



IBM NALAIYATHIRAN PROJECT REPORT

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1 . INTRODUCTION

1.1 Project Overview

Objective: -

The main objective of developing the system is gather all donors under a single roof, and encourage to donate blood. And also create an efficient system for the donors, where they can get the notification of the blood request of the nearby blood requestor and the contact details of the requestor will be display on the application. Apart from that the donor can also donate the blood anytime by using this application.

Abstract: -

This project is aimed to developing an online Blood Donation Information. The entire project has been developed keeping in view of the distributed client server computing technology, in mind. The Blood Donation Agent is to create an e-Information about the donor and organization that are related to donating the blood. 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 make request blood online he can also take the help of this site. Admin is the main authority who can do addition, deletion, and modification if required.

1.2 Purpose: -

This system proposed here aims to create an information about the donor and the organization that are related to donating the blood. This application connecting the donors & the patients by an online application. By using this application, the users can either raise a request for plasma donation or requirement. This system is used if anyone needs a Plasma Donor.

2. LITERATURE SURVEY:

2.1 . Existing problem

In the existing system of plasma donor containing following issue that are:

- Blood shortage
- Donor and staff safety
- Handle multiple request at the same time
- It required active internet connection

2.2 References

1. <https://nevonprojects.com/instant-plasma-donor-recipient-connector-android-app/>
2. <https://www.sciencedirect.com/topics/engineering/plasma-applications>

2.3 Problem Statement Definition

Plasma plays the critical role of maintaining a healthy blood pressure, blood volume and a proper pH balance. Which being the most important element for humans to survive, developing an application to interconnect plasma requesters and donors might help save lives during emergency. Making such an application which is user friendly as well as has more features for serving the people better, we are proposing a model in which we are going to connect the plasma donor and requester together in a unique way.

3. IDEATION & PROPOSED SOLUTION

3.1 Empathy Map Canvas

- An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviour and attitudes.
- It is a useful tool to help teams better understand their users.
- Creating an effective solution requires understanding the true problem and the person who is experiencing it.
- The exercise of creating the map helps participants consider things from the user's perspective along with his or her goals and challenges.

Empathy Map Canvas

Gain insight and understanding on solving customer problems.

1

Build empathy and keep your focus on the user by putting yourself in their shoes.



3.2 Ideation & Brainstorming

Brainstorming is a group problem-solving method that involves the spontaneous contribution of creative ideas and solutions. This technique requires intensive, freewheeling discussion in which every member of the group is encouraged to think aloud and suggest as many ideas as possible based on their diverse knowledge.



3.3 Proposed Solution

Solution description:

Creating a web application, which stores the donors list in a database .And connecting the donors & the patients by an online application. By using this application, the users can either raise a request for plasma donation or requirements.

- This web application always keep updating the location of the donor.
- To become a member of our system, donors need to create their profile.
- If the user wants to donate or receive they have to register with their personal details.
- After successful registration of user A successful registration email is send to the user.
- After successful registration user, will be directed to home page.
- They will be asked to press whether they will be donor or receiver.
- If the user is donor then he/she will fill the donation interest form.
- If the user is receiver then he/she can see the list of donors available and they can raise their request and contact donor directly.

Novelty:

The Donors details are stored highly secured. A User Interface is simple for users to understand. Users can submit their comments if they have any difficulties during donation Process.

Customer satisfaction:

Only the trusted donors are recommended. It can also help the people to know about the benefits of plasma donation so that their small contribution can help one person to save his/her life

Business model:

There are many private sectors and NGOs, who organize plasma donation camps. Even collaboration with companies like Bio-life, and other pharmaceutical companies use plasma to make treatment for conditions such as immune deficiencies and bleeding disorder in order to increase revenue.

Scalability of the solution:

This application has the ability to handle more donors and provide users with good user experience. It handles the traffic, responding accurately and reacting to the growing number of requests. Chat-box facility is given. This application helps users to find plasma donors by sitting in home itself instead of searching donors everywhere

