

Design and Implementation of Blood Donation Management System-Donate Life

by

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Supervised by

Salma Tabashum

Submitted in partial fulfillment of the requirements for the degree of
Bachelor of Science in Computer Science and Engineering



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SONARGAON UNIVERSITY (SU)**

January 2023

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APPROVAL

The project titled “**Design and Implementation of Blood Donation Management System-Donate Life**” submitted by Md. Nurul Islam (CSE1901016119), Sanjida Khanom Supty (CSE1901016178) and Md.Mehedi Hasan(CSE1901016054) to the Department of Computer Science and Engineering, Sonargaon University (SU), has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of Bachelor of Science in Computer Science and Engineering and approved as to its style and contents.

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DECLARATION

We, hereby, declare that the work presented in this report is the outcome of the investigation performed by us under the supervision of **Salma Tabashum, Lecturer**, Department of Computer Science and Engineering, Sonargaon University, Dhaka, Bangladesh. We reaffirm that no part of this [thesis or project] has been or is being submitted elsewhere for the award of any degree or diploma.

Countersigned

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ABSTRACT

The web based project is a rising online Donation for blood system. The complete web site has been rising rearing view of the distributed dependent server computing technology, in mind. The web site is a blood Donation system is to collect an information about the donor and the people who need the blood that are related to Impart the blood. This Petition any person who is Inquisitive in Impart the blood can Ledger himself in the common system if any Association. The Association needs to Ledger itself with this web site can also Ledger, in addition if any General Client wants to make Ledger Blood Donation he/she can also take the help of this web site. Admin is the main Domination who can do Composition, Defacement, and Interchange if Needful. This web site is events Necessity a proper and Methodical Administration. The blood must be Stirred with care and Medicate Minutely as it is Concerned to someone's life. The is Web-based Blood Donations System is Raised to Bargain a better life from our future Procreation. The web based site has been Schematic to be Estate the view of distributed Masonry, with the centralized Agglomeration of the data has been stored.

ACKNOWLEDGMENT

At the very beginning, we would like to express our deepest gratitude to the Almighty Allah for giving us the ability and the strength to finish the task successfully within the schedule time.

We would then like to thank our supervisor, **Salma Tabashum** for introducing us to the amazingly interesting world of Data Mining Machine Learning and Data Mining. And she is the person who taught us how to perform research work efficiently. Without she and her continuous supervision, guidance and valuable advice, it would have been impossible for us to come at this point and have some output from the thesis. We are especially grateful to Ma'am for allowing us greater freedom in choosing the problems to work on, for his encouragement at times of disappointment.

We would like to convey our gratitude to **Prof. Dr Md Alamgir Hossain**, (Dean, Faculty of Science & Engineering) and special gratitude our honorable departmental head **Bulbul Ahamed**, (Associate Professor & Head, Department of Computer Science and Engineering) for their kind concern, discretion, friendly behavior and precious suggestions.

We would like to express our gratitude to all our teachers. Their motivation and encouragement in addition to the education they provided meant a lot to us.

Last but not the least, we would like to thank our family, our parents, for their encouragement, endless love and for supporting us spiritually throughout our lives.

LIST OF ABBREVIATIONS

CSS	Cascading Style Sheets
DFD	Data Flow Diagram
HTML	Hypertext Markup Language
JS	JavaScript
SQL	Structure Query Language
WWW	World Wide Web

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CHAPTER 1

INTRODUCTION

1.1 Introduction

This project is a way to collect some person of one's own accord has blood attracted to the enjoyed for the more advancement when a person need to go at hospital for dealing sequence that need for them. Donate blood may be of Entire blood or the small parts of the blood, like red blood cells anyone need, white blood cells someone needs, plasma, and some time needed platelets. Blood Donation needs often engage in the way of collecting blood and other method such as managing stocks how many blood needs someone, substantiate blood appeal and updating blood donation all kinds of information we want this type of information all time. The encouragement of this website is to develop of blood donation system in Bangladesh to update a blood donation information system which ensures on making an online blood donation system that is approachable for all information on the donors and administrators. Donors also receive their information regarding their previous blood donations system, along from their blood donation results and blood donation history, to Effortlessly plan their next blood donations records. They can also develop the personal information about the blood donation system, except having to contact the blood donation systems data book. The system is also updated the blood donation administrators, who is the main authority in the blood donation system. Administrators can add anything, modifying anything, delete or retrieve anything and query any blood donation information if needed. The administrator is also accountable to responsible to the hospital's blood requests and checking the available in the blood donors on inventory.

1.2 Motivation

For this world we know many Growing countries, there are a comprehensive deficiency between blood donation necessity and blood needs for supplies and as a solution, so many patients/people die or suffer aimlessly because they do not have sufficient amount of blood and blood related things they actually want. The commonly we see most are affected women and children from any country especially around the world. Blood Advancement in updating countries is once and used again to handle children and other people with severe anemia/other disease and women with pregnancy-related bleeding and other problems in this situation. The highest maternal and children mortality rates Imputed to pregnancy related-complications or other problems, severe malaria, anemia and dengue, are Testimony of the Magnificence of the unrest needs for blood donation in Bangladesh. How more, man-made every time naturalistic disasters, road accident is common things in Bangladesh, and armed Rivalry Ulterior Increment the needs for blood Donation system in Bangladesh.

1.3 Objectives

This is the best way to public and other private organizations to make online post every day to want to blood which day they need blood donation. We will provide best donors and blood requests system from our management function for the blood requests by providing function in our system to control the trace and work flow. We will provide authorized functionality from our project from some features to this current system where private and other organizations can only view by the authorized user. We will provide some recording functions for our web site every process of the blood Donation records in other to keep track. We will ensure our all donors or our partners we will provide best blood and organ from our system. We will check every day how many blood requests comes in every day. We will manage all Information from our donors and our partners. We will collect all Information from our donors and who will request for blood.

1.4 Expected Outcome

The Expected outcome from this web based project is the online Blood Donation system there are two main drain, first one is public and other one is the administrator or admin. The public outlet is creating to the display the blood donation related some programs to be held and assume the public to declare make online blood donations system. On the other part, the admin outlet is creating the activities for the admin to arrange appointments and other things, public the blood donation program, manage system blood donation users, donors and blood stocks and Produce reports. Besides, few automation facilities such as giving alert to the administrator when the donors donating the blood and there organ. This kinds of reports that will be provided by the system are the blood donation in the blood donors and work flow for each blood donation system. This project is use to poor and children people from our country we know every year so many people died from the sufficient amount of blood.

1.5 Report layout

Report layout describe a summary of all the chapter. A brief summary of all chapters is given below:

Chapter 1: To describe an introduction of the online police verification system, Motivation, Objectives, Expected outcome and the Report layout.

Chapter 2: To Describe the Introduction, Relative Works, Comparative Studies, Scope of the Problem, Challenges.

Chapter 3: To Describes the Business Process Modeling, Requirement Collection, Use Case Modeling and Description, Design Requirements.

Chapter 4: Describes the Front-end Design, Back-end Design, Interaction Design and UX, Implementation Requirements.

Chapter 5: Describe the Implementation of Database, Implementation of Front-end Design, Implementation of Interactions, Testing Implementation, Test Results and Reports.

Chapter 6: Describes the Discussion and Conclusion, Scope for Further Developments.

CHAPTER 2

BACKGROUND

2.1 Introduction

A Blood Donation system is a way where the blood donors Picked as a result of blood donation is Collected and Conserved for the after use in blood Spread. The term Blood Donation system normally Deliver to a Partition of a hospital where need of blood Donation and where proper testing of a blood is performed. However, many time Impose to a collect serum, and many organizations and hospitals also Execute the blood collect. Donate Life is a web & App based project. This project is design for successful finishing work on Donate Life administration. This project is design to store the Information, process for future work, retrieve the value, analyses the full system and information Trembling with the administration and Catalogue management with the blood donation system.

The Donate life is an online web & App based project so everyone can easily find this website and play store. Sometime a person wants to donate his/her blood, he/she have to register our blood donations system. From our system we can easily ensure the donors registration system, to register our system he/she have to fill up the registration from very carefully. After submitting the registration form he/she can create her username and password. Donor have to Deliver valid information like blood group, contact etc. donor can also change his account information when he wants change he/she detail using his username and password. Using this blood donation system people can search blood group available which they are needed at emergency time. In emergency situations you can use our Donate Life website. Sometime blood group is not available in Blood Donation system this time we can also get contact numbers of the persons who has the same blood group is need and also which time they needed. And he can request the person to donate the blood for saving someone life in emergency time.

2.2 Related Work

Relative work to say, if you find blood, where better than the group. So, you know our nearby people who have the same group of blood that we want. Set the date of the schedule, time to enter in to the Blood Donation administration system. Find out her any type of blood from the search option she can easily find. Before Blood Donation he/she completed screening test, due to the age of his blood, so whether he donates blood is healthy or not. The female is usually exposed to hemoglobin level, so they intersect to donate blood first we will Discover it in her hemoglobin level, if she has hemoglobin problem, she herself does not donation blood but she satisfied other people to donation blood.

2.3 Comparative Studies

We know every day Blood and organ can save so many Life. When people do not donate blood regularly from there on positions, there is a big problem creating the big problem on who have need blood from her emergency time. The challenge of this study, therefore, to determine the knowledge about the systems, attitude and practice of donate the blood of University students or every people from their own positions.

2.4 Scope of the problem

There are three common components of blood donation system, donor registration, monitoring of blood inventories. Also due to time-cage, Responsive will be from hospitals and other organizations, though the study talks about blood donation system on the Bangladesh. In Composition, the study considers three common users of the system, hospital administration, doctors, and blood receptionists.

Contempt pretext in technology, nowadays, many blood and organ donation systems are running in online systems. Such as, there is dominant reason in the availability of requirement of type of blood. For Purpose, when a parson needs a type of blood and this type is not available in the hospital, friends and relatives send messages from social media and other ways to those who can donate this type of blood and organ save the life of the patient to the most dangerous situation. In condition, subsequently, this study quest to answer the following problems. what is the difference between perception among blood and organ donation and online blood and organ donation system? why the level of perception among blood and organ donation system vs manual based system?

