

SMART BLOOD DONOR

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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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JANUARY 2022

APPROVAL

This Project titled “**Smart Blood Donor**”, submitted by Md. Motalib Hossain and Md. Atikur Rahman and Md. Kamruzzaman Sarker to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 6th January, 2022

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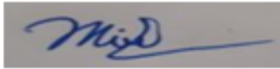
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DECLARATION

We hereby declare that, this project has been done by us under the supervision of **Ms. Moushumi Zaman Bonny, Assistant Professor, Department of CSE** Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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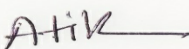


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ACKNOWLEDGEMENT

First we express our heartiest thanks and gratefulness to almighty God for His divine blessing makes us possible to complete the final year project/internship successfully.

We really grateful and wish our profound our indebtedness to **Ms. Moushumi Zaman Bonny, Assistant Professor**, Department of CSE Daffodil International University, Dhaka. Deep Knowledge & keen interest of our supervisor in the field of “*Web Application*” to carry out this project. His endless patience, scholarly guidance, continual encouragement, constant and energetic supervision, constructive criticism, valuable advice, reading many inferior drafts and correcting them at all stage have made it possible to complete this project.

We would like to express our heartiest gratitude to Ms. Moushumi Zaman Bonny, Mr. Narayan Ranjan Chakraborty, and Head, Department of CSE, for his kind help to finish our project and also to other faculty member and the staff of CSE department of Daffodil International University.

We would like to thank our entire course mate in Daffodil International University, who took part in this discuss while completing the course work.

Finally, we must acknowledge with due respect the constant support and patients of our parents.

ABSTRACT

We develop a web application. Which project name is “Smart Blood Donner”. This is the system that helps people when they badly need emergency blood. But no such of system has not yet established or which are not processing for develop in our country so far. By which we can’t collect blood very easily and less time. And now a days, some fraudulent cycles prevent people from looking for blood donors. They harassed People for money with the opportunity to find a donor in a short time. Sometimes people. They lost their lives due to uncontrolled blood in time. That’s why we develop this system for people who need blood as their demand, they can easily find the blood donner. People can also donate blood to the patient who need the same group of blood. In this system we have basically two modules. The first one is Donate Blood and second is Collect Blood. If people want to donate or collect blood then both of them must register in our system. If they are not register in our system, they can only view our website but they can’t donate or collect blood. In this system we have two searching functionalities. First one is Simple Search functionality and another is Map Searching functionality. Map Searching functionality is unique functionality in our system. That functionality can find a blood donor in a specific location. User could use map and donor phone location to know the current location with eligible or eligible view of donor. Then Click the eligible user, it will show the contact of donor and blood group. If match the blood group then user could contact with the donor and wait for donor response. After implementation this web applications are tested in different stage and it work successfully as a prototype.

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CHAPTER 1

Introduction

1.1 Introduction

This web project is based on blood donation field. Blood is very important element for our body or human being. We want to provide a safe, sufficient and timely supply of blood and blood production. The purpose of this website is to update a blood donation system in our country [Bangladesh] and update a blood donation information system that insure the creation of an online blood donation system. That we can access donor and administrator for all information. The idea of blood donation project tries to help as a life-saver for people and patients. In our country most of the people are think that donating blood is bad for health that is wrong thought of those people donating blood is lots of benefit. Such as,

- Helps people as a life saver.
- Donating blood can reveal potential health problem.
- Giving blood can reduce your risk of heart attack.
- Donate blood and save people life.
- Remove stress.

In order to take all these benefits, it is necessary to donate human blood. For all those causes we thought to develop a web application, named “Smart Blood Donor”.

1.2 Motivation

We made this system because people can easily search blood in a specific area and easily can collect blood. Also, everyone can easily donate their blood.

1.3 Objectives

- We are going to offer a web application.
- We will search blood in a specific area in smartly.
- Everyone can easily collect blood using this system.

- Everyone can easily donate their blood using this system.

1.4 Expected Outcomes

- Our project will encourage the people to donate their blood.
- People who need blood can easily reach the blood donor's exact location so anyone can easily find their needed blood.
- Our project searching system is very smart that's why no one will suffer from blood donor.
- No hassle to donate blood through our system.

1.5 Project Management and Finance

All the functionality of our project has been presented in a very simple way so it is very easy to manage the project. Our project manager will always supervise our project. Whether the blood recipient is interfering with the blood donor while receiving blood or responding properly, all the issues will be taken care of by our project organizer. Our volunteers will run blood donation campaigns in different parts of the country and raise money from various donors who donate money to serve the people. In addition, all the people from the upper echelons of the society to the lower echelons who always come forward for the welfare of the people will be able to donate money to the Board of Trustees for this project.

1.6 Report Layout

Normally report layout indicate describes a summary of full story. In this case report layout indicate describes a summary of all chapter. Now we describe a summary of all chapter given below:

Chapter 1:- In this chapter we describe an Introduction about our system, and also describe Our System Motivation, Objectives, Expected Outcomes and Project Management and Finance

Chapter 2:- Here we describe Preliminaries/Terminologies, Related Works and Comparative Analysis, Scope of the Problem, all Challenges about our whole system.

Chapter 3:- To describe in this chapter are Business Process Modeling, Requirement Collection and Analysis, Use Case Modeling and Description, Logical Data Model and Design Requirement.

Chapter 4:- In this chapter we describe about Front-end Design, Back-end Design, Interaction Design and User Experience Implementation Requirements of our Smart Blood Donation System.

Chapter 5:- In this chapter we describe about Implementation of Database, Implementation of Front-end Design, Testing Implementation and Test Results and Reports about our system.

Chapter 6:- To describe in this chapter are impact on Society, Environment and Sustainability about our system.

Chapter 7:- Here we describe Conclusion and Scope for Further Developments about our system.

CHAPTER 2

Background

2.1 Preliminaries/Terminologies

Our project is an attractive web application that runs by computers, smartphones, and tablets through the internet. Sometimes we get upset to collect the blood that we need because we found blood donor but their blood doesn't match as our demands. as a result we become stressed, panic. If we don't manage blood that we need, we fail to alive our patient. In that case people may search their needed blood and also match the blood group in less time through our system.

2.2 Related Works

In the perspective of Bangladesh, we have researched many documents which are related to our smart blood donation website. In the meantime, we have noticed the functionalities of other websites as like our smart blood donation website. Those applications are well decorated with functionalities. They have used many technical features and technologies. Some examples are given bellow.