3.4 Problem Solution fit

Project Title: Plasma Donor Application

Project Design Phase-I - Solution Fit Template

Team ID: PNT2022TMID51943

Define CS, fit into CC	1. CUSTOMER SEGMENT(S) CS 1.Donors(Age-18+) 2.Patients(Plasma donor needy) 3.Hospital Management	6. CUSTOMER CONSTRAINTS CC 1.Lack of plasma donors 2.Regular Internet Connection 3.Smartphone/Laptop/Desktop 4.Knowledge about application usage	5. AVAILABLE SOLUTIONS AS 1.Plasma donors wants to be connected within a common platform 2.This application used only collecting the details of donors	Explore AS, differentiate
	2. JOBS-TO-BE-DONE / PROBLEMS J&P 1.Difficult to find the donors at the right time 2.Proper instructions must be given for the donors while they give plasma	9. PROBLEM ROOT CAUSE RC 1. Not able to find the donors at the time of emergency 2.Only few peoples know about the importance of plasma donation	7. BEHAVIOUR BE 1.Find the right donors for plasma donation 2.Getting the informations about plasma donors	
Focus on J&P, tap into BE, understand RC	3. TRIGGERS TR 1.Finding the plasma donors by using social media and save lives	10. YOUR SOLUTION SL 1.Connecting more number of peoples in a common platform 2.Spreading the knowledge about plasma donation	8. CHANNELS of BEHAVIOUR CH Online:Can use the website to find the donors Offline:Can use the record maintained by the hospital management	Extract online & offline CH of BE
	4. EMOTIONS: BEFORE / AFTER EM Before:Hard to get a right resource After:Easy to found a plasma donors		8.2 OFFLINE	

4. REQUIREMENT ANALYSIS

4.1 Functional requirement

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement(Story/Sub-Task)
FR-1	User Registration	Registration through form Registration through Gmail Registration through LinkedIn
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User Login	Login through registration email id
FR-4	Sent Request	If plasma required then donor get the notification
FR-5	Recipient notification	Recipient get notified from Donor via message
FR-6	Confirmation	Donor information will be shared with receiver for further process.

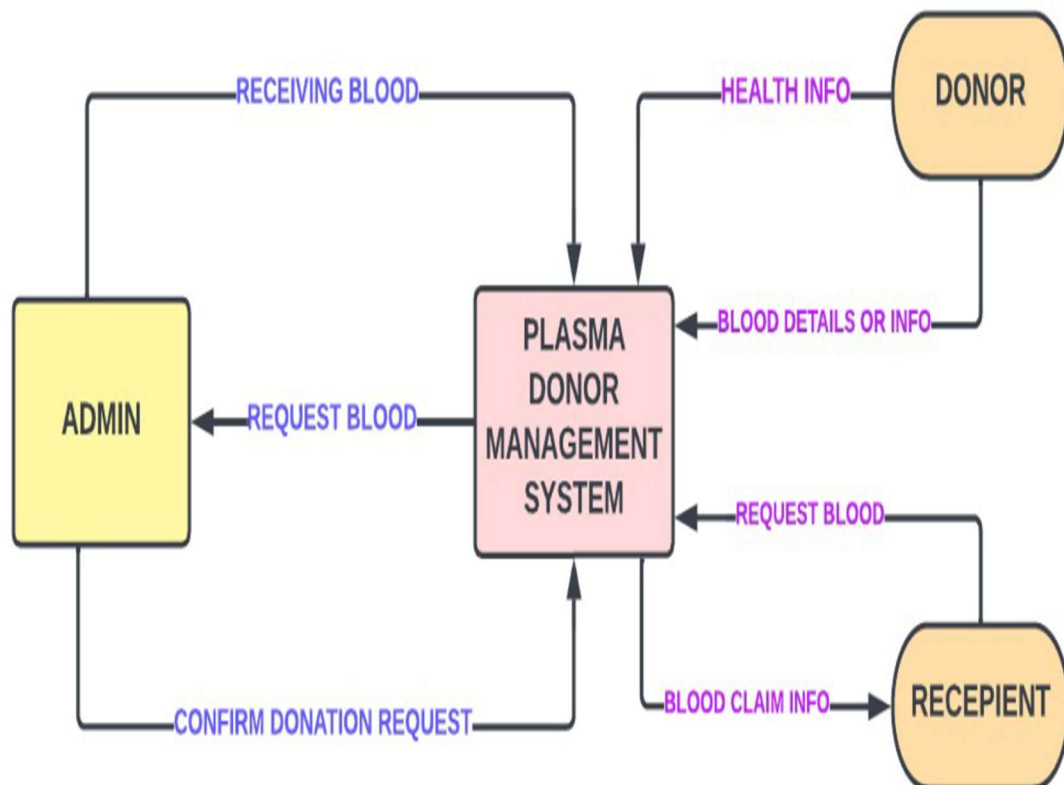
4.2. Non-Functional requirements

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	The plasma Donor application is user friendly And easy to access.
NFR-2	Security	It is secured with the user email id and password
NFR-3	Reliability	Application can provide true and timely information about donors and reach receivers immediately
NFR-4	Performance	This application will help donors as well as recipients in a better manner.
NFR-5	Availability	The notification about the availability of donor was sent through SMS
NFR-6	Scalability	Major amount of donor or receiver information can be gathered and stored with a simple database structure