2.5 Main Challenges

We know June 14 is the World blood donor day is a very well known event in the world, it generally on the same date every year, this day we thank for the voluntary of the blood donors, recognize them and Encourage blood donation, particularly by illustrate how blood donations have changed life and saved Life. The Day has the announcement 'Safe blood for all' to Promote awareness of the world need for safe blood in the world and donate good blood from the world. In Bangladesh, blood transfusion service is available at Dhaka Medical College Hospital in Dhaka. Blood donation in Bangladesh is an activity Directed by different organization in our Country. The first voluntary blood donation program will start in Bangladesh, in 1977 Dhaka Medical College. Advancement of blood and blood and organ donation is saved millions of lives in every year. It can help all kinds of patients Endurance from life Impedance situation live longer and with a higher quality of life providing good blood and organ for better life, and allows complicated medical and surgical method. It also has an Indispensable, Life Saving role in motherly and child care and during the emergency response and natural disasters from their life. There is a perception that blood and organ donation guidance to weakness but cases that blood donation Not for a moment guidance to attenuation, certainly brings in new caliber. A blood and organ donation system service provide gives the patients ensure to safe blood and blood donation in Enough amount is a key element of an operative health system. The Bountiful Stocks can only be convinced through regular donations by deliberate, honorary blood donors. However, in many countries in the world, blood donation system services countenance the challenge of making sufficient blood available, while also ensuring its quality and safety from the human.

CHAPTER 3

REQUIREMENTS SPECIFICATION

3.1 Business Process Modeling

The project which we are imitating is based on direct blood donor to users by admins. By which admins will collect money from the Some trusty board. There is will be another model in which online way to collect donations, other organizations will be our project partner. This project will be help the poor people they need blood from their families and friends in emergency. Some we will donate money from the poor children education and their health.

3.2 Requirement Collection and Analysis

Software Requirements Specification:

The Software requirement specification describes the user demands and essence of a project. Usually, the paper is written early in the validation method. It is made for any kind of project or application for preparing the system. Some precepts need to be ensured to prepare the SRS report. This report holds reports of the application, security, and outlining method.

Functional Requirement:

- Authentication
- Authorization
- Registration for blood donation
- Blood management
- Blood request
- Member management
- Area based blood donation
- On demand searching

Data Requirements:

User Registration

- Full Name
- Username
- User Email
- User Password

Blood Request

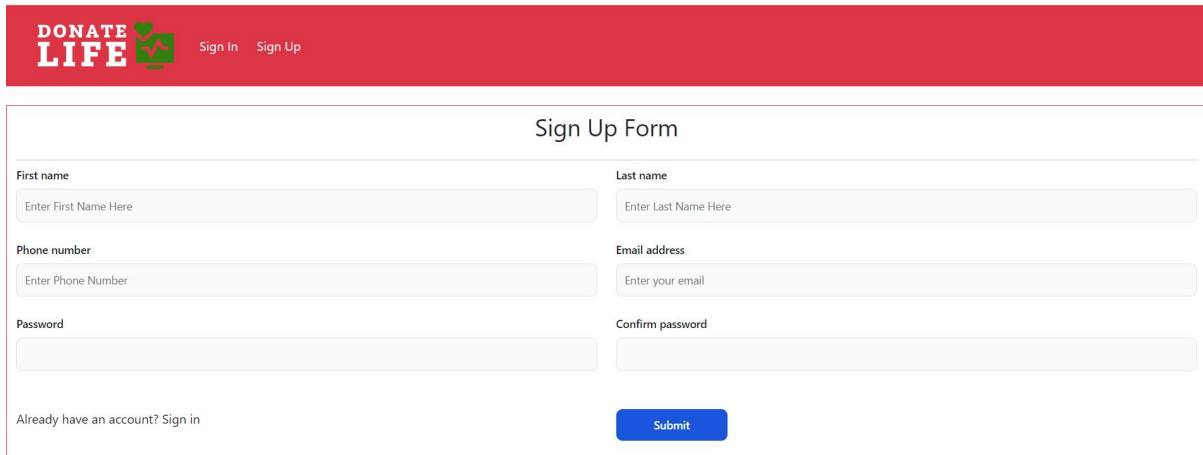
- Patient name
- Gender
- Blood Group
- Unit of blood need
- Hospital name
- Date when blood need
- Contact person for blood donation
- Address where to donate
- Email
- Patient contact
- Reason why blood need

Non-Functional Requirements

- Availability
- Reliability
- Data Sanity
- Recover ability
- Maintainability
- Security
- Data Integrity

3.3 Donor Registration

For the donor registration, you will fill the forms. Such as your complete name, gender, date of birth, blood type, phone number, email address, home address and etc.



The screenshot shows a web browser interface for the 'DONATE LIFE' website. The header is red with the logo and 'Sign In Sign Up' links. The main content area is titled 'Sign Up Form' and contains a registration form with the following fields: 'First name' (placeholder: Enter First Name Here), 'Last name' (placeholder: Enter Last Name Here), 'Phone number' (placeholder: Enter Phone Number), 'Email address' (placeholder: Enter your email), 'Password', and 'Confirm password'. A blue 'Submit' button is at the bottom right, and a link 'Already have an account? Sign in' is at the bottom left.

Figure 3.1 : Donor Registration in Web



The screenshot shows an Android emulator displaying the 'Donate Life' app's sign-up screen. The background is red with a white blood drop icon and the text 'Donate Life'. A white card titled 'SIGN UP' contains three input fields: 'Full Name' (placeholder: Enter your full name), 'Email' (placeholder: Enter your email), and 'Password' (placeholder: Enter your password). Below the card is a red 'SIGN UP' button, a blue 'Sign Up with Google' button, and a link 'Already Registered? Login'.

Figure 3.2 : Donor Registration in Apps

Registration Requirements

- Admin Login.
- Admin Add Donor.
- Admin Check Donor List.
- Admin Check All Request.
- User Register the Donate Life site.
- User Login.
- Donor Update Donation Date.
- User Be a Donor.
- Donor Check Personal Information .
- Donor Send Request.
- Donor Check Request.
- Open Live Chat.

Donor Use Case Model

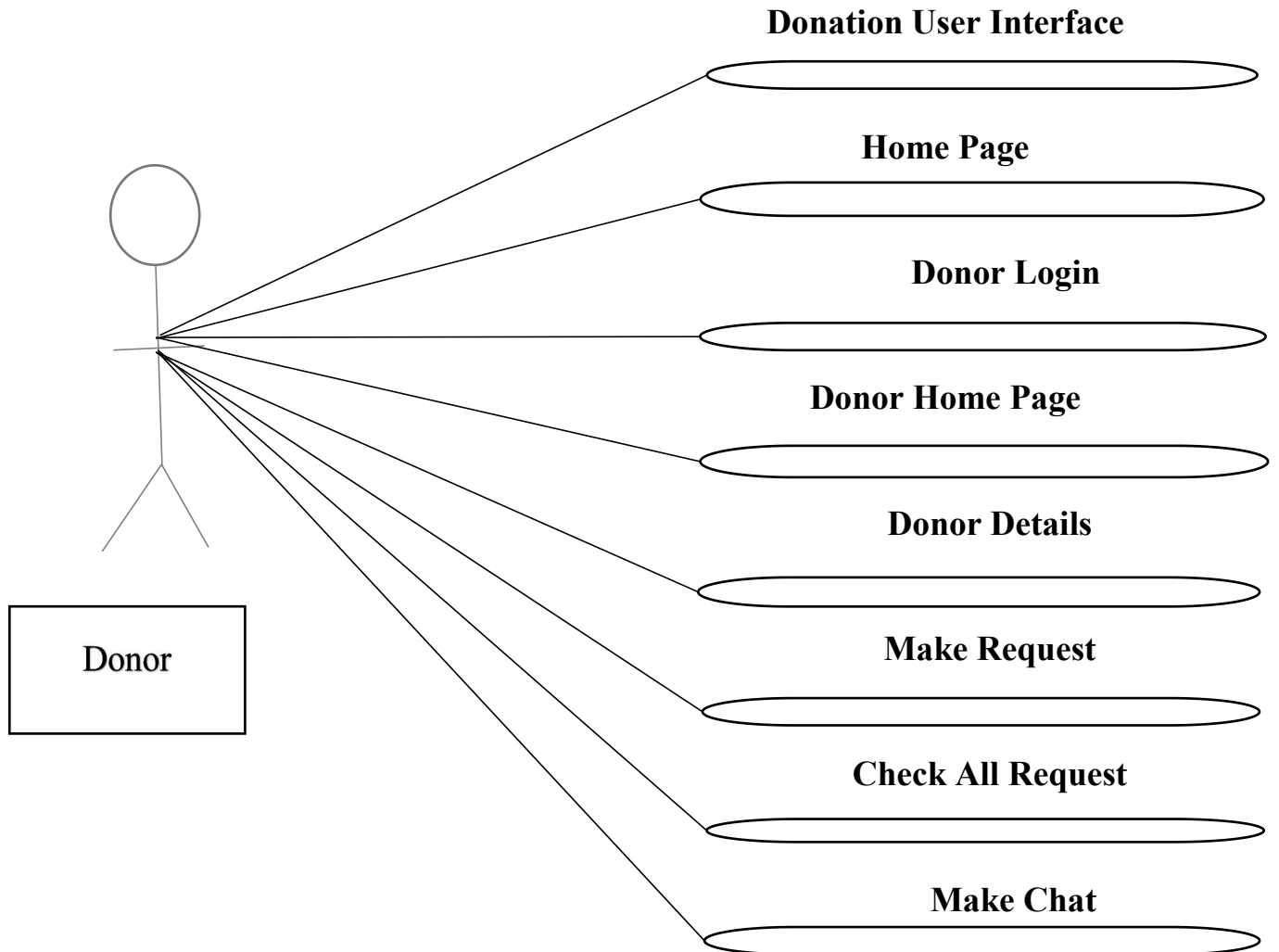


Figure 3.3 : Donor Use Case Model

3.4 Logical Data Model

The Logical Data Model is referred to as the blood bank management system's database design. Both Logical Data Model and database design illustrate the relationships between all the system's entities. Its major components are Entities, Attributes, and Relationships. Additionally, the Logical Data Model is used to build and troubleshoot relational databases. It also works best with blood bank management system DFD, which is responsible for data movement. Creating the blood bank system database design would also be much easier with the help of Logical Data Model.

