

“LIFE SHARE”: AN ANDROID BASED APP FOR BLOOD DONATION

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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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APPROVAL

This Project titled “**Life Share**”: an android based app for blood donation, submitted by **Sharmin Jahan Tanima (151-15-5093)** and **S.M.Rakibul Hasan (143-15-4387)** 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 (BSc) and approved as to its style and contents. The presentation has been held on 10/12/18.

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I also announce that neither this project report nor any part of this project report has been submitted elsewhere for award of any Degree or Diploma. I also declare that, I collect information from Daffodil Online Limited (DOL), Books and Internet.

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ABSTRACT

The aim of our project is to save lives of people by providing blood to them whenever required. Our project on Blood Donation Application using Android studio is developed so that users can view the information of nearby hospitals, blood banks and they can also receive blood from various donors, to monitor the blood groups database and to send the required blood during the need to our application users in case of emergencies. We are focusing on building a network of people who can help each other during an emergency. We have provided security for authenticated users as new users have to register according to their requirements and perspectives and existing users have to login. The application that we are developing requires an active internet connection. This application regularly updates the information about the donors and the administrator has complete access to the information about blood donation system. Several times we did notice that people search for blood though there are so many apps but they do not know about the apps. We created the particular apps so that people around us can get blood easily. Thus, the required information quicker and also helps in giving the right treatment at the right time.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Now-a-days Smartphone is most popular gadget for all generation. Most of all Smartphone is operated by Android operating system, which developed by Google, based on the Linux kernel and designed primary for touch screen mobile devices such as Smartphone and tables.

Android is an open source project, for this reason it's a more popular and could be developed easily. Android OS is easy to operate that's why user can interact it well. In this Android project people can get benefits and also useful for business and commerce area. It has developed into an operating system for business, education, and personal productivity.

“Android Based Life Share Application” is an android mobile application which is communication based. The main aim of developing this application is to reduce the time to a great extent that is spent in searching for the right donor and the availability of blood required. Thus this application provides the required information in no time and also helps in quicker decision making.

1.2 Motivation

Consider the current context lacking of blood donation in Bangladesh, we are interested to develop this type of platform to saves people life. We already discuss that, there are so many platform for blood donation even so we choose this platform for some contribution of save people life and way to easier.

In this circumstance, we feel that, “Life Share” could be helpful for people to helps someone life and also create a communication between each other. That's why we wanted to build a mobile application that performs all activities that our competitor system have done. We hope, people will easily accept our application for its unique useful features and it can make an aware society too.

1.3 Objectives

Our motivation is our project objective. That makes us possible to create this application. To developing this application we try to help Bangladeshi people to -

- Donate blood in the way possible
- Easy way to receive blood
- Want that no Bangladeshi will suffer from lacking of blood
- Donor and receiver can find each other via the mobile application and the nearest donor with the most similar features will be marked as best match [1].

1.4 Expected Outcome

- ✓ Easy to use
- ✓ Faster service
- ✓ Weight loss of donors
- ✓ Low risk for donor giving blood in BP
- ✓ Maintain blood circulation, Reduce stress
- ✓ Free live checkup
- ✓ Searching any group of blood in short time [2].

1.5 Report Layout

In the chapter (1) we have described objective of Project, Motivation of Project and described expected outcome of our project.

In the chapter (2) we have described the background of related works, comparative studies, scope of problems and challenges.

In the chapter (3) we have described about the all requirements specification.

In the chapter (4) we have described about the project design specification.

In the chapter (5) we have described about our project database and testing.

In the chapter (6) we have described is conclusion and future scope.

CHAPTER 2

BACKGROUND

2.1 Introduction

In recent days, most of us spend lots of time on Internet or social media. In this circumstance, we thought that to develop something that can be helpful for every person. That time when we start to design the platform we always keep some facts in our knowledge that the design should not be so much complex and it supports all the applications.

In our application we try to design a simple design and also add useful features. A blood service that gives patients access to safe blood and blood products in sufficient quantity. So we create this application for those people who get benefits by using this android mobile application. It faces the challenges of making sufficient blood available, while ensuring its quality and safety. But we do, we develop all the features that others do, but we added some unique extra features like Health Tips, Notifications and Call services [3].

2.2 Related Works

It's a very tough task for someone to add so many useful features in a same application. Today we see so many android applications. But they are not useful or easy for everyone. Because developers make it complex and try to look more gorgeous their application. For this reason, they are not capable to reach high review in their application.

Recent days, people use so many government and non-government and private applications such as- "Blood Friend", "Simply Blood" and so on. However, it's a competitor for us.

Therefore, we believe that "**life share**" can spirit people for acquiring their need and make their life healthier and save.

2.3 Comparative Studies

In our country a large and important group of population eligible for blood donation. Studies report that students are donate much compare to others people. To assess and compare the knowledge, attitude, and practice of blood donation android developer are try to more and more.

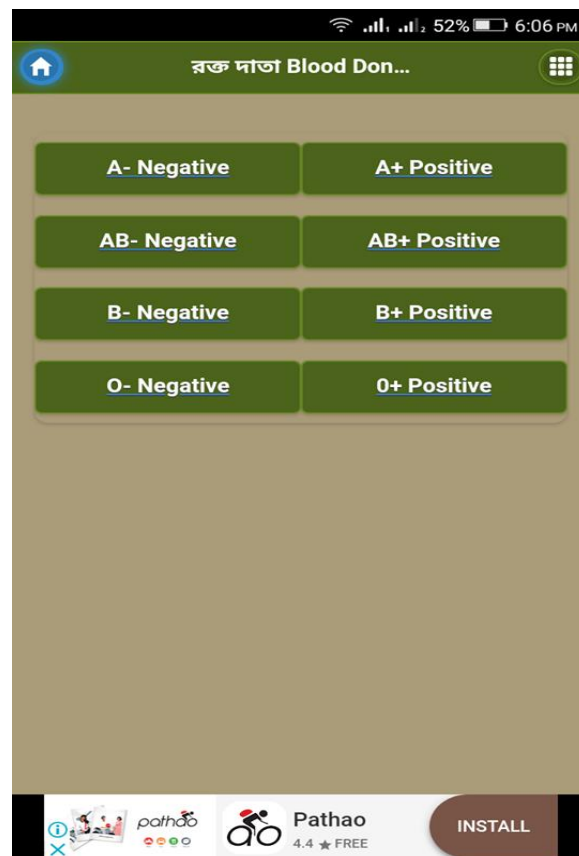


Fig 2.1 রক্ত দাতা application



Fig 2.2 রক্তের গ্রুপ application

In figure 2.1 if we compare this application we see that the advertisement. Some times when people are irritated this. Also say this application is look not attractive and enough feature for a user. On the other hand figure 2.2 this application is not comfortable for user.

So that we are interested to develop our “Life Share” project for develop our system and make more user friendly. We think that our unique functionalities can make people more interested on use this application, help people to build up their social liabilities and save life also.

2.4 Scope of Problem

We are currently pursuing our Bachelors in Computer Science Engineering at Daffodil International University, we understand the importance of gaining practical knowledge, and we thought that to develop something that can helpful for every people.

We motivated by our daily life activities where we spend so much time media like Facebook, Instagram etc. So we thought to create something beneficial for every people, which can help saving their lives.

2.5 Challenges

There is a common thing to perform an activity is challenges. There is no work exists without challenge. Similarly, in our project we also faced some challenges. First of all we are trying to create a social media so we have to complete with some popular social media and it's a very challenging for us to motivate user and manipulate them.

Although, our application is so helpful as well as tell them the benefits of our application.

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Business Process Modeling

Business process modeling techniques are concerned with mapping and workflow to enable understanding, analysis and positive change. Business process modeling is a method for improving organization efficiency and quality.

Diagram-essentially “flow diagram” –are central feature of methodology. Actually we define our business model using Data Flow Diagram. DFD illustrates how data is processed by a system in terms of inputs and outputs [5]. Firstly, we draw context level DFD in Fig 3.1 and then level 1 DFD in Fig 3.2.

