CSL 2050- SOFTWARE ENGINEERING

PROJECT REPORT

BLOODLINE

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ABSTRACT

This project is aimed at developing an online Blood Donation Center Website. “Blood” is one of the most important necessities of our life. The number of blood donors is very less when compared with other countries.

In our project we propose a new and efficient way to overcome such an outline. Patient can search the blood which he/she wants and search the city. Such as just touch the button donate will be ask to enter an individual's details like name, phone number, age, date of birth, emails, blood group etc. Once the app user enters the blood group and selects the city which he/she needs it will show blood donors in detail. Once the donor donate the blood it will automatically remove the donor detail for next three months.Through this application any person who is interested in donating the blood can register himself in the same way if any organization wants to register itself with this site that can also register. "Moreover if any general consumer wants to buy blood online he/she can also take the help of this site. Admin is the main authority who can do addition, deletion, and modification if required. The project has been planned to be having the view of distributed architecture, with centralized storage of the database.

DOCUMENTATION INFORMATION

Project	Software Engineering Project
Project Name	BLOODLINE
Team Members	Gandyadapu Sriharsha (B21CS029) Gavva Sathwika (B21CS030)
Under Supervision of	Kshitij Gajjar

1.INTRODUCTION

1.1 PROBLEM STATEMENT

Blood donation is required during an organ transplant, accidents, cancer treatment etc. For blood donation, one needs to check for a donation camp or visit a blood bank. The Manual Blood donation system has many disadvantages which includes:

(i) It is too time consuming,

(ii) Often leads to error prone results

(iii) Consumes a lot of manpower

(iv) Lacks donor information

(v) Retrieval of data takes a lot of time

(vi) Percentage of accuracy is less

(vii) In the time of emergency, it becomes difficult to approach the right donor.

(viii) Rare blood groups are not available all the time at all blood banks and recipients find difficulties to track the right blood donor.

1.2 PURPOSE

- The blood data is maintained in the database. New blood details are entered into the project to manage blood details. Blood donor details are entered and maintained in the database.
- Basic purpose of the system is to Search blood that occurs during the operation as well as performing calculation and updating database as and when necessary. The system can also provide information to the donor about the current state.
- It will help us to find the blood group with the most efficient time to take care of the blood and it is more easy to hand over the blood to help people to get blood on time.

1.3 SCOPE

The purpose of the online system is to establish a convenient and user-friendly online blood donation and collection system. A relational database supports the system.

The specification is based on the current experience of IT technology users in blood transfusion and informs both Connecting for Health and private corporations producing hardware and software.

1.4 TOOLS AND TECHNOLOGIES

Frontend- CSS, Javascript, Html

Backend- PHP, MYSQL, Bootstrap, Jquery, Ajax

1.5 DEFINITIONS

Donor-The person who donated the blood.

Accepter-The person who accepts the blood

Transfusion-An act of transfusing donated blood, blood products, or other fluid into the circulatory system of a person or animal.

1.6 REFERENCES

- https://www.w3schools.com/php/php_mysql_connect.asp
- https://www.tutorialspoint.com/php/index.htm
- https://www.redcrossblood.org/donate-blood/how-to-donate/eligibility-requirements.html
- https://www.friends2support.org/

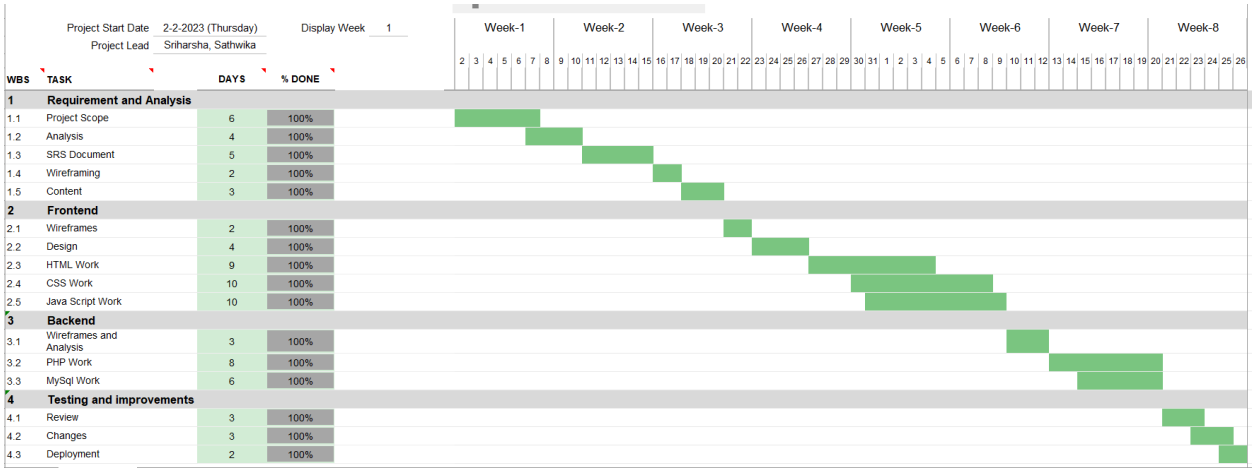
1.7OVERVIEW

- The main aim of this project is to save the lives of people by providing blood.
- This website reduces the time to a greater extent that is searching for the required blood.

