TITLE: BLOOD BANK MANAGEMENT SYSTEM

TEAM MEMBERS:

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SAKETH GADHAMSETTI

OVERVIEW OF THE PROJECT:

- Provides the search facility based on blood group.
- It tracks all the information about Donor and Blood Banks.
- Manage the details of donors.
- Shows the information and description of blood
- Shows the information on blood groups
- Shows the information of universal donors and universal recipients.
- Create awareness of why to donate blood.
- To detail about why to donate blood.
- And details on who can donate blood.

WHY COMPUTERIZED:

The Blood Bank Management System is a great improvement over the manual system which uses lots of manual work and paper. The computerization of the system speeds up the process**.** This system was thoroughly checked and tested with dummy data and found to be very reliable. Instead of calling every blood bank known or available, it will be quite easier to check on the website about the details of blood available if available.

Donors can directly fill in their details if they wish to donate blood. And people if they want blood can directly call donors for help and seek their help.

IDENTIFICATION OF PROJECT SCOPE:

The main aim of this project is to establish an online blood bank management system that helps manage blood bank operations efficiently. Blood is considered a living force in our body. Blood is required on an urgent basis like an accident or for anticipated transfusion during planned surgeries. Many people in this world are dying because of the lack of blood. This project would take the initiative of helping people with blood.

OBJECTIVES:

The main objective of this project is to provide blood to the needy. Whoever needs the blood can visit the website and search for the blood they need. All details of the donors available will be displayed to them. They can choose any of them and contact them. The blood bank management system is aimed at managing the details such as blood group, validity of blood, availability, maintaining all the information of blood donors, different blood groups available in each blood bank, and helping them manage in a better way.

TASK INVOLVED:

The blood bank has a major task to collect blood from donors, monitor blood quality and supply, and distribute blood and blood components to hospitals within the network. Blood distribution is an important activity within this blood supply chain. If the blood bank can deliver blood supply to its respective demand promptly, patients' lives will be saved.

INFRASTRUCTURE:

A Blood Bank Management System is the process of managing and controlling the activities of blood**.** It includes maintaining and managing the records of Donors & Members available in the Blood Bank Management System. It also maintains the list of donors, blood requirements, and approval status held in the blood bank.

REQUIREMENT ANALYSIS:

DESCRIPTION OF INDIVIDUAL PHASE AND MODULE:

Blood bank can manage the blood requests.

Any user, it may be a donor or recipient can access the website without any login passwords. It is to avoid the obstacle of logging in and searching for blood in case of an emergency.

ADMIN CAN DO THE FOLLOWING:

- Login
- Can see the number of users available, queries, pending queries
- Add a donor
- See the donor list
- Approve a blood request
- Add details to the home page
- See the Contact Us requests and approve or delete them.
- Can update the contact info
- Change password

USER CAN DO THE FOLLOWING:

- If the Donor, can add details of them.
- Donor List can be filled
- If blood is needed, can search for blood group
- Can see all the available blood samples.
- Send a request to admin

USER CHARACTERISTICS:

- Ensures to have a good supply or inventories of blood bags

- List the availability of blood bags at any given time.
- Ability to manage the information of its blood donor.
- Alerts for blood requirements from registered donors.
- Allows good documentation about the donor and their blood donation activities.
- Support fast searching to find match blood bags for the right person.

GENERAL CONSTRAINT:

- Only a web-based system is available. No mobile-based system.
- Need internet.
- Manual entry of data and document
- Less security
- There may be a misuse of data

ASSUMPTION:

Assuming the present donors in the website are all accepting to donate the blood.

DEPENDENCY:

Internet connectivity is must.

FUNCTIONAL REQUIREMENTS:

Admin login

Admin login page is must and password should match. Mismatch of username and password will not give the access to the admin page so as to control the unauthorized access.

Donor List

Management or admin should take care off the donor list. Make sure that the donor list is perfectly correct and also make sure that person is available to donate blood in case of an emergency.

Recipient Management

Make sure the patient actually needs the blood. There may be misuse of the blood in some cases.

Display the availability

Display all the available blood samples and all the pending requests to the admin.

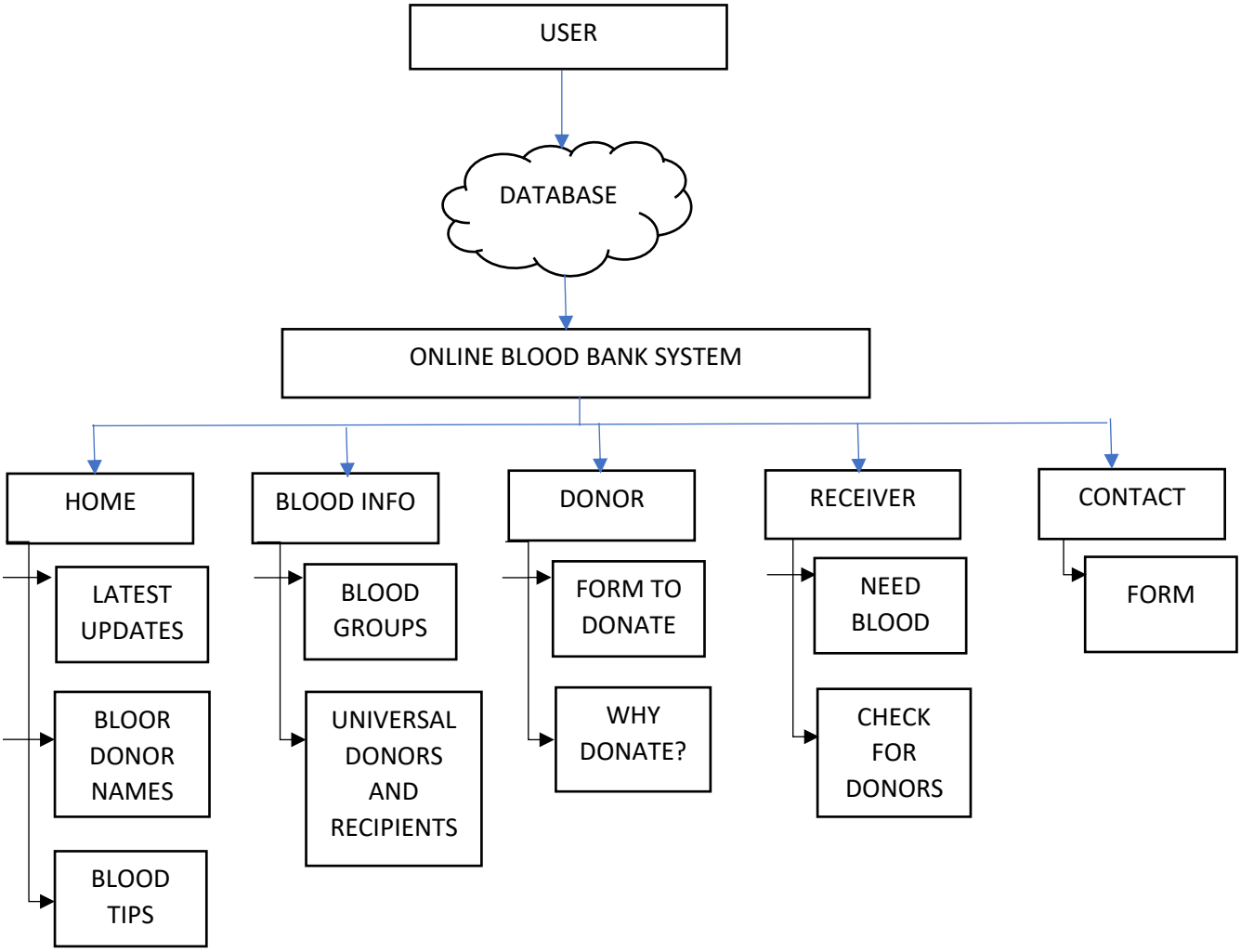
INPUT:

- Donor form which will ask for the name of the donor, age, gender, mobile number, and blood group.
- Recipient form which will ask for the blood group required and the reason.
- Contact Us form which will ask for full name, address, mobile number, and the message.
- Login form for admin

OUTPUT:

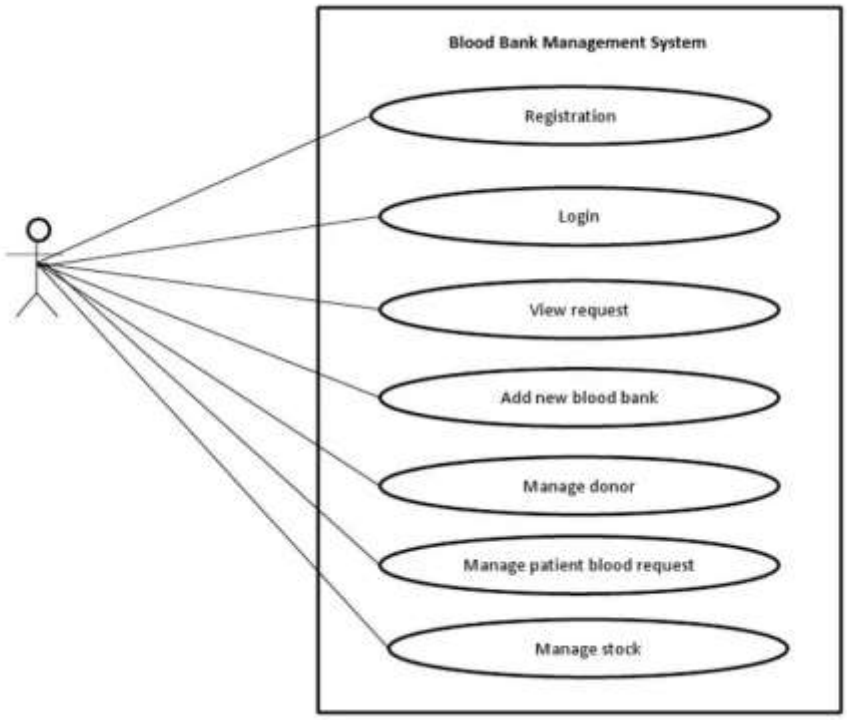
- If username and password matches, admin can enter the website where he/she can edit the details, approve requests.
- For the recipient form, the blood group searched for will be displayed.
- For the donor form, user will be added to donor list.

SYSTEM ARCHITECTURE DESIGN

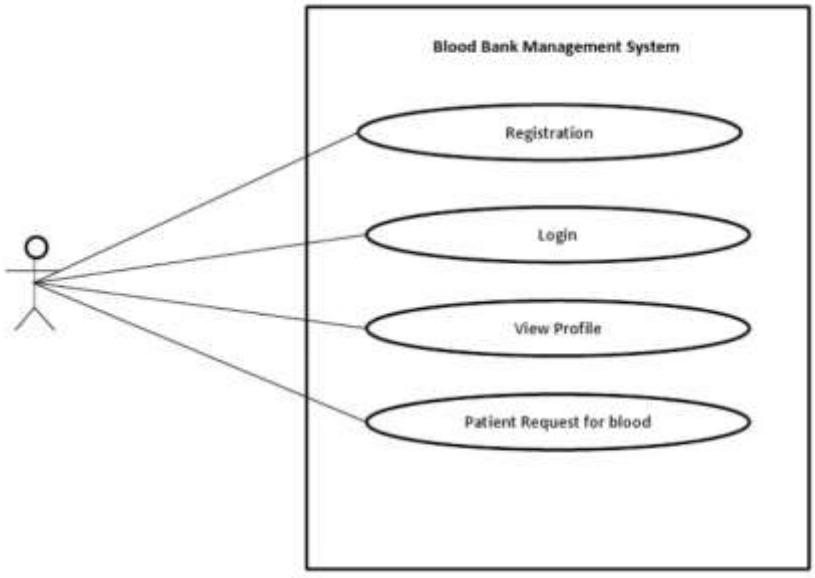


USE CASE DIAGRAM:

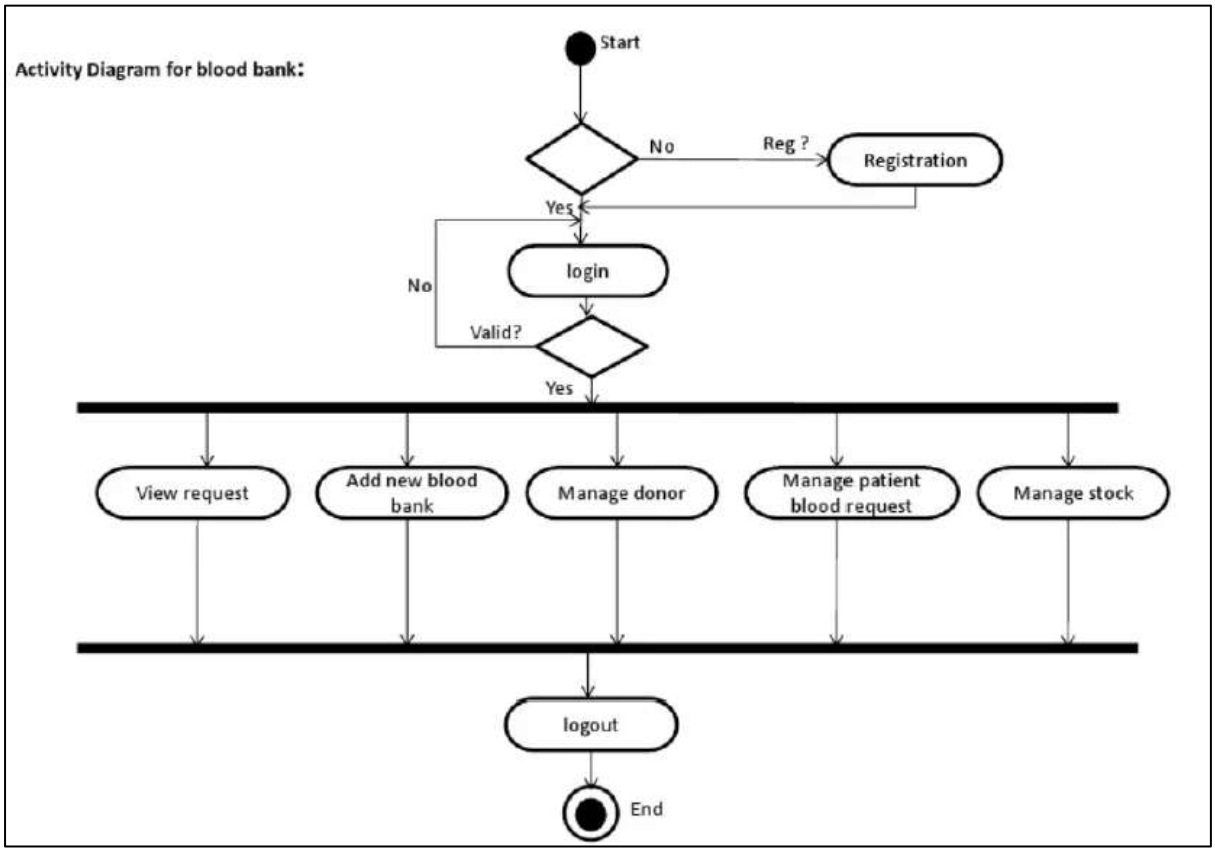
BLOOD BANK INFO

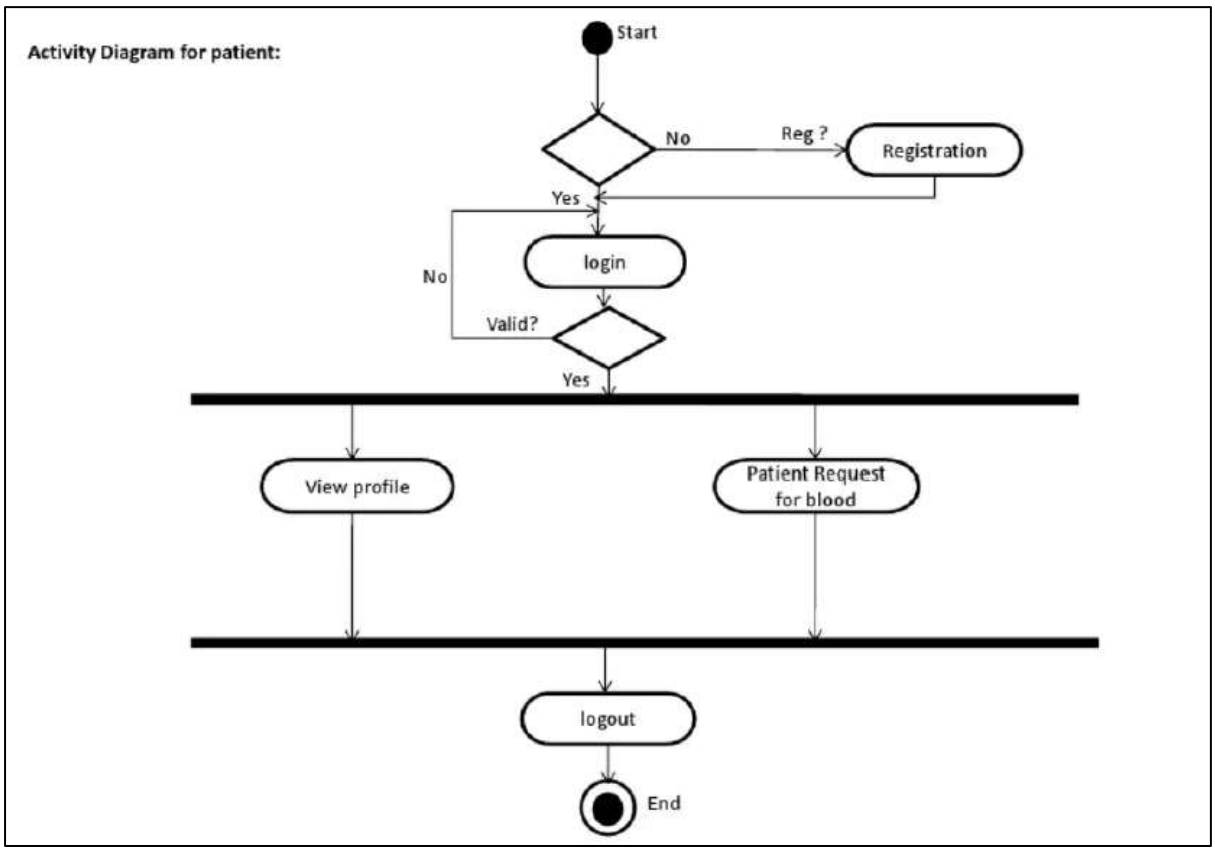


RECEIVER

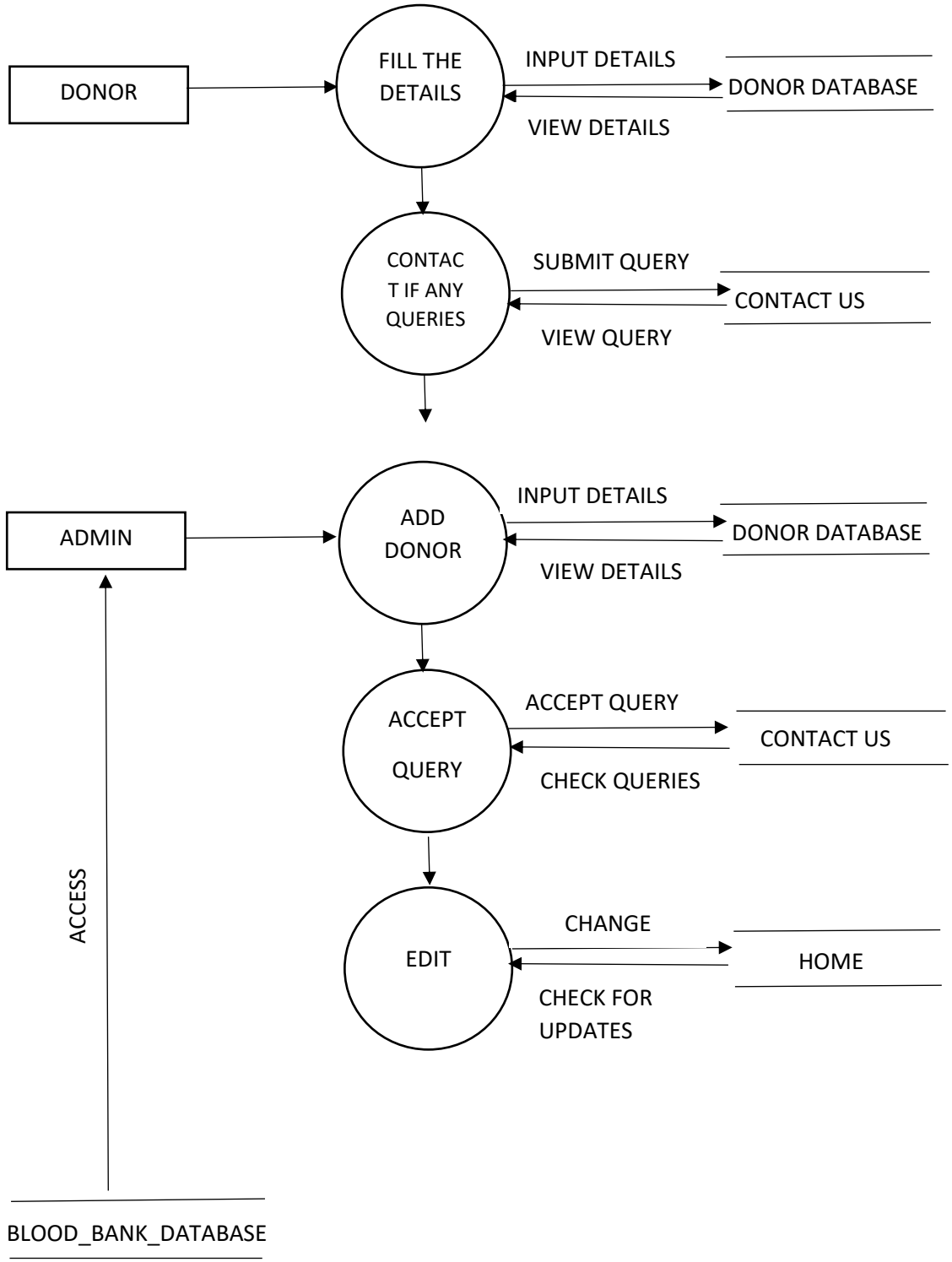


ACTIVITY DIAGRAM

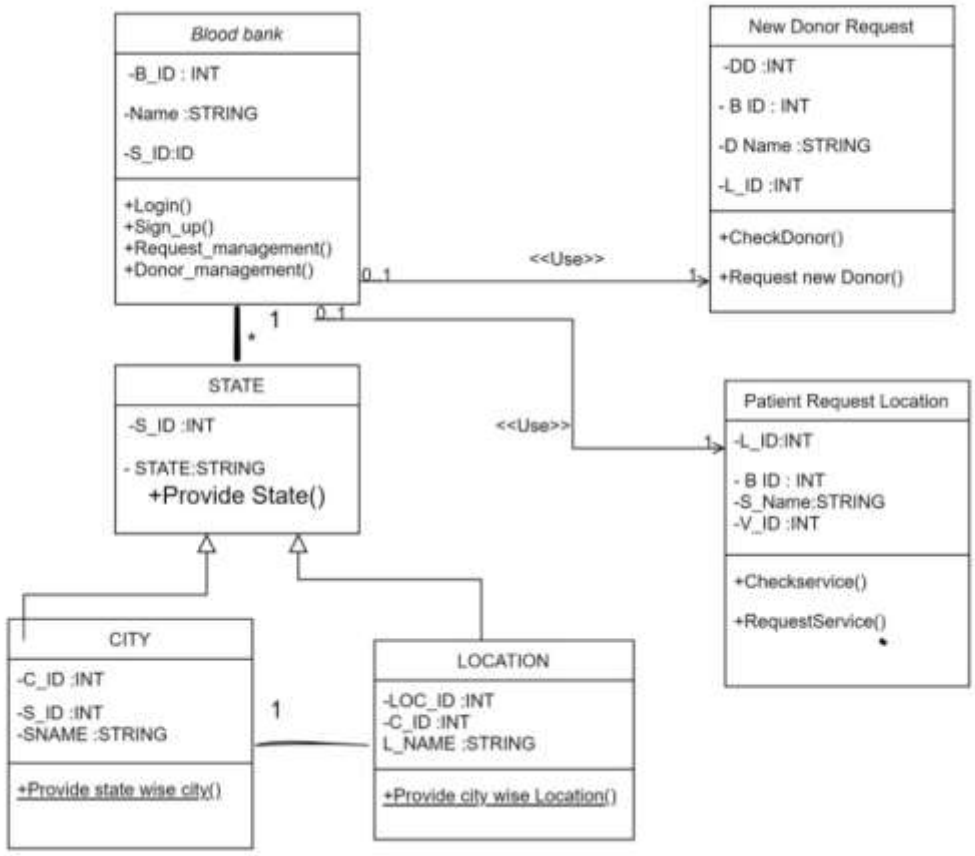




DFD DIAGRAM


DONOR
FILL THE DETAILS
INPUT DETAILS
DONOR DATABASE
VIEW DETAILS
CONTAC T IF ANY QUERIES
SUBMIT QUERY
CONTACT US
VIEW QUERY
ADMIN
ADD DONOR
INPUT DETAILS
DONOR DATABASE
VIEW DETAILS
ACCEPT QUERY
ACCEPT QUERY
CONTACT US
CHECK QUERIES
EDIT
CHANGE
HOME
CHECK FOR UPDATES
ACCESS
BLOOD_BANK_DATABASE

CLASS DIAGRAM



DEVELOPMENT – DATABASE STRUCTURE DEFINITION

SQL COMMANDS:

1. Create a database

```
create database
blood_donation;

use blood_donation;
```

2. Create a table for donor details which should include donor ID, name, number, age, email, gender, blood group, and address.

```
create table donor_details(

donor_id int auto_increment NOT NULL,
donor_name varchar(50) NOT NULL,
donor_number varchar(10) NOT NULL,
donor_mail varchar(50),
donor_age int(60) NOT NULL,
donor_gender varchar(10) NOT NULL,
donor_blood varchar(10) NOT NULL,
donor_address varchar(100) NOT NULL,
Primary key(donor_id)
```

3. Create a table for admin details which should include admin ID, name, username, and password.

```
create table admin_info(

admin_id int(10) NOT NULL UNIQUE AUTO_INCREMENT,
admin_name varchar(50) NOT NULL,
admin_username varchar(50) NOT NULL UNIQUE,
admin_password varchar(50) NOT NULL,
Primary key(admin_id)
);
```

4. Insert values into admin table.

```
insert into
admin_info(admin_name,admin_username,admin_password)

values("Manaswini","mansa123",7954)
```

5. Create a table for blood details which should include blood ID and blood group. Insert values into the table.

```
create table blood(

blood_id int auto_increment Not Null,