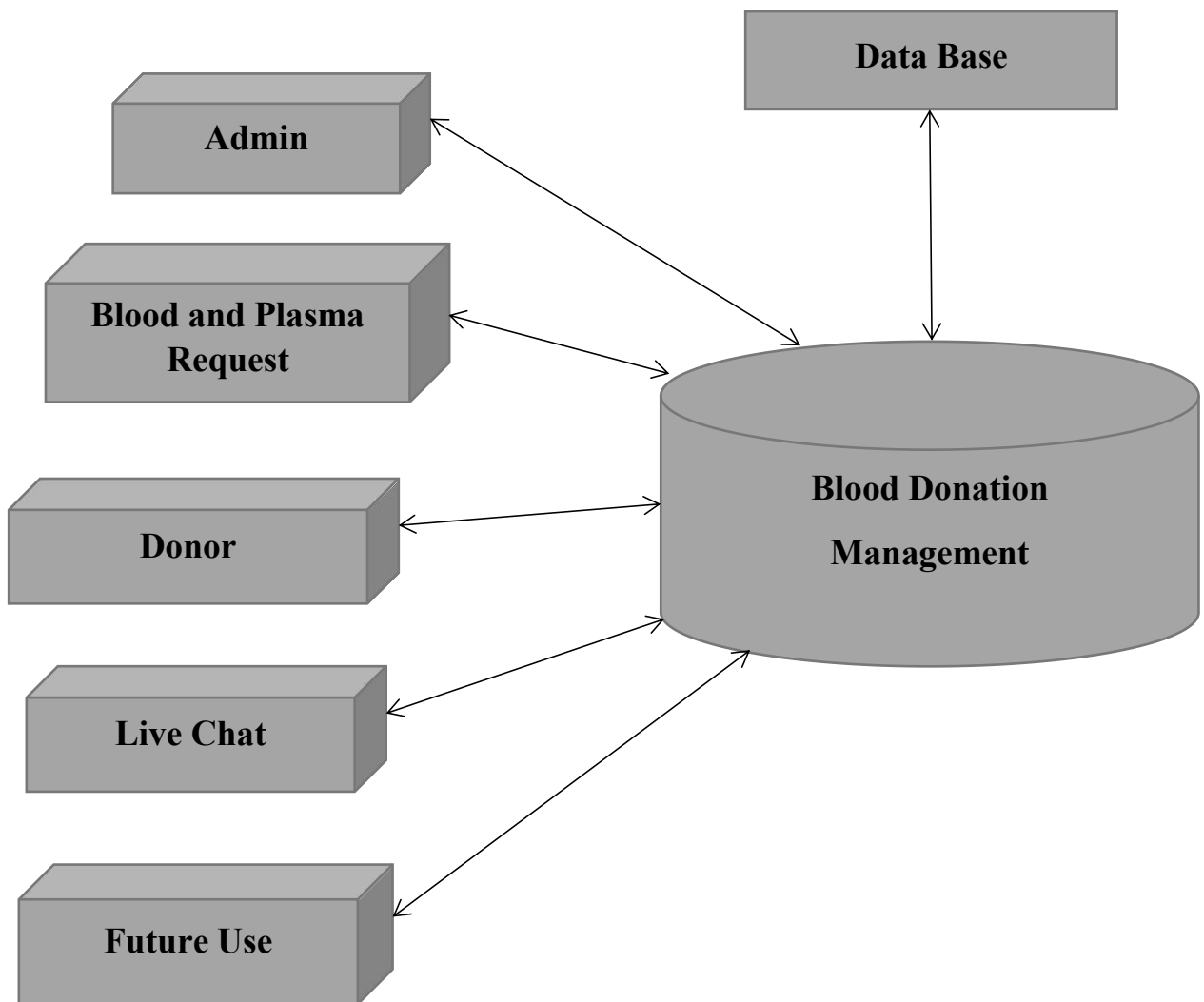


Figure 3.4 : Logical Context Diagram

Logical Work-flow Diagram

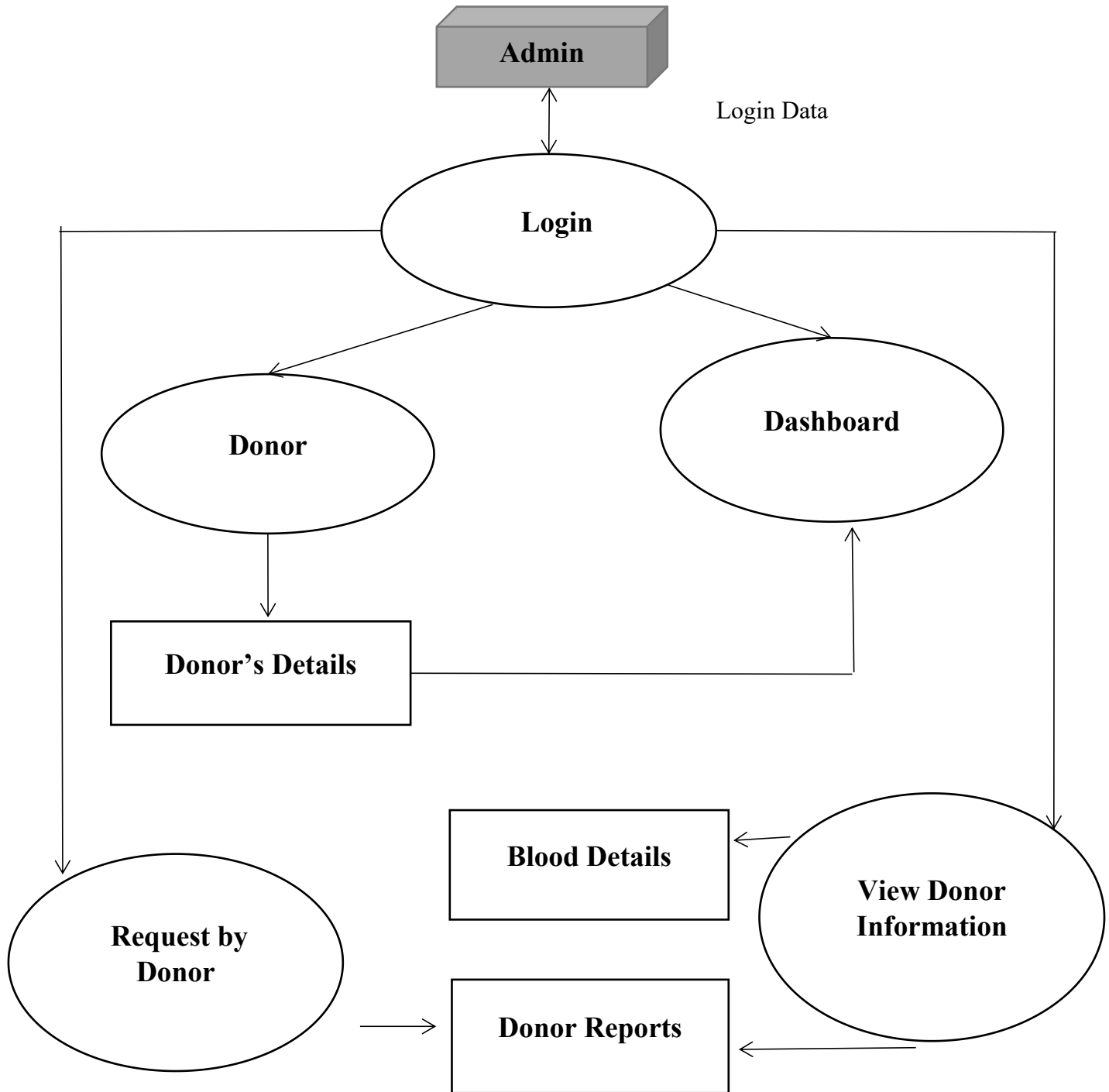


Figure 3.5 : Logical work-Flow Diagram

3.5: Design Requirements

Table 3.1 : Requirement for a login system

Name for use case	Login Information system
Actor sharing	Administration and donor system.
Conditions for events	Actors will be Admit into the username and Passwords on the systems. The systems is will verifying the authorization requires.
Access of Conditions	login Information system to the using on the actor named and Passwords on any time.
Conditions for Departure	it should be comes outside without approvals on the authorization people.
demands for quality	This password Madness meets for the complexity requirement from this project

Table 3.2 : Registration from the administration Requirement

Name for use case	Administration Registration
Actor sharing	Administration
Conditions for events	Administration Pleasure submits all kind of Information and Positions of application's
Conditions of entry	Whole rules provided by this blood and Plasma donation agents interfaces site's Rabidity be met.
Conditions of exit	Successfully or unsuccessful for a account system is Making
Quality's demand	Every format are requires.

Table 3.3 : Registration from Donor Requirement System

Name for use case	Registration from donor activity
Actor sharing	Donors
Conditions for events	Every donors must be entered in to his all personal Information.
Conditions of entry	Visit the Home Page.
Conditions of exit	The Affixed donors are should be log out successfully from the system. Every error messages are should be displays to created successfully
Quality's demand	The Greatest errors management technique. Examine the mandatory fields.

CHAPTER 4

DESIGN SPECIFICATION

4.1 Front-end Design

Front-end developers turn designs into reality. In the context of web development, front-end development is the practice of producing HTML, CSS, and presentational JavaScript code for a website or web app so that a user can see and interact with a product directly.