- Thus this application provides the required information in less time and also helps in quicker decision making.
- The data is maintained in the database. New blood details are entered into the project to manage blood details. Blood donor details are entered and maintained in the database.
- The Software is designed to handle the blood and Search the details when required.
- It also helps to register the details of donors, blood collection details.
- The website is designed in such a manner that it can suit the needs of all the blood requirements in the course of future.
- It will help us to find the Blood group with its most efficient time to take care of the blood and it is more easy to hand over the blood to the hospital to help people to get blood on time.

2.PROJECT MANAGEMENT

2.1 GANTT CHART



3.SOFTWARE SYSTEM ATTRIBUTES

3.1 USABILITY

- The system is simple to use and does not need any pre-established restrictions to function successfully.
- Any person who logs in to the page can easily understand the different features mentioned in the website.

3.2 EFFICIENCY

- Hardware should be minimum Pentium with 196 MB RAM Fully efficient in the environments having less memory available and a reasonable speed of execution

3.3 MAINTAINABILITY

- In case of any change in policies and rules of the institution using the system, required changes will be made to the module written by the developer.
- The software maintains the correct records of the donors and the consumers.
- The website is very easy to maintain and open to any new versions/changes.

3.4 SECURITY

- Only the super user can enter the system to use it.
- The people who log into the system are volunteers who like to donate blood for innocent patients. But the system consists of some security features.
- If a donor doesn't manage to provide his user name and a password three times the user automatically will log out from the website.

4 SYSTEM REQUIREMENTS STUDY

4.1USER CHARACTERISTICS

The system requires the user to be familiar with the basic operations of the computer.

- ***Login Interface***

  Users should enter the valid email address and password to get access to their profile.

- ***Donor Profile***
- ***Search for Donors***

  The website should allow users to search for donors based on their location, blood type and availability.

- ***Donate the blood***

  The user should fill in their details like type of blood group, address, email, contact number to donate blood.

- ***Profile Update***

  The user can update their personal information in the profile page. He/She can change their password or even can delete their account.

4.2 HARDWARE SPECIFICATIONS

Processor : 1.2Ghz or More

RAM: 1Gb or More

HardDisk: 80Gb or More

4.3 SOFTWARE SPECIFICATIONS

Operating System: Windows XP, 7, 8, 10

Web Browser: Explorer, Firefox, Google Chrome

Language Used: PHP, CSS, Javascript, MYSQL, Bootstrap, Jquery, Ajax

4.4 ASSUMPTIONS AND DEPENDENCIES

- Project will work for a long time and the user will adopt it.
- Project will work with very less maintenance requirements.
- The database update made by the system will always leave the system in consistent state
- There may be some small problems, which will not affect the system performance, and these will be removed easily.
- This system interface is used to give access to the user for the system, and meanwhile maintaining the security of the system.

5.SYSTEM ANALYSIS

5.1 Problem Definition of Existing System

- Entering the details about the blood groups, members, name, date of birth etc. And tracking the database is complicated when the details are maintained. This makes the maintenance of schedule erroneous.

5.2 WHAT IS THE PROBLEM?

- The major problem in Blood Donation systems was that they don't follow the actual needs of users.
- Traditional blood donation systems were developed from 1 or 2 perspectives. There was shortage and sometimes unavailability of rare blood groups due to less modules i.e.patient and donors.
- In this way we realize that the new system is required and will certainly improve the performance of the existing system over the existing paper based system.

  i.Design the system to develop the alternative computer based system

  ii.To understand the user characteristic

  iii.Design a system for a particular type of user

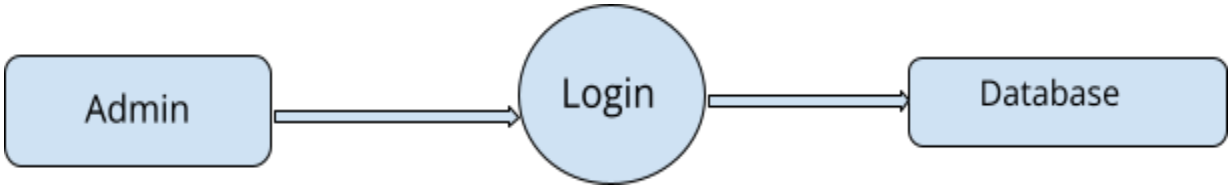
5.3 LIMITATIONS

- There is no communication between donor and patient.
- It lacks data security.
- Patient can't get any message or email for blood.
- The internet connection is also a constraint for this web application.