blood_group varchar(10) NOT NULL,
primary key(blood_id)
);

/* insert all blood groups*/
insert into blood(blood_group)
values("B+"),("B-"),("A+"),("O+"),("O-"),("A-
"),("AB+"),("AB-");
```

6. Create a table to store all the details of the pages on the home page.

```
create table pages(
page_id int NOT NULL auto_increment UNIQUE,
page_name varchar(255) NOT NULL,
page_type varchar(255) NOT NULL,
page_data longtext NOT NULL
);
ALTER TABLE pages
MODIFY COLUMN page_type varchar(50) UNIQUE;
```

7. Create a table for contact info to store all contact information. Insert values into it.

```
create table contact_info(
contact_id int auto_increment Not Null,
contact_address varchar(100) NOT NULL,
contact_mail varchar(50) NOT NULL,
contact_phone varchar(100) NOT NULL,
primary key(contact_id)
);

insert into
contact_info(contact_address,contact_mail,contact_phone)
values("VIT,AP","sakethsiva9@gmail.com","7075934043");
```

8. Insert values to the pages table.

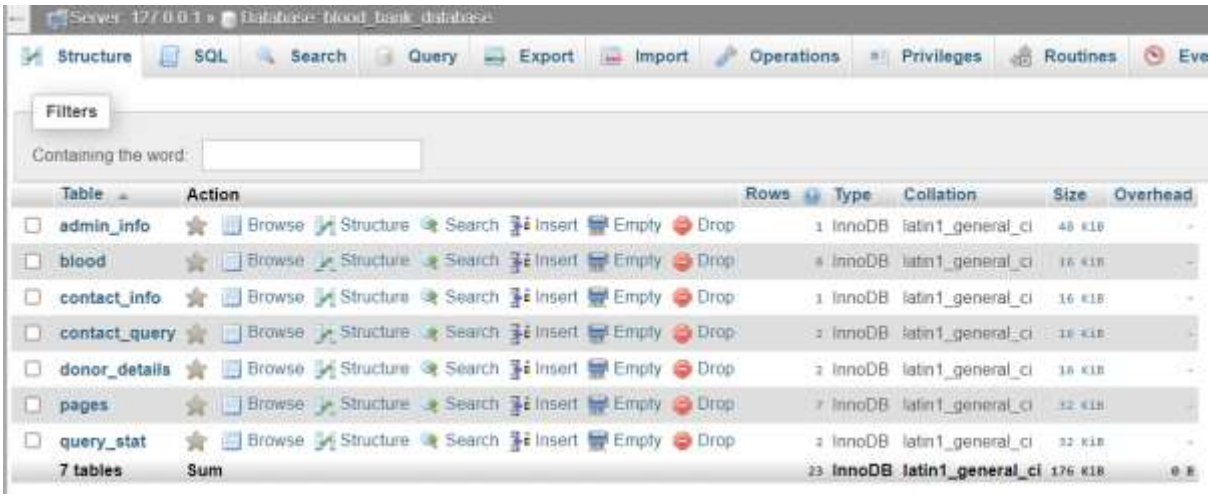
9. Create a table for contact queries to store all contact information. Insert values into it.

```
create table contact_query(
query_id int auto_increment Not Null,
query_name varchar(100) NOT NULL,
query_mail varchar(120) NOT NULL,
query_number char(11) NOT NULL,
query_message longtext NOT NULL,
query_date timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP,
query_status int(11) DEFAULT NULL,
Primary key(query_id)
);
alter table contact_query modify column query_date
timestamp DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP;


insert into contact_query
(query_name,query_mail,query_number,query_message) values
("Anuj","anuj@gmail.com","9923471025","I need O+ Blood.");

update contact_query set query_status="1" where query_id="1";
```

