A Mini Project Report

on

“Online Blood Donation”

by

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Chapter 1

Introduction

1.1 Aim

Our aim is to make that particular kind of blood available to the hospital who needs it in a very moment by sending emails to all the donors around the hospital in a 10km radius through our online website.

1.2 Objective

The main objective was to create a unique and useful "Online Blood Donation Website " with exceptional quality and service that differentiates it from other online system.

1.3 Introduction

A blood bank is present mostly in every hospital but sometimes there come situations where blood bank doesn't have that particular blood group which are required by the patient So, for that, we have made a Portal where hospitals who are being registered already can log in and ask for that particular kind of blood to the people who have registered on that portal So as soon as they make a request then within a radius of 10 km that hospital every person who has registered on that portal will receive an email for donating that particular group of blood to the hospital By this portal, our mission is to serve our community by meeting the needs of patients, hospitals, and members for safe, high-quality blood products and related services.

1.4 Scope

The scope of our Online Blood Donation Website is as follows:

- The website can be used globally by connecting hospitals everywhere around the world so that the hospital can contact donors and blood could be easily available .

- In case of emergency it makes it easy for the donor to donate the blood and saves someone's life .
- In future by this email system the donors could be alerted about the nearby blood camp.
- Right now the donors are alerted through emails in future we can think of alerting them by SMS.

1.5 Existing System

There is a government website it just provide the data of the total blood present defects but do not provide a personality through which someone can request the blood.

1.6 Proposed System

Here we want to design an online website through which all donors around the hospital within a radius of 10 kilometres can be alerted through email system for donating the blood in case of emergency or generally through this system the blood required by the hospital and the donors blood with that same blood group are only been alerted

User can register themselves on the website by providing the information of the blood group. So whenever the blood matches with the requirement of the hospital that particular user if in the radius of 10 kms of the hospital gets an email through our system . Email is only sent when the hospital login on our website and click on the button of request.

Chapter 2

Project Analysis

2.1 Background Study of the Topic:

In background study we have gone through India Today's article we found that every two seconds someone needs blood. In many cases, people lose their lives because of lack of donor blood. While one pint (375 ml) of blood can save three lives, about 6 lakh liters of blood is wasted as per last year. Blood cannot be manufactured; it can be donated by a donor but only 8 out of 1,000 voluntarily donate blood. But what is the real problem here, donors or blood banks. (links of articles are given in the references).

We had discussions as per our needs on this project title with our guide which helped us to get clear about lot of functionalities which were quite important as per our project point of view. Our guide gave us a clear idea about our project, it's requirements and helped us with the technical doubts.

2.2 Database Design:

The database is a collection of interrelated data. Relational database stores data in table or relations. The data stored in relation are arranged in tuples or records. Each record contains a set of attributes or fields. The database description describes the entire database used in the application to store all records.

2.2.1 Table Description

2.2.1.1 User table :

This table contains all the details of a registered user and it prevents not to register a user with same email . Here the primary key is uname (username).

2.2.1.2 Hospital Table

This table contains all the details of a registered hospital and it's verification is done manually by admins of the website after verifying the details . Here the primary key is hospital's name (h_name).

2.2.1.3 Blood request Table

This table stores the data of each and every blood donation request made by hospital to a particular user and it also stores the status of the request. Here primary key is r_id.

2.2.1.4 User Complain Table

It stores the complain details against a user by the hospital . It also stores the action taken and which particular admin has taken the action . Here the primary key is c_id (complain ID) .