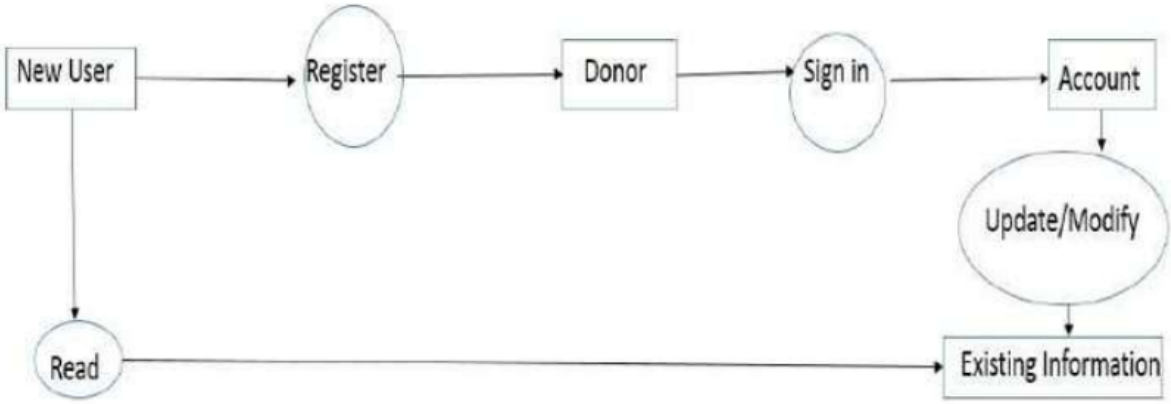
6. SYSTEM DIAGRAMS

DATA FLOW DIAGRAM

D.F.D -1

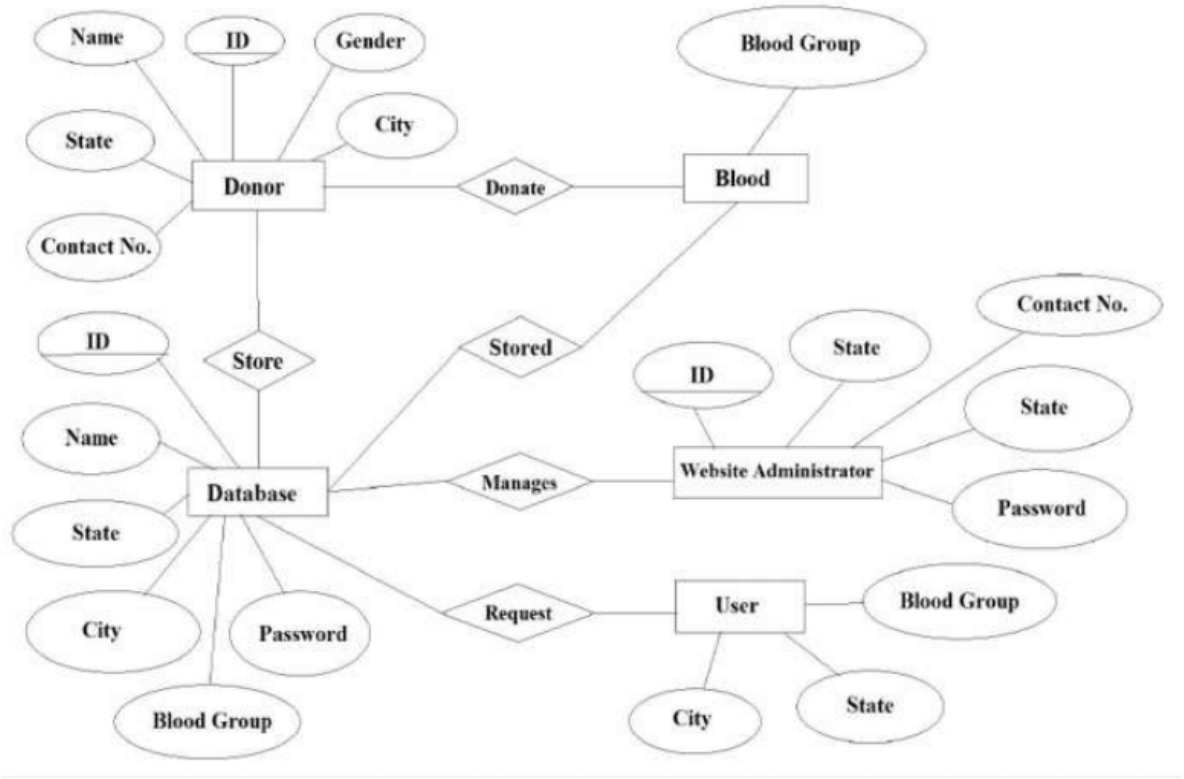


D.F.D –2



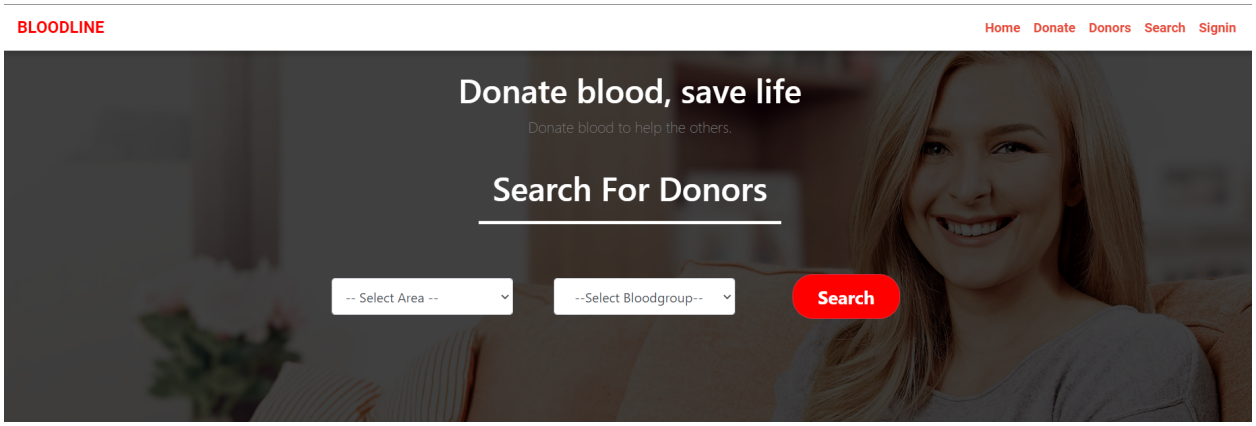
- **ENTITY –RELATIONSHIP DIAGRAM**