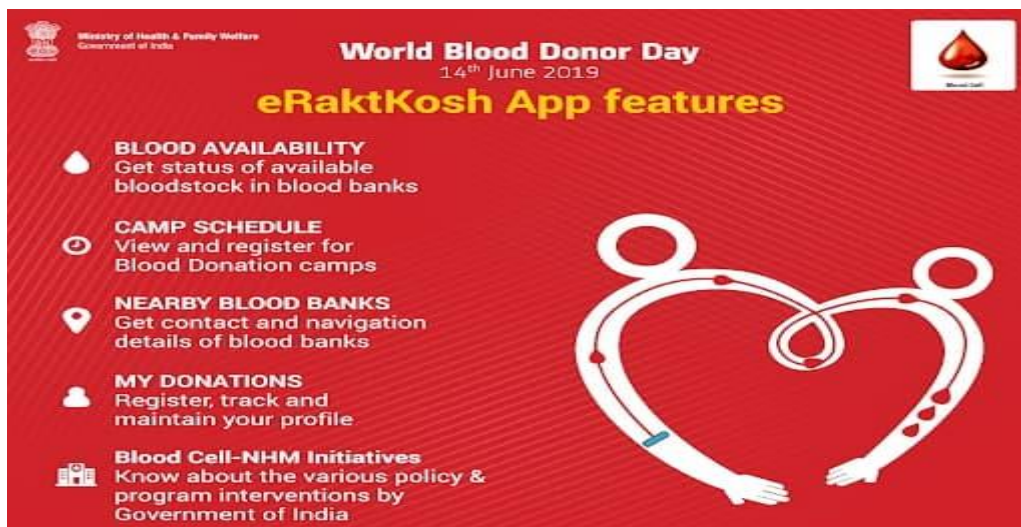


Figure 2.2: Blood Donation App Features.

2.2.1 Common features of others project:

- Blood donor and user registrations.
- Search blood donor
- Request blood

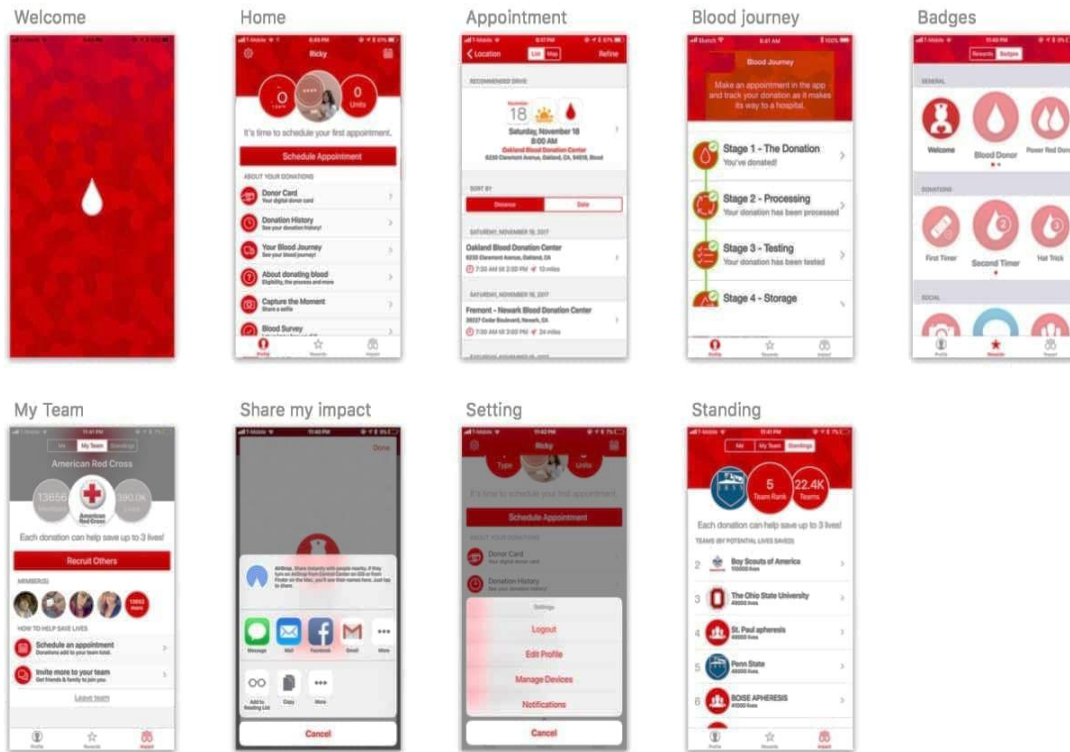


Fig: 2.2.1 Common features of others project

2.3 Comparative Analysis

Our developed web applications are unique from the existing developed website. Our developed project authentications and authorizations are more secure than others blood donor websites. That's why no one can donate blood and can't contact a blood donor without user registrations. We used the latest technology in our project. That's why our project is very fast and the database is more secured than any other existing developed website.

2.4 Scope of the Problem

Using our system, a blood collector asked a blood donor for blood and the blood donor agreed to donate blood. But for some reason, the blood donor failed to donate blood at that time. In that case the blood recipient may face the present problem.

2.5 Challenges

- By alerting a Blood Donor by sending a notification.
- Must register our system to contact the blood donor.
- Unauthorized users can't login in to our system to collect blood.

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Business Process Modeling

The project we are emulating is based on the direct blood donors of users by admins. Project administration will have a Board of Trustees. If people think this project is good for all the people, then they will voluntarily donate money to the board of trustees of this project. There will be another model in which the project administrations will collect money from some other social trusty board and those who donate money to the development of society.

3.2 Requirement Collection and Analysis

When we start to implement our project in the meantime, we collect some requirements and analysis those requirements then we start to develop our project. Some of the requirements are given below:

- If anyone wants to collect blood through our system who must register in our system.
- Blood donors to be registered for donating blood.
- Must be needed valid phone number and email for registrations or login.
- Must need to give some information when anyone wants to register in our system.
- For one phone number and email, only one user can register in our system.
- Need to edit donor profile setting.

3.3 Use Case Modeling and Description

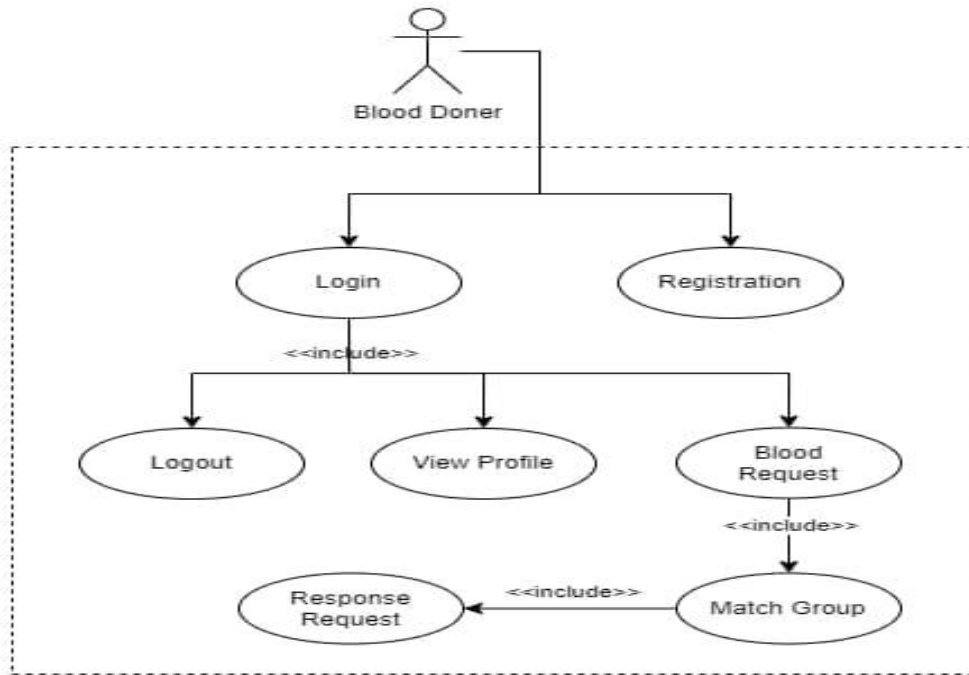


Figure 3.3: User Use Case diagram.