5. PROJECT DESIGN

5.1. Data Flow Diagram



5.2. User Stories:

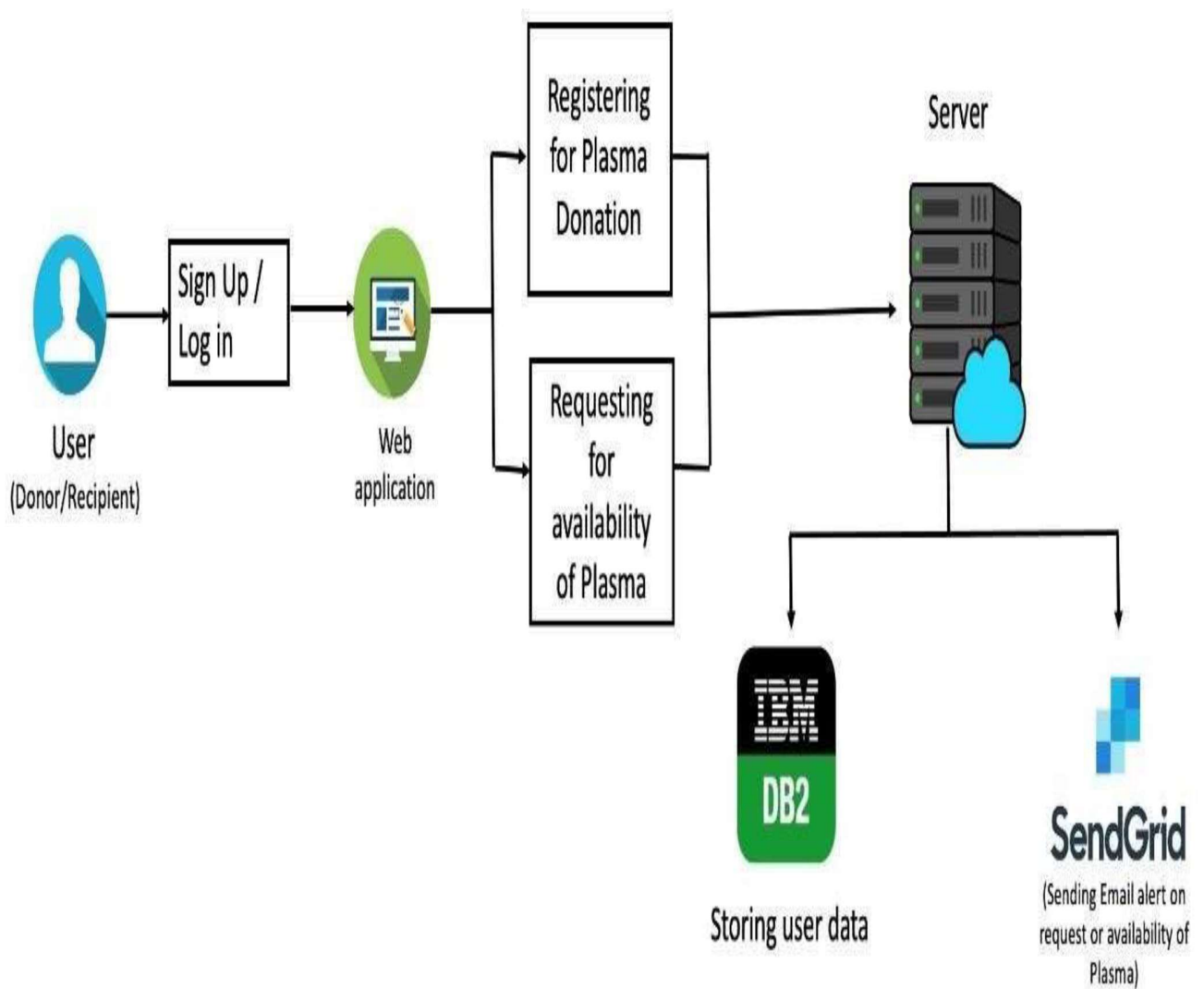
User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering Mobile no, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, I will receive otp once I have registered for the application	I can receive confirmation email & click confirm	High	Sprint-1
		USN-3	As a user, I can register for the application through Facebook	I can register & access the dashboard with Facebook Login	Low	Sprint-2