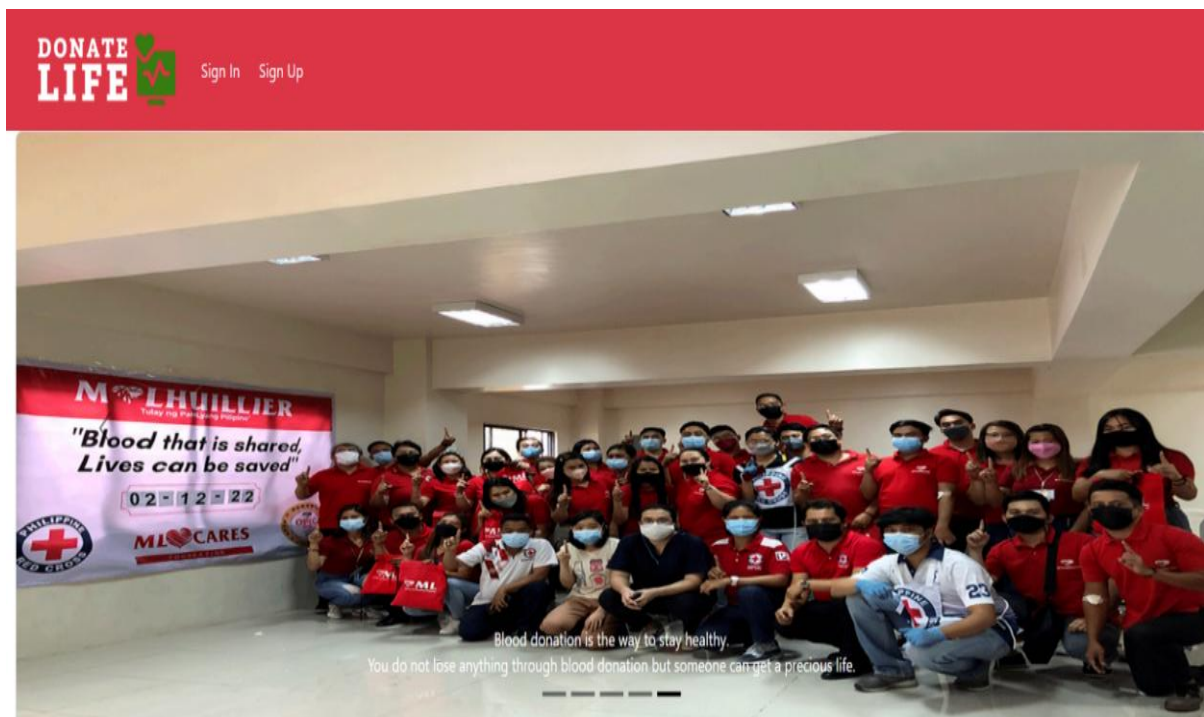


Figure 4.1: Web Home Page Design

Donor Registration Form:

Sign up form is a web page, pop-up, or modal where users enter the information required to access that website's services. The information collected is determined by the nature of the website and the services it offers. Most sign up forms require a name, email address, username, and password.

Sign Up Form

First name

Last name

Phone number

Email address

Password

Confirm password

Already have an account? [Sign in](#)

Figure 4.2: Donor Registration Form in Web

Android Emulator - Pixel_4_API_30:5554

12:29

Donate Life

SIGN UP

Full Name

Email

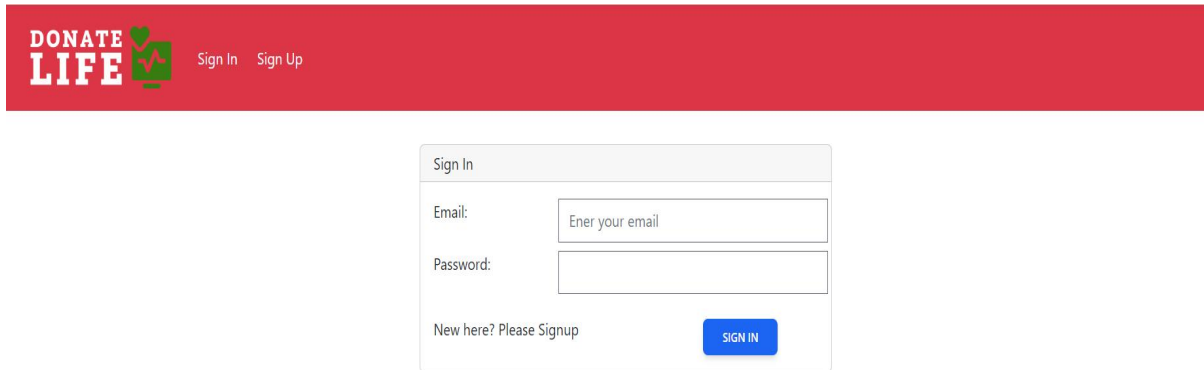
Password

Already Registered? [Login](#)

Figure 4.3 : Donor Registration Form in App

Donor Login From in Website:

Login forms are used in almost every website. A login form utilizes the credentials of a user, in order to authenticate their access. It generally consists of the typical username or email and password. But more fields can be added to improve the site's security.



The image shows a red header bar for the 'DONATE LIFE' website. On the left is the logo, and on the right are links for 'Sign In' and 'Sign Up'. Below the header is a 'Sign In' form with the following elements:

- Title: Sign In
- Email field: Labeled 'Email:' with a placeholder 'Enter your email'
- Password field: Labeled 'Password:'
- Link: 'New here? Please Signup' with a blue 'SIGN IN' button next to it.

Figure 4.4 : Donor Login Form in Web

Donor Login From in App:

Login forms are used in almost each Application. A login form utilizes the credentials of a user, in order to authenticate their access. It generally consists of the typical username or email and password. But more fields can be added to improve the site's security.

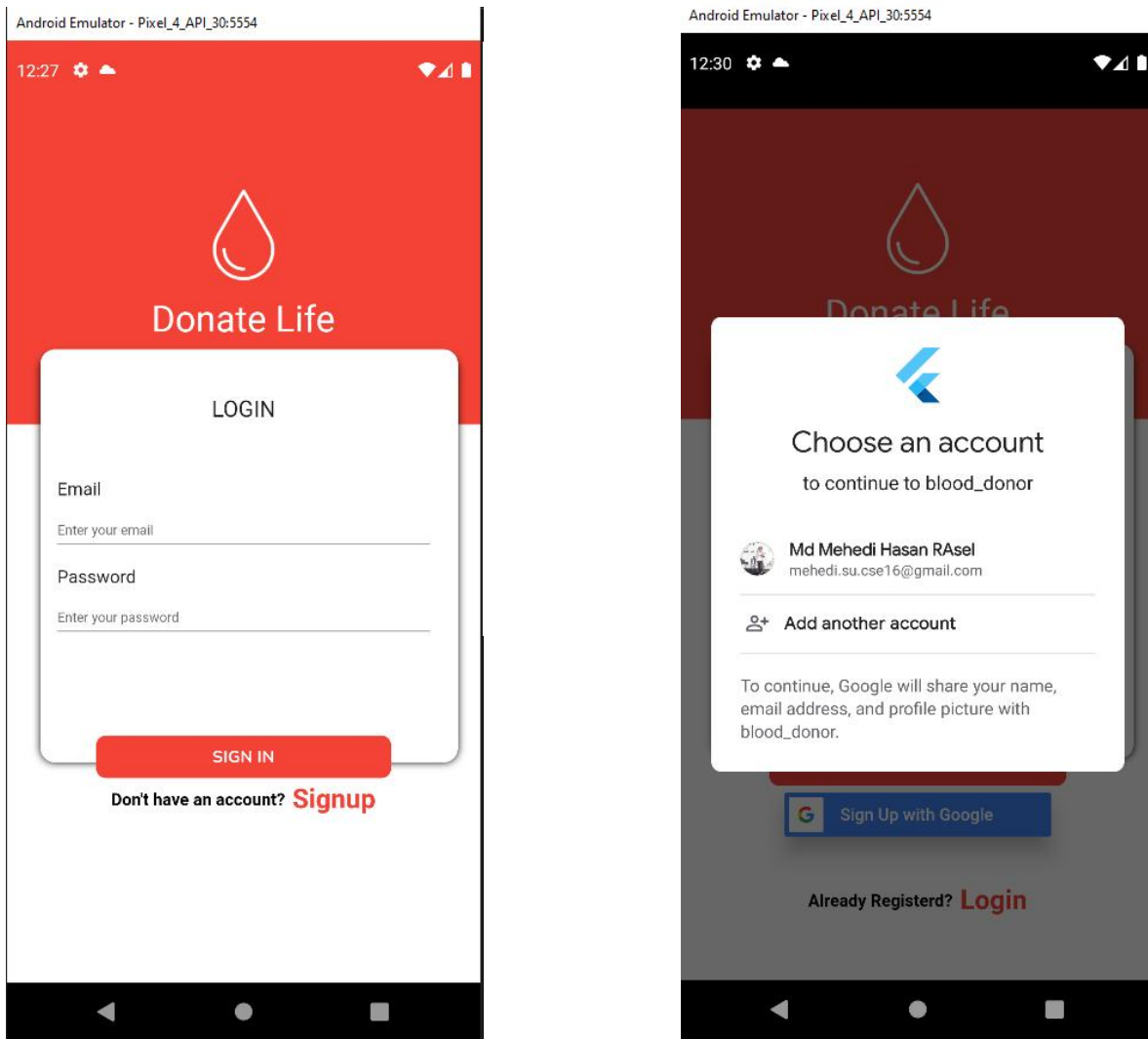
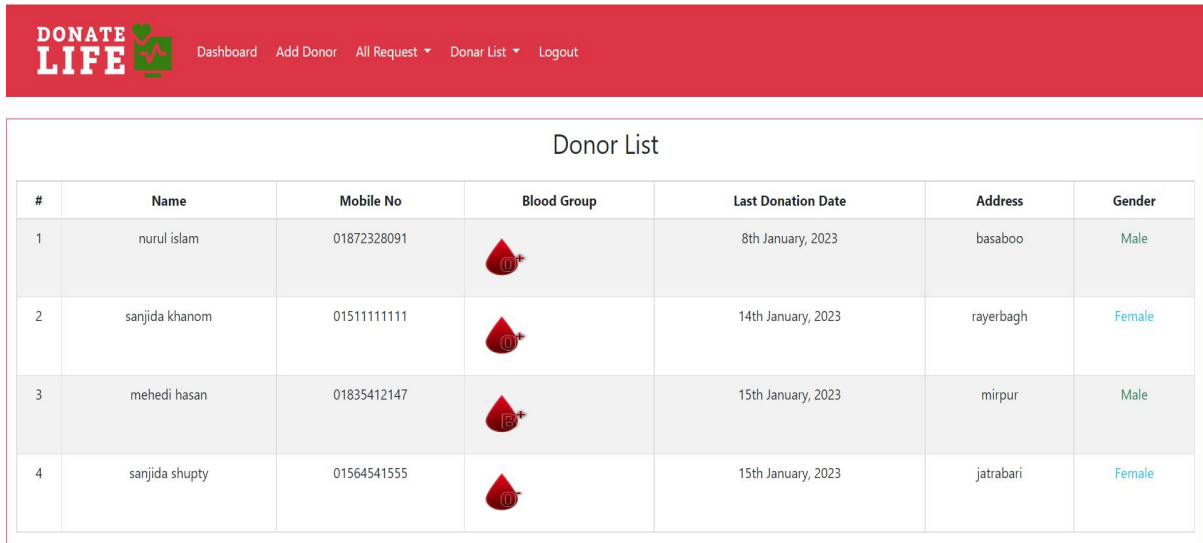


Figure 4.5 : Donor Login Form in Apps

Donor list in Web:

Most people can give blood if they are in good health. There are some basic requirements one need to fulfill in order to become a donor.