2.2.2 ER Diagram

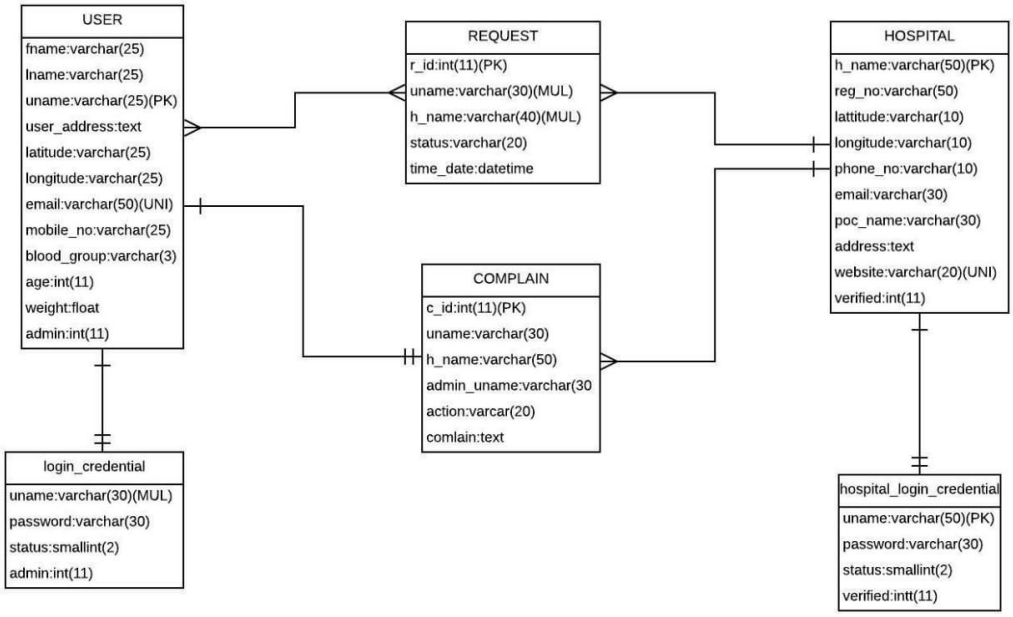

Fig 2.2.1 : ER diagram of our database Blood_bank

2.3 APIs Used:

In our website we have used API by which the map is provided to the donor where direction to hospital is displayed to them .We required the API to make it feasible for the donor to locate the hospital. The ways in which we have used the API :

- The HERE Maps API provides us a range of services , we have used Geocoding API. We have used it request when the user or hospital register thereafter the REST API is used to fetch the latitude and longitude of the address to give the correct direction to the hospital from users address and vice-versa . Also fetching the latitude and longitude and storing it , helps us to calculate the distance of user address from the hospital .

- We have also used the Maps API for Javascript , for displaying the users on map , so that when a hospital wants to request blood , they can see the users in the map with use of markers .

2.4 Project Description

The system included two modules i.e. two logins on the online portal:

- Admin login
- Hospital login
- Donor Login

The core functionalities that are to be included in the system are as follows:-

ADMIN LOGIN

- Can delete the user
- Can mark a user fraud.
- Can manage personal details of both hospitals and donors

HOSPITAL LOGIN

- Can request the blood
- Can mark a donor unhealthy
- Can report the user to the admin

DONOR LOGIN

- Can update the blood group and its personal information.
- Email OTP verification
- View there blood request status

2.5 Key Notes

2.5.1 Introduction to PHP:

The PHP programming language is a server-side HTML embedded scripting language. The PHP language runs on the server-side. This means that the execution of the scripts are done on the server where the web-site is hosted. HTML embedded means that you can use PHP statements (read a piece of PHP code) from within an HTML code. PHP files are returned to the browser as plain HTML.

The last piece of the sentence – scripting language – is a little harder to explain, but we will give it a go. A scripting language is a form of programming language that is usually interpreted rather than compiled. In programming languages such as c/c++ you compile the program into an executable file, before you can execute the program. A program that is written in a scripting language, is interpreted one command at a time by a command interpreter (Command interpreter is in most cases an executable written in another language (for instance C/C++) than the scripting language.) Some other examples of scripting languages are Perl, Phyton, Java and Ruby.

What is PHP?

- ❏ PHP stands for PHP: Hypertext Preprocessor.
- ❏ As we said before it is a server-side scripting language.
- ❏ PHP is free and is an open source software product.
- ❏ The PHP scripts are executed on the server.
- ❏ PHP supports many databases (MySQL, Sybase, Oracle and many others.)
- ❏ PHP runs on different platforms (Unix, Linux, Windows.)
- ❏ PHP is compatible with almost all web-servers used today (Apache, IIS, etc.)
- ❏ A PHP file can contain plain text, HTML tags and scripts
- ❏ The PHP files can have one of the following extensions: php, php3 or phtml.

2.5.2 MySQL

MySQL is free and open-source software under the terms of the GNU General Public License, and is also available under a variety of proprietary licenses. It is an open-source relational database management system (RDBMS).MySQL is a component of the LAMP web application software stack (and others), which is an acronym for *Linux, Apache, MySQL, Perl/PHP/Python*. MySQL is used by many database-driven web applications, including Drupal, Joomla, phpBB, and WordPress. MySQL is also used by many popular websites, including Facebook, Flickr, MediaWiki, Twitter and YouTube.

Some of the major features as available in MySQL 5.7.24:

- broad subset of ANSI SQL 99, as well as extensions
- Cross-platform support
- Stored procedures, using a procedural language that closely adheres to SQL/PSM
- Triggers
- Cursors
- Updatable views
- Online Data Definition Language (DDL) when using the InnoDB Storage Engine.
- Information schema

2.5.3 HTML, CSS & JAVASCRIPT

Hypertext Markup Language (HTML) is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language like HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve

content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file, and reduce complexity and repetition in the structural content.