The details use case diagram from our use case diagram figure:

Table 3.3: Use case description of Registration

Use Case #01	Registrations
Primary Actor	Blood collector, Blood donor
Secondary Actor	System
Pre-Condition	Go to the website home page
Scenario	<ol style="list-style-type: none"> 1. Valid user name 2. Enter valid and active email. 3. Enter valid phone number. 4. Enter password. 5. Confirm password. 6. 5. Click “Register” button.
Post-Condition	Registration successfully completed or failed

Table 3.3.1: Use case description of Login.

Use Case #02	Login
Primary Actor	Blood collector, Blood donor.
Secondary Actor	System.
Pre-Condition	Go to the website home page.
Scenario	<ol style="list-style-type: none"> 1. Valid user name. 2. Password.
Post-Condition	Login successfully completed or failed.

Table 3.3.2: Use case description of search blood.

Use Case #01	Search Blood donor
Primary Actor	Blood collector
Secondary Actor	System
Pre-Condition	Search Blood and match blood group.
Scenario	<ol style="list-style-type: none"> 1. Login into website 2. Search blood group and location wise. 3. Check he/she eligible or not for donating blood. 4. Then contact with donor

3.4 Logical Data Model

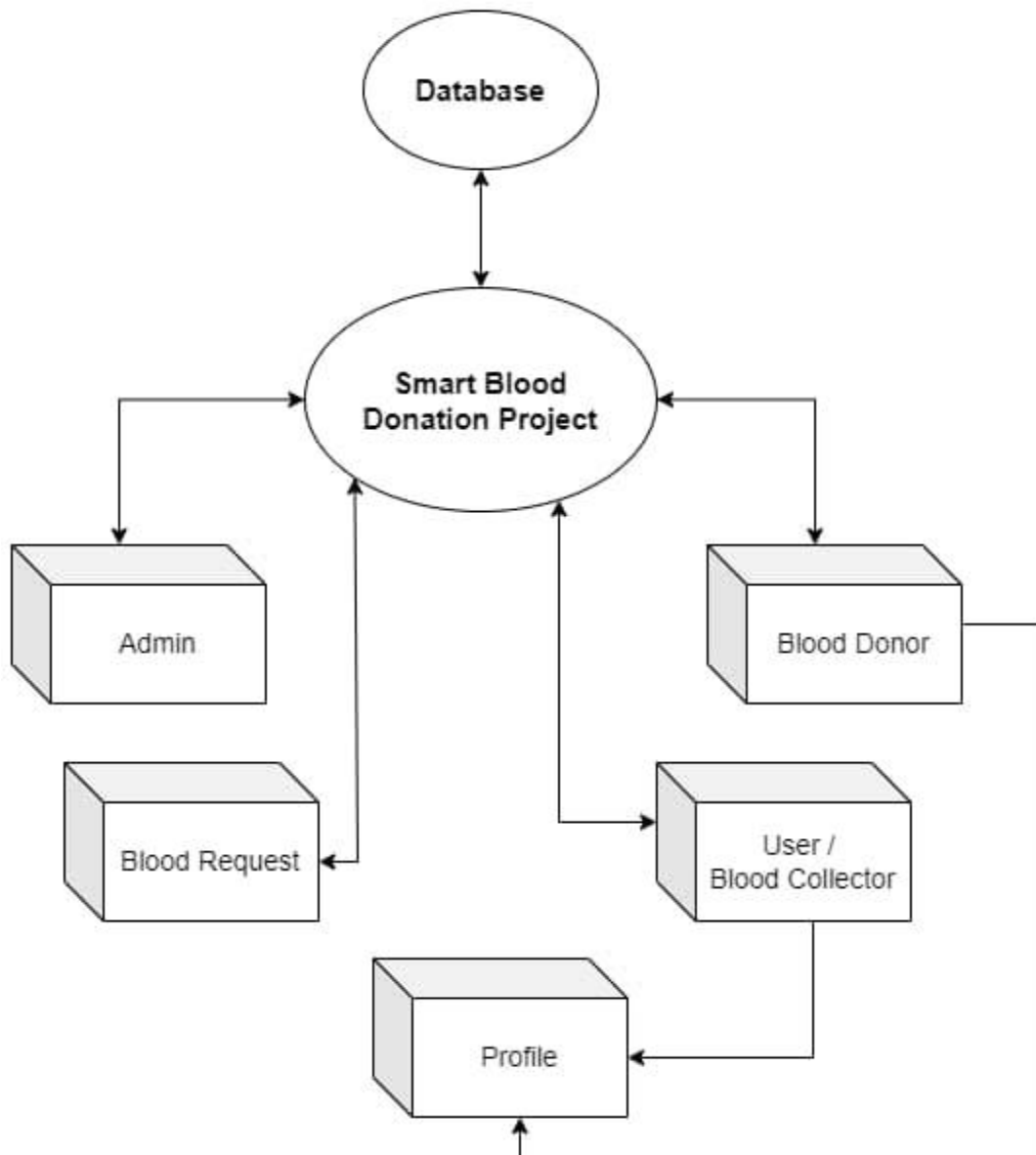


Figure 3.4: Logical Data Model.

3.5 Design Requirement

Table 3.5: Design Requirement for a Registrations system.

Name for the use case	Blood donor registration
Sharing Actor	Blood donor
Condition for event	Blood donor submit necessary information for registrations and complete registrations
Conditions of entry	Go to the website login page
Conditions of exit	Whole rules provided by this blood donations website.
Quality's demand	Every format is requiring.

Table 3.5.1: Design Requirement for a Search donor.

Name for the use case	Search Blood donor
Sharing Actor	Blood donor
Condition for event	Match blood group and contact blood donor.
Conditions of entry	Go to the website search details page
Conditions of exit	Blood collectors are search for blood and match blood group.
Quality's demand	Every format is requiring.

Chapter 4

Design Specification

4.1 Front-End Design

Front-End design is the infrastructure of a website or web application and that a user can see in a website or web application. Front-End design is also known as a Client-server application that is run by any kind of browser. We are also creating a web application for Donation Blood. Where front-end design is very important to attract people and make every information easy to understand.

Some of front-end design of our system given below:

4.1.1 Home

- Shows a list of all pages selected for users in our system.
- Users can know about blood.
- Users can get some ideas about misconceptions of blood.
- Users can also know about blood donation Process and what to do before & after donation blood.
- Users can also view the Registration button and the login button on the navigation bar.