#	Name	Mobile No	Blood Group	Last Donation Date	Address	Gender
1	nurul islam	01872328091		8th January, 2023	basaboo	Male
2	sanjida khanom	01511111111		14th January, 2023	rayerbagh	Female
3	mehedi hasan	01835412147		15th January, 2023	mirpur	Male
4	sanjida shupty	01564541555		15th January, 2023	jatrabari	Female

Figure 4.6 : Donor List in Web

Donor list in App:

Most people can give blood if they are in good health. There are some basic requirements one need to fulfill in order to become a donor.

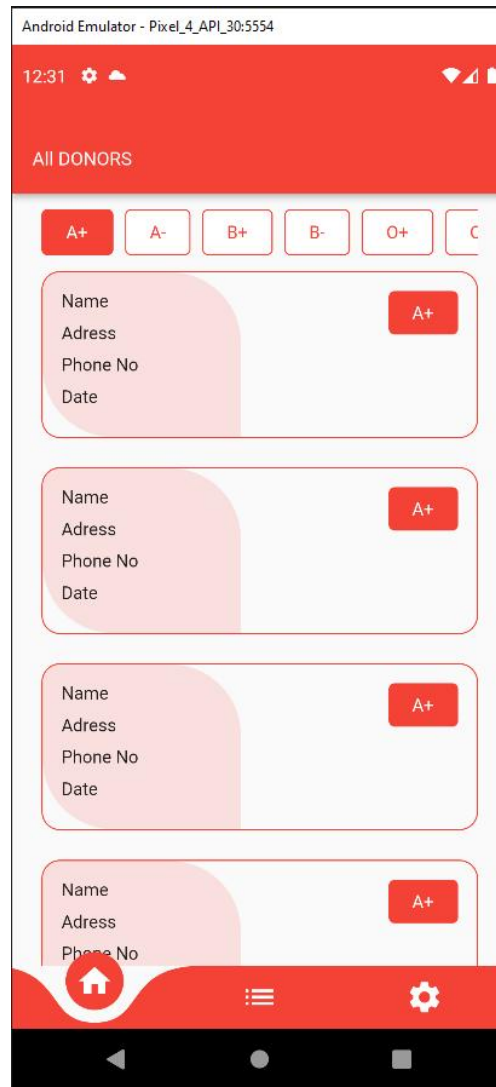
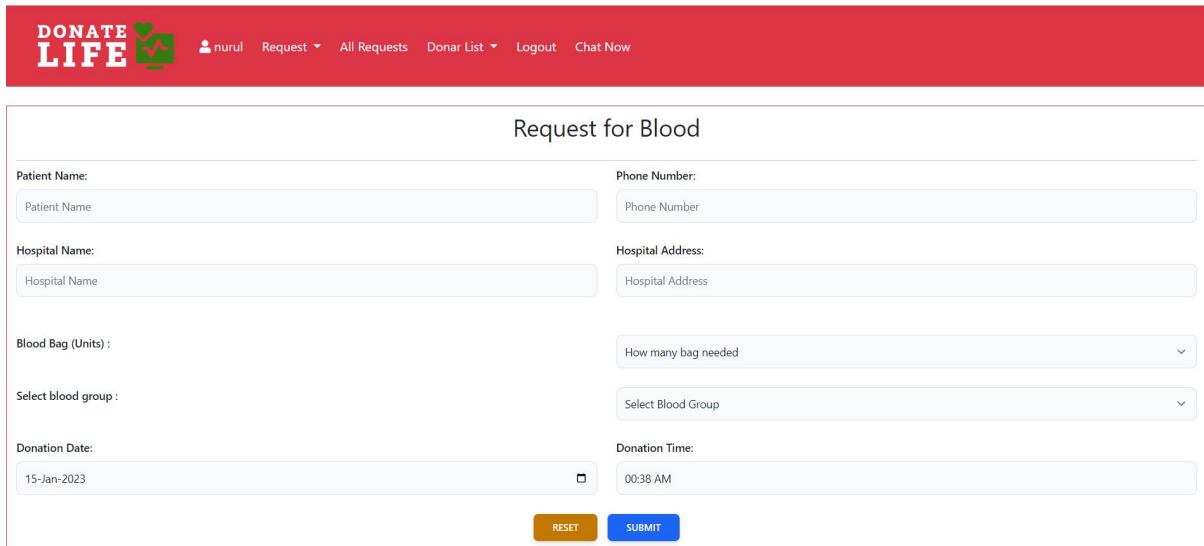


Figure 4.7 : Donor List in App

Blood request form:

This section provides request forms for health professionals regarding the collection, preparation and use of selected blood components.



DONATE LIFE nurul Request All Requests Donar List Logout Chat Now

Request for Blood

Patient Name: Patient Name

Phone Number: Phone Number

Hospital Name: Hospital Name

Hospital Address: Hospital Address

Blood Bag (Units) : How many bag needed

Select blood group : Select Blood Group

Donation Date: 15-Jan-2023

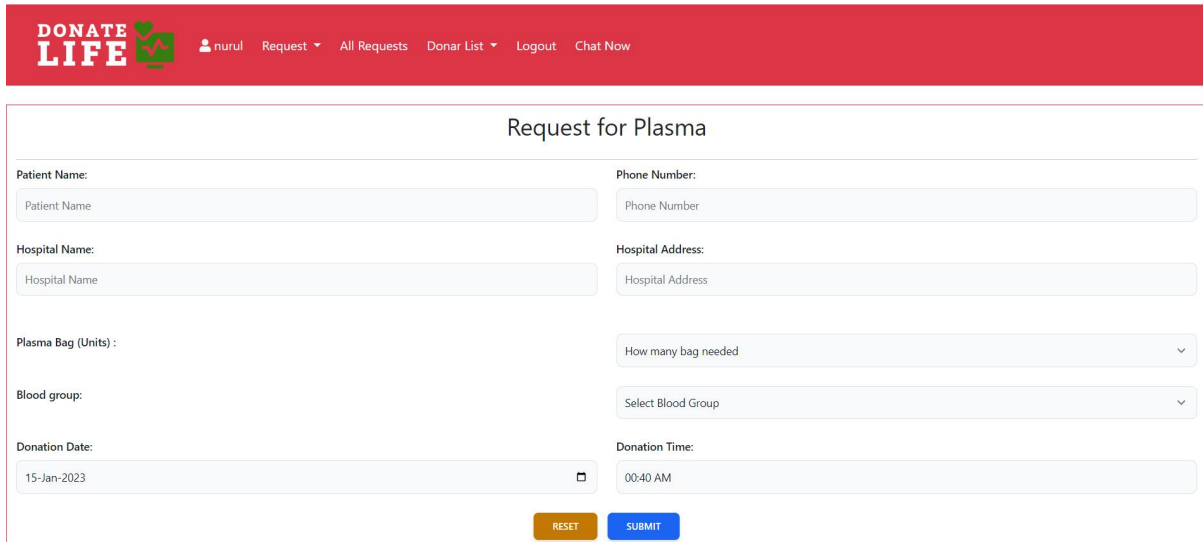
Donation Time: 00:38 AM

RESET SUBMIT

Figure 4.8 : Blood Request Form in Web

Plasma request form:

This project provides guidance to the use of Frozen Plasma (FP) transfusions in adult, non-bleeding patients who are undergoing an ultrasound-guided procedures (in specific Parenthesis, thoracentesis, and central venous catheterization).



The screenshot shows a web application interface for a plasma request form. At the top, there is a red navigation bar with the "DONATE LIFE" logo on the left and a user profile icon labeled "nurul" followed by menu items: "Request", "All Requests", "Donar List", "Logout", and "Chat Now". Below the navigation bar, the main content area is titled "Request for Plasma". The form consists of several input fields and dropdown menus arranged in two columns. The left column includes fields for "Patient Name", "Hospital Name", "Plasma Bag (Units)", "Blood group", and "Donation Date". The right column includes fields for "Phone Number", "Hospital Address", a dropdown for "How many bag needed", a dropdown for "Select Blood Group", and a field for "Donation Time". The "Donation Date" field is pre-filled with "15-Jan-2023" and has a calendar icon. At the bottom of the form, there are two buttons: a yellow "RESET" button and a blue "SUBMIT" button.