JavaScript often abbreviated as JS, is a high-level, interpreted scripting language that conforms to the ECMAScript specification. JavaScript has curly-bracket syntax, dynamic typing, prototype-based object-orientation, and first-class functions.Alongside HTML and CSS, JavaScript is one of the core technologies of the World Wide Web. JavaScript enables interactive web pages and is an essential part of web applications. The vast majority of websites use it, and major web browsers have a dedicated JavaScript engine to execute it.

2.6 System Constraints

2.6.1 User Interface Constraints

Using this website is fairly simple and intuitive. A user familiar with basic browser navigation skills should be able to understand all functionality provided by the website.

2.6.2 Hardware Constraints

→ Website Interface

The interface should work on most home desktop and laptop computers.

2.6.3 Software Constraints

The website is designed to run on Google Chrome, Mozilla Firefox and Internet Explorer

2.6.4 Data Management Constraints

Website shall be able to interface with other component according to its functionality.

2.6.5 Design Standards Compliance

The portal shall be implemented in PHP.

Chapter 3

Software Requirement Specification

3.1 Requirement Specification

To run this project on various platforms we need some hardware and software to support this project.

3.1.1 HARDWARE SPECIFICATION

Processor: Dual core

RAM: 512 mb

Memory: 10 GB

3.1.2 SOFTWARE SPECIFICATION

Technologies: HTML, CSS, Javascript

Server: Apache

Database: MySql

Language: PHP

Chapter 4

Results

4.1 **Result Screenshots**

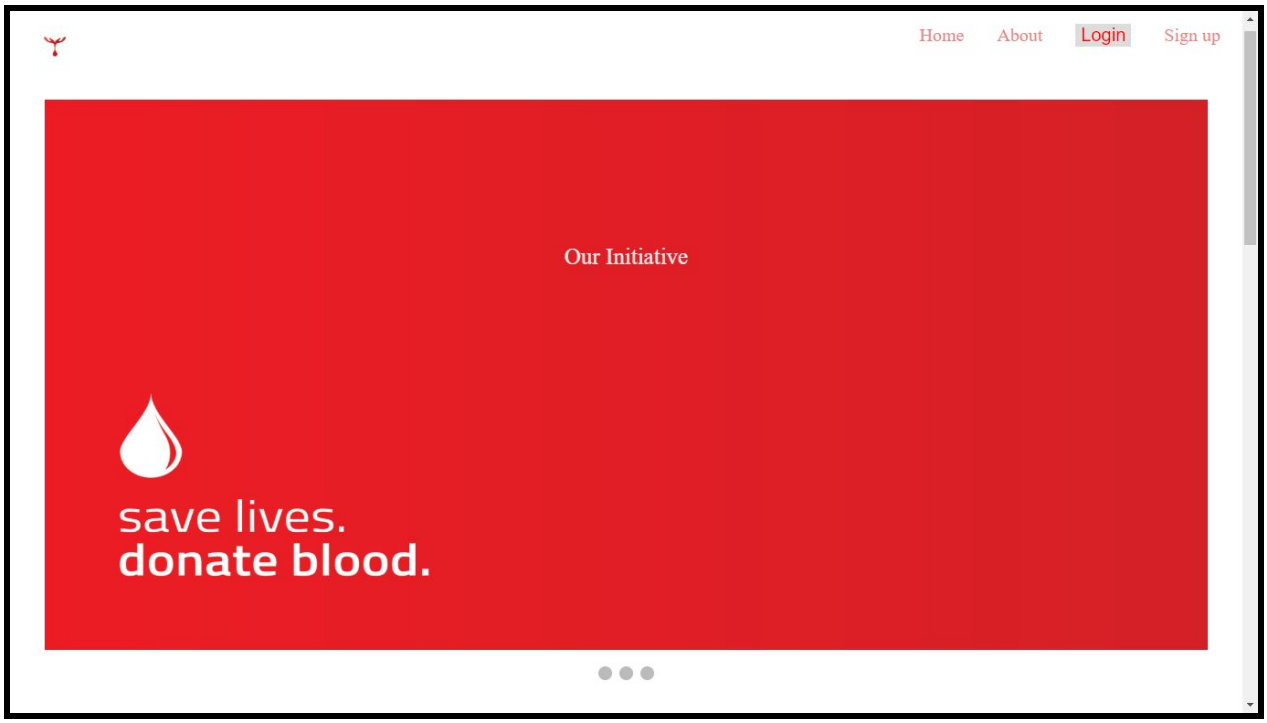

Figure 4.1.1 : Home Page for the all modes where you can see login ,signup and other options.Further you can scroll down to read our articles