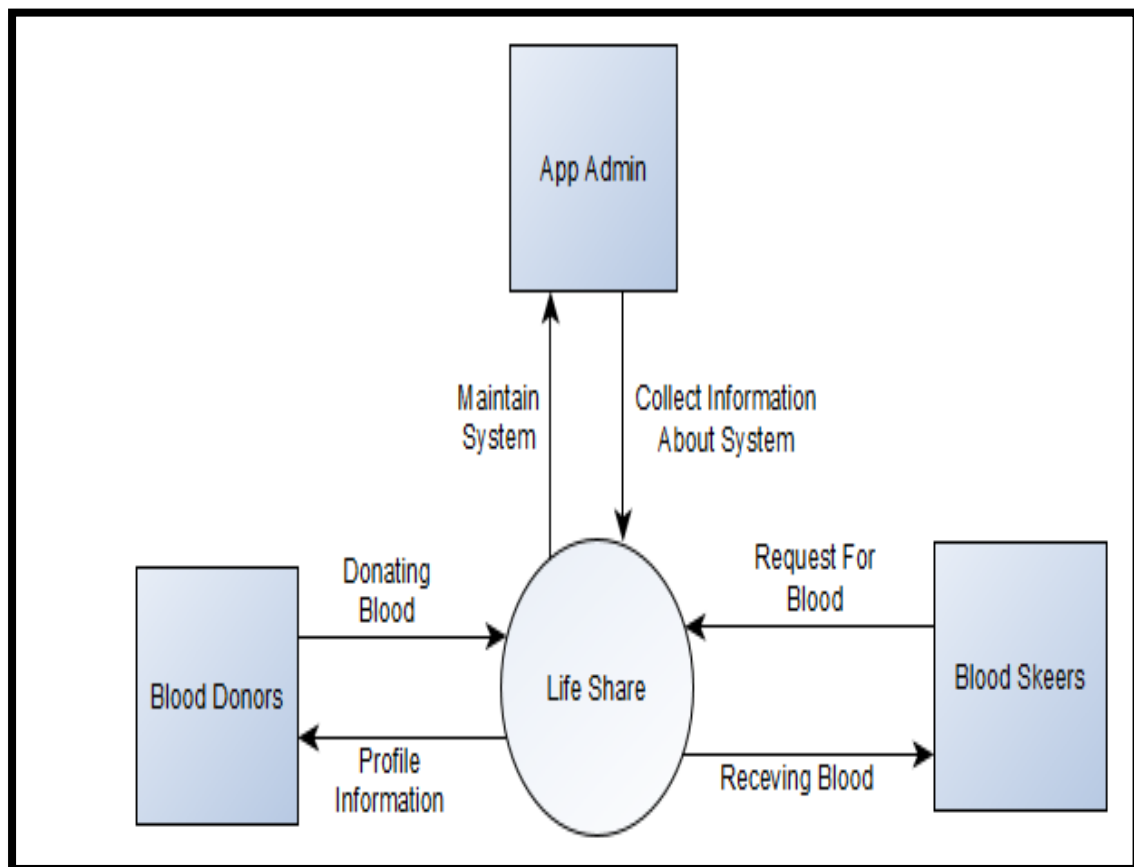


Fig 3.1 Context level DFD

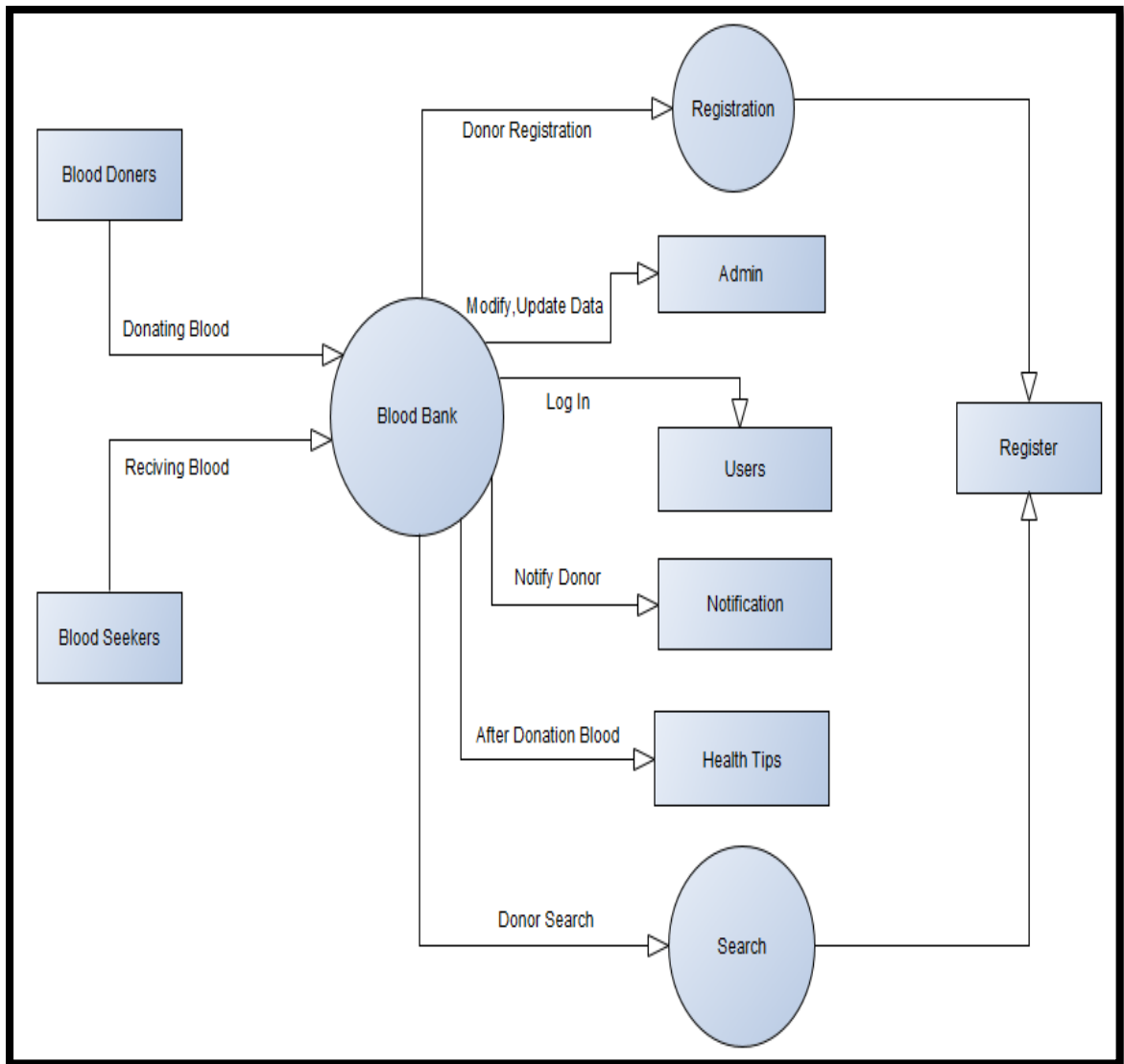


Fig 3.2 Level 1 DFD

3.2 Requirement Collection and Analysis

Requirement collection and analysis is one of the primary phases of application development. For an application developers need to clearly understand the problems to be solved. It is therefore important for a developer to properly model the scenarios that can influence the solution to the problem by collecting relevant information. This process is called requirement analysis.

The requirement analysis provides the opportunity for a developer to get a better understanding of the problem in question. For effective design and development of this project, the following requirements must be met [4]. They can be divided into functional requirements that is-

- Functional requirement
- Non-functional requirement

On the other side, non-functional requirement defines the characteristics of an application is smoothie or not, performance issue of the application etc.

In Functional requirement, is functionalities that, application software can perform, like for banking context, customer must able to watch balance statement.

In this perspective of our application, it has many functional requirements like our system need a login panel. This section describes different requirements that are accomplished by the Life share application.

In order to achieve the desired goal of this project, the functional requirements must be met. The following are the three major actions performed by the online application.

In Case of, Non-functional requirement defines the characteristics of an application is smoothie or not, performance issue of the application etc.

Non-functional requirements are requirements that do not affect the proper running of the Online Blood donation system. However, it is worthwhile to mention and consider these requirements for the purpose of application quality and analysis [1].

3.3 Use Case Modeling and Description

A use case is a description of how a user will use the system to be to accomplish business goals. It represents a functional or an action within the system.

The two main components of use case diagram are use case and actor. Actor in a use case diagram is any entity that performs a role in one given system. We can see some figure use case and actor as follows:

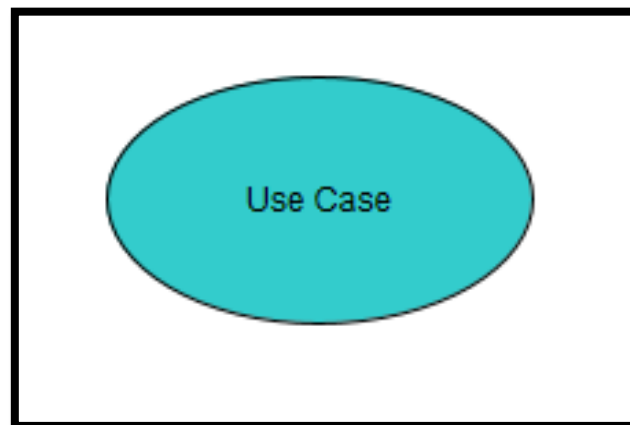


Fig 3.3 Use Case

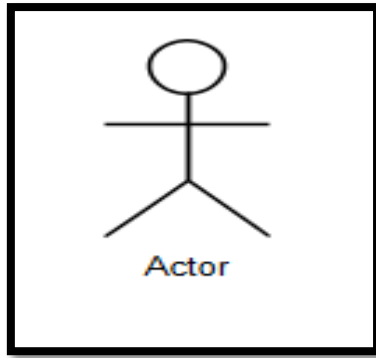


Fig 3.4 Actor

The model in figure 3.3 is usually short yet description enough to describe a user objective. User Performs use case to yield observable goal. In our project, our user are requester and it was and communication based system. As an example when a user wants to need blood then user must be login that's why admin will collect information and manage blood for blood seekers.

It is intended to provide an overview of that, the user wants without knowing how to achieve the goal. In order to identify how to achieve the goal, we can also document scenario and steps involved between admin and users with main flow, exception flow condition flow etc.