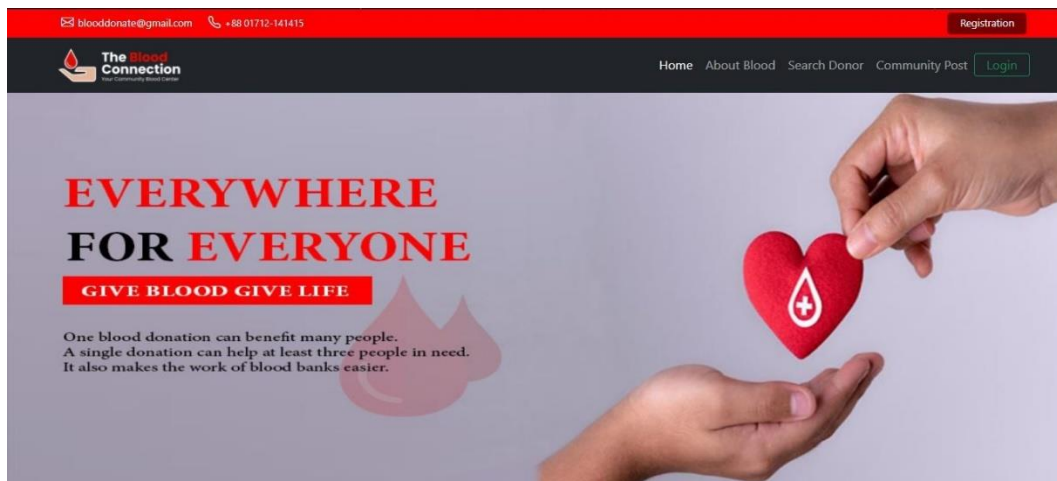


Figure 4.1.1: Home Page



Do You Know?

Blood cannot be made artificially, only one person can save another. But sadly, every year a large number of people are dying due to lack of necessary blood in an emergency. At present Bangladesh needs only 5 lakh bags of blood every year. But in this population country people are still dying due to lack of blood. The demand for blood is so high that if adults in all parts of our country are made aware of the need and benefits of blood donation. There can be no greater joy than to bring a dying patient back to his loved ones or good health, than by the act of giving patients in need of emergency blood. We thus urge you to donate blood should register as a blood donor for this nation. Nationally will fund you a sum of emergency blood distribution. Happy Blood Donating.

Some Mis-conceptions

1. There is no pain at all when donating blood. It just feels a little uncomfortable as pins in the needle. 2. Health will deteriorate after blood donation. This is a misconception. In fact, donating blood reduces the risk of heart disease and prevents excessive iron storage in the body. 3. People with diabetes cannot donate blood. This is also a misconception. It is considered alright for health reasons, as people with diabetes can donate blood as long as their blood glucose level is within the accepted limits. 4. Blood cannot be donated because of high blood pressure. This is also a misconception. Blood can be given if the blood pressure is between 160/90 mmHg and 200/100 mmHg. 5. After donating blood, you will not feel any discomfort at all. Many people have misconceptions about this.



Donation Process



Become a Donor

Learn about it, study during and after passing your qualifying studies. Learn about the donor's standard checking test run every six months, when an automatic pinprick test a galaxy of spot and procedure is to make a comprehensive health...

Read more...



Why Donate Blood?

Take blood from them. Blood is essential for someone with some glaucoma, during pregnancy, and childhood. children with severe anemia often requiring bone marrow or transfusions, stroke, trauma, and surgical and cancer patients...

Read more...



Who can donate blood?

Any healthy adult, well-man and female, just please blood. Men can donate safely every six months, while women can donate every four months. Just also you are aged between 18 and 65. You weigh at least 50 kg, you must be in good health...

Read more...

What to do Before & After Donation Blood

Before Your Donation:

- Drink at least 750 ml of water (approximately 2 1/2 glasses) approximately
- Eat a healthy meal, avoiding fatty foods like hamburgers, before you donate.
- Being warm is more, talk to your doctor for small white platelets.

After Your Donation:

- Apply a Band-Aid or tape for a few minutes to ease discomfort & recovery time.
- Drink an extra four glasses of liquid and avoid alcohol over the next 24 hours.
- Don't do any heavy lifting or vigorous exercise for the rest of the day.



Fig 4.1.1.1: About blood, some ideas about misconceptions of blood and what to do before & after donation blood.

4.1.2 Registration

- Must provide the fast and last name of the user.
- Must provide the username.
- Must provide the phone number.
- Must provide valid email address.
- Must provide the valid password.
- Must provide the blood group.
- Must provide the address.

New Account

Give blood, Take blood & Save life

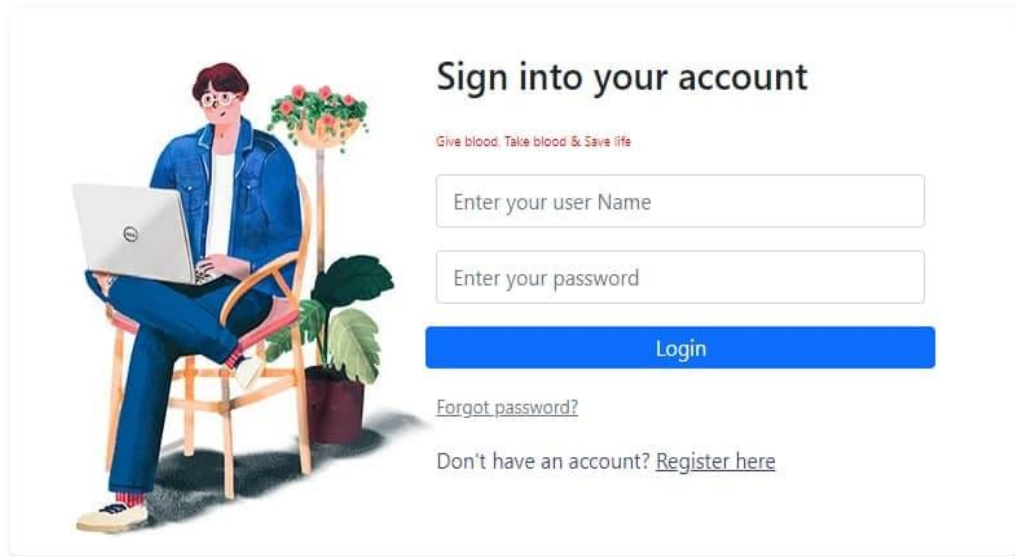
<input type="text" value="Fast Name"/>	<input type="text" value="last Name"/>
<input type="text" value="User Name"/>	<input type="text" value="Phone"/>
<input type="text" value="Email"/>	<input type="text" value="Password"/>
<input type="text" value="Confirm Password"/>	<input type="text" value="dd/mm/yyyy"/>
<input type="text" value="Profession"/>	<input type="text" value="Blood Group"/>
<input type="text" value="Gender"/>	<input type="text" value="Select City"/>
<input type="text" value="Thana"/>	<input type="text" value="Union"/>
<input type="text" value="Post Code"/>	

** All data keeps secret except contacts info thats are not problem at all.

Fig 4.1.2: Registration Form

4.1.3 Login

- Must provide valid username.
- Must provide the valid password.

An illustration of a login form. On the left, a man with glasses and a blue jacket sits in a wooden chair with a laptop. To his right is a potted plant with red flowers. The form itself is on the right, titled "Sign into your account". Below the title is a tagline "Give blood. Take blood & Save life". There are two input fields: "Enter your user Name" and "Enter your password". Below these is a blue "Login" button. At the bottom, there are two links: "Forgot password?" and "Don't have an account? Register here".