		USN-4	As a user, I can register for the application through Mobile no	I can receive confirmation otp & confirm	Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application by entering mobile no & password	I can enter into my account	High	Sprint-1
	Dashboard	USN-6	As a user ,Display all details about plasma application	I can donate/get details about the plasma	High	Sprint-2
Customer (Web user)	Application	USN-7	As a user ,I can register, login and see details about plasma	I can access the donor details and availability of plasma	High	Sprint-3

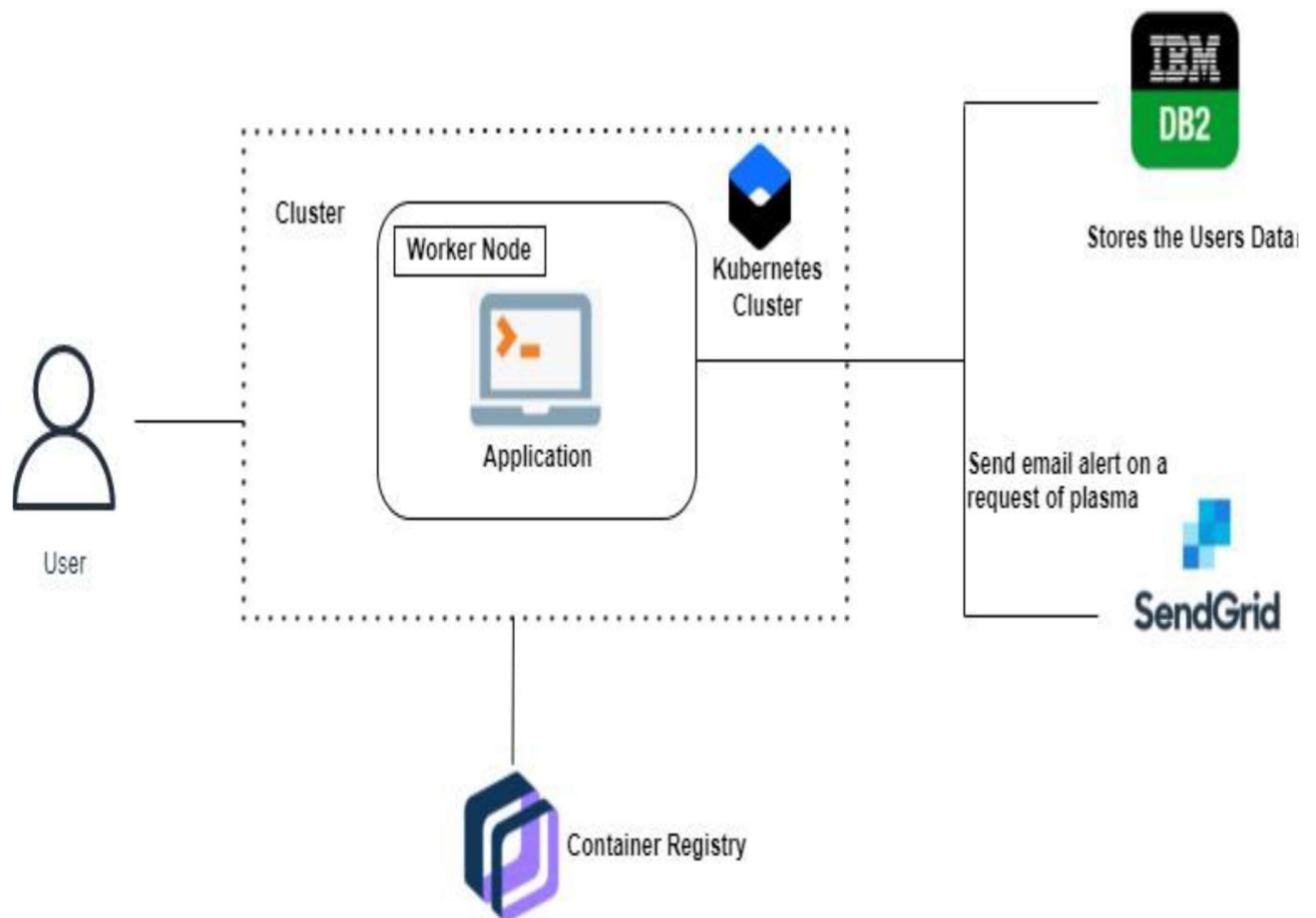
Customer Care Executive	Update Plasma storage	USN-8	Keep track the availability of the Plasma	I can provide application for customer needs	High	Sprint-4
Administrator	Verify donor details	USN-9	To add the donor plasma details in application	I can Control the all details in this application	Medium	Sprint-3
Customer Care Executive	Verify Customer Feedback	USN-10	To design the application that meets user's desires	I can satisfy the customer expectations	Medium	Sprint-4
Customer Care Executive	Control all Plasma details	USN-11	Make sure to check the availability of plasma in application	I can alert notification through email and SMS	High	Sprint-2
Administrator	Performance of application	USN-12	To make the process more efficient	I can save time, cost by improving the Plasma	High	Sprint-4