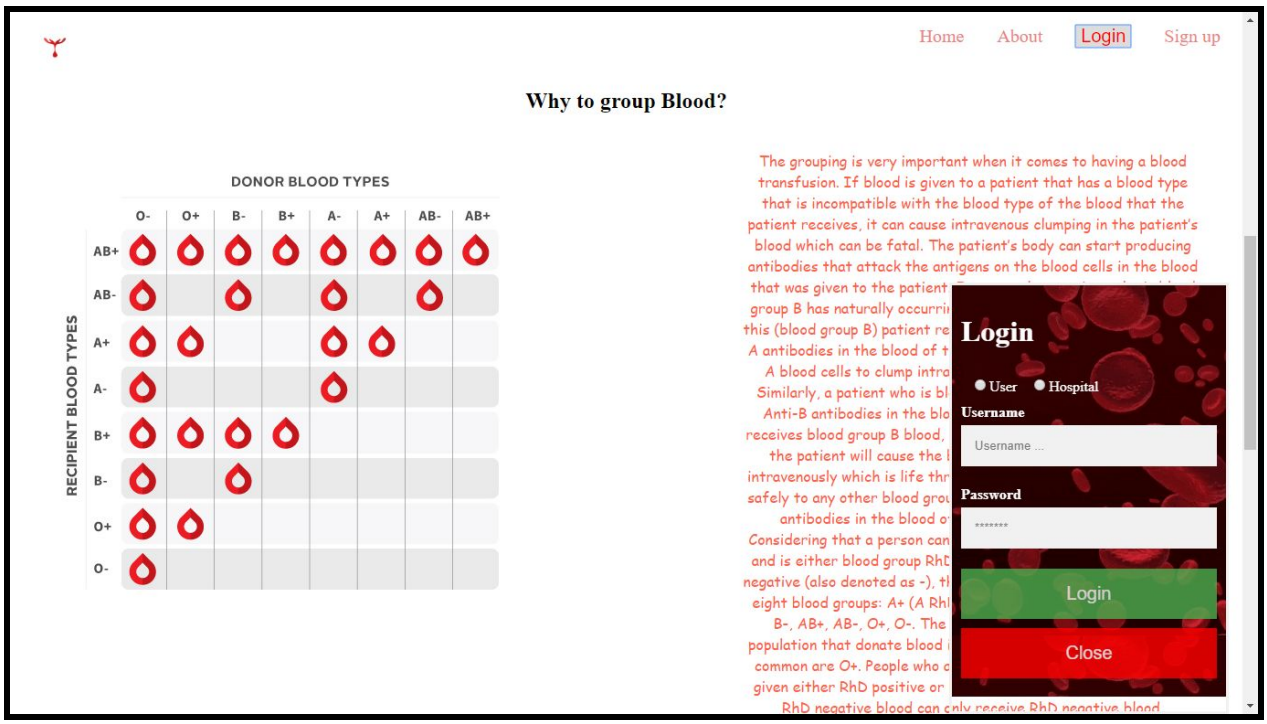

Figure 4.1.2 : This is the end of our homepage where a pop up of login credentials is asked by the developer end.Apart from that user can read about articles related to blood donation.