D.F.D –3

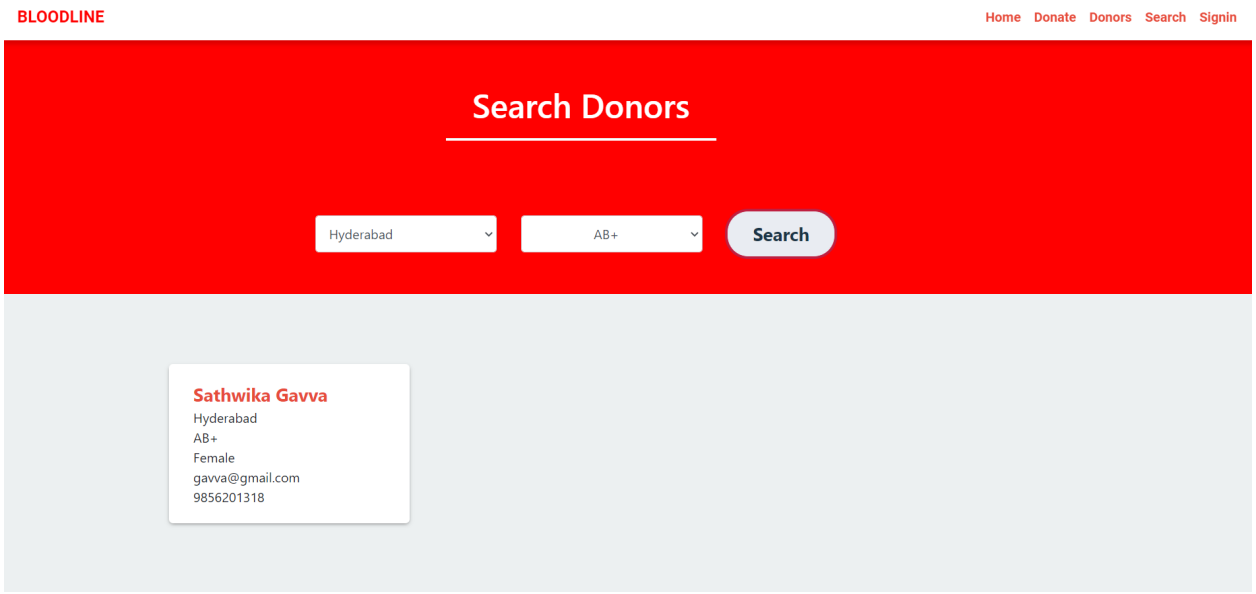


7.SYSTEM DESIGN

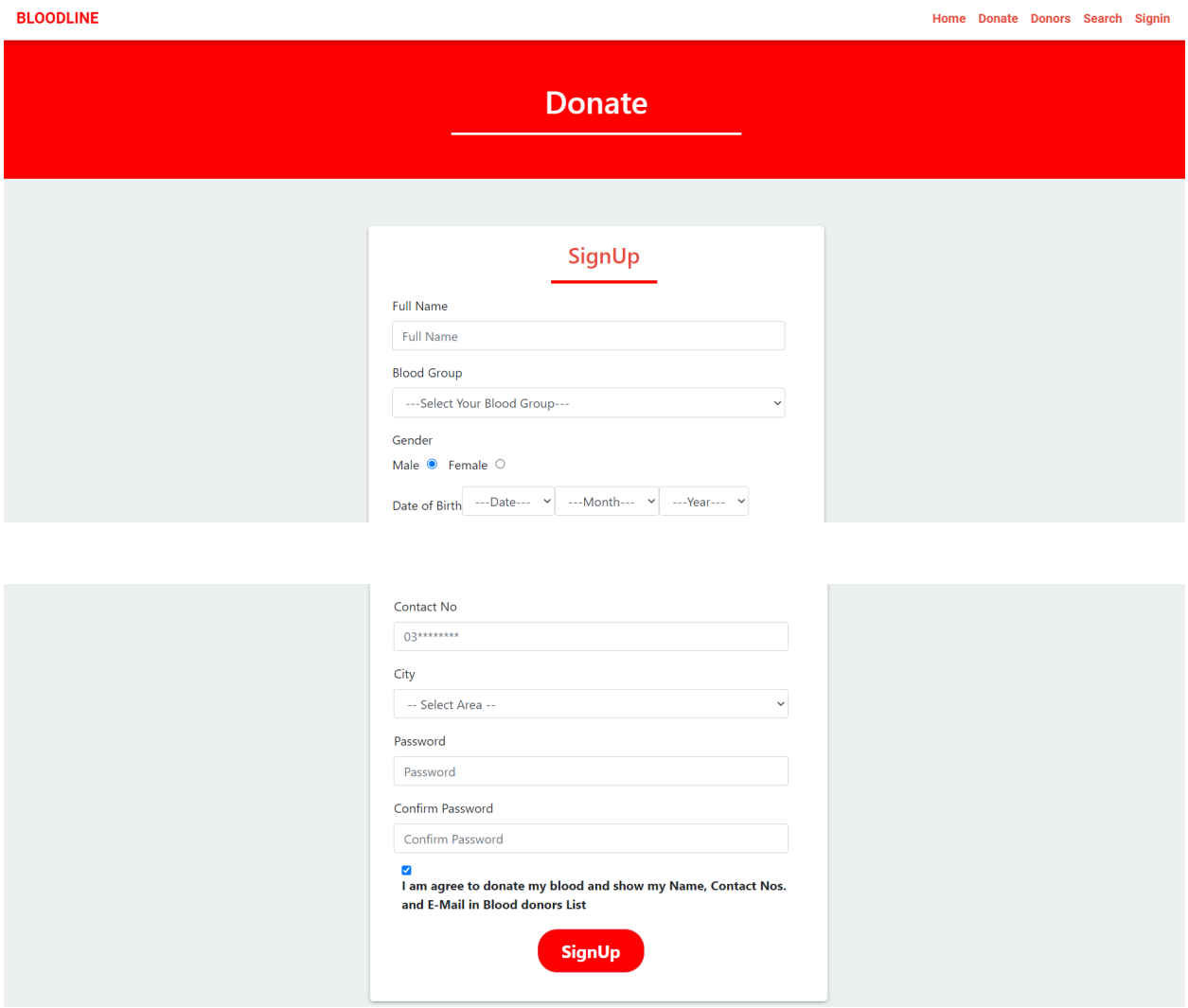
- **HOME PAGE**



- **SEARCH PAGE**

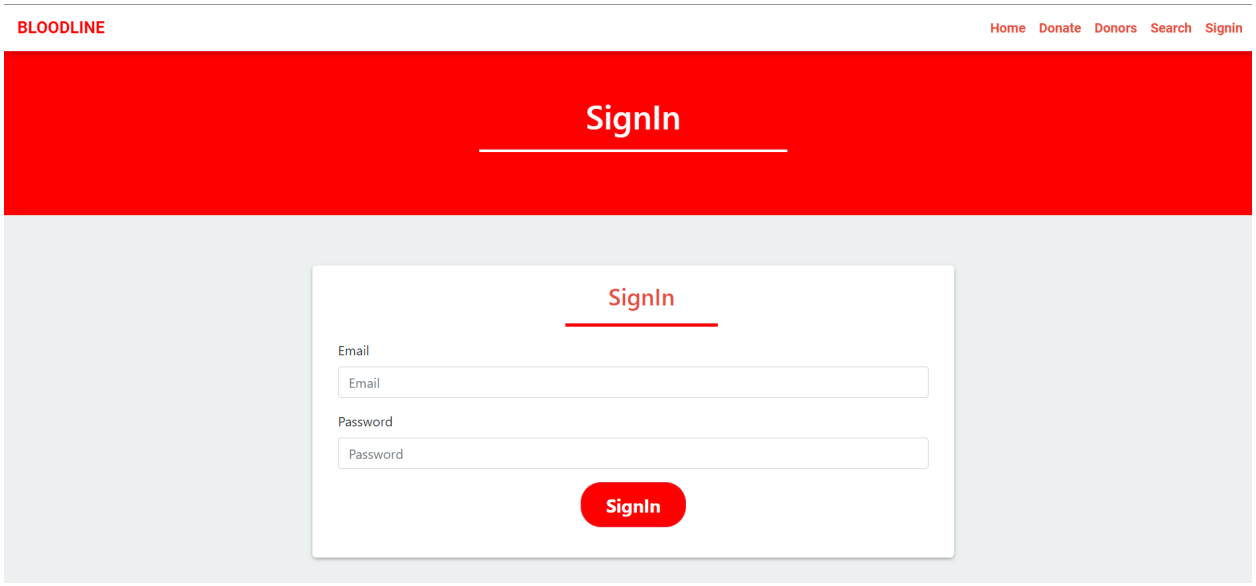