5.3 Solution & Technical Architecture

Solution Architecture :-



Technical Architecture:



6. PROJECT PLANNING & SCHEDULING

6.1 Sprint Planning & Estimation:

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Registration	USN-1	As a user, I can register for the web app by entering my email, password, and confirming my password.	20	High	1. M.JAYA HARI PRASATH 2. ASWINI S 3. BHARATHI H V 4. AJITH KANNA T
Sprint-2	Login	USN-2	As a user, I can log into the application by entering email & password.	20	High	1. M.JAYA HARI PRASATH 2. ASWINI S 3. BHARATHI H V 4. AJITH KANNA T
Sprint-3	Donor Information	USN-3	Donors can update their personal information eg: blood group,.	20	High	1. M.JAYA HARI PRASATH 2. ASWINI S 3. BHARATHI H V 4. AJITH KANNA T
Sprint	Functional Requirement(Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-4	Finding the donor	USN-4	The patient can find the donor with their similar blood group	20	High	1. M.JAYA HARI PRASATH 2. ASWINI S 3. BHARATHI H V 4. AJITH KANNA T

6.2 . Sprint Delivery Schedule

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story point completed (as on planned end date)	Sprint Release Date (Actual)
Sprint-1	20	6 Days	24 Oct 2022	29 Oct 2022	20	29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	05 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	20	12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	19 Nov 2022

7. CODING & SOLUTIONING

CODING:

Login.html:

The login page allows a user to gain access to the application by entering their username and password.

```
{% extends 'base.html'%}

<!--title tag-->
{% block title %}
<title>Admin-LogIn</title>
{% endblock %}

<!--Login Content-->
{% block content %}
<!--Registration form-->
<div class="container">
    <div class="text-center mt-5"><h2>LogIn as Admin</h2></div>

</div>

<div class="container mt-5">
    <div class="row justify-content-center">
        <div class="col-sm-6 ">
            <div class="card">
                <div class="card-body">
                    <!--Form content-->
                    <form action="/" method="post">

                        <div class="form-group">
                            <label for="email">Email</label>
                            <input type="email" class="form-control" name="" id="email"
required placeholder="Enter your Email">
                        </div>
                        <div class="form-group">
                            <label for="password">Password</label>
                            <input type="password" class="form-control" name="" id="password"
placeholder="Enter Password" required>
                    </form>
                </div>
            </div>
        </div>
    </div>
</div>
```

```

        </div>

        <!--button-->
        <div class="form-group text-center">

            <button type="submit" class="btn btn-success">Submit</button>
        </div>

    </form>
</div>
</div>
</div>
</div>
</div>
</div>
{% endblock %}

```

Register.html :

- ✓ Registration provides greater protection for the public.
- ✓ Every time after the initial registration, the user will log on to the system using the username and password you created

```

{% extends 'base.html' %}

<!--title tag-->
{% block title %}
<title>Plasma-Register</title>
{% endblock %}

{% block content %}

<!--Registration form-->

<div class="container mt-5"><div class="row"><div class="col-sm-12"><div class="card">
<div class="card-body">
    <form action="/addonor" method="post">
    <h4 style="text-align: center;">Donating Plasma</h4>