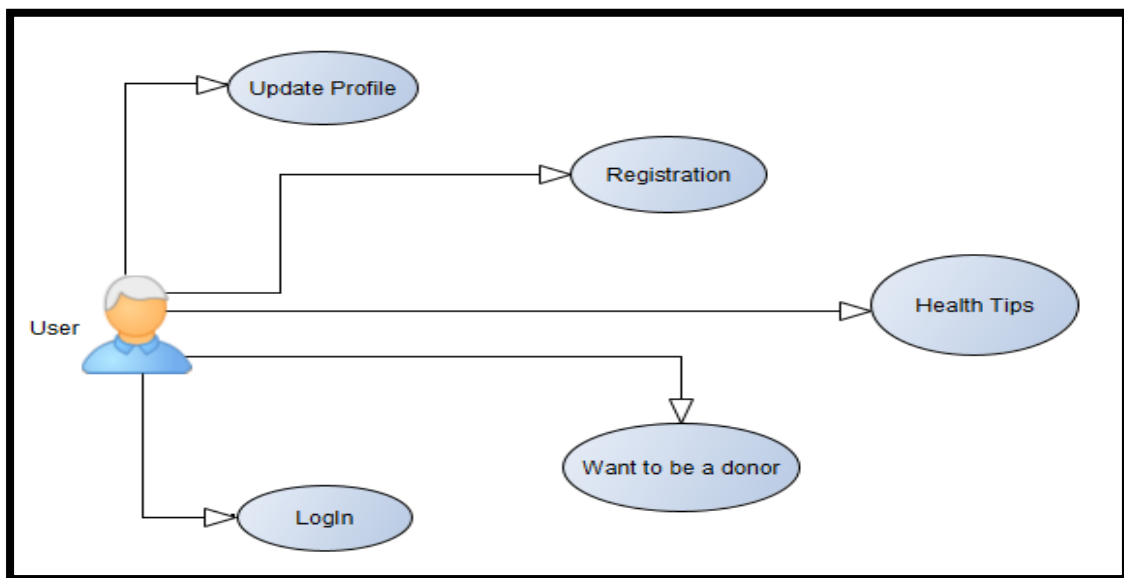


Fig 3.5 User panel

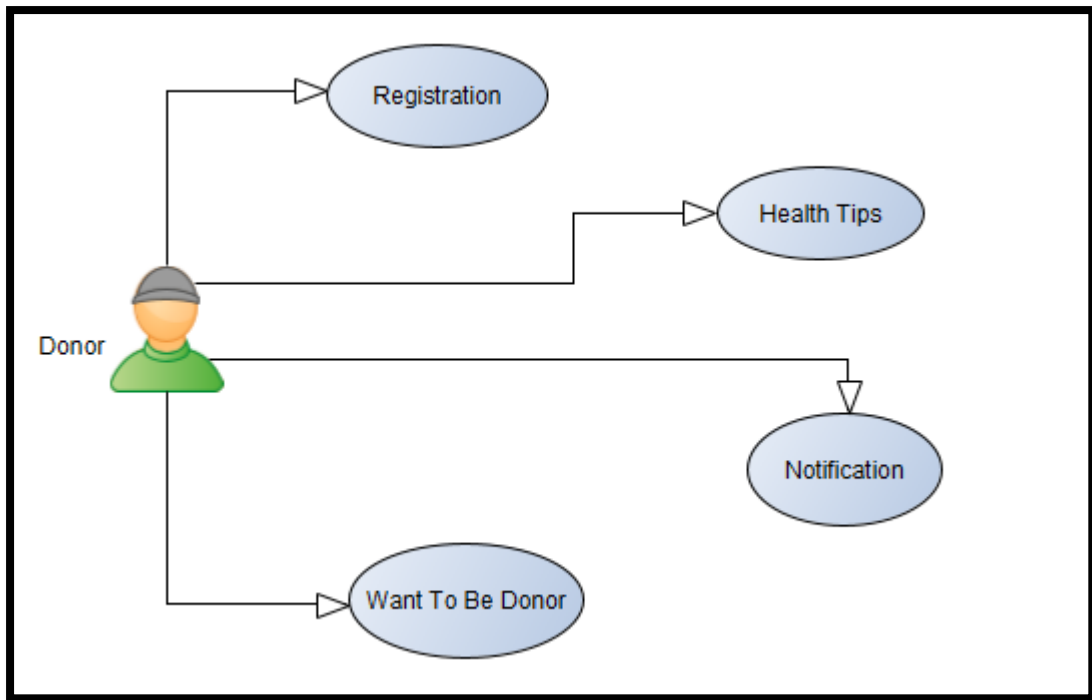


Fig 3.6 Donor panel

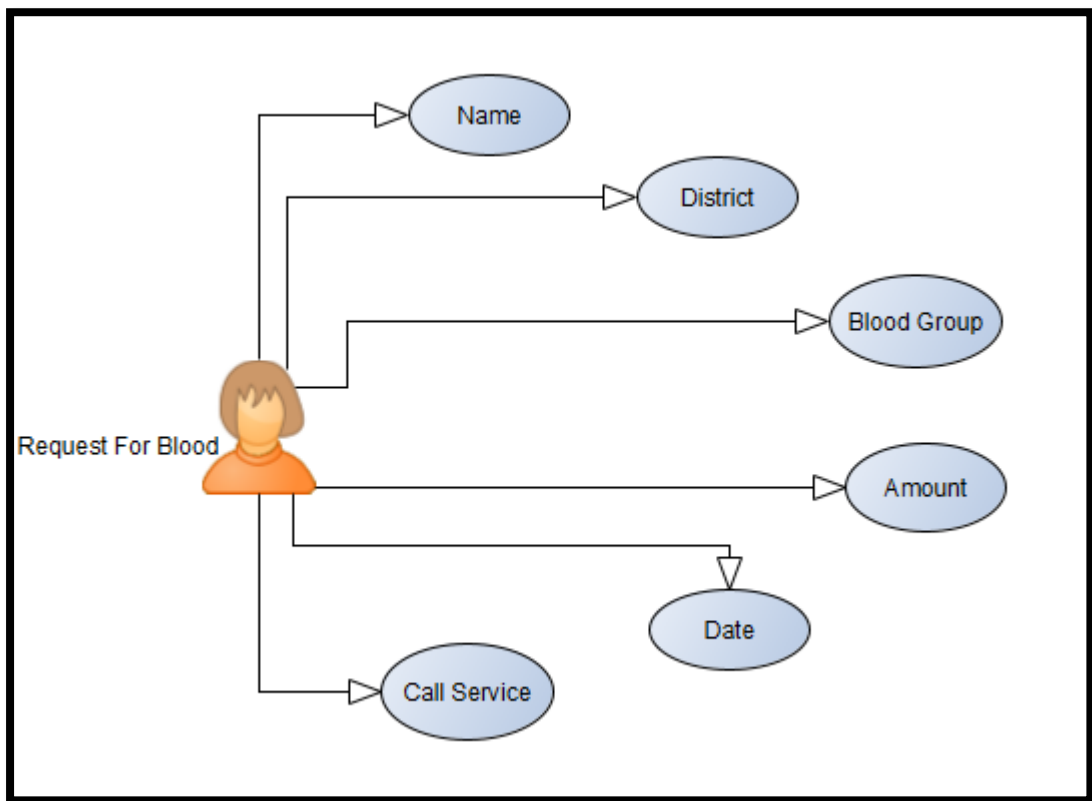


Fig 3.7 Requester panel

Use-Case Details:

Table 3.1 Login

Use case name	Login
Actors	Admin, Donor, Call Center, Organization
Entry Condition	The actor will enter the system by using username and password
Exit condition	If un authenticated should be exited
Quality Requirements	Password must satisfy the complexity requirements.

Table 3.2 Donor Registration

Use case name	Donor Registration
Actors	Donor
Entry Condition	View Home page
Exit condition	Registered Donor should be successfully logged out. Error Message should be displayed on Un successful creation.
Quality Requirements	Best Error Handling techniques. Check on Mandatory fields [5].

3.4 Logical Data Model

A logical data model describes the data in as much details as possible, without regard to how they will be physical implemented in database. It includes all entities and relationship among them. Actually Logical data model and physical data model both are present in Entity Relationship Diagram called ER diagram. In ER diagram all attributes for each entity are specified. The primary key for each entity is specified. Foreign key is specified and also specified all attributes type. In fig 3.8 shown the project ER diagram.

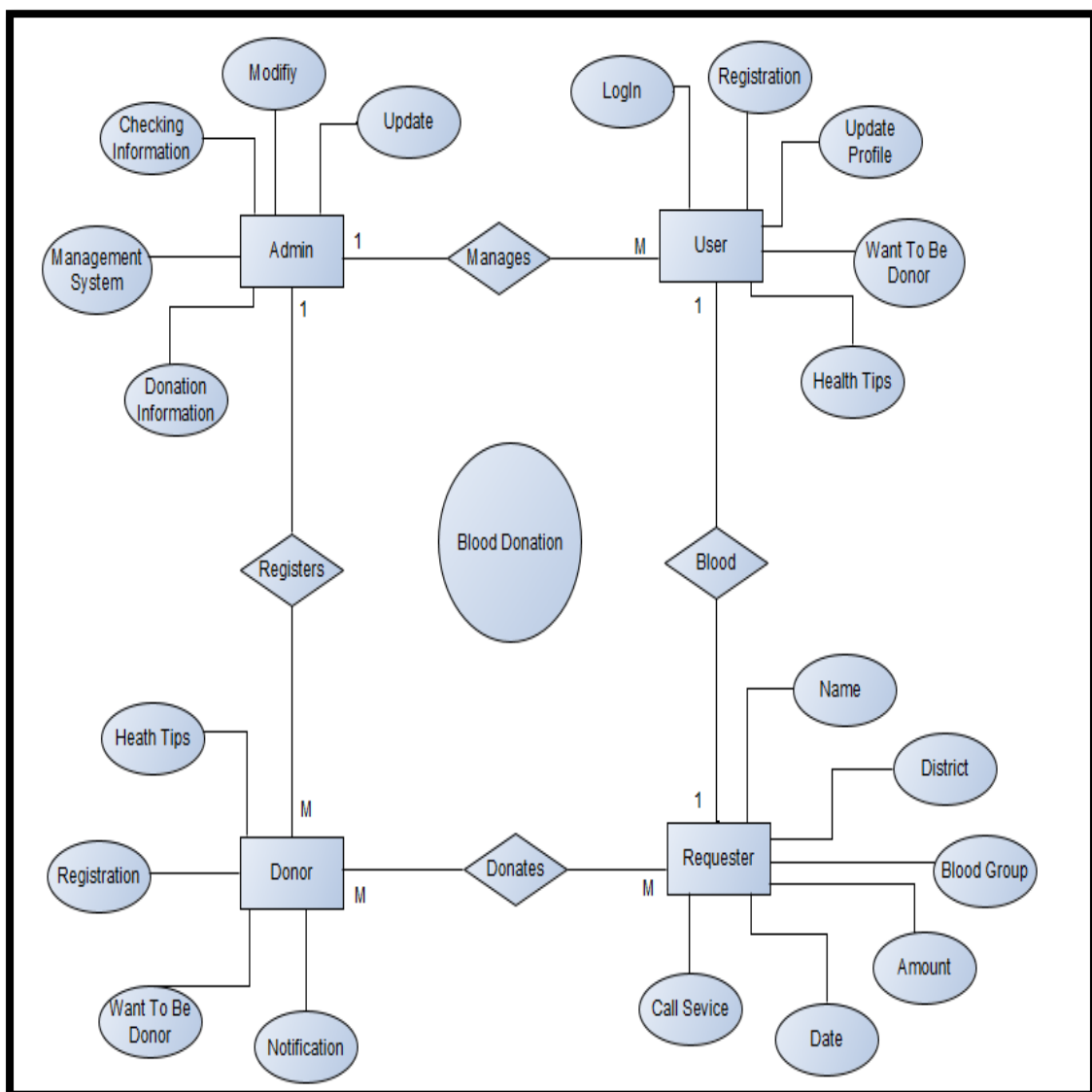


Fig 3.8 ER diagram

3.5 Design Requirements

The design requirements for our project will differ us from the other projects, because our project will be working on our specific problem statement and the product, system, or experience that we are designing. We designed our project for a specific segment, that is develop a student community and we try to provide the all things to our application that necessary for a user to operate our application easily.

3.5.1 Provide Authentication System for User

In our application, we should provide the scope of authentication to the user. We should design a registration section so that user can be registered to our application. We also designed a login section where users can provide the message to other.

CHAPTER 4

DESIGN SPECIFICATION

4.1 Front-end Design

Front-end is most important part of application development. It is work on presentation layer and it directly displayed to the user, so the only way to interact with system is front-end and it is very important to develop a simple and easily understanding front-end and GUI for user. After all we design it for user and we hope that user will accept our system easily. In bellow we attach our application front-end design.