- **SIGN UP PAGE**

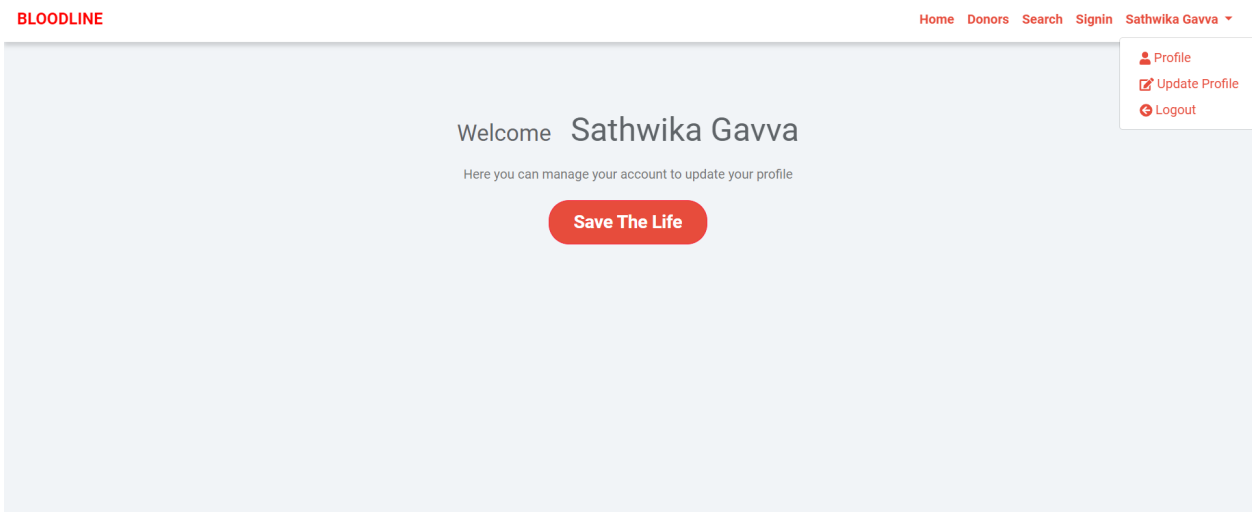


- **CONTACT US**

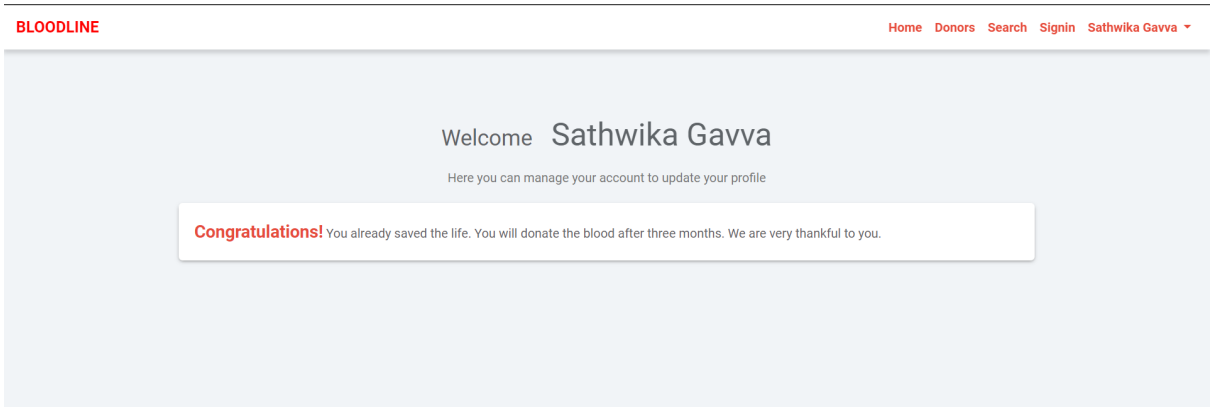
- **SIGN IN PAGE**



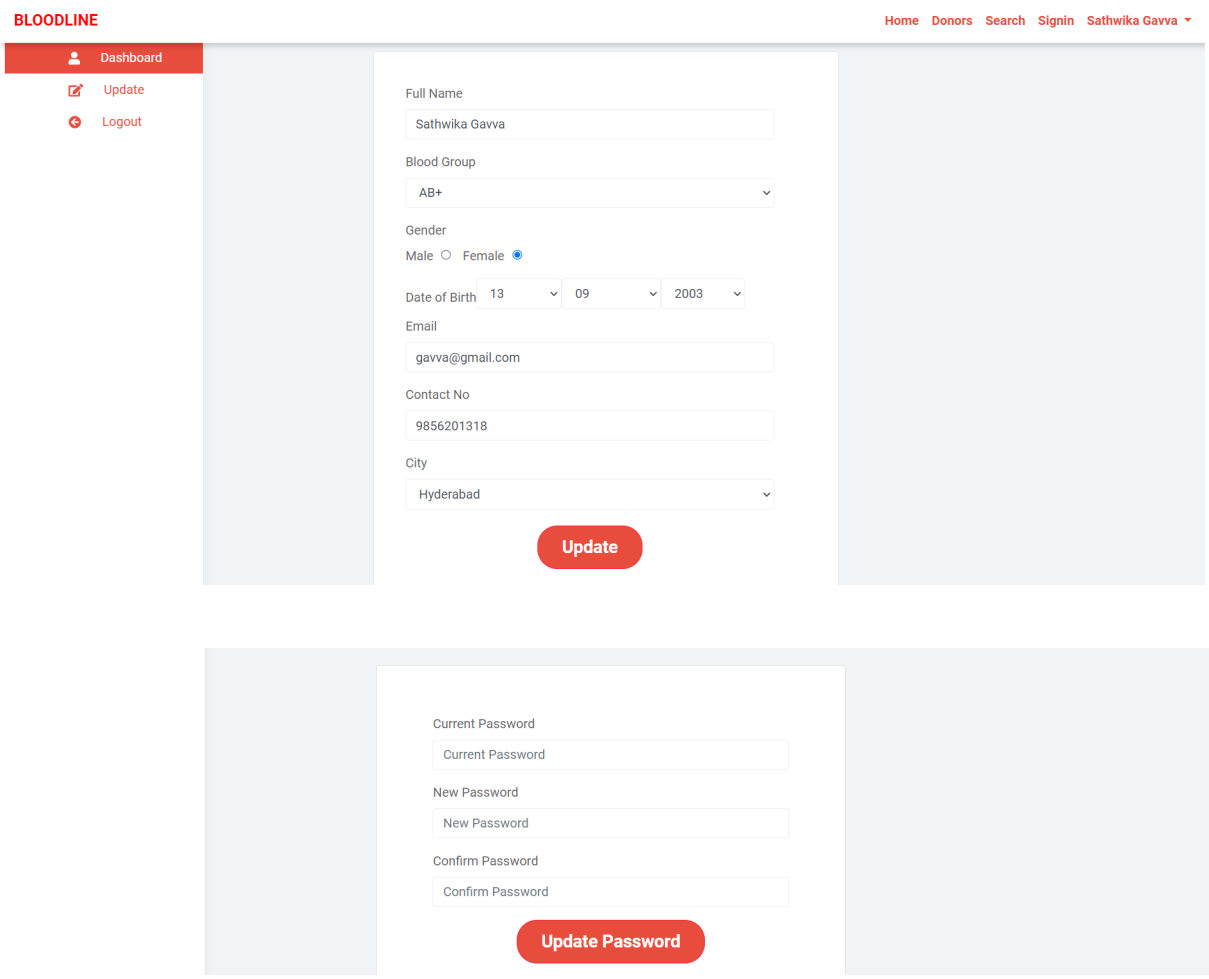