```

```

<div class="form-group ">
  <label for="name">Full Name</label>
  <input type="text" class="form-control" name="name" id="name" placeholder="Enter
your Name"
      required>

</div>
<!--Splitting into two grids-->
<div class="form-row">
  <div class="col-sm-6">
    <div class="form-group mr-4 ">
      <label for="mobile">Mobile Number</label>
      <input type="tel" class="form-control" name="mobile" id="mobile" required
placeholder="Enter your Mobile No.">

    </div>
  </div>
  <div class="col-sm-6">
    <div class="form-group">
      <label for="email">Email</label>
      <input type="email" class="form-control" name="email" id="email" required
placeholder="Enter your Email">

    </div>
  </div>
</div>

<div class="form-row">
  <div class="col-sm-4">
    <div class="form-group mr-4">
      <label for="age">Age</label>
      <input type="number" class="form-control" name="age" id="age" required
placeholder="Enter your Age">

    </div>
  </div>
  <div class="col-sm-4">
    <div class="form-group mr-4">
      <label for="gender" class="form-label">Gender</label><br>
      <select id="gender" class="form-control" name="gender">
        <option selected>Select your Gender</option>
        <option>Male</option>
        <option>Female</option>
        <option>Other</option>
      </select>
    </div>
  </div>

```

```

</div>

<div class="col-sm-4">
  <div class="form-group mr-4">
    <label for="blood-group" class="form-label">Blood Group</label><br>
    <select id="blood-group" class="form-control" name="blood">
      <option selected>Select your blood group</option>
      <option>O+</option>
      <option>O-</option>
      <option>A+</option>
      <option>A-</option>
      <option>B+</option>
      <option>B-</option>
      <option>AB+</option>
      <option>AB-</option>
    </select>
  </div>
</div>
</div>

<div class="form-row">
  <div class="col-sm-4">
    <div class="form-group mr-4 ">
      <label for="Area">Area</label>
      <input type="text" class="form-control" name="area" id="Area"
required
        placeholder="Enter your Area Name">
    </div>
  </div>
  <div class="col-sm-4">
    <div class="form-group">
      <label for="city">City</label>
      <input type="text" class="form-control" name="city" id="city"
required
        placeholder="Enter your City Name">
    </div>
  </div>
  <div class="col-sm-4">
    <div class="form-group mr-4 ">
      <label for="district">District</label>
      <input type="text" class="form-control" name="district" id="district"
required
        placeholder="Enter your District Name">
    </div>
  </div>

```



```

        </div>
    </div>
</div>

    <!--button-->
    <div class="form-group text-center">
        <input type="reset" value="Reset" class="btn btn-dark mr-2">
        <input type="submit" value="Submit" class="btn btn-success">

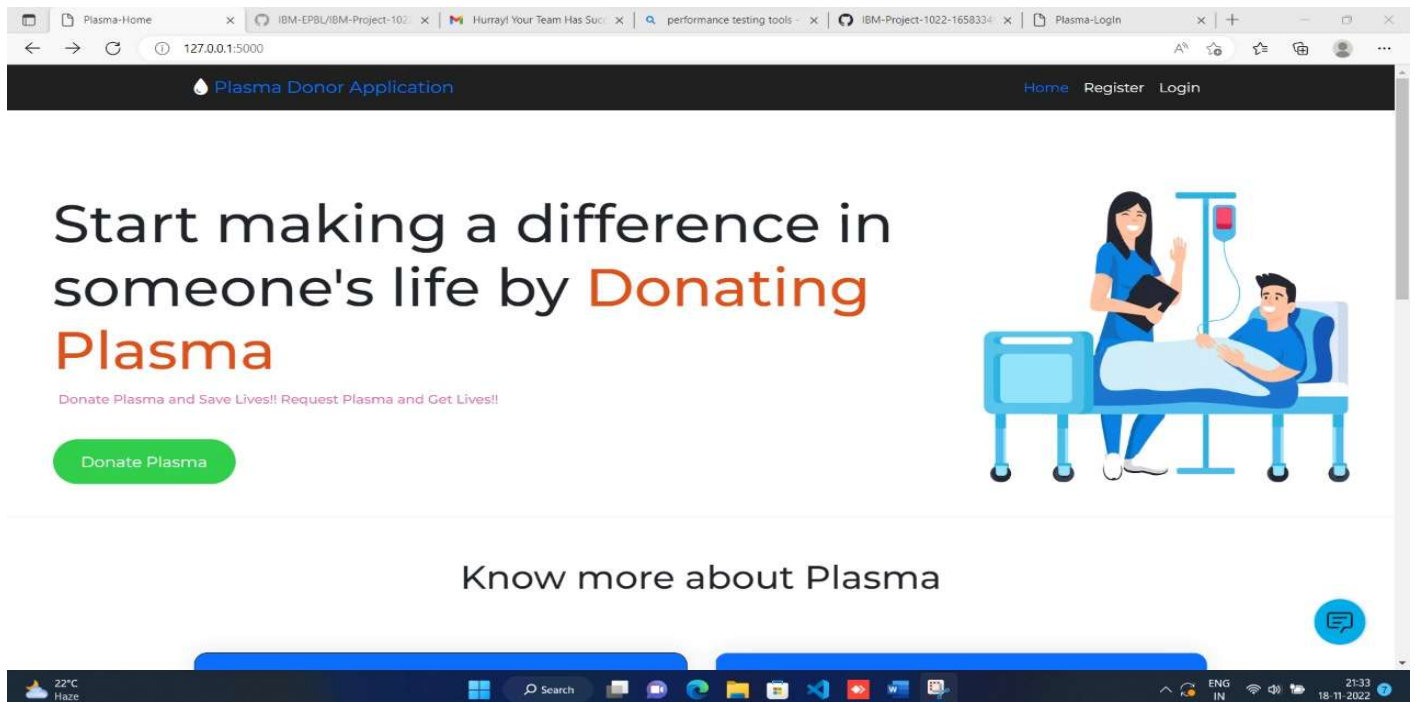
    </div>

</form>
</div>
</div>
</div>

{% endblock %}