Sign into your account

Give blood. Take blood & Save life

Enter your user Name

Enter your password

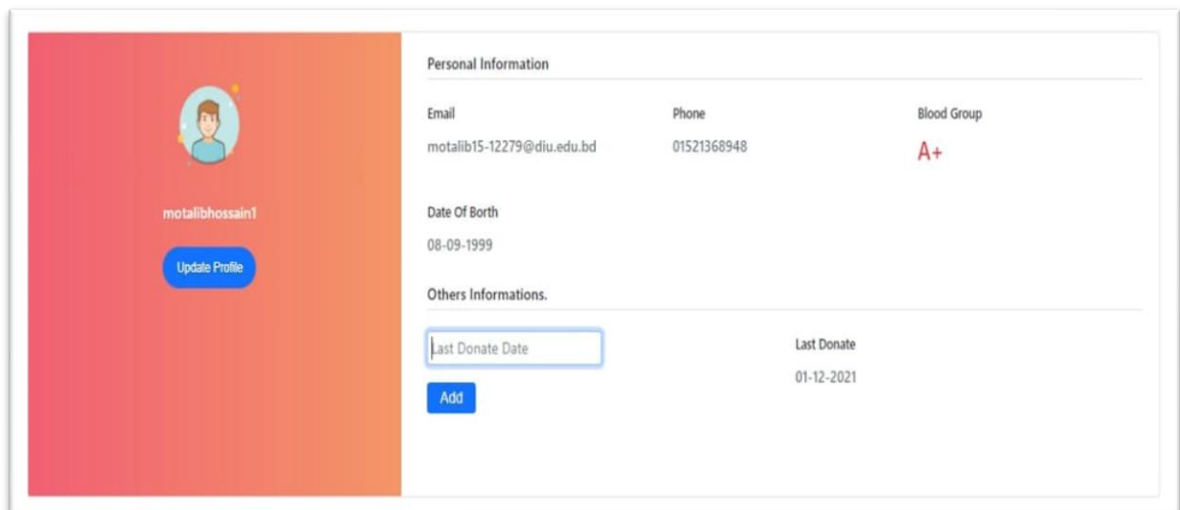
Login

[Forgot password?](#)

Don't have an account? [Register here](#)

Fig 4.1.3: Login Form

4.1.4 User Profile

An illustration of a user profile page. On the left, there is a red-to-orange gradient background with a circular profile picture of a man, the username "motalibhossain1", and a blue "Update Profile" button. On the right, the profile information is displayed in a white box with a light gray border. It is divided into sections: "Personal Information" with fields for Email (motalib15-12279@diu.edu.bd), Phone (01521368948), and Blood Group (A+); "Date Of Borth" (08-09-1999); and "Others Informations." with a "Last Donate Date" field (empty) and a "Last Donate" date (01-12-2021). There is also an "Add" button below the date field.

Personal Information

Email	Phone	Blood Group
motalib15-12279@diu.edu.bd	01521368948	A+

Date Of Borth

08-09-1999

Others Informations.

Last Donate Date	Last Donate
	01-12-2021

Add

Fig 4.1.4: User Profile

4.1.5 Search Donor

- Must provide the Blood Group.
- Must provide the Location.
- Must provide the Donation Date.

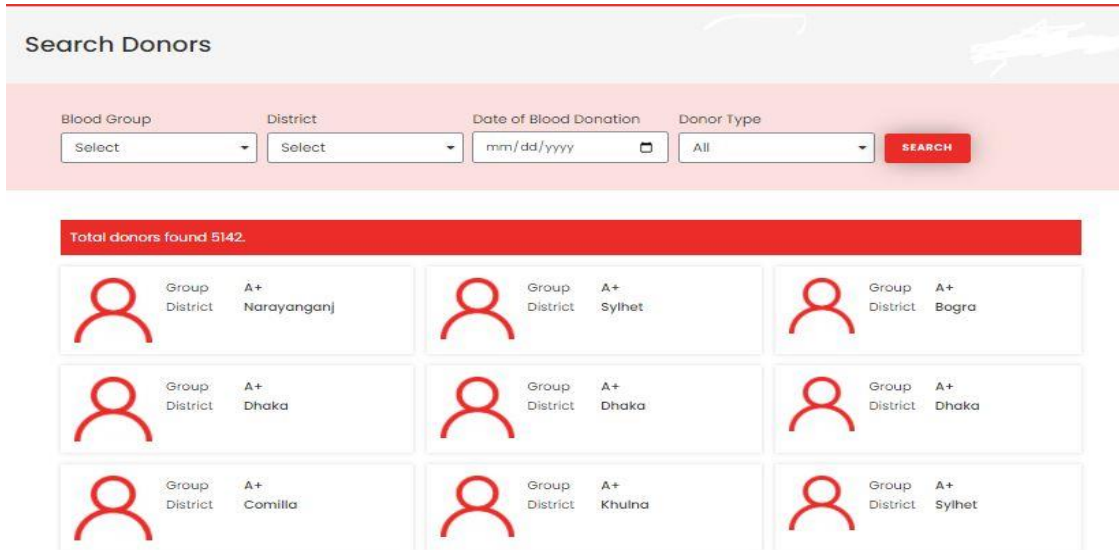


Fig 4.1.5: Search Donor

4.2 Back-End Design

Backend is a very important thing in every project for sorting data and information. We also use a backend for our applications. And below here we shown our backend design.