10. Create a table for query status to store all contact information. Insert values into it.

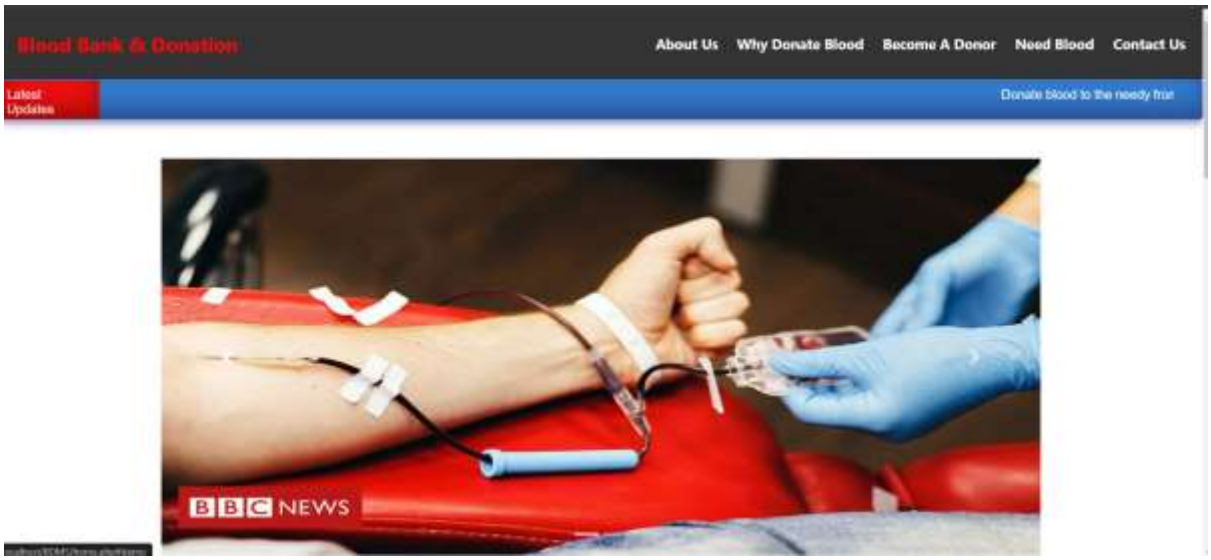
```
CREATE TABLE query_stat(
  id INT NOT NULL Unique,
 query_type VARCHAR(45) NOT NULL,
  PRIMARY KEY (id)
  );
  insert into query_stat(id,query_type)
  values('1',"Read"),
  ('2',"Pending");
```

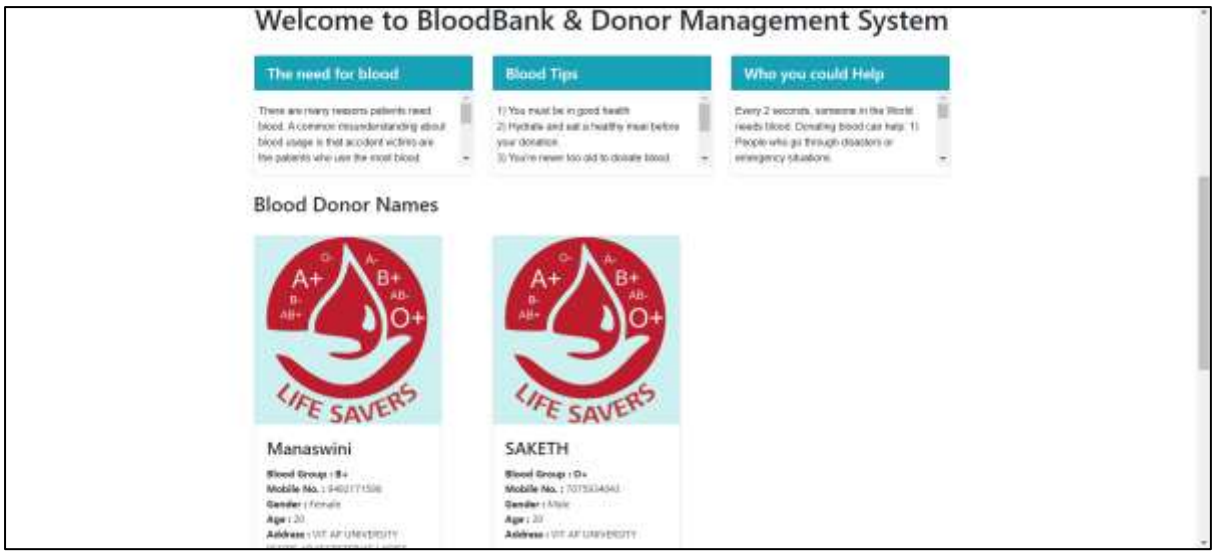
DATABASE IN THE SERVER:

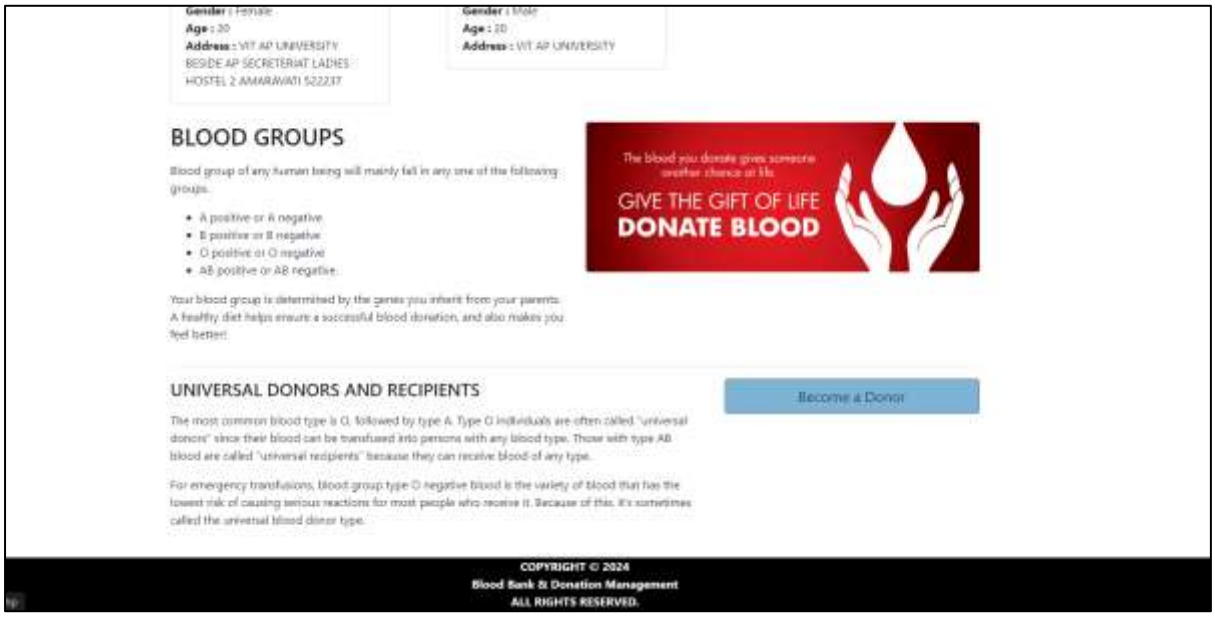


SCREENSHOTS OF THE WEBSITE

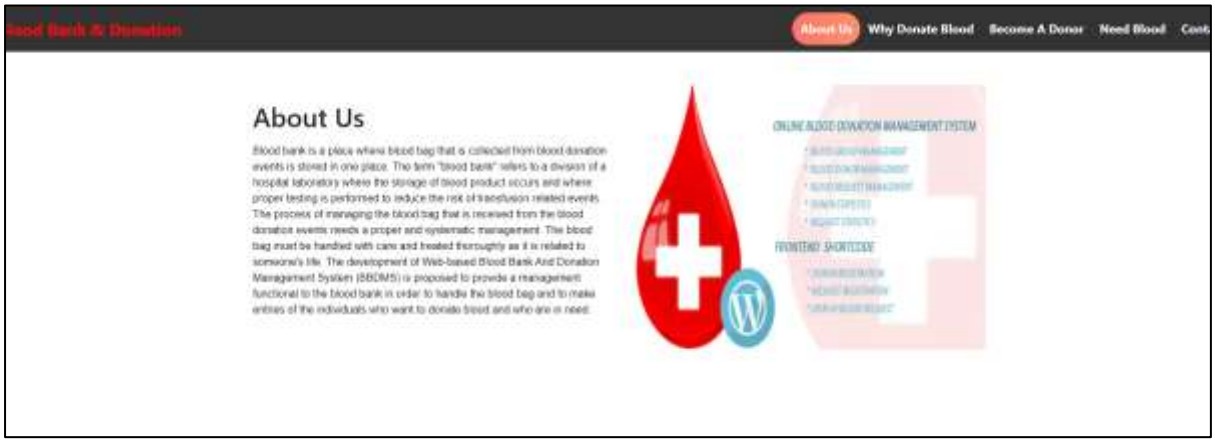
HOME:



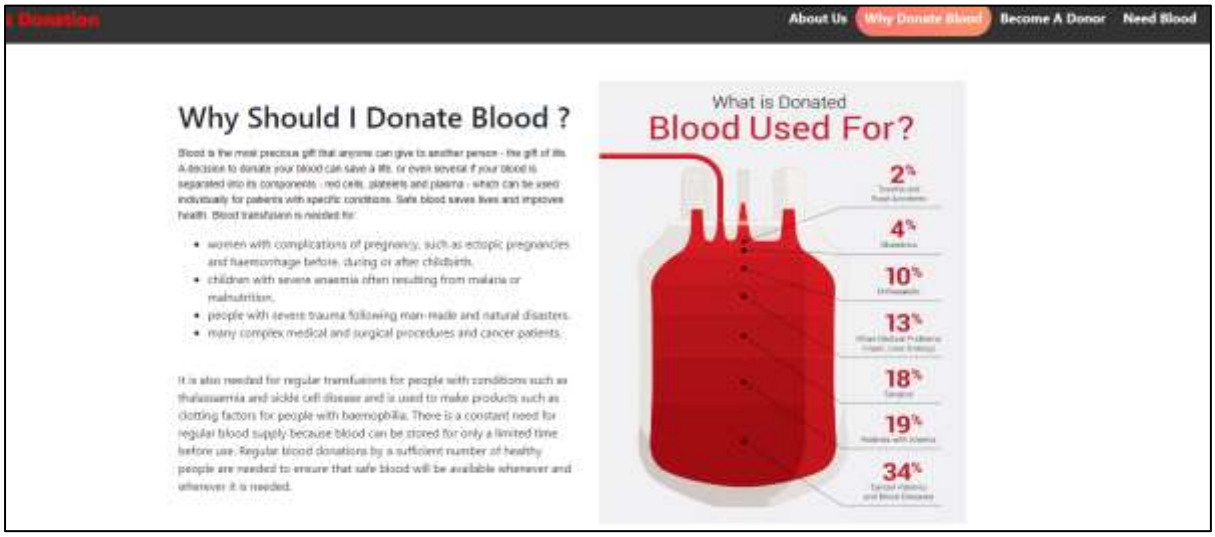




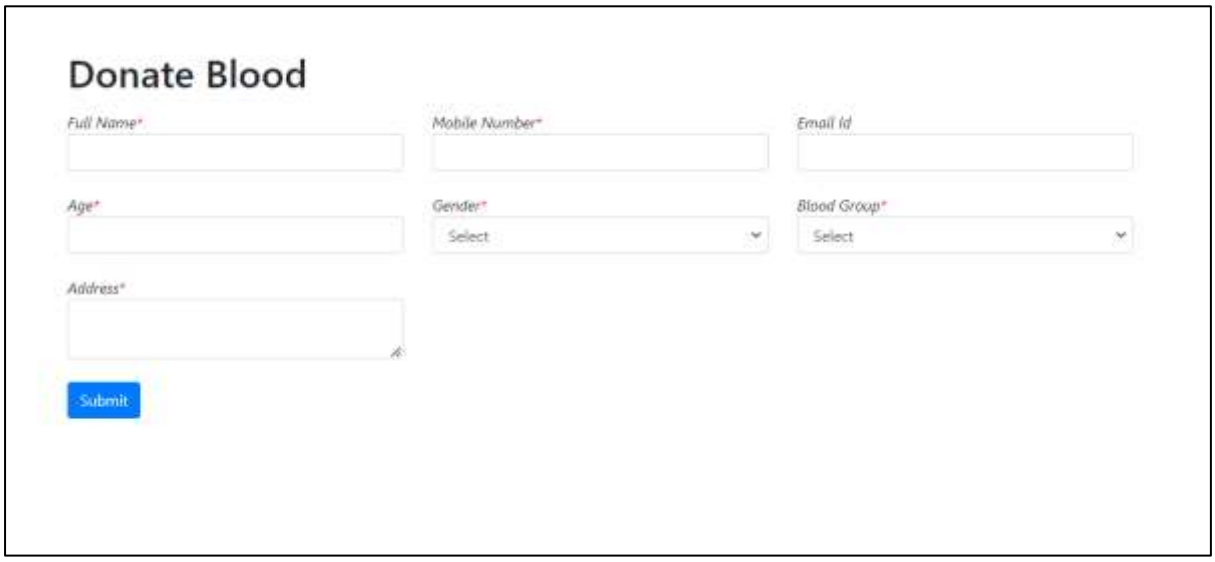
ABOUT US PAGE:



DONATE BLOOD PAGE:

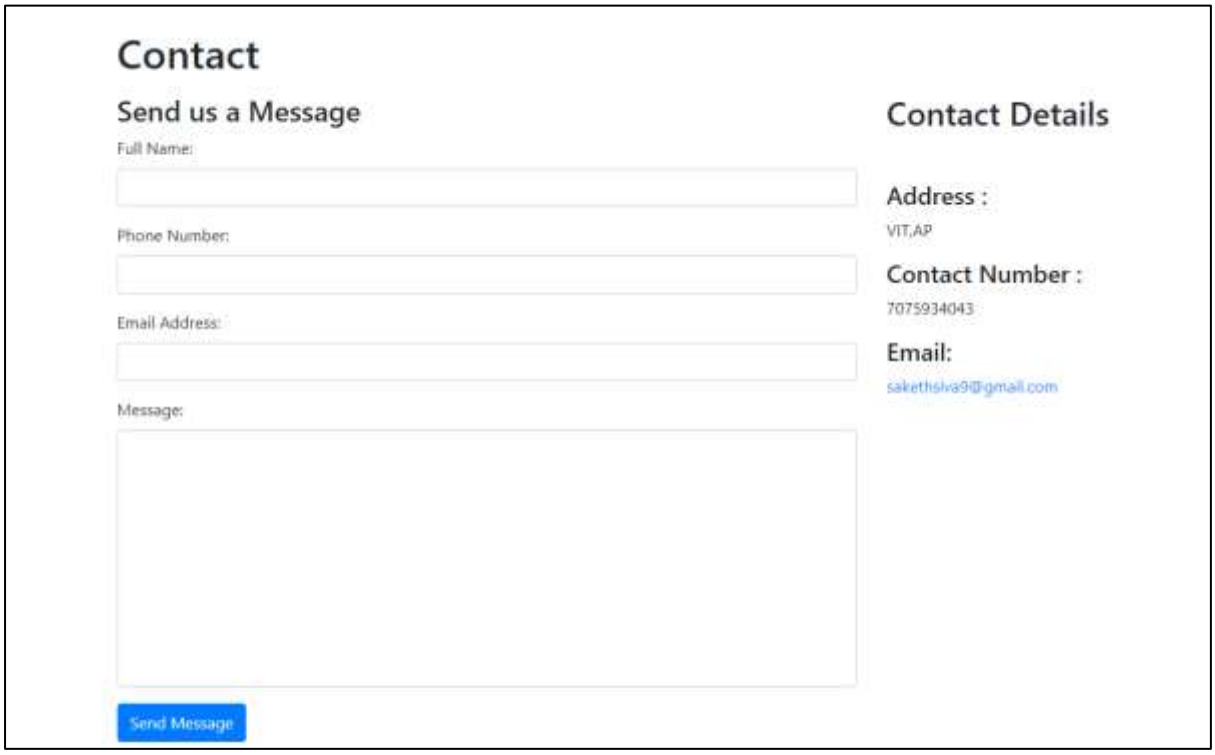


BECOME A DONOR PAGE:

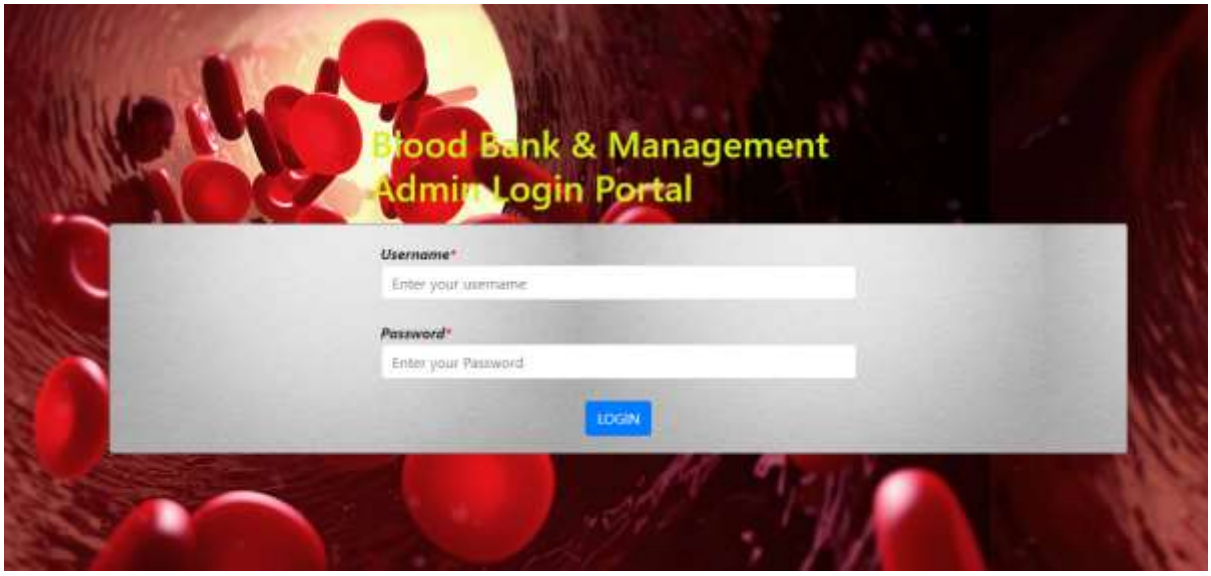


NEED BLOOD PAGE:

CONTACT US PAGE:



ADMIN LOGIN PAGE:



ADMIN HOME PAGE:

ADD DONOR PAGE IN ADMIN PANEL

DONOR LIST IN ADMIN PANEL

USER QUERY IN ADMIN PANEL

MANAGE PAGES PAGE IN ADMIN PANEL

Manage Page Data

S.no	Page Name	Page Type	Page Data	Edit Page
1	Why Become Donor	donor	Blood is the most precious gift that anyone can give to another person - the gift of life. A decision to donate your blood can save a life, or even several if your blood is separated into its components - red cells, platelets and plasma - which can be used individually for patients with specific conditions. Safe blood saves lives and improves health. Blood transfusion is needed for: • women with complications of pregnancy, such as ectopic pregnancies and haemorrhage before, during or after childbirth • children with severe anaemia often resulting from malaria or malnutrition • people with severe trauma following road-made and natural disasters	
2	About Us	aboutus	Blood bank is a place where blood bag that is collected from blood donation events is stored in one place. The term "blood bank" refers to a division of a hospital laboratory where the storage of blood product occurs and where proper testing is performed to reduce the risk of transfusion related events. The process of managing the blood bag that is received from the blood donation events needs a proper and systematic management. The blood bag must be handled with care and treated thoroughly as it is related to someone's life. The development of Web-based Blood Bank And Donation Management System (BBDMS) is proposed to provide a management functional to the blood bank in order to handle the blood bag and to make entries of the individuals who want to donate blood and who are in need.	
3	The Need For Blood	needforblood	There are many reasons patients need blood. A common misunderstanding about blood usage is that accident victims are the patients who use the most blood. Actually, people needing the most blood include those: 1) Being treated for cancer 2) Undergoing orthopedic surgeries 3) Undergoing cardiovascular surgeries 4) Being treated for inherited blood disorders	