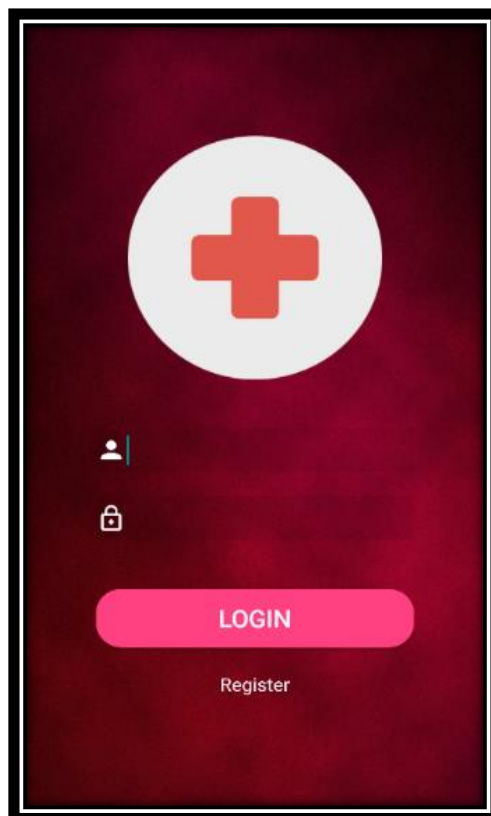


Fig 4.1 Login screen

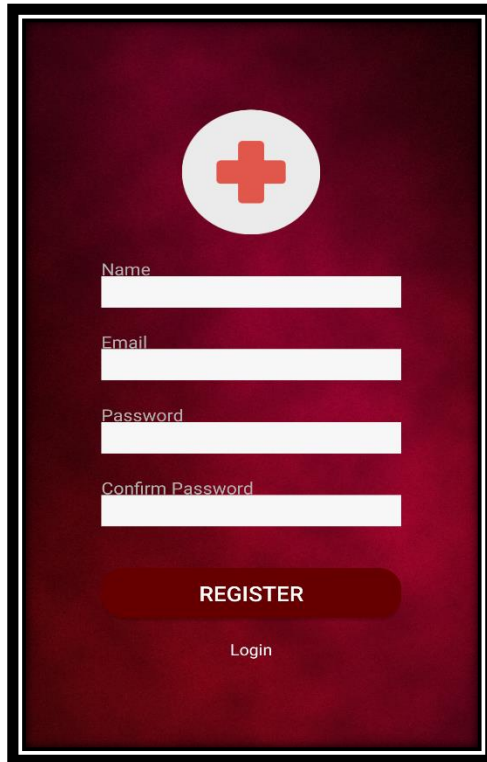


Fig 4.2 Register screen

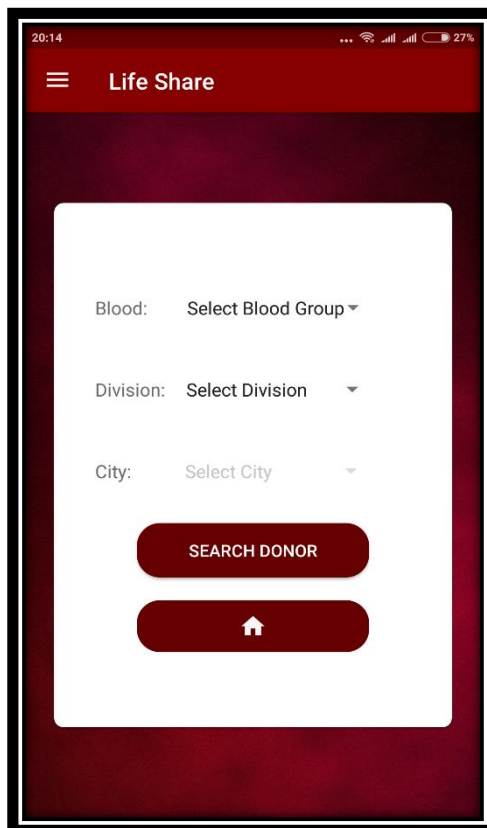


Fig 4.3 Search donor screen

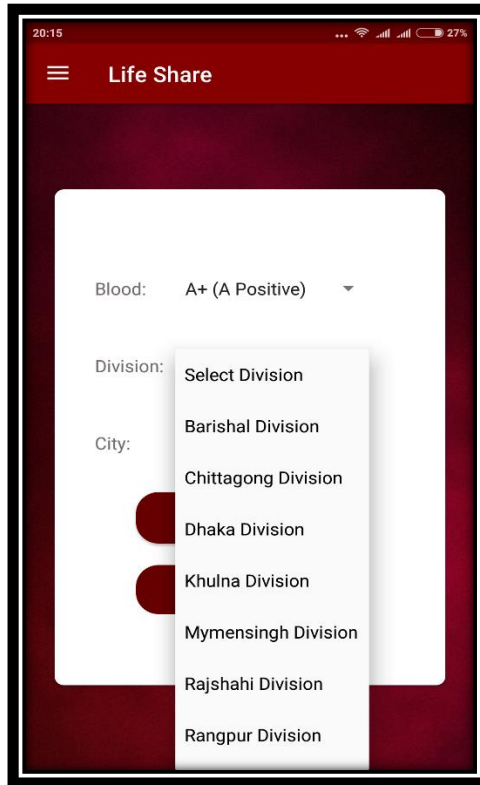


Fig 4.4 Search donor division

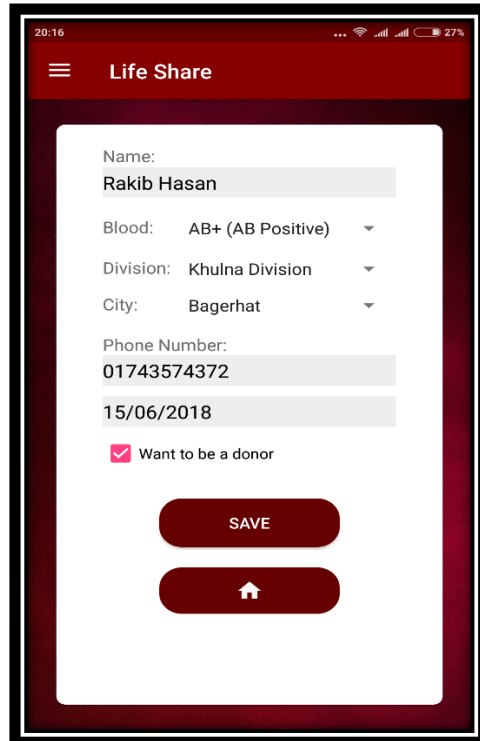


Fig 4.5 Want to be a donor screen

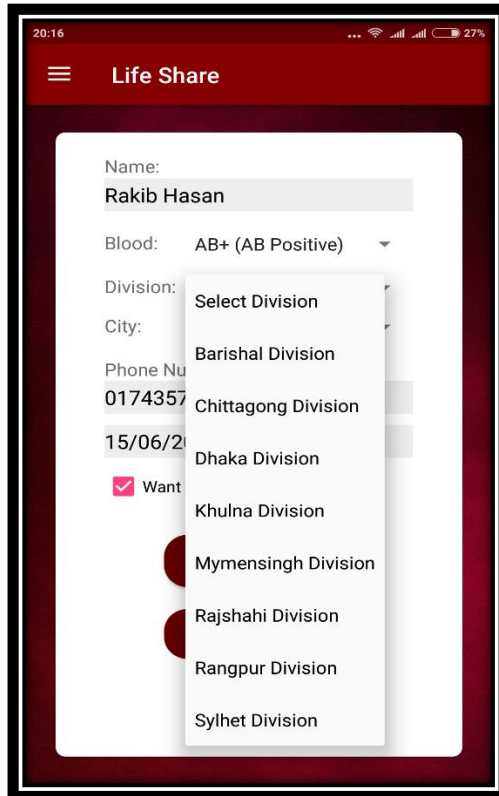


Fig 4.6 Selecting division screen

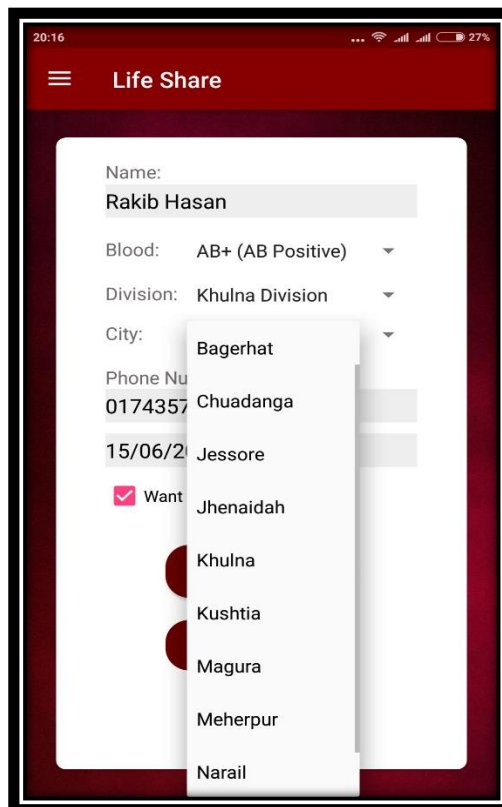


Fig 4.7 Selecting city screen

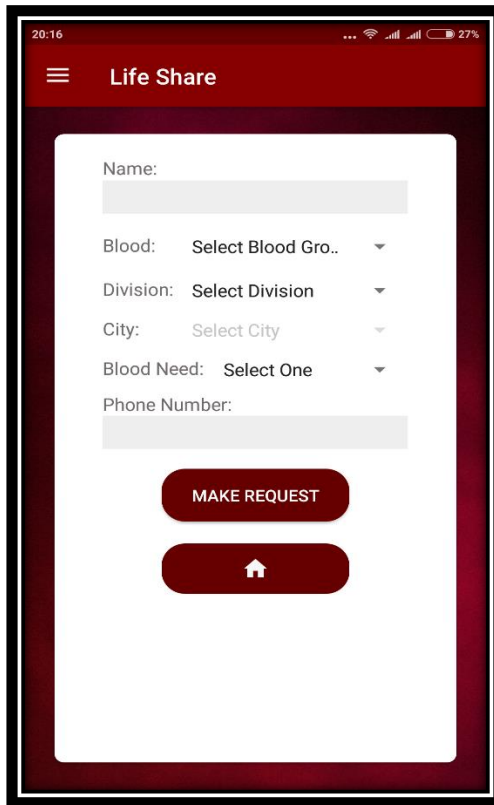


Fig 4.8 Make request screen

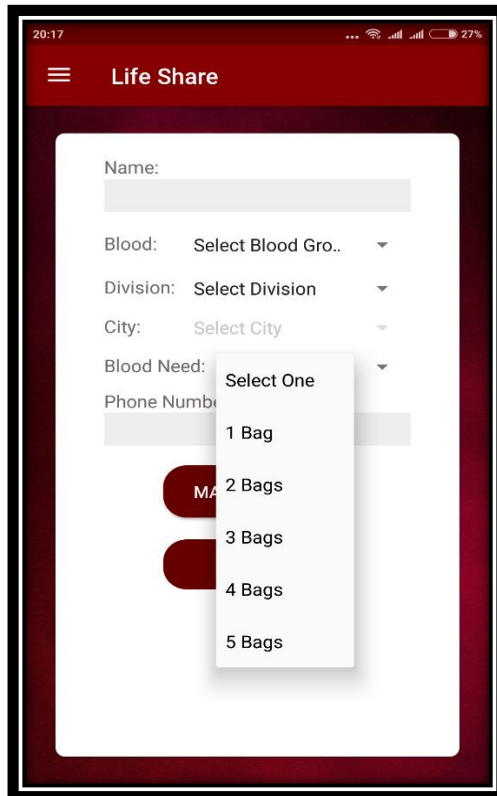


Fig 4.9 Quantity of bloods

4.2 Back-end Design

Back-end means a part that does work, but the user is unaware of or can't see. The back-end usually consist of three parts. First is a server, second is an application and third is database. Back-end technology usually consist of language like PHP, Ruby and Python etc. Actually front-end design is only way to interact with the user but user can't watch and never visualized how to the system is working. Back-end does everything that happens on the server or behind the scenes. For android application, it's more challenging to handle back-end side than a web application. Because android development components is very limited that's way, in back-end we are don't create anything that would be created pressure on the device. Now we shows some back-end design of our application.