```

7.1. Feature 1



7.2 Feature 2

The screenshot shows a web browser window with the URL `127.0.0.1:5000/signin`. The page title is "Plasma Donor Application". The navigation bar includes links for "Home", "Register", and "Login". The main content area displays a "Register as a user" form with the following fields: "User Name" (containing "Hari Prasath"), "Your Email" (containing "jhpmadurai2001@gmail.com"), "Phone" (containing "6380475221"), and "Your Password" (containing "....."). Below the password field are "Reset" and "Register" buttons. A link "Already a user? Login" is at the bottom of the form. A chat bubble icon is visible in the bottom right corner of the page.

Plasma Donor Application

Home Register Login

Register as a user

User Name
Hari Prasath

Your Email
jhpmadurai2001@gmail.com

Phone
6380475221

Your Password
.....

Reset Register

Already a user? [Login](#)

7.3 . Feature 3

The screenshot shows the same web browser window, but the URL is `127.0.0.1:5000/signin`. The page title is "Plasma Donor Application". The navigation bar includes links for "Home", "Register", and "Login". The main content area displays a "Login using UserName and Password" form. At the top of the form, it says "You have successfully registered !". Below this, there are fields for "User Name" (containing "Hari Prasath") and "Password" (containing "....."). A "Login" button is below the password field. At the bottom of the form, it says "Don't have an account [Register here](#)". A chat bubble icon is visible in the bottom right corner of the page.

Plasma Donor Application

Home Register Login

Login using UserName and Password

You have successfully registered !

User Name
Hari Prasath

Password
.....

Login

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

7.4. Feature 4

The screenshot displays the 'Plasma Donor Application' web interface. The main content area shows a confirmation message 'Registered successfully..' above a graphic of a blood drop divided into three colored sections: blue (top), orange (middle), and red (bottom). Each section is associated with a percentage and a label: 55% Plasma (blue), 4% Platelets and white blood cells (orange), and 41% Red blood cells (red). Below the graphic, it says 'Thank you for donating plasma.' To the right, a 'Watson Assistant' chat window is open, showing a conversation with a 'Hello' message and several buttons for 'Learn about donations', 'Register as a donor', and 'Request for plasma'. The chat window also displays a list of topics: 'Blood types' and 'Plasma Donation process'.

7.5. Feature 5

The screenshot shows the 'Plasma Donor Application' web interface with a note and a table. The note reads: 'Note: Please note the donor email from the table you want to request.' Below the note is a table with the following data:

Email	Age	Gender	Blood Group	Area	City	District	Make a Request
jayahariprasath2001@gmail.com	22	Male	A+	jhbdyhudgw	Madurai	hsgdutw7qer	Request
jayahariprasath2001@gmail.com	20	Male	AB+	abc colony	Madurai	Madurai	Request

At the bottom right of the page, there is a blue circular icon with a white speech bubble.

7.6. Database Schema

A database schema defines how data is organized within a relational database; Schemas commonly use visual representations to communicate the architecture of the Database becoming the foundation for an organization's data management discipline. This is inclusive of logical constraints such as, table names, fields, data types, and the relationships between these entities. This process of database schema design is also known as data modeling. These data models serve a variety of roles, such as database users, database administrators, and programmers. A database schema is considered the “blueprint” of a database which describes how the data may relate to other tables or other data models.

The screenshot displays the IBM Db2 on Cloud console interface. The top navigation bar includes tabs for 'Load Data', 'Load History', 'Tables', 'Views', 'Indexes', 'Aliases', 'MQTs', 'Sequences', and 'Application objects'. The 'Tables' tab is currently selected. Below the navigation bar, there is a search bar labeled 'Find schemas or tables' and a 'Refresh' button. The main content area is divided into two panels: 'Schemas' on the left and 'Tables' on the right. The 'Schemas' panel shows a table with columns 'Name', 'Type', and 'Tables'. It lists one schema, 'ZNJ04989', which is of type 'User' and has 4 tables. The 'Tables' panel shows a table with columns 'Name', 'Schema', and 'Properties'. It lists four tables: 'DONOR2', 'LOGIN', 'REQUEST2', and 'USER', all belonging to the 'ZNJ04989' schema. A 'New table' button is visible in the top right of the 'Tables' panel. The bottom of the screenshot shows a Windows taskbar with the date and time '22:34 18-11-2022'.

Name	Type	Tables
ZNJ04989	User	4

Name	Schema	Properties
DONOR2	ZNJ04989	...
LOGIN	ZNJ04989	...
REQUEST2	ZNJ04989	...
USER	ZNJ04989	...

WhatsApp | Service Details - IBM Cloud | IBM Db2 on Cloud | SQL DELETE Statement | Inbox (4) - jayahariprasath2001@ | +

bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crn%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F31a37b13ec5a4c549cea0f0656471383%3A0fc28f04-af3b-...

IBM Db2 on Cloud

Load Data | Load History | **Tables** | Views | Indexes | Aliases | MQTs | Sequences | Application objects

ZNJ04989.REQUEST2

Back

Export to CSV

DREMAIL	HOS_NAME	RECNAME	RECMOBILE	RECMAIL	RECAGE	RECGENDER	RECBLOODGROUP	RECAREA	RECCITY	RECDISTRICT
hari@gmail.com	bdygdwdygd7y	JAYA HARI PRASATH M	6380475221	jayahariprasath2001@gmail.com	19	Male	O-	knjhuu	Madurai	fdghuerh

21°C Mostly clear

Plasma-Login | IBM Db2 on Cloud | New tab

https://bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crn%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F31a37b13ec5a4c549cea0f0656471383...

IBM Db2 on Cloud

Load Data | Load History | **Tables** | Views | Indexes | Aliases | MQTs | Sequences | Application objects

ZNJ04989.LOGIN

Back

Export to CSV

USERNAME	EMAIL	CONTACT	PASSWORD
Hari Prasath	jhpmadurai2001@gmail.com	6380475221	123456
Hari Prasath	jhpmadurai2001@gmail.com	6380475221	123456
JeyaHari	962319104047@students.amrita.edu.in	6380475221	123456789
ajin	bala.abinesh.surya@gmail.com	7598369569	123456789
ashwini	ashwini2001@gmail.com	9488519706	13245652
ashwini	ashwini2001@gmail.com	9488519706	13245652
suryathaya	suryathaya10@gmail.com	7598369569	123456789

22°C Haze

WhatsApp | Service Details - IBM Cloud | IBM Db2 on Cloud | SQL DELETE Statement | Inbox (4) - jayahariprasath2001@...

bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crm%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F31a37b13ec5a4c549cea0f0656471383%3A0fc28f04-af3b-...

IBM Db2 on Cloud

Load Data | Load History | **Tables** | Views | Indexes | Aliases | MQTs | Sequences | Application objects

ZNJ04989.DONOR2

Back

Export to CSV

NAME	MOBILE	EMAIL	AGE	GENDER	BLOOD	AREA	CITY	DISTRICT
HARI PRASATH	6380475221	jayahariprasath2001@gmail.com	20	