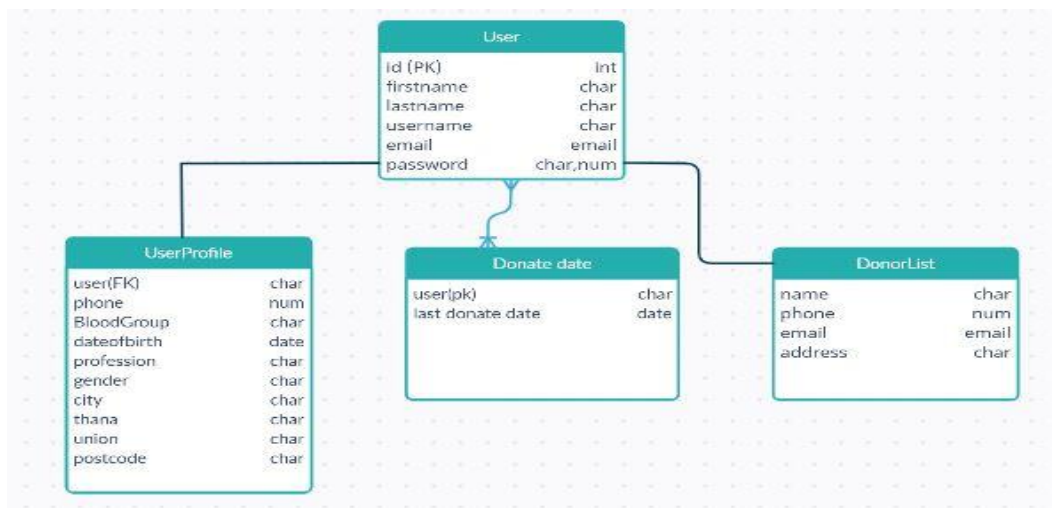


Figure 4.2: Database schema diagram



Figure 4.2.1: Database of user

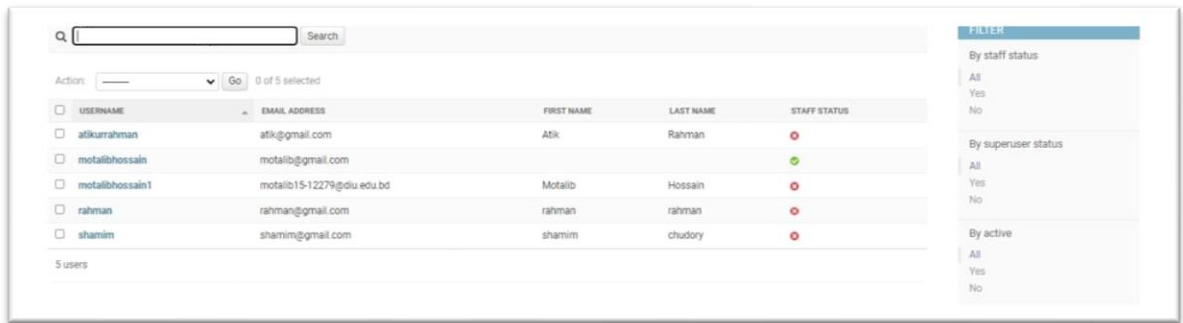


Figure 4.2.2: Database of user Profile

4.3 Interaction Design and User Experience (UX)

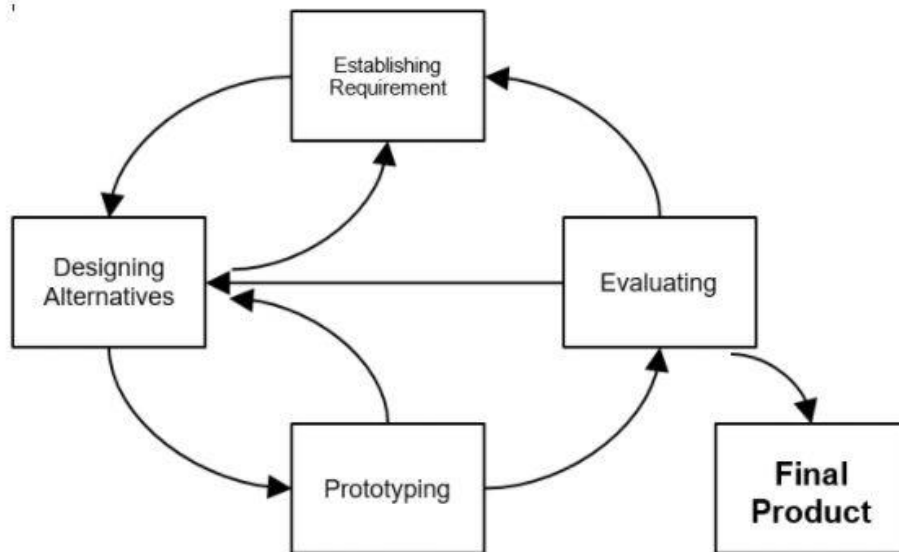


Fig 4.3: Interaction Design Diagram

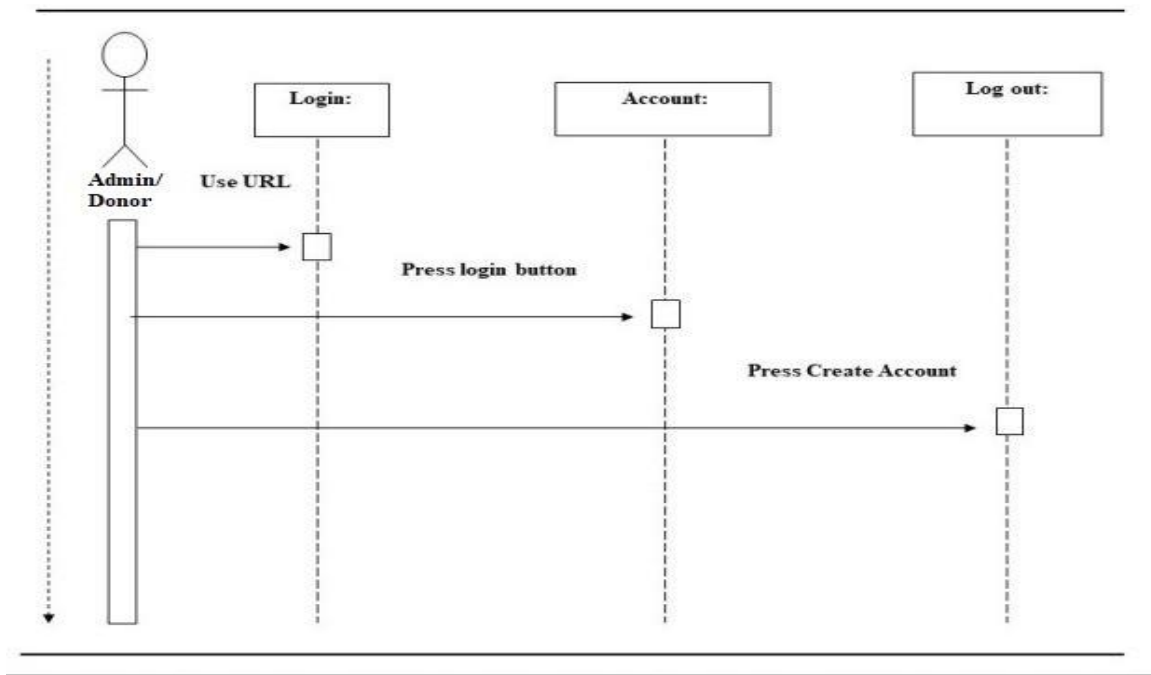


Fig 4.3.1 User Experience (UX) Diagram

4.4 Implementation Requirements

Some requirements tools are must require to develop every website or web application. We have also used for develop some requirements tools in our system.

Requirements:

1. We used Programing Language such as HTML, CSS, Bootstrap, Java Script, Python and Django.
2. Visual Studio as IDE & Xampp server.
3. We used MySQL for database connection, and Visual Studio IDE for raw coding.
4. A valid Email.
5. A valid Phone Number.
6. We used email verification for complete the registration.
7. Need a mobile or pc and internet connection for browsing the application, and also must need any browser.

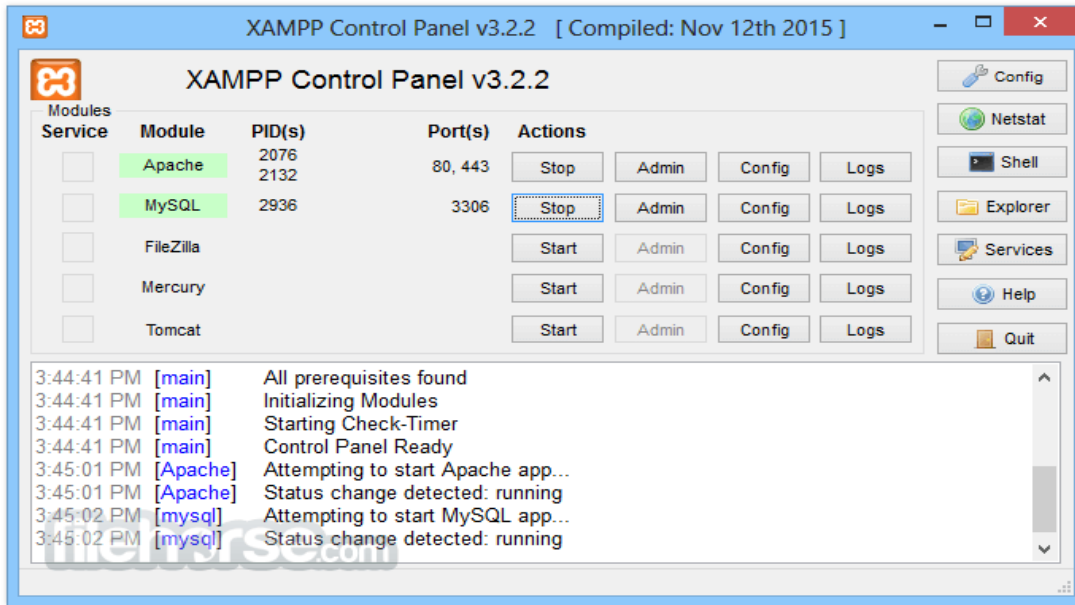


Fig 4.4: Xampp Server control panel.