+ Options				Name	Email	Password
<input type="checkbox"/>	Edit	Copy	Delete	Rakibul Hasan	abc@gmail.com	password123
<input type="checkbox"/>	Edit	Copy	Delete	bcgcvv	bb@gmail.com	bbbbbbbbbbbb
<input type="checkbox"/>	Edit	Copy	Delete	Rakib Hasan	hsn@gmail.com	password123
<input type="checkbox"/>	Edit	Copy	Delete	Rakib Hasan	rakib@gmail.com	12345678
<input type="checkbox"/>	Edit	Copy	Delete	Rakibul Hasan	rkbzclick@gmail.com	password
<input type="checkbox"/>	Edit	Copy	Delete	Tahsin Jawad	tahsin@gmail.com	12345678

Fig 4.10 User registration table

+ Options								
ID	Email	Name	BloodGroup	Division	City	Bags	Phone	
9	rakib@gmail.com	Tonima	O+	Dhaka Division	Dhaka	5 Bags	01685361074	
29	abc@gmail.com	Rakib Hasan	B+	Rajshahi Division	Bogura	1 Bag	01687050215	
30	tahsin@gmail.com	Noban Hasan	O+	Dhaka Division	Dhaka	2 Bags	01685361074	

Fig 4.11 Blood request table

+ Options											
		Email	Name	BloodGroup	Division	City	Phone	LastDateOfDonate	Donor		
<input type="checkbox"/>				abc@gmail.com	Rakib Hasan	A+	Rajshahi Division	Bogura	01687050218	24/10/2018	true
<input type="checkbox"/>				frezar@gmail.com	Frezar	O+	Dhaka Division	Dhaka	01885361074		true
<input type="checkbox"/>				rakib@gmail.com	Rakib Hasan	O+	Dhaka Division	Dhaka	01755555555	03/10/2018	true
<input type="checkbox"/>				tahsin@gmail.com	Tahsin Jawad	O+	Dhaka Division	Dhaka	01685361074	24/04/2018	true

Fig 4.12 Want to be a donor table

4.3 Interaction Design and UX

Actually an interaction design which call the understand user problem domain, process the problem and find the result, do the action by respecting the result and solve the problem. User experience focuses on the overall procedure between a user and an application.

For UX, we tried to give some tremendous experience by our application. We keep our system simple and easier to use for better experience and performance to we worked so many to decrease the data loading time on our application and that effort will be continued.

4.4 Implementation Requirements

Defining requirements is the first step to development of an embedded system. Without requirements like without backbone. Because the developer don't know what he will do. Requirement provides the weedy parts about the system, these requirements are necessary to ensure that the system does not enter an undefined state. So it is very important to develop a good requirement implementation for embedded system design.

In our project, we need to know requirements for implementations our front-end design. Before implementation design, we need to know about android development tools.

4.4.1 Basic Android Overview

Android is a comprehensive platform, which means it is a complete software stack for a mobile device. It provides all the tools frameworks for developing a mobile apps quickly and easily.

Android is also open source platform which means application framework and standard apps are totally open.

4.4.2 Android Version

Alpha (1.0)	Honeycomb (3.0-3.2.6)
Beta (1.1)	Ice Cream Sandwich (4.0-4.0.4)
Cupcake (1.5)	Jelly Bean (4.1-4.3.1)
Donut (1.6)	KitKat (4.4-4.4.4)
Éclair (2.0-2.1)	Lollipop (5.0-5.0.2)
Froyo (2.2-2.2.3)	Marshmallow (6.0)
Gingerbread (2.3-2.3.7)	Nougat (7.0-7.1)

4.4.3 The Emulator

Running application in physical device and an emulator device is same thing. The emulator is an actual code emulator, meaning it runs the same code as the actual device.

4.4.4 Android SDK

Android SDK is essential tool for developing android application. This SDK is very comprehensive tool that contains not only the library for development, but also includes the simulator to test application. We use Android studio together to run and develop our application.

CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of Database

The implementation phase is where you install the DBMS on the required hardware, optimize the database to run best on that hardware and software platform, create the database and locate the data.

5.1.1 Database Design

Database design is the process of producing a detail data model of database. This data model contains all the needed logical and physical design choices and physical storage parameters needed to generate a design in a data definition language, which can then be used to create a database. A fully attributed data model contains detailed attributes for each entity.

A database collects and stores data in such organized way that data requirements are satisfied by the database. The general objective is to make information access easy, quick, inexpensive and flexible to the user. A collection of relative records makes up a table. To design and store data to the needed forms database tables are prepared. Two essential settings for a database are:

- Primary key: This field is unique for all the record occurrences.
- Foreign key: This field is used to set relationship between tables. Normalization is a technique to avoid redundancy in the tables [6].

5.1.2 Database Management System

A database management system (DBMS) is system software for creating and managing databases. The DBMS provides users and programmers with a systematic way to create, retrieve, update and manage data. In our application we use MySQL.

5.1.3 MySQL

MySQL is the most popular open source relational SQL database management system. MySQL is one of the best RDMS being used for developing web based software application. We are using MySQL database in our proposed system. It's cost effective. There is no doubt that Oracle create terrific database but the cost involved will be prohibitive for many MySQL is free. It can be installed and used but pay nothing in the process. Now we have shown our project back-end database table in bellow:

	Email	Name	BloodGroup	Division	City	Phone	LastDateOfDonate	Donor
<input type="checkbox"/>	aa@gmail.com	Anowar	A+	Dhaka Division	Shariatpur	01521208063	15/07/17	True
<input type="checkbox"/>	abc@gmail.com	Rakib Hasan	A+	Rajshahi Division	Bogura	01687050218	24/10/2018	true
<input type="checkbox"/>	abdullah23@gmail.com	Abdullah Al Zaiem	B+	Dhaka Division	Manikganj	01743054257	08/02/17	True
<input type="checkbox"/>	anas23@gmail.com	Anasari	A+	Dhaka Division	Narayanganj	01778540275	09/02/17	True
<input type="checkbox"/>	arif@gmail.com	Muhammad Arif	AB+	Dhaka Division	faridpur	01756196928	02/02/17	True
<input type="checkbox"/>	azim45@gmail.com	Azim	A+	Dhaka Division	Manikganj	01521208063	02/02/17	True
<input type="checkbox"/>	azimulkarim45@gmail.com	Azimul Karim	A+	Dhaka Division	Dhaka	01521208067	02/04/17	True
<input type="checkbox"/>	bb@gmail.com	abcd	A+	Dhaka Division	Dhaka	01685361074	04/02/2018	true
<input type="checkbox"/>	emon@gmail.com	Emon Molla	O+	Dhaka Division	Gopalganj	01919200095	18/07/17	True
<input type="checkbox"/>	frezar@gmail.com	Frezar	O+	Dhaka Division	Dhaka	01885361074		true
<input type="checkbox"/>	hakimbondhon@gmail.com	Abdul Hakim badhon	A+	Dhaka Division	Kishoreganj	01686200217	02/02/17	True
<input type="checkbox"/>	jahedul@gmail.com	A. K. M. Jahedul Haque	A+	Dhaka Division	Gazipur	01912010700	02/02/17	True
<input type="checkbox"/>	jubaer@gmail.com	Jubaer Khan	A+	Dhaka Division	Narsingdi	01912010707	09/07/17	True
<input type="checkbox"/>	lasker44@gmail.com	Mohiuddin Lasker	A-	Dhaka Division	Faridpur	01712341726	14/009/17	True
<input type="checkbox"/>	mdd33@gmail.com	Mohidul Islam	A+	Dhaka Division	Gopalganj	01611554250	22/12/17	True
<input type="checkbox"/>	rahim@gmail.com	ABDUR RAHIM	AB-	Dhaka Division	Madaripur	01961500757	05/03/18	True
<input type="checkbox"/>	raj777@gmail.com	Raj	A+	Dhaka Division	Rajbari	01676400219	15/07/18	True
<input type="checkbox"/>	rakib@gmail.com	Rakib Hasan	O+	Dhaka Division	Dhaka	01755555555	03/10/2018	true
<input type="checkbox"/>	ray123@gmail.com	Bidhan Kumar Ray	B+	Dhaka Division	Faridpur	01759999936	15/09/118	True

Fig 5.1 Donors table

	ID	Email	Name	BloodGroup	Division	City	Bags	Phone
<input type="checkbox"/>	2	shariful@gmail.com	Shariful Islam	B+	Dhaka Division	Madaripur	3 Bags	01719714675
<input type="checkbox"/>	7	abdullah23@gmail.com	Abdullah Al Zaiem	AB+	Dhaka Division	Faridpur	1 Bag	01912010700
<input type="checkbox"/>	9	rakib@gmail.com	Tonima	O+	Dhaka Division	Dhaka	5 Bags	01685361074
<input type="checkbox"/>	29	abc@gmail.com	Rakib Hasan	B+	Rajshahi Division	Bogura	1 Bag	01687050215
<input type="checkbox"/>	30	tahsin@gmail.com	Noban Hasan	O+	Dhaka Division	Dhaka	2 Bags	01685361074
<input type="checkbox"/>	31	bb@gmail.com	rrrr	A+	Khulna Division	Bagerhat	2 Bags	01518489764
<input type="checkbox"/>	32	bb@gmail.com	xyz	A+	Dhaka Division	Dhaka	3 Bags	85654289652

Fig 5.2 Request for blood table

5.2 Implementation of Front-end Design

It's is very challenging to develop a gorgeous front-end design. Because for developing, a design for android device, all the time you have to consider the display dimensions of android device. It's a very tough to balance the design with android display size. Since android device are similar in size, so the design should be defined shortly including key components of the system. For interactive design we always try to be a simple in UI design and we try some material design for make the application beautiful. But the most challenging portion is to make our application device independent because there are many types of smartphone that support android, among them some device have very weak hardware component, in small pressure those devices behave like weird. Beyond different device can be different in version. So we have to design a system which can support all the devices and we have to ensure that, the system that support most of the android version from newer to older and doesn't create any extra pressure on the devices. We attach our front-end implementation design below.