Figure 4.9 : Plasma Request Form in Web

4.1 Back-end Design

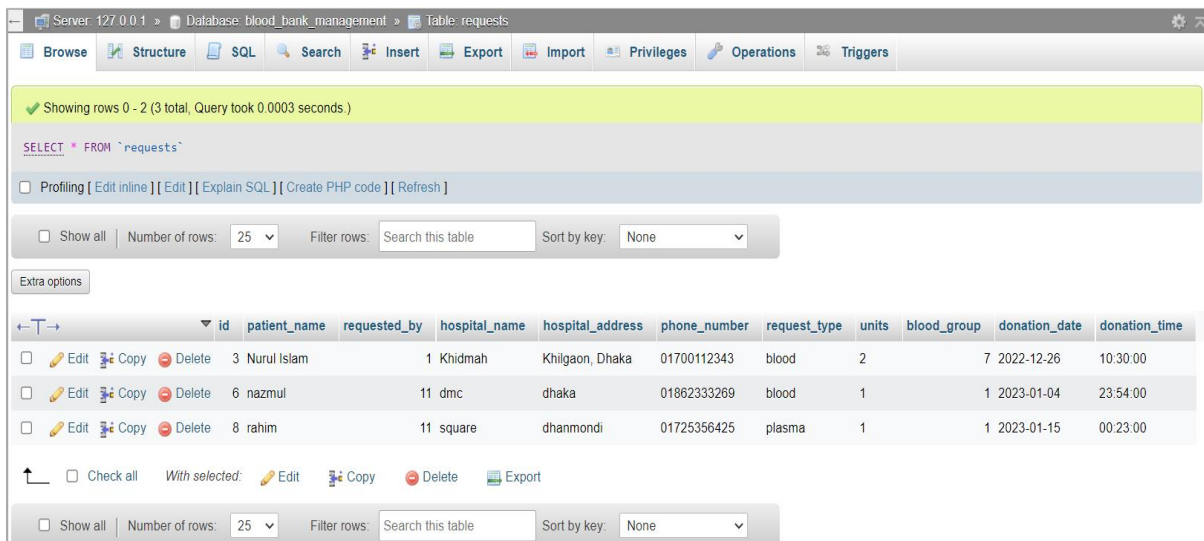
Back end development focuses on the side of the website users can't see. It's what makes a site interactive. You can also refer to the back end as the “server side” of a website. For instance, let's say you're running a social media website. You need an accessible place to store all of your users' information.



The screenshot shows a database management interface for a database named 'blood_bank_management'. The interface includes a menu bar with options like Structure, SQL, Search, Query, Export, Import, Operations, Privileges, Routines, Events, Triggers, and Designer. Below the menu is a 'Filters' section with a text input field labeled 'Containing the word:'. The main area displays a table with columns: Table, Action, Rows, Type, Collation, Size, and Overhead. The table lists six tables: blood_groups, donors, messages, requests, user, and users. A summary row at the bottom indicates there are 6 tables in total, with a combined size of 128.0 KiB.

Table	Action	Rows	Type	Collation	Size	Overhead
blood_groups	Browse Structure Search Insert Empty Drop	8	InnoDB	utf8mb4_general_ci	16.0 KiB	-
donors	Browse Structure Search Insert Empty Drop	4	InnoDB	utf8mb4_general_ci	48.0 KiB	-
messages	Browse Structure Search Insert Empty Drop	6	InnoDB	utf8mb4_general_ci	16.0 KiB	-
requests	Browse Structure Search Insert Empty Drop	3	InnoDB	utf8mb4_general_ci	16.0 KiB	-
user	Browse Structure Search Insert Empty Drop	3	InnoDB	utf8mb4_general_ci	16.0 KiB	-
users	Browse Structure Search Insert Empty Drop	6	InnoDB	utf8mb4_general_ci	16.0 KiB	-
6 tables	Sum	30	InnoDB	utf8mb4_general_ci	128.0 KiB	0 B

Figure 4.10 : Home Page File Data base



The screenshot shows a database management interface for a table named 'requests' in the 'blood_bank_management' database. The interface includes a menu bar with options like Browse, Structure, SQL, Search, Insert, Export, Import, Privileges, Operations, and Triggers. Below the menu is a status bar indicating 'Showing rows 0 - 2 (3 total, Query took 0.0003 seconds)'. The main area displays a table with columns: id, patient_name, requested_by, hospital_name, hospital_address, phone_number, request_type, units, blood_group, donation_date, and donation_time. The table contains three rows of data. Below the table is an 'Extra options' section with a 'Check all' checkbox and buttons for 'With selected: Edit, Copy, Delete, Export'. There are also search and sort controls at the bottom.

id	patient_name	requested_by	hospital_name	hospital_address	phone_number	request_type	units	blood_group	donation_date	donation_time
3	Nurul Islam	1	Khidmah	Khilgaon, Dhaka	01700112343	blood	2		7 2022-12-26	10:30:00
6	nazmul	11	dmc	dhaka	01862333269	blood	1		1 2023-01-04	23:54:00
8	rahim	11	square	dhanmondi	01725356425	plasma	1		1 2023-01-15	00:23:00

Figure 4.11 : Data Base Blood Request.

Database User List

Showing rows 0 - 5 (6 total, Query took 0.0003 seconds.)

SELECT * FROM `users`

Number of rows: 25 | Filter rows: Search this table | Sort by key: None

	id	first_name	last_name	phone	email	password	confirm_password	role
<input type="checkbox"/>	1	nurul	islam	01872328091	nurulislam@gmail.com	123456789	123456789	admin
<input type="checkbox"/>	2	mehedi	hasan	01811111111	mehedi@gmail.com	123456789	123456789	admin
<input type="checkbox"/>	11	nurul	islam	01872328091	nurul@gmail.com	12345678	12345678	user
<input type="checkbox"/>	12	sanjida	khanom	01511111111	sanjida@gmail.com	12345678	12345678	user
<input type="checkbox"/>	13	sanjida	shupty	01564541555	shupty@gmail.com	12345678	12345678	user
<input type="checkbox"/>	14	mehedi	hasan	01835412147	mehedi.su.cse16@gmail.com	12345678	12345678	user

Figure 4.12 : Data Base Member List

Blood Request List in Web

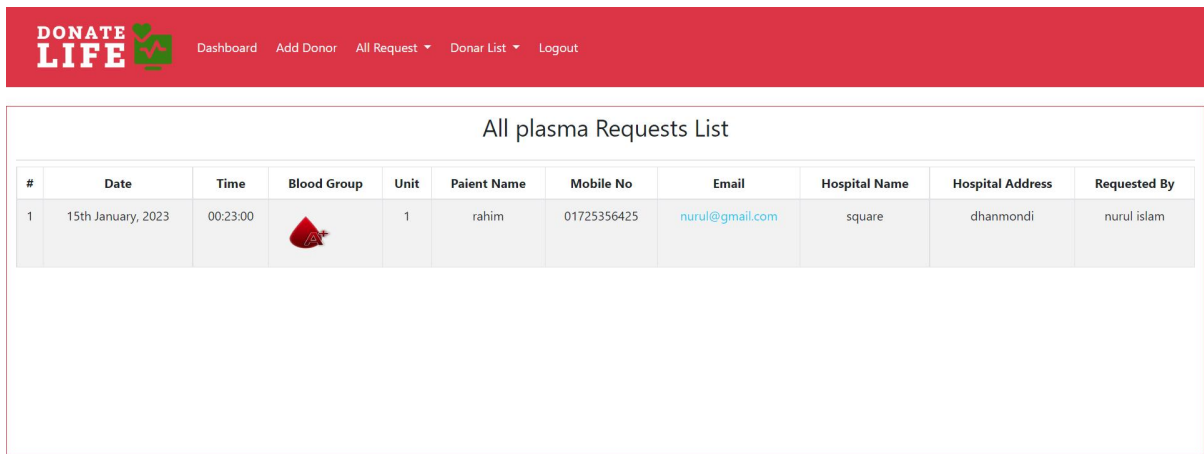
DONATE LIFE Dashboard Add Donor All Request Donar List Logout

All blood Requests List

#	Date	Time	Blood Group	Unit	Paient Name	Mobile No	Email	Hospital Name	Hospital Address	Requested By
1	4th January, 2023	23:54:00		1	nazmul	01862333269	nurul@gmail.com	dmc	dhaka	nurul islam
2	26th December, 2022	10:30:00		2	Nurul Islam	01700112343	nurulislam@gmail.com	Khidmah	Khilgaon, Dhaka	nurul islam

Figure 4.13: Blood Request Details in web

Plasma Request and Add Donor Details from Admin Dashboard




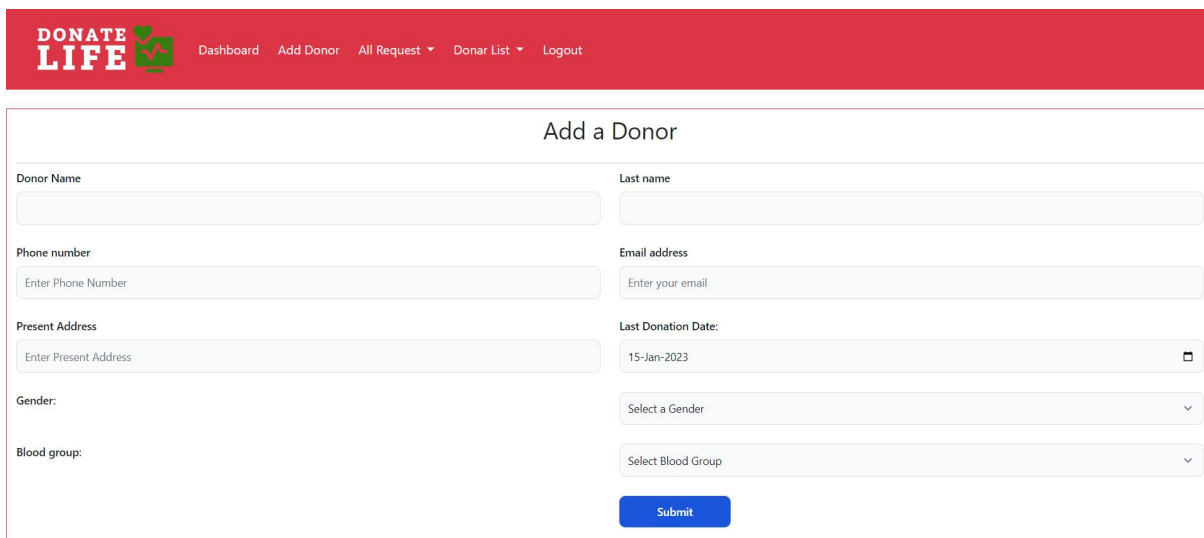
#	Date	Time	Blood Group	Unit	Paient Name	Mobile No	Email	Hospital Name	Hospital Address	Requested By
1	15th January, 2023	00:23:00		1	rahim	01725356425	nurul@gmail.com	square	dhanmondi	nurul islam