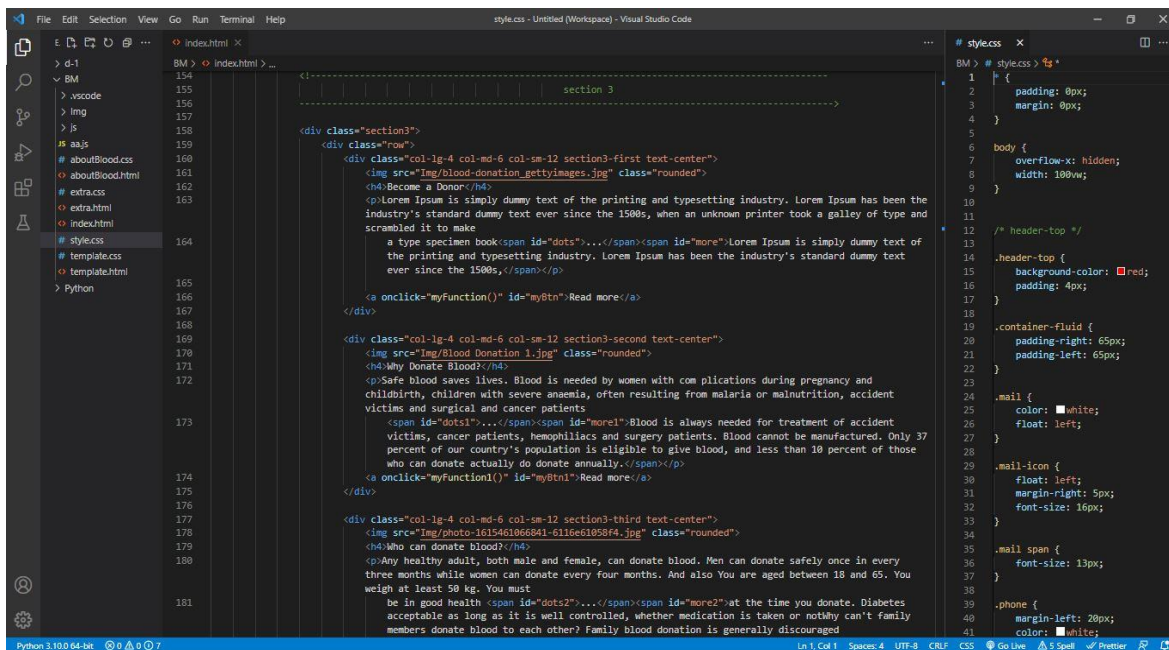


Fig 4.4.1: Visual Studio row coding platform

Chapter 5

Implementation and Testing

5.1 Implementation of Database

In our project, we use the MySQL database for implementing the background task of the whole project. When we start to implement our project database in the meantime, we design a database schema for developing a better database. Register user information, blood donation campaign information, user information, Donor list all data are stored in our database. All those information is stored in a separate database table but they are relationally connected with all tables. Below given here our implementing database:

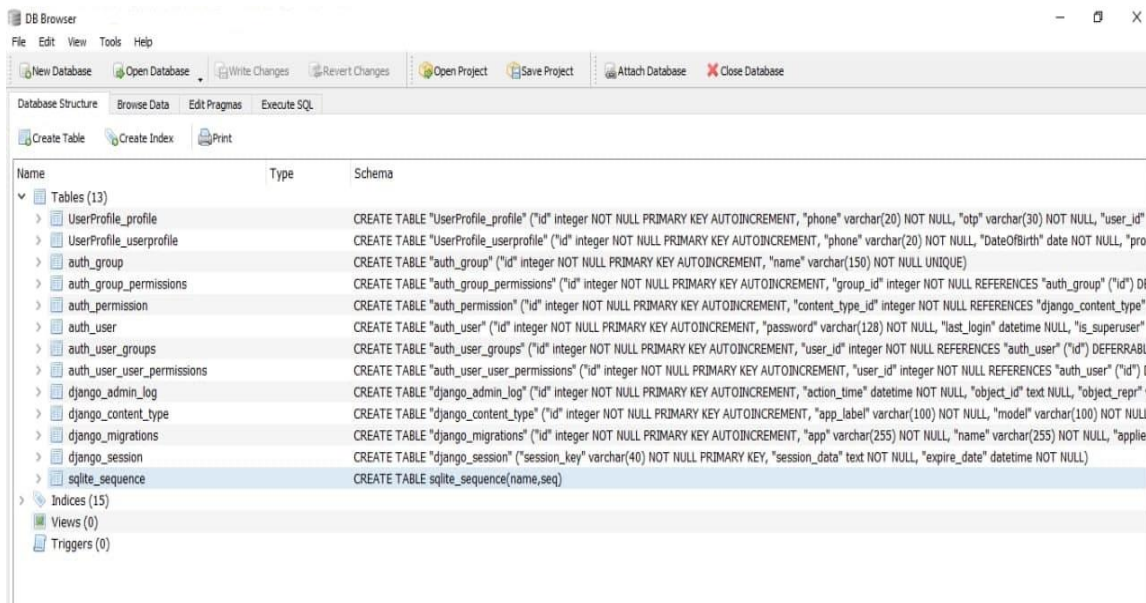


Fig 5.1: Implementing Database

5.2 Implementation of Front-end Design

We are tried to implement better front-end design in our system and also we are tried to user friendly for all kinds of public. We used in our system html5, css3, bootstrap5, and java script that's makes the better user interface and user-friendly design. So that all users can easily understand and use it.

Firstly we designed a UI (User Interface). Then we follow our UI design and develop our project infrastructure using HTML5 and then we use CSS3 technology to make our system more attractive. Then we use Bootstrap5 technology for responsiveness on Mobile Phones, tablets, laptops, and Computer. And lastly we use java scripts for handle all events in our project. All those technology we used to implement our project front-end design.

5.3 Testing Implementation

Testing implementation is the process of an action for the formulated plan. We are testing multiple parts in this system. That's requirement is installation, configuration, customization, running and user training necessary are implementation of testing. The page is email verification Donate Blood and Save life applications. When a user returns a wrong code then show the email verification is failure.