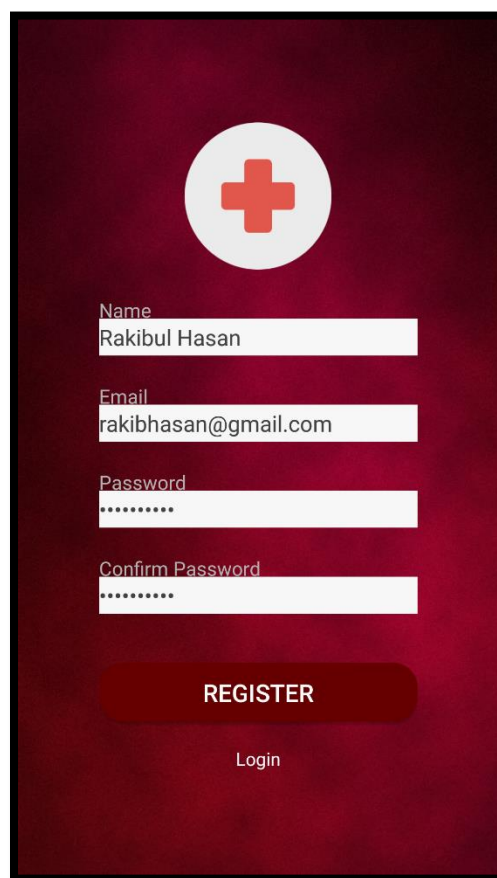
The image shows a registration screen with a dark red background. At the top center is a white circle containing a red cross icon. Below this are four white input fields with labels: 'Name' (filled with 'Rakibul Hasan'), 'Email' (filled with 'rakibhasan@gmail.com'), 'Password' (filled with dots), and 'Confirm Password' (filled with dots). At the bottom, there is a dark red rounded button with the text 'REGISTER' in white, and below it, the text 'Login' in a smaller white font.

Fig 5.3 Registration screen

The image in Fig 5.3 shows the registration window of our application. It's a prerequisite process of our application if student want to be a user of this application they should register them first. All the field of this window is required, so user must provide all the data to register.

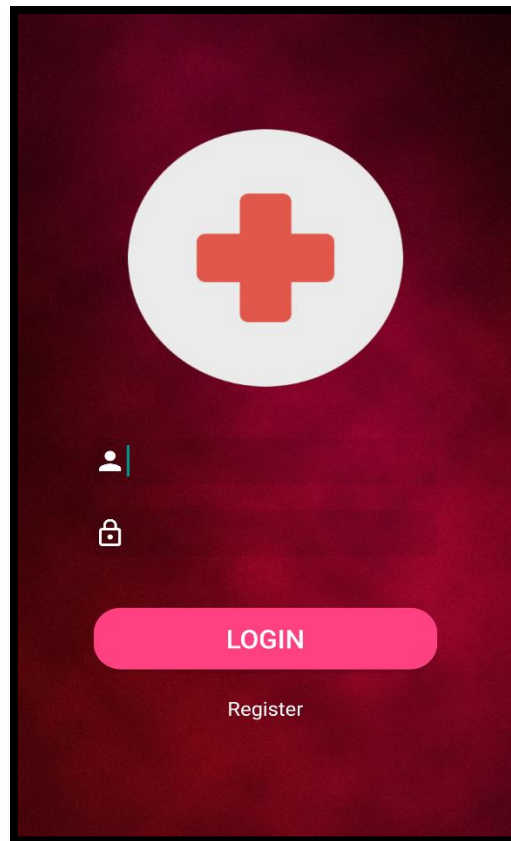


Fig 5.4 Login screen

Fig 5.4 shows our login window that contain two mandatory field. One is user name and other is user password, to enter the system. User must be valid him first. It's like a door of a home.

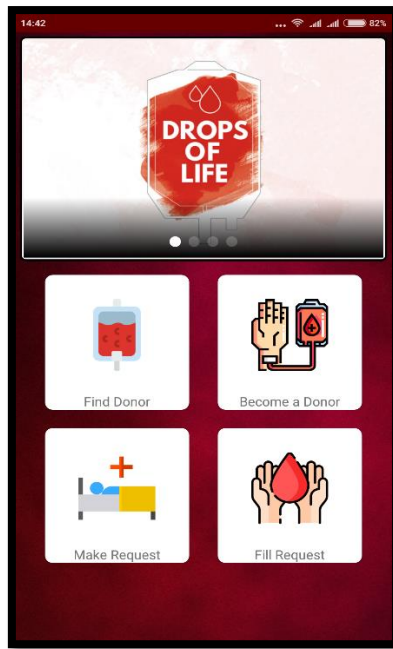


Fig 5.5 Home Screen

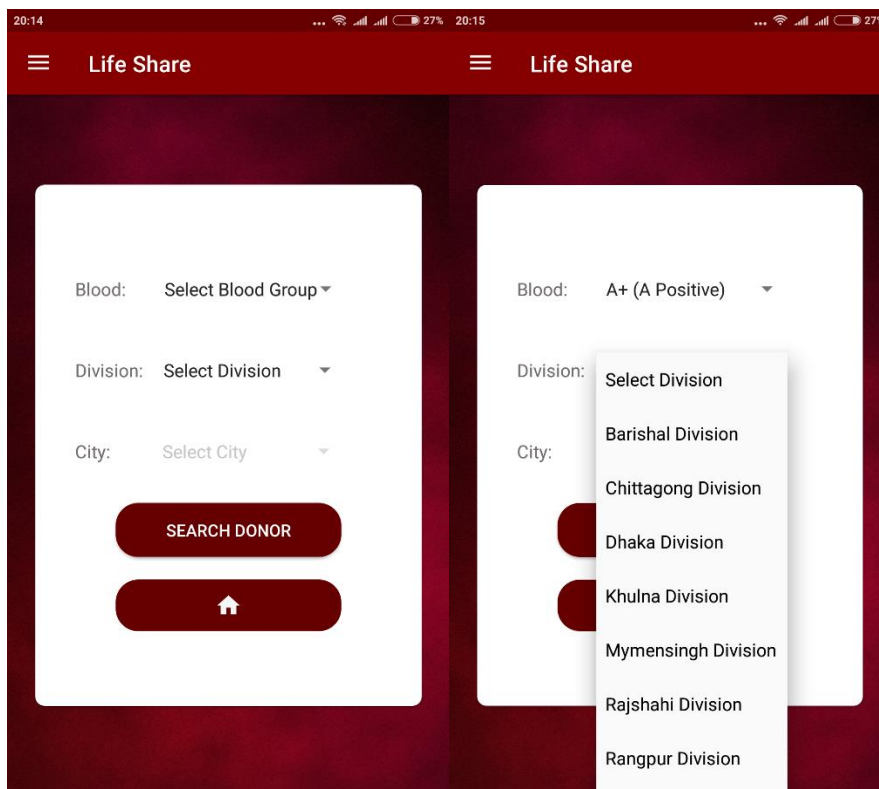


Fig 5.6 Search donor screen

Fig 5.6 shows search donor window. The user will get the list of donors according to his/her requirement. The user can search donor by selecting division and city.

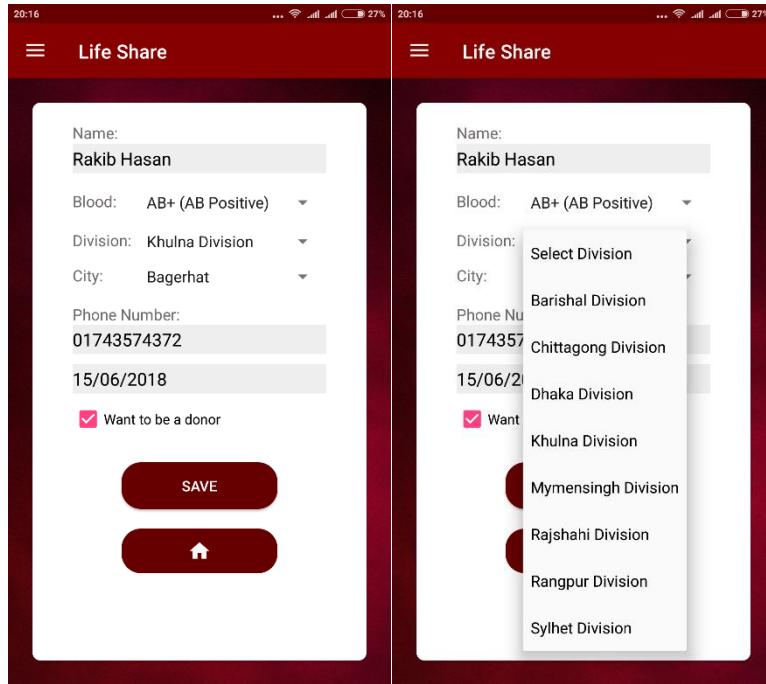


Fig 5.7 Want to be a donor screen

Fig 5.7 shows want to be a donor window. If user want to be a donor then he/she can give their information like as name, blood group, division, city, phone number and last date of donate. User can edit their information also. After 4 months of donation user can notified by our application.

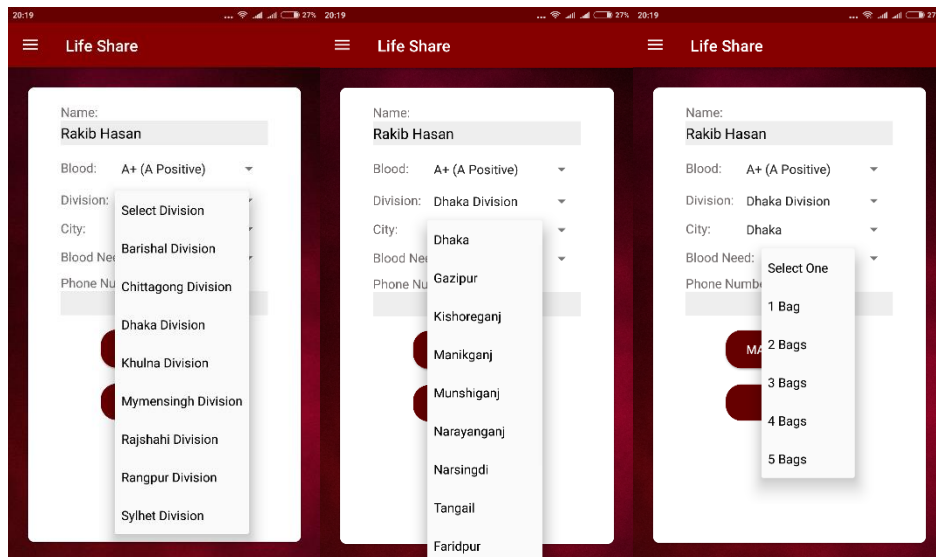


Fig 5.8 Blood request screen

Fig 5.8 shows the blood request window. There will be another facility that is user can select his requirement of blood quantity and providing his/her date by amount of bloods and date options.