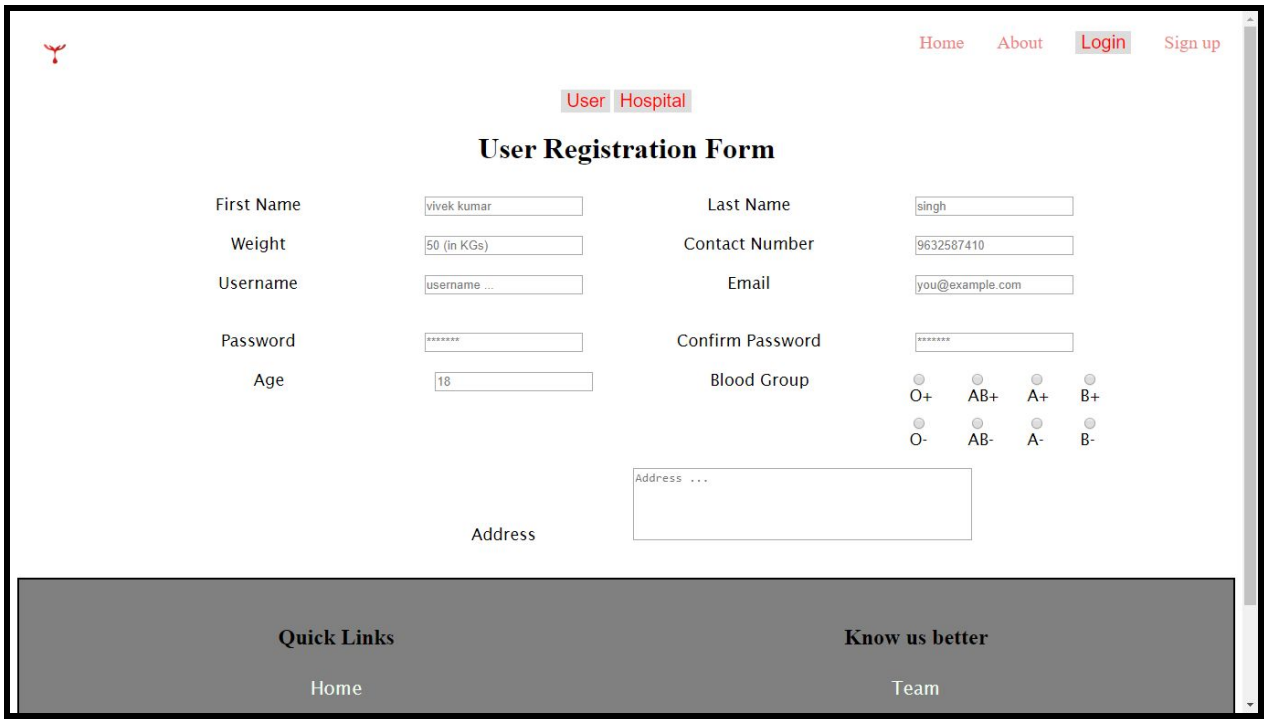

Figure 4.1.3 : Sign up page for user .Where general information of the user and hospital is stored.

Figure 4.1.4 :Admin mode to view all the hospitals with their address and position of the hospital can be seen apart from that option of deleting the hospital details can be performed by the admin end right from here.

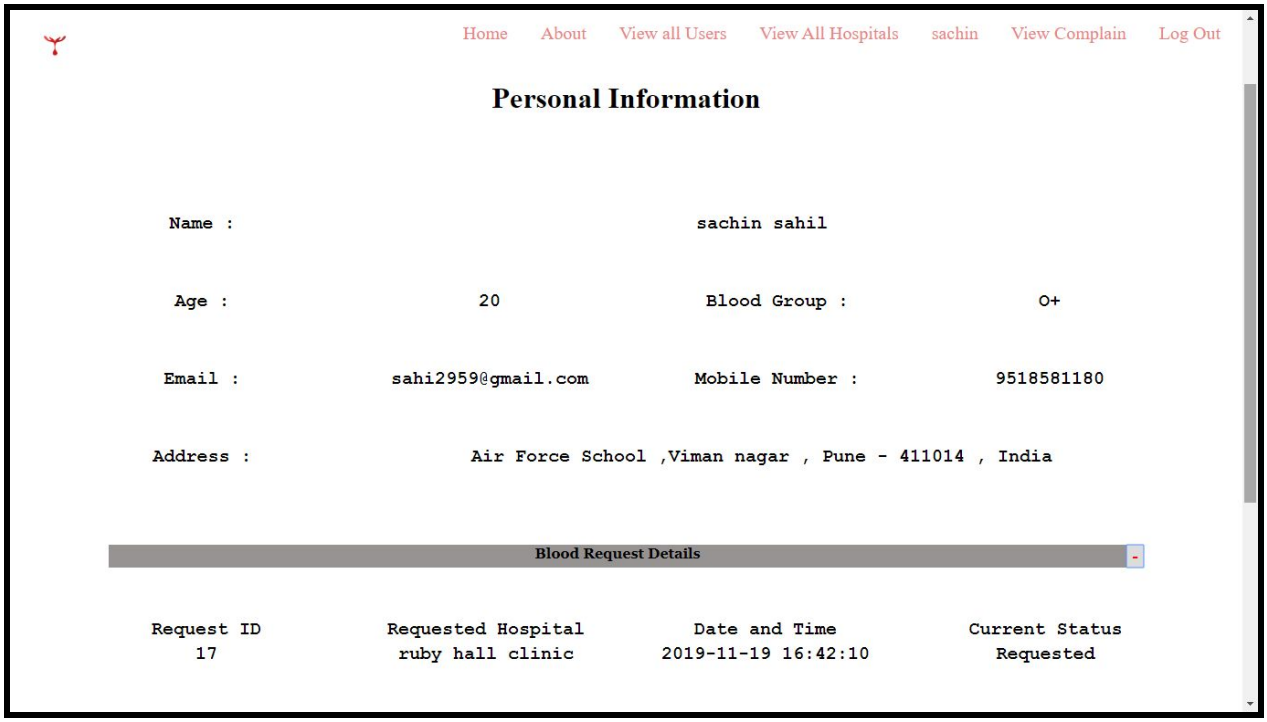

Figure 4.1.5 : Profile page of a user .Showing all its information,blood request id can been seen at the bottom of the page ,which could be tracked further.

