: 1.PROFILE PAGE

2. BLOOD DONOR LIST PAGE

MEMBER-2:

NAME: MD.RAFIQUL ISLAM

ROLL: 160126

WORKING AREA: 1.LOGIN PAGE

2. REGISTRATION PAGE

MEMBER-3:

NAME: MD.AKRAM-UL-ISLAM

ROLL: 16028

WORKING AREA: 1.WELCOME PAGE

2. HOME PAGE (LOWER PORTION)

MEMBER-4:

NAME: UMMA NUR NAILA HASSAN

ROLL: 160129

WORKING AREA: 1.HOME PAGE

MEMBER-5:

NAME: MST.AFROZA SULTANA MONI

ROLL: 160144

WORKING AREA: 1.SEARCH/POST PAGE

CHAPTER – 9: CONCLUSION AND LESSON LEARNT

9.1 Project Limitation

Since this is our first project it has some limitation. Due to less knowledge in android and java programming and limited time we were not able to fulfill all our expectations that we expected we could do while the project got started. We hope this limitations are considerable. Some of the project limitations are:

- This application is not suitable for those organization where there is large quantity of product and different level of warehouses.
- This software application is does not able to find the blood donor in nearest area.
- Single admin panel is only made.
- It is not suitable for large organization.

9.2 Conclusion

To conclude, Blood Zone is a simple android apps basically suitable for small amount of people. It has every basic items which are used for the people. Our team is successful in making the application where we can registration, login, search blood and find donor as per the requirement.

Through it has some limitations, our team strongly believes that the implementation of this system will surely benefit the people.

9.3 Lesson Learnt

Doing something for long time periods always gives good lesson. Some of the things that our team learnt are listed as below:

- Basically we learnt to work in team.
- Learnt about the Android apps in details.
- Learnt about android technology, its components and ways to implement them
- Learnt to work in pressure and to be patient.