- **AFTER SIGN IN (NOT DONATED BLOOD)**



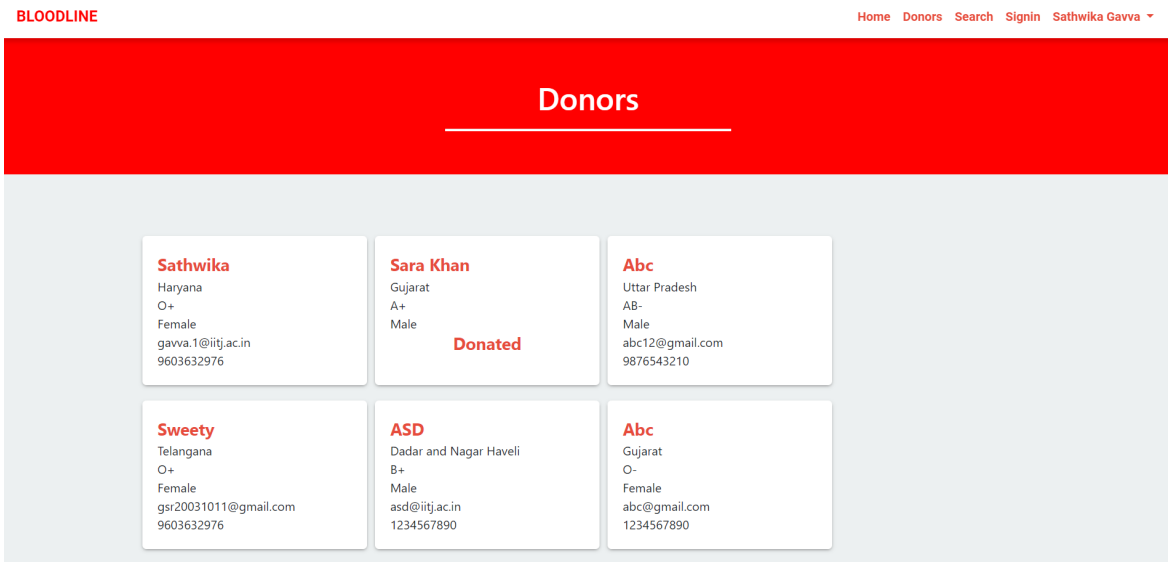
- **AFTER SIGN IN CLICK ON SAVE LIFE (DONATED BLOOD)**



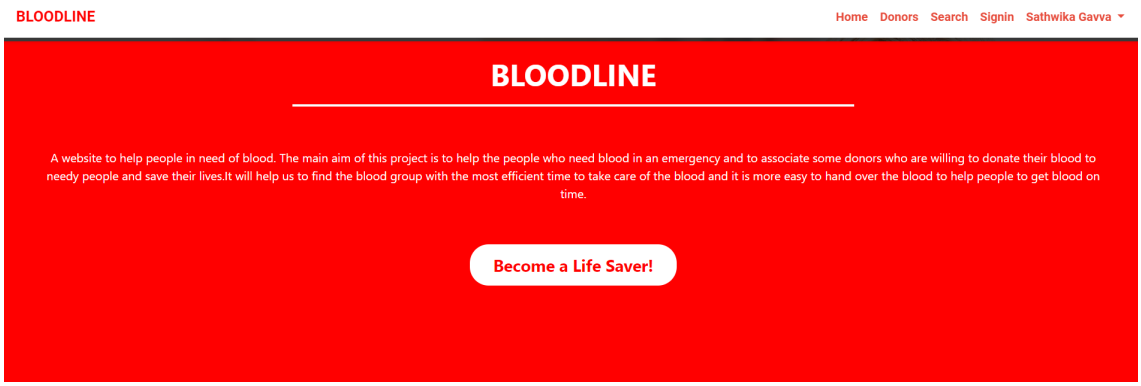
- **UPDATE DETAILS**