Figure 4.14: Plasma Request Details in Web



Add a Donor

Donor Name

Last name

Phone number

Email address

Present Address

Last Donation Date:

Gender:

Blood group:

Figure 4.15 : Add Donor Details in Web

Donor Details and Google Mapping

Android Emulator - Pixel_4_API_30:5554

12:32

Donor Details

Name

Location

Phone No

Date

Blood Group A+

CALL EDIT

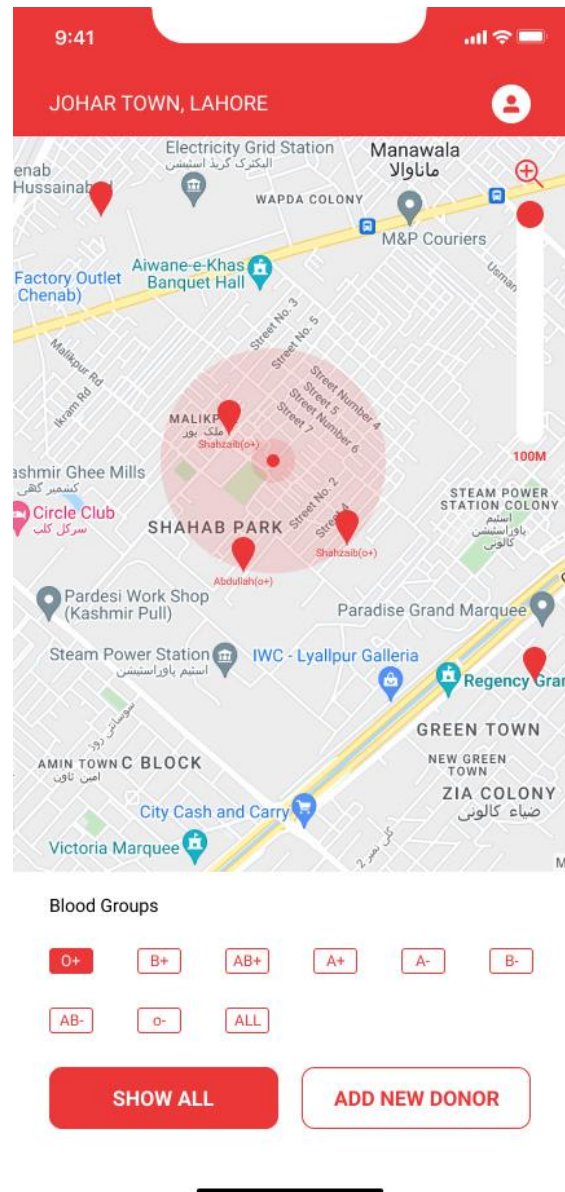


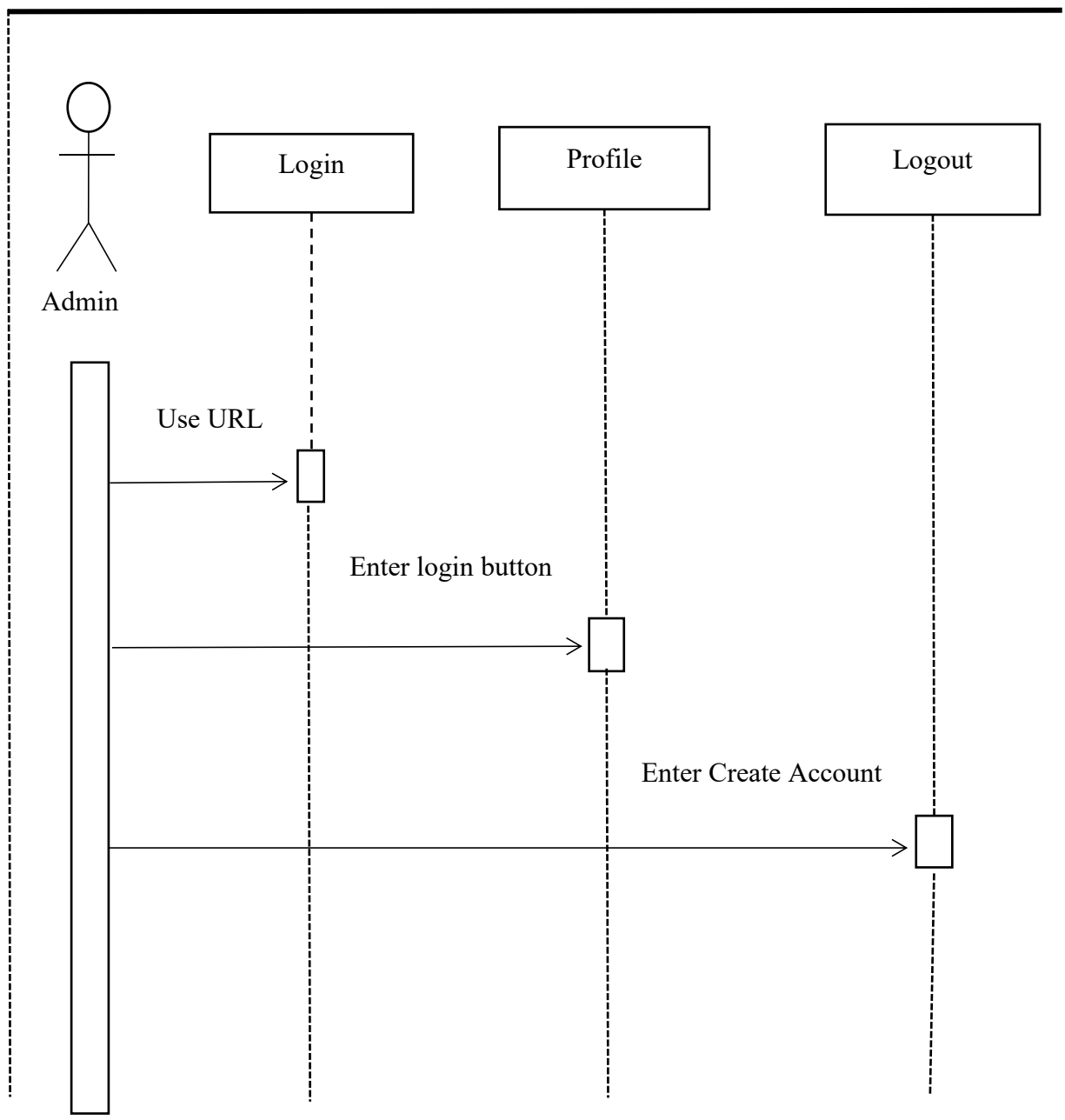
Figure 4.16: Donor Details and Google Mapping

4.3 Interaction Design and UX

Admin login design:

Login or entry available to the user of a discussion forum or website with special rights to control or restrict the activity of other users. In the context of this chapter it means doctors with this privilege.

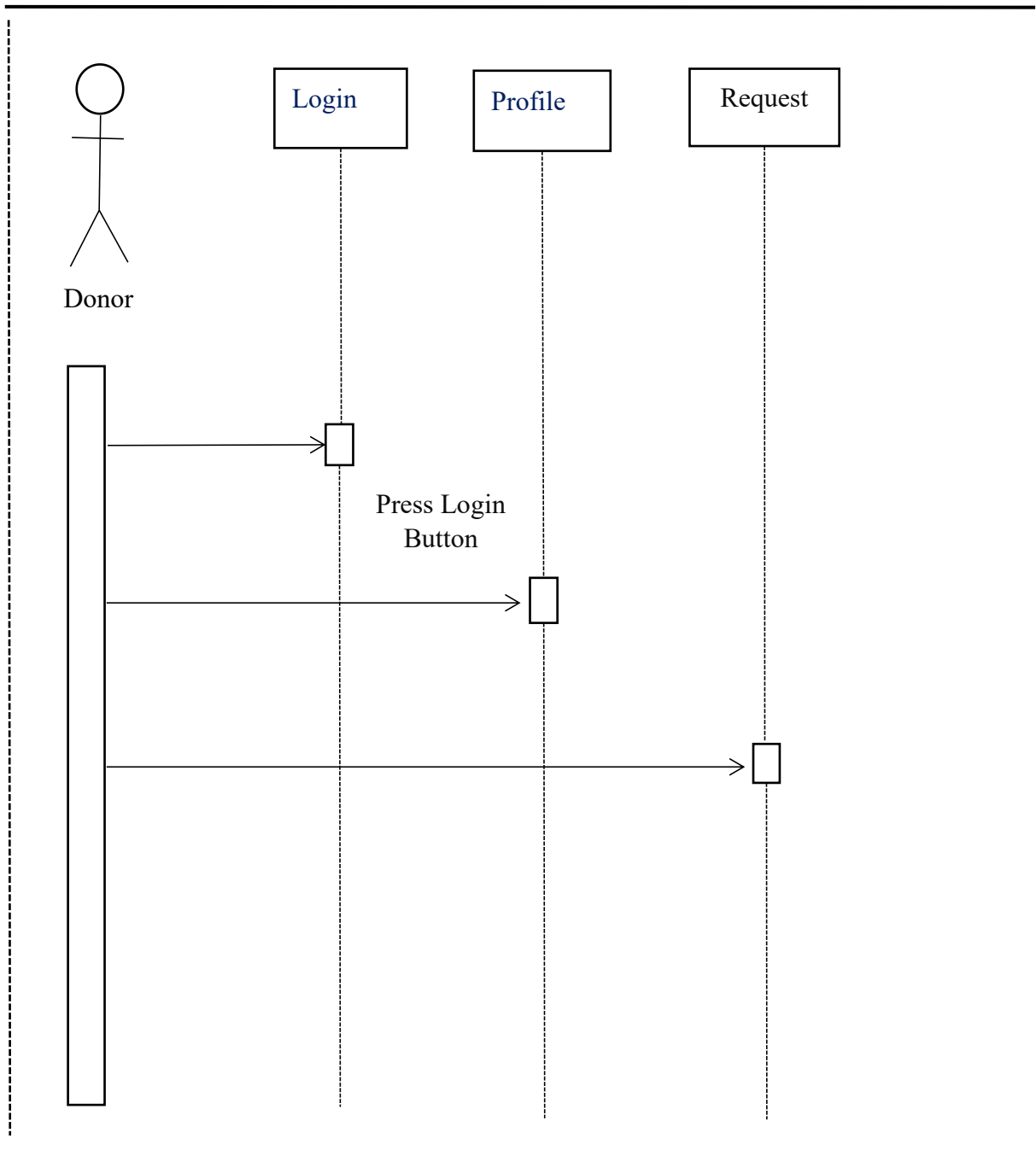
Figure 4.17 : Admin Login Design



Donor login design:

The donor dashboard is the place where donors have personal access to their giving history, donor profile, receipts, subscription management, and more. When you activate it for the first time, Give WP creates a page with the donor dashboard short code/block at

Figure4.18 : Donor Login Design



CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of Database

All Separated databases are maintaining for the web base Application. Which mainly consists of the registered Blood donor's information, the data base of Web application which consists of the records of available blood group samples and verify blood group and Also confirm verify the database of the Donate Life web application system. which are consists of records of the blood group samples verify and Their Several Quantity available in blood donation. All the databases will be hosted on the C panel server. Web based application Blood Donate Life stores blood of different blood groups. A donor may Donated blood more than once and He is Identify by a donor name, sex, age, address and phone number. The donated by the donor is characterized by blood groups.