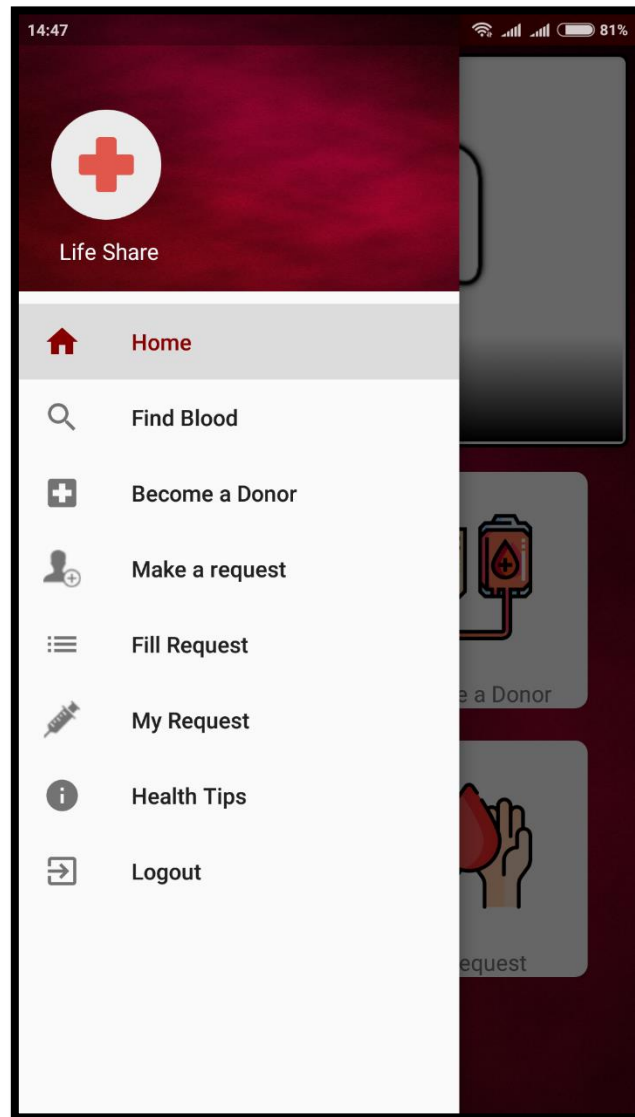


Fig 5.9 Navigation screen

Fig 5.9 shows the navigation window. It shows all the features like as find blood, become a donor, make a request, fill request, my request, health tips of our application.

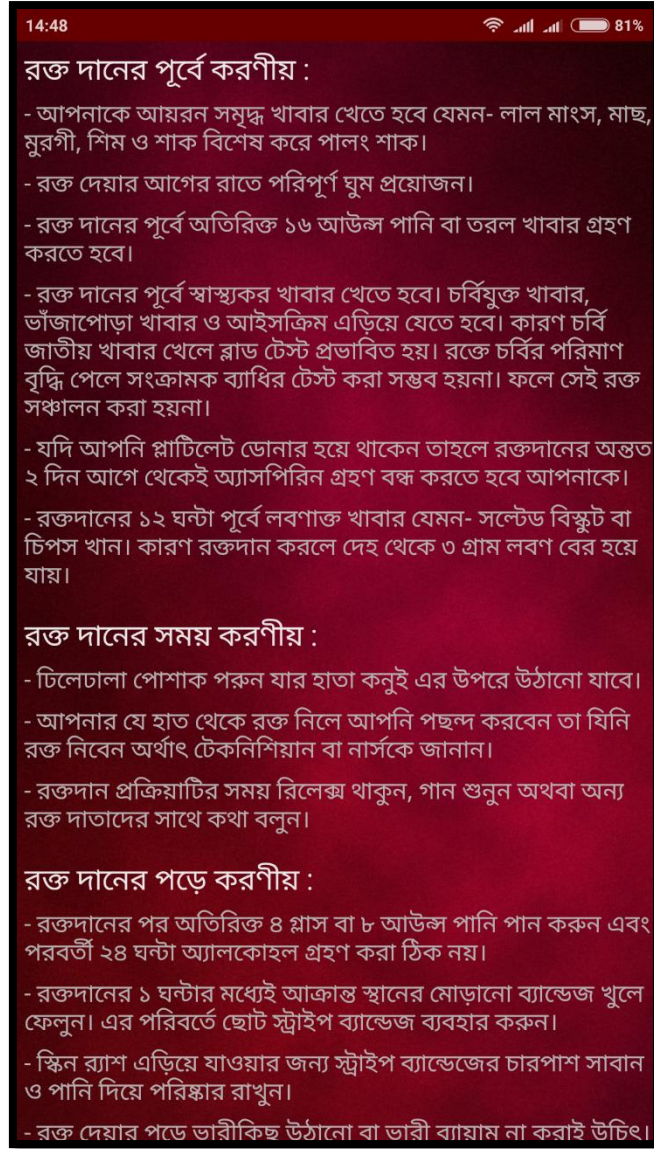


Fig 5.10 Health tips screen

Fig 5.10 shows health tips window. It's helpful for every donors. They gain knowledge about before donate blood and after donate blood.

5.3 Testing Implementation

Software testing is a process used to identify the correctness, completeness, and quality of developed computer software. In our project, we testing many times for notifications systems, data entry systems, data delete systems. Now we attach our testing implementation works of our application.

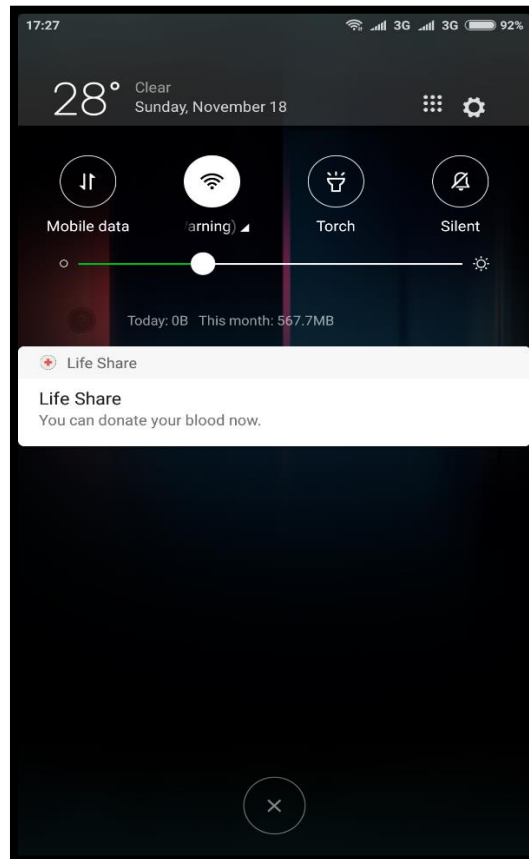


Fig 5.11 Notifications for donor screen

After complete become a donor sections or when a user wants to be a donor if he donated blood 4 months ago then he/she can get notified by our application. Notification be like “You can donate your blood now”.

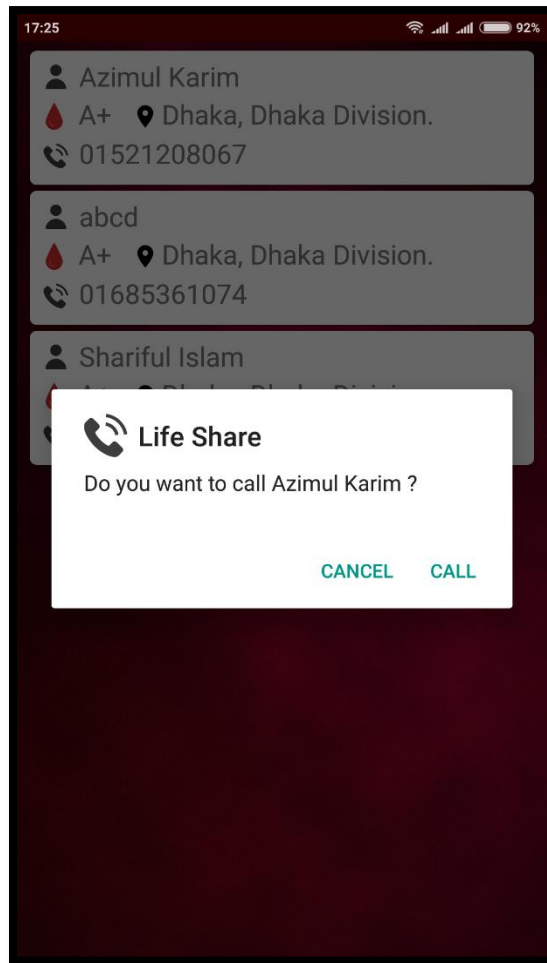


Fig 5.12 Call option with donor screen

User can contact with donor by call systems. When a user finds a donor, he/she can click the box the donor then a call field is appear, user can select call option for contact with donor and if user just check this system but don't want to contact then he/she can select the cancel option.


5.3.1 Database Testing



Column	Type	Function	Null	Value
ID	int(255)	<input type="text"/>		11
Email	varchar(30)	<input type="text"/>		rezaulkarim@gmail.com
Name	varchar(30)	<input type="text"/>		Rezaul Karim
BloodGroup	varchar(10)	<input type="text"/>		A+
Division	varchar(20)	<input type="text"/>		Dhaka Division
City	varchar(15)	<input type="text"/>		Faridpur
Bags	varchar(15)	<input type="text"/>		2 Bags
Phone	varchar(15)	<input type="text"/>		01912010754


Fig 5.13 Insert data in request table

```
✓ 1 row inserted.  
INSERT INTO `request_table` (`ID`, `Email`, `Name`, `BloodGroup`, `Division`, `City`, `Bags`, `Phone`) VALUES ('11', 'rezaulkarim@gmail.com', 'Rezaul Karim', 'A+', 'Dhaka Division', 'Faridpur', '2 Bags', '01912010754');
```