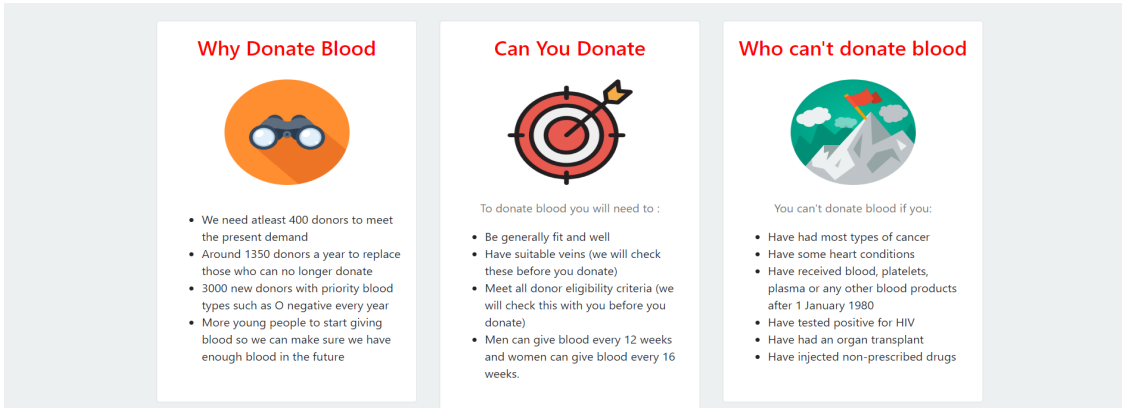


- **DONORS DETAILS PAGE**



- **ABOUT PAGE**





8.CONCLUSION

- This report presents The Blood Donation Related issues.
- The objectives of the project are implemented by implementing the different plans such as time estimated throughGanttchart, work background,flowchart etc...
- The online blood donation system makes work easy, and ensures fast retrieval of data when needed.