5.2 Implementation Font-end Design

To implementing such kind of web application we needed to decide which kind of programming language and what technology we could use. As we worked on front-end as well as the back-end.we used following programming languages and frameworks:

- **Front-End**

- **HTML:**

Hypertext Markup Language (HTML) is the Evidence Augment language for Archive design to be displayed in a web browser system from the computer. Web browsers receive HTML Archive from a web server HTML describes the Formation of a web page semantically and Materially Comprised for the Outlook of the Archive.

- **Bootstrap:**

Bootstrap is free -source CSS framework Guided at Reactionary, mobile-first and front-end web Improvement system. It Comprise CSS- and JavaScript-based Sketch Measuring rod for typography, we use forms, we use buttons, we use navigation and several interface Element. Bootstrap is the third-most-starred project on GitHub, with more than 131,000 stars Backward only and marginally Aback Vue.js framework. It includes HTML and CSS based model Measuring rod for typography and forms system and buttons system and tables system and navigation systems, modals systems, image carousels, etc. It also gives us support for JavaScript plugins. We model so many or more than 90% web application by bootstrap.

- **CSS:**

Cascading Style Sheets (CSS) is a style sheet language it's used for Describe the Gratuity of a document writing is an extra language like HTML. CSS is the core technology of the World Wide Web (WWW), along with HTML and JavaScript (JS). CSS is designed to enable presentation and content segmentation, including layout, colors and fonts. Although we used bootstrap to design our web application, but we needed to use custom CSS to customize the design part.

- **Tailwind CSS:**

Tailwind CSS is an open source framework. The main feature of this library is that,unlike other CSS frameworks like Bootstrap it does not provide a series of predefined classes for elements such as buttons or tables. Instead, it creates a list of "utility" CSS classes that can be used to style each element by mixing and matching.

- **Back-End**

- **PHP:**

The PHP is a programming language that Accommodate web developers to creating dynamic Contentment that Interludes with the databases. PHP is typically used for different developing web based software applications.

- **MySQL:**

The Main of the testing process is to identification all the defects in the web application site. Testing provides a practical way of reducing defects in the website and increasing the user's confidence in a developed system. It is not practical to testing the webs application site with respect to each value that the input requested by data may assume. If the program fails to Testing behave as expect then the conditions under which failure occur are noted for later correction.

5.3 Testing Implementation

The Main of the testing process is to identification all the defects in the web application site. Testing provides a practical way of reducing defects in the website and increasing the user's confidence in a developed system. It is not practical to testing the webs application site with respect to each value that the input requested by data may assume. If the program fails to Testing behave as expect then the conditions under which failure occur are noted for later correction.

Process:

Login: This system will provide the security features through Username, Passwords matching and other types of works. Only those who have authorization on the system can see and know all of the system's information of Donor Profile Registration. First, the donor must be registered, which can confirm the donor's exact information. It allows ordinary people to register as voluntary donor for Request blood from online for fresh blood. Patient will first fill up the form and post online for the specified blood and Acquirement online requests for the donors. Below the patient requests has been filed by the donors when are the matching blood group and the request is sent via SMS and email address with the necessity detail.

5.4 Report layout from the result

Table 5.1: Test results from the user login system [7]

Name: Login System from the users

In no way	Experiment Situation	Prospective Result that we want	recall Output from this system	sometime this Status (yes, no)
Testing 1	Click on the submitting buttons without input the Username and Password on the system.	Method doesn't allows User to Login[7] in the system. Differently User Can't request blood any time.	Process displayed messages from the same page and Donor see this page any time.	Yes
Testing 2	Clicked on the submitting buttons with invalid Username and or Passwords on the system.	Messages "pleases filled up the User names" or Password on this system	As Prospective.	Yes
Testing 3	Click on submitting buttons with correctly username and password input on the system.	System allows user to login in the System every time	Systems allows User to access Web based site on rights given to him her all need.	Yes

Table 5.2: Registration from the user and Result from the test

Name : Registration Systems for the user				
None	Testing Conditions	Expects Results	Original Outputs for the system	present conditions (yes,no)
Testing 1	Clicked on the submitting buttons without User names and Passwords on the systems.	Systems doesn't allows Users to Login. Others the User Can't request the blood from their emergency.	Systems allows to displays messages to the current system page and Donor will be see the system page.	Yes
Testing 2	Clicked on the submitting buttons Failing the Correct Passwords and Confirmation from the Passwords.	Exhibition from the Messages "pleases fill up the Correct Password on the system " & Confirm Password input the system.	Systems Exhibition messages and Resume to the same page of needed on every time.	Yes
Testing 3	Selected from the Users type with and Correctly User and the Registration form on the system.	Systems Allows Users to login on the current Systems.	Systems allows the Users to accessible the web based project on rights things will givens to himself.	Yes

Table 5.3: Test results from the blood requests

Name : Requests blood For Patients				
None	Testing conditions	Expects results	current Output	present conditions (yes, no)
Testing 1	Clicked on updates buttons without adding any new information on requests blood for the patients.	Systems doesn't allows for the administration to save or collect data and information without adding blood for patient permission.	Systems displays messages from the same type of pages and Donor will be see that page any time.	Yes

Table 5.4: Request blood from the donor

Name : Request blood from the donor				
None	Testing conditions	Expects Results	current Output from the system	present conditions (yes, no)
Testing 1	Clicked on the updated buttons without added any new information on the donor's request for blood group from this system.	Systems doesn't allows administrator to saving the data information without adding blood Group in the systems.	Systems allows to displays messages from this current page and Donor will see this pages anytime.	Yes

CHAPTER 6

CONCLUSION AND FUTURE SCOPE

6.1 Discussion and Conclusion

Discussion:

The Donate Life System is important for different kinds of people like blood donation system admin, personal, donors, and other normal users. Here any personal who has been underlie blood testing can be registered in any authorized blood donation as a donor. That person can get facility-like information about the Donate Life system, donors, and patients. The direct access to the site to get donor's information if there is an emergency. The goal of the Donate Life system presents an online site for induction mutually giving blood donors and patients who need any blood. The primary objective of the project is to create an interactive donors blood requesters and blood donation online Organization. This web application is to be proposed in its current form as a dynamic site requirement to constantly update both information from the blood donors as well as the blood requesters and is to enable blood donors to place their profile and blood requester to publish their requests. In future, we will Develop a mobile application which will provide to all users the service of finding a blood donor with an interface.

Conclusion

Donate life allows users and the organization of blood donation and differs throughout Bangladesh. Regardless of organization, what is important is cooperation, communication, care and safety for donors and patients. The organization has an impact on recruitment of medical doctors, recruitment of voluntary non remunerated donors and the ethics regarding donor and patient safety. Blood Donation BD procedure can collect blood from many other donors in short from different sources and distribute that blood to needy people who require blood. We need high-quality web applications to handle these tasks.

6.2 Scope for Further Development

The Scope of the project means normally expecting the result of something. Scope is the same as motivation and objectives. But there are some more special things in this case. Scope is really expected, as we take our system. As our project also a computerized system called Blood Donation Information System. This system can be used in the hospitals, blood donation camps, or any other important public place, and etc.

The Blood Donation System will be more useful for the important medical places, because if someone needs blood immediately, the system will help to identify the blood donation, and it will send a SMS to that donor. So, it will make quick communication with donors.

6.3 Brief Description

From this project we are using so many things. This project is helping people from he/she an emergency. This project is a complete blood donation and plasma donation system. This type of thing is a necessity from our country, especially our future generations. This project we are using has many features like when someone needs blood from their family members or friends they need to request blood from our website (Donate Life). They request blood from this website. First, they need an account from the website they placed some Information like when they need blood, why they need blood, how many bags they need, which date they need etc. This type of Information they must submit to request blood from our website. The other part is the donor part. We see so many people donate their blood. From our website we have a donor registration system that helps the people who donate blood to save people's lives. We have a donor registration system for our website. Donors submit the Information from the request form. Admin collects all Information from the donor from this request system and all Information is saved from our database. Something new we are including this web site is Plasma Donation system. We know so many people need Plasma from their life to grow their life so much happiness. They also submit all their Information from our system. Our project is helping poor children's education and their health. Our website has an option to donate money to help this kind of person. We are working on this topic in the future. It's like a dream. Users also log in this system at any time and logout any time. This is a web based project where people enter into this project every time anywhere in the world. All Information is saved into the database and administration can add or delete any things any time.

6.4 limitations

At present it is available for some limited zone. Problem to calculate number of donor available in list. Everyone must need registration to enter the website but some time in emergency many people need urgent blood this time they feel some problem I think this is one kind of limitation. Difficulty in identifying blood donor's expiry date. In future we must overcome this drawback by using modern technologies. From organ Donation purposes we know some time the blood group and same part of organ don't match so many times I think this is the one kind of limitation from this project. Some time we see the organ donor family doesn't allows this kind of Donation this is one kind of limitation to collect organ from the donor. Sometimes we see some legal problems being created so many people don't donate their organs. From the present situation we have no solution to this problem but in future We will defend this kind of problem.

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