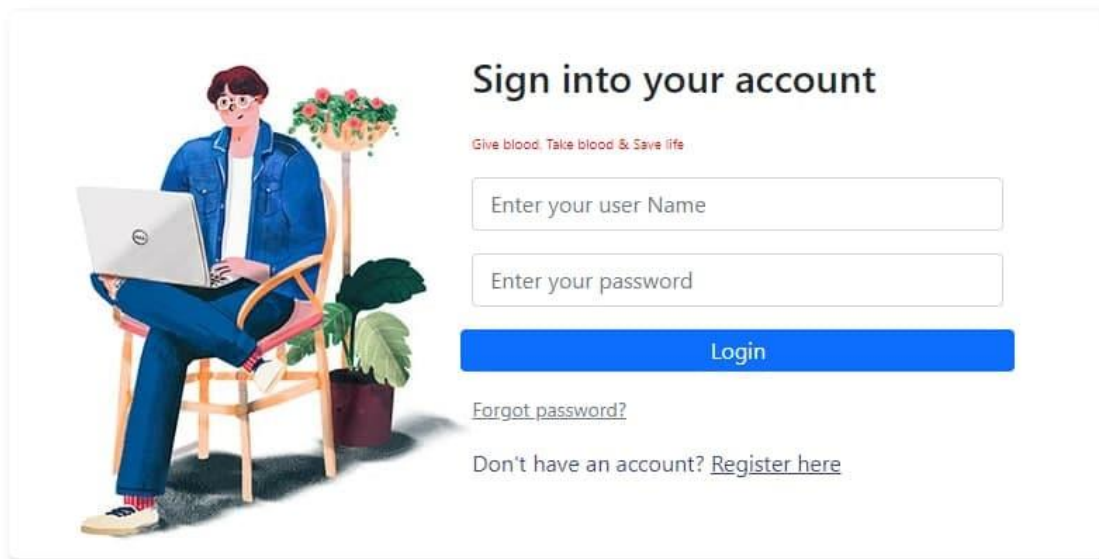


Fig 5.3: Valid/Invalid Login Form

This page is Login Form in our system. If anyone wants to login into our system then he/she must be input their valid username and password. If anyone inputs an invalid username or password, he/she can't login into our system. If not logged in our system he/she can only view our website but can't get or donate blood through our system.

New Account

Give blood, Take blood & Save life

Fast Name	last Name
User Name	Phone
Email	Password
Confirm Password	dd/mm/yyyy <input type="checkbox"/>
Profession <input type="text"/>	Blood Group <input type="text"/>
Gender <input type="text"/>	Select City <input type="text"/>
Thana	Union
Post Code	<small>** All data keeps secret except contacts info thats are not problem at all.</small>

[Create Account](#)

Fig 5.3.1: Valid/Invalid Registration Form

This page is registration form in our system. Here no one can registration without input his/her username, phone number, email and password. If anyone wants to registration in our system then he/she must input those data in our registration form. Without input those data anyone can't user successful registration in our system. Then the message will show "Please entered required information for registration".

5.4 Test Results and Reports

Table 5.4: Test Case Table for Registration.

Test Case	Test Input	Expected Output	Actual Output	Result	Tested On
1.Show/run the application pages	Tested browsers: Google Chrome (Version 96.0.4664.45), Firefox (94.0.2), Microsoft Edge (96.0.1054.43) and Opera Browser (12.02)	Run those Pages successfully	Run those pages successfully	Passed	29-11-2021
2.Username	Null or Incorrect Username	Entered your correct username	Displayed the Warning	Passed	29-11-2021
3.Password	Blank or Incorrect Password	Entered your correct password	Displayed the Warning	Passed	29-11-2021
4.Registration	Without Registration	User can't donate or collect blood	Entered your correct information	Passed	29-11-2021

Table 5.4.1: Test Case Table for Blood Donation website

Test Case	Test Input	Expected Output	Actual Output	Result	Tested On
1.Create new account for users	Entered blood group, location and Phone number	Add users location, Blood group and Phone number	Updated user profile and details	Passed	30-11-2021
2.Search donor information	Add blood group and location	Displayed the matching donor list	Displayed the donor list	Passed	30-11-2021
3.Blood collector request for blood	Entered blood group, date and location	Send request for nearby donors	send all request	Passed	30-11-2021

Chapter 6

Impact on Society, Environment and Sustainability

6.1 Impact on Society

Our project must be a good impact on society. When people know about our project then they will be interested to donate blood. And their intention to donate blood will grow. By donating their blood through our system people will realize that how blood is important in our life. And also, they will care about donating blood. When people can donate blood and get blood without any hassle then automatically the number of deaths will decrease. By this message, the public awareness of our society about blood donation will increase.

6.2 Ethical Aspects

The blood donation website is a great work in our moral vision. From a moral point of view, everyone should come forward in the blood donation website because by donating a drop of blood, precious human life can be saved.

6.3 Sustainability Plan

Maybe our project has some limitations. We will always strive to improve our system in tandem with the times as well as overcome limitations. So that people can use our system very easily. In order to raise public awareness and inform people about our system, we will implement blood donation programs in different Upazilas and districts. So that people will know about our system and use our system and save human life.

Chapter 7

Conclusion and Future Scope

7.1 Discussion and Conclusion

Our system has been buildup and run successfully. Our systems all functionality and features work well. Our project UI design are user friendly and full responsive. We have inspired and took initiatives to develop this application because various Organizations need this system in their day-to-day operations. We know that donating blood is a great job. And most of the people of our country are aware about blood donation. Our applications will make their task mush easier for them. Our project will serve all people from one end of the country to the other. In our country the majority number of people just died in need of blood. That's why we decided to save peoples life that don't let anyone life go for blood.

7.2 Scope for Further Developments

In future we look forward to adding more innovative features in our system so that we can easily reach everyone and then everyone can use it more easily.

- ❖ In future we will add One Time Password (OTP) for login system.
- ❖ Also we will add a notification system and this information will reach all our users through this notification system of those who want to donate or take blood.
- ❖ In addition to the notification system, we want to introduce a system where if someone wants to take blood directly from a blood donor, a blood request will be sent to them and a message will be sent directly to their phone.
- ❖ We will develop our system for all kinds of platforms like Android, IOS and Windows.
- ❖ We will increase our data storage capacity in our system, so we will add more storage with larger database system such as Oracle Database.
- ❖ We want to create a global blood bank alongside this blood donation system so that all over the world people can benefit from donating and receiving blood.

Reference:

- [1] "Why Donate Blood?", available at: <https://www.donatebloodbd.com/> , [Last accessed 30 April, 2021].
- [2] "Some Misconceptions about blood donation", available at: <https://www.donatebloodbd.com/>, [Last accessed 02 May, 2021].
- [3] "What to do before & after Donation Blood", available at: <https://www.redcrossblood.org/donate-blood/blood-donation-process/before-during-after.html> , [Last accessed 03 May, 2021].
- [4] "Blood Types and Transfusion", available at: <https://www.redcrossblood.org/donate-blood/blood-types.html> , [Last accessed 08 May, 2021].
- [5] "Donor search box", available at: <https://www.rokto.co/search-donors/> , [Last accessed 12 May, 2021].
- [6] "Use case diagram", available at: <https://app.diagrams.net/> , [Last accessed 1 December 2021]
- [7] "Data base schema design tool", available at: <https://creately.com/> , [Last accessed 10 November 2021]
- [8] "User registrations OTP system", available at: <https://www.twilio.com/> , [Last accessed 15 November 2021]

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