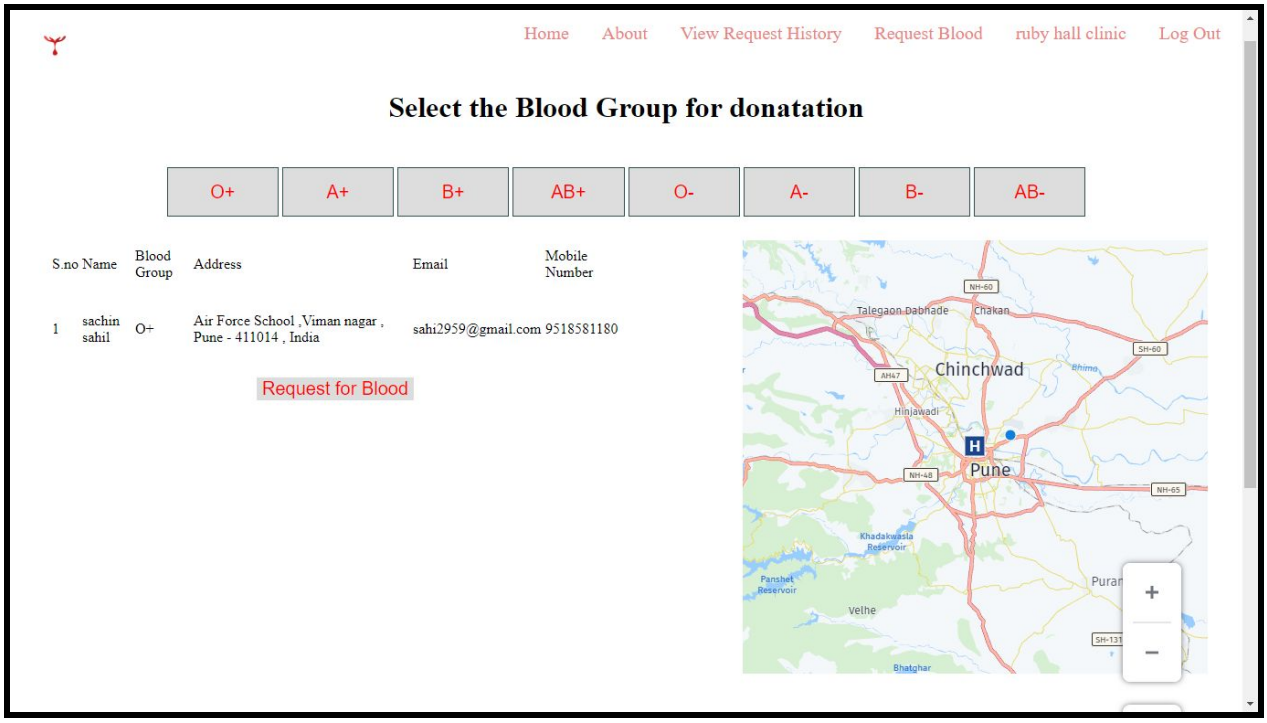

Figure 4.1.6 : Blood Request page for hospitals .With map to show the direction to the user .Request history can also be tracked from here.