Fig 5.14 Data inserted

 **Rezaul Karim**

 **A+**  **2 Bags**

 **Faridpur, Dhaka Division.**


 **01912010754**

Fig 5.15 Data in our application

5.4 Test Results and Reports

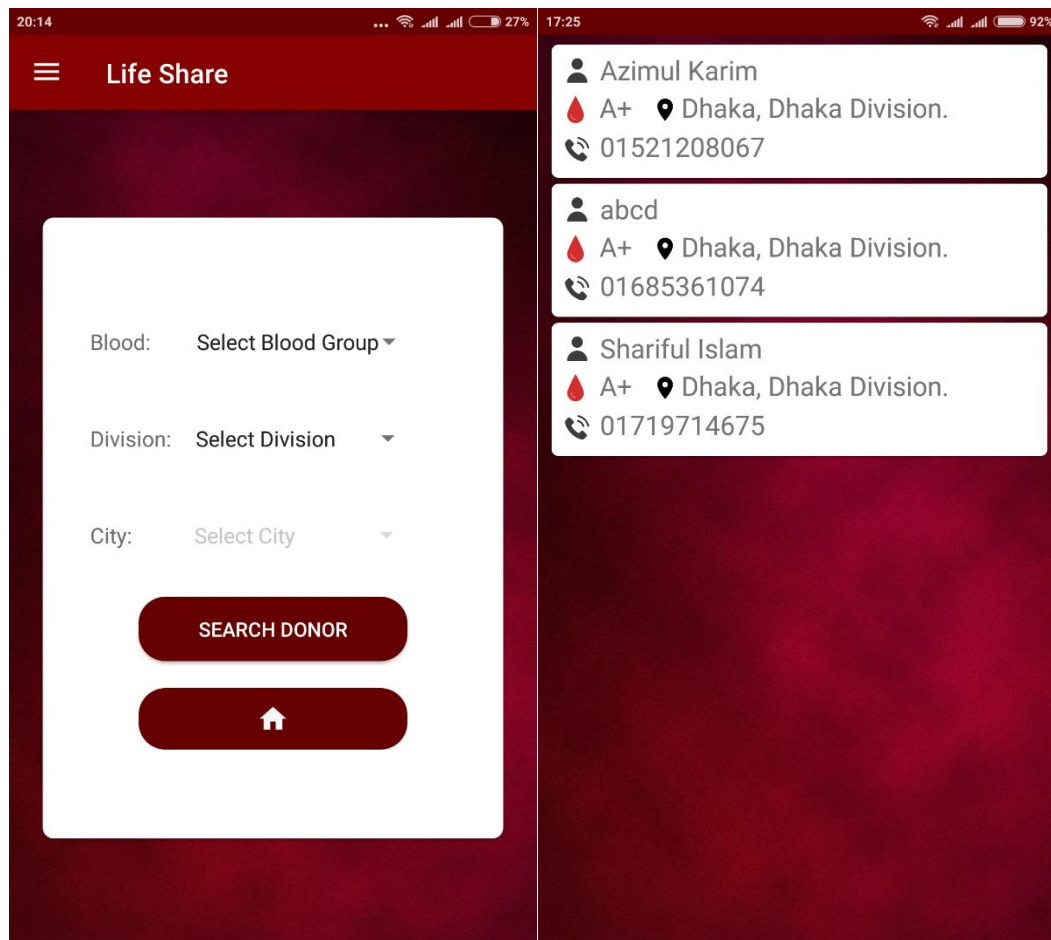


Fig 5.16 Donor list screen

Here we can show the donor list of Dhaka division under the Dhaka city with the blood group A+ (A positive). User can select their division and their city by searching blood donors. We create a box where user can search every blood groups like A+, A-, B+, B-, O+, O-, AB+, AB-.

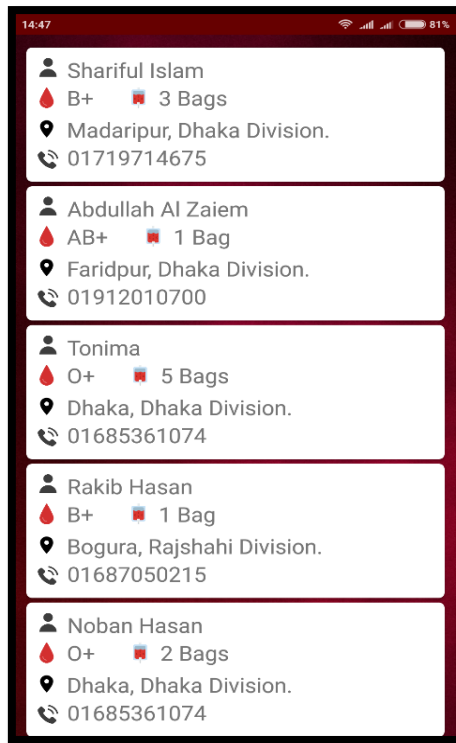


Fig 5.17 Fill request screen

Fig 5.17 shows the results of fill request window. A normal user or donor can view this fill request window where users request for quantity of bloods with location.

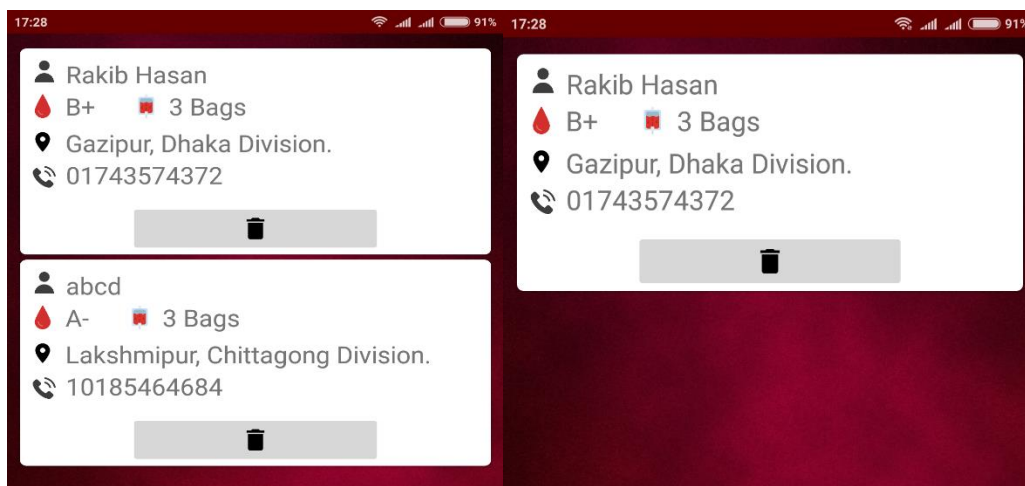


Fig 5.18 Request delete Screen

User can delete his/her own request for bloods by tapping the delete box.

As we all already know that the overall system has been developed on android studio under the platform of android. So, the overall system has to tested on the android platform too. For the testing purpose of the application we have used an android device named as XIAOMI MI NOTE 3. The device completely matches with this specifications which is required to run the application named as Life Share. The android version of the device also matches with the overall specifications of the application. Few screenshots of the application has been ran on that specific testing device are given below:

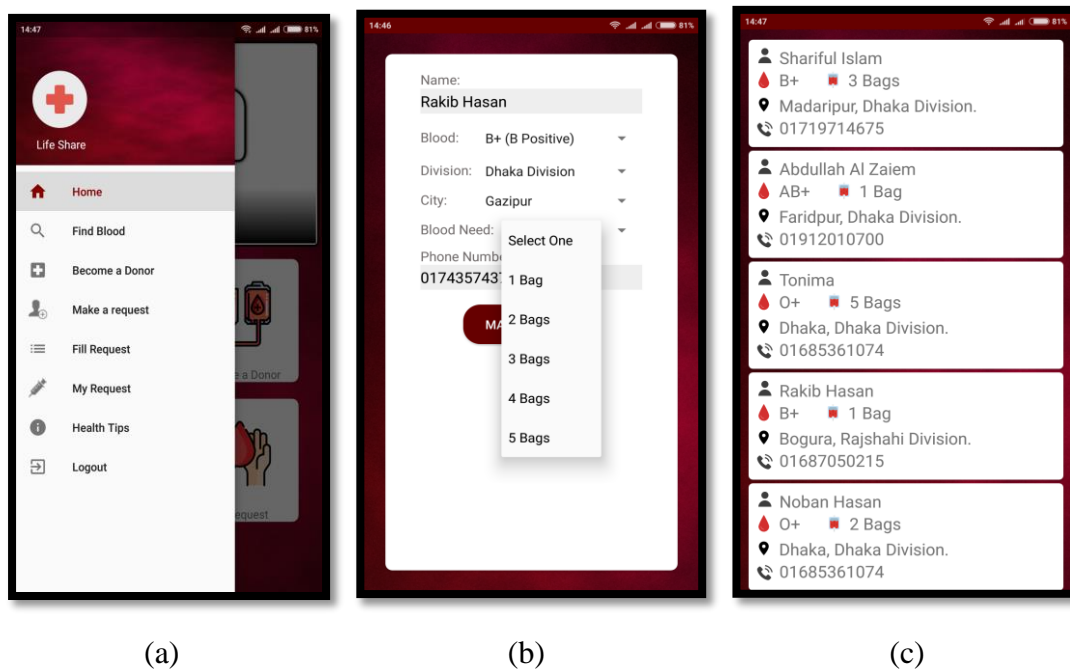


Fig 5.19 (a), (b) and (c) Application testing

The above mentioned screenshots strongly proves the testing part of the application which has run smoothly as a test on the device.

CHAPTER 6

CONCLUSION AND FUTURE SCOPE

6.1 Discussion and Conclusion

The first and foremost challenge for launching this app in future could be cost management and need of expertise on app designing.

Secondly, internet usage is another problem as majority of people in Bangladesh have no access to speedy internet connection.

Thirdly, convincing people regarding such technological developments and removing their concerns is another major obstacle by way of its execution.

The gift of blood is the gift of life. There is no substitute for human blood. This system can be used to view all the donor details and accordingly select the right donor. The android mobile user will be able make quick decision in selecting a donor.

We have proposed an efficient and reliable android application for blood bank. When there is urgent need for blood, it may not be possible for people to communicate with the each and every hospital and blood bank. For that the application can fulfill their requirements in short time span so that it can overcome the death rate. Thus the proposed system can help everyone who is need of blood anytime and anywhere.

This system not only used for the blood bank automation system but also used for organ donation system. This system is very helpful for the smart city and smart nation purpose.

6.2 Scope for Further Developments

Currently we are evaluating our project. We are working with a blood donor organization for testing our system. As for as the responses come till now are positive and optimistic. People who use it praise it highly as it is a real time faster and easily accessible system than the conventional method of contacting blood banks or blood donor organizations for blood. Furthermore when blood banks run short of particular blood type, the application can find a several donors to refresh the supply. We hope to launch the application through a network operator after the testing phase.

Besides the facilities, we are planning to integrate some data mining facilities in our system. We have been spreading an effort to establish the first-ever national, public-private collaboration to track the adverse reaction and incidents associated with blood collection and transfusion as well as tissue, organ, and cell therapy transplantation. The collaboration known as the Bio surveillance Network involves gathering and analysis of data to help identify trends and recommend best practices and interventions intended to significantly improve patient care and safety while reducing overall costs to the health care system. We also wish to implement an intelligent donor classification algorithm, CART to make donor profiling more robust. We hope we can make a better change in collecting voluntary non-remunerated blood donors through this effort.

Project Profile

Project Name	Life Share
Objective	The system provide online information of blood bank and administrators can all information about blood bank, donor, request for blood.
Platform	Android application
Front End	Android SDK
Back End	MySQL Database
Tools	Android Studio, SDK, Java Virtual Machine, PHP, Notepad, Microsoft Office.
Project Duration	4 Months
Internal Guide	Rubaiya Hafiz
Submitted To	Daffodil International University
Develop By	Sharmin Jahan Tanima S.M.Rakibul Hasan

Reference

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3. "Blood bank management system project report-free download," available at <http://ignousupport.blogspot.com/p/blood-bank-management-system-project.html> , last accessed on 15 October 2018, 10:00 PM.
4. Babatunde Dunmoye, "Android Mobile Application Development for an Online Bookstore with PayPal Integration," Available at <https://www.theseus.fi/bitstream/handle/10024/90098/Androidm.pdf;sequence=1>, last accessed on 2 November 2018.
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