1 2 › Next

UPDATE CONTACT INFO PAGE IN ADMIN PANEL

Update Contact Info

Contact Details

Address

Email id

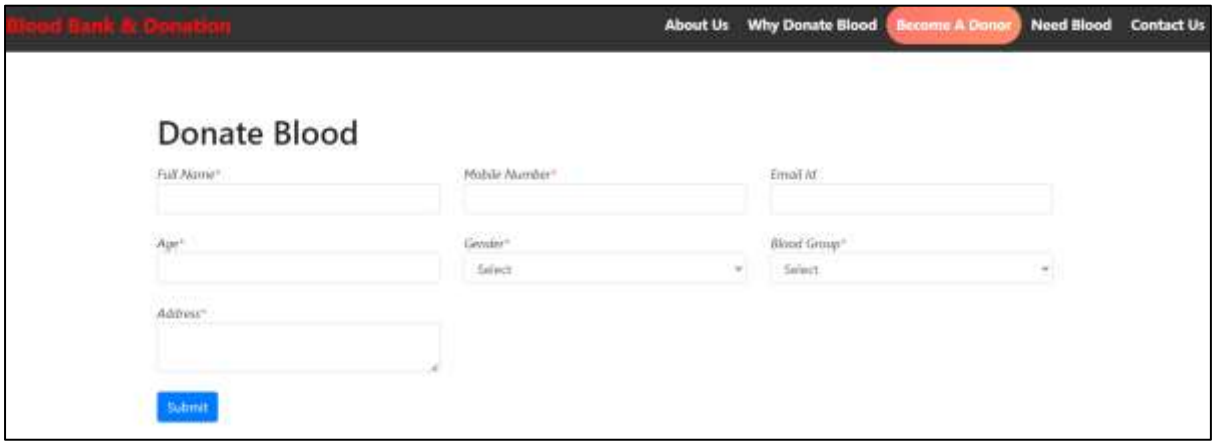
Contact Number

Update

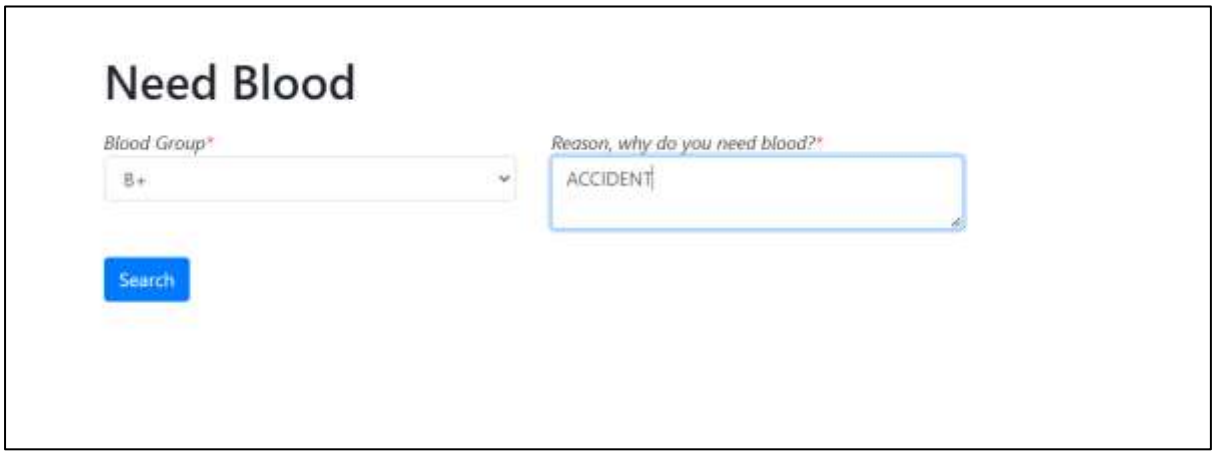
TASK-10

SOFTWARE TESTING

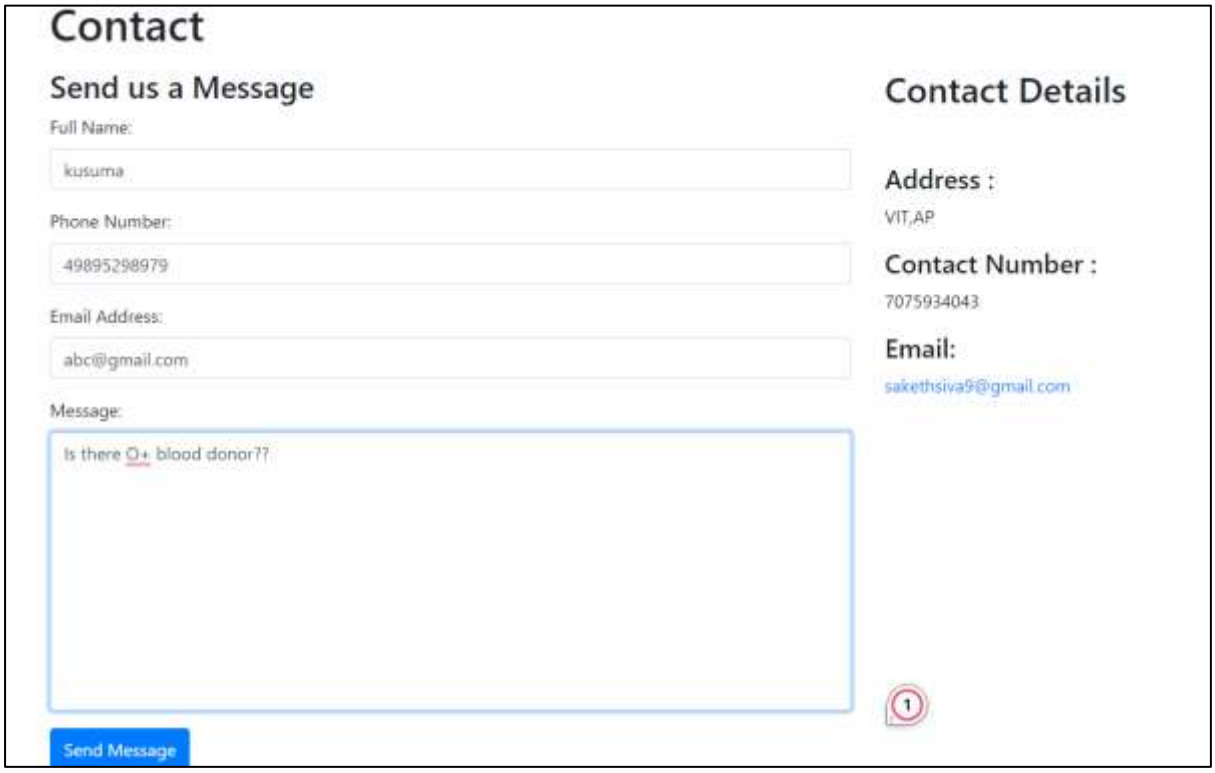
DONOR PAGE:



BLOOD PAGE:



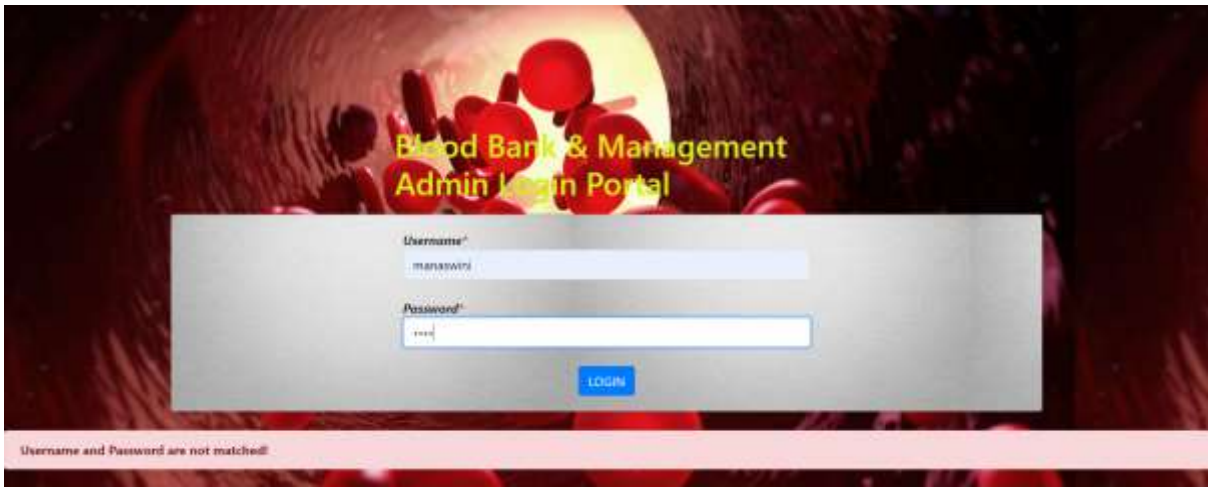
CONTACT PAGE:



THIS WILL DIRECTLY BE REFLECTED ON THE ADMIN'S PAGE.

ADMIN LOGIN PAGE:

Some unknown user try to login



ADMIN LOGIN BLOOD BANK DETAILS

Donor List

S.no	Name	Mobile Number	Email Id	Age	Gender	Blood Group	Address	Action
1	Manaswini	9492171598	bmanaswini2004@gmail.com	20	Female	B+	VIT AP UNIVERSITY BESIDE AP SECRETERIAT LADIES HOSTEL 2 AMARAVATI 522237	DELETE
2	SAKETH	7075934043	saketh gadhamsetty@gmail.com	20	Male	O+	VIT AP UNIVERSITY	DELETE

ADMIN LOGIN QUERY STATUS:

User Query

S.no	Name	Email Id	Mobile Number	Message	Posting Date	Status	Action
1	Anuj	anuj@gmail.com	9923471025	I need O+ Blood.	2024-02-28 18:24:34	Read	DELETE
2	Manaswini	09492171598	bmanaswini2	i need a+ blood.	2024-04-17 18:30:35	Read	DELETE
3	kusuma	49895298979	abc@gmail.c	Is there O+ blood donor?	2024-04-17 18:31:40	Pending	DELETE

ADD DONOR BY ADMIN

Add Donor

Full Name*

Mobile Number*

Email Id

Age*

Gender*

Select

Blood Group*

Select

Address*

Submit