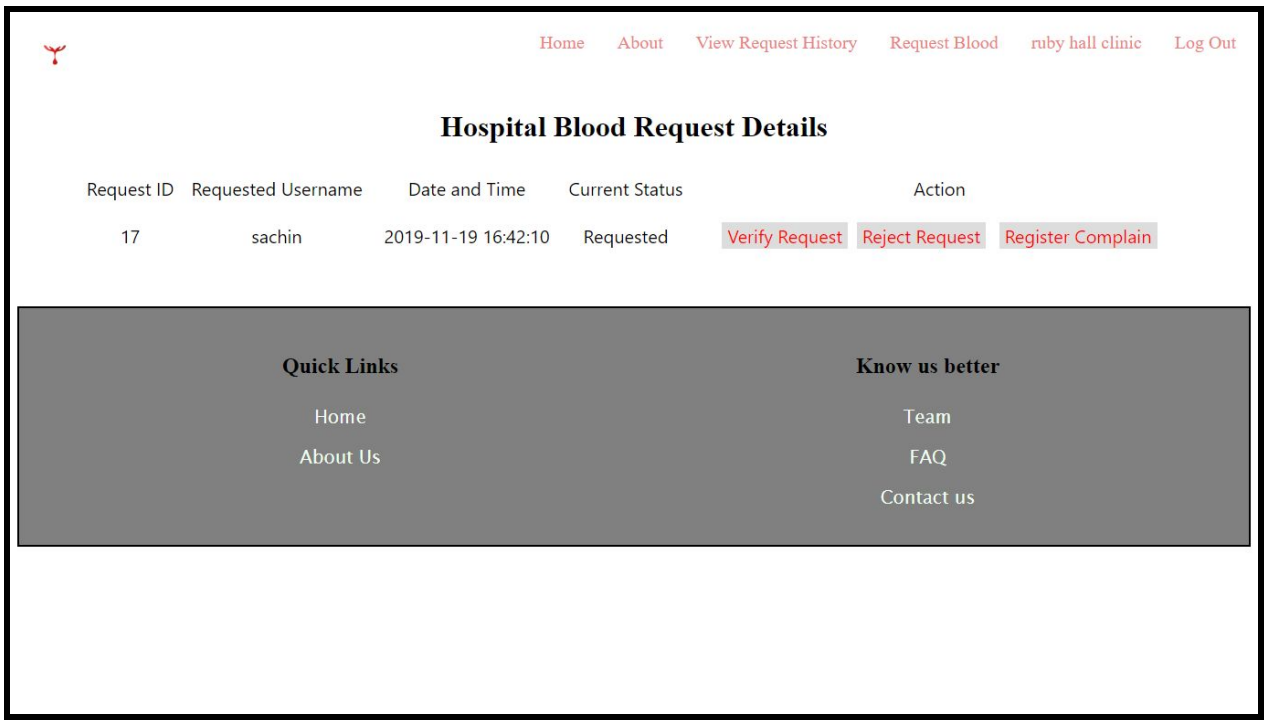

Figure 4.1.7 : Request history page for hospitals .where verify, reject request and register complaint options are available.

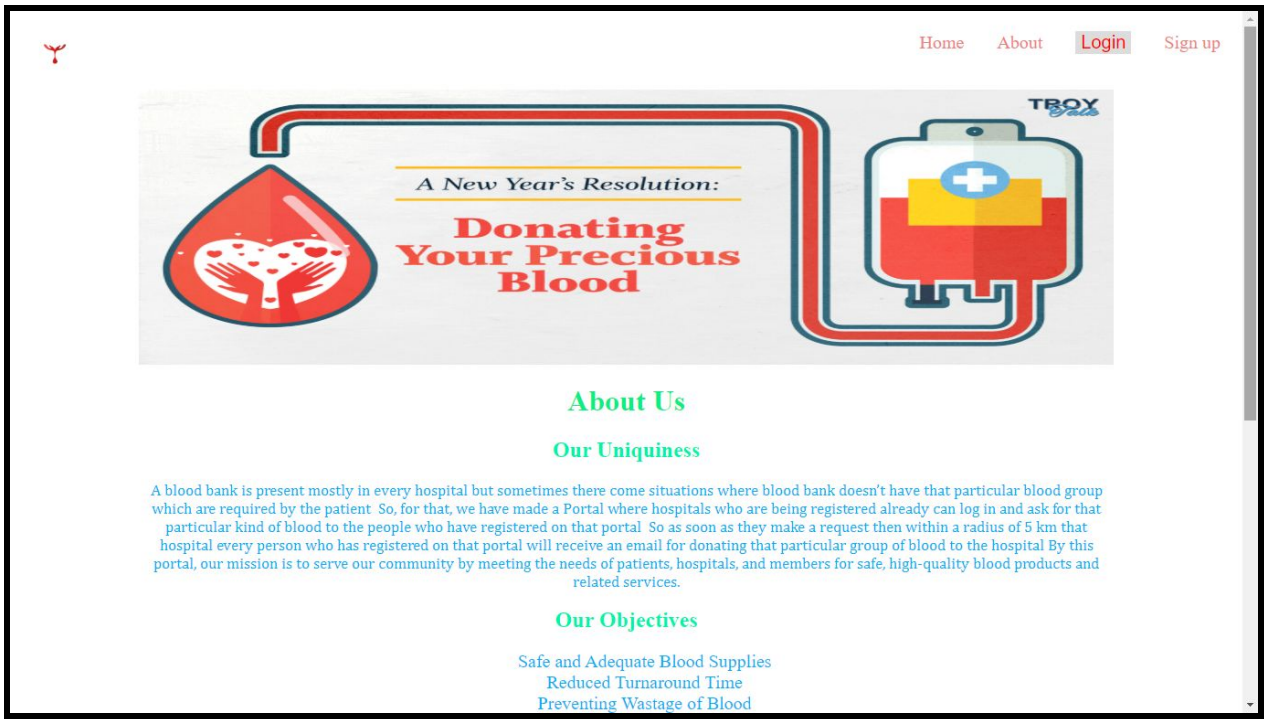

Figure 4.1.8 :About Us page for all the modes , here user can see goals , mission , objective of the idea behind our web portal.

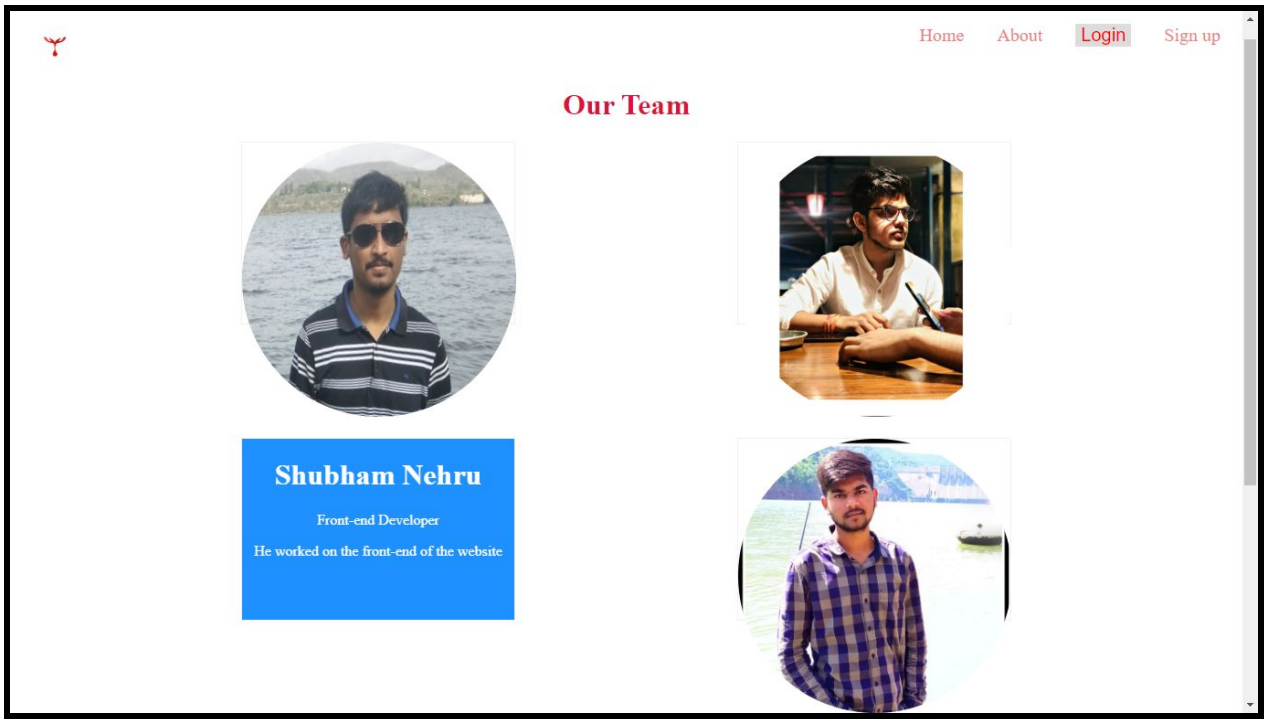

Figure 4.1.9 : Teams page for all the modes , here we have information about each team member names with their photo and roles in the project .

Chapter 5

Conclusion

The Project “Online Blood Donation Website” is designed in order to provide blood to the hospital in case of emergency. Not only does it make it easier for donors to donate blood but also becomes easier for the hospital to arrange the blood in case of emergency. Here Maps API made donors easier to locate the hospital.With the medical verification functionality of the donor this website is the safest source to arrange the blood.

We tried to put all the necessary functionalities in the system so that user and hospital can work together properly .By adding verify request, reject request, register complaint and all these options helps to make the process more smooth and reliable further this project can be taken on another level because the functionalities are so simple which can be executed in day today life and people will get benefit of this

References

- HTML Default
- w3schools - CSS
- w3schools - Javascript
- Here Maps API documentation
- India Today's article:
  - https://www.indiatoday.in/fyi/story/blood-banks-india-wastage-blood-donors-973478-2017-04-25
  - https://timesofindia.indiatimes.com/india/no-coordination-between-blood-banks-and-hospitals-6-lakh-litres-of-blood-wasted-in-five-years/articleshow/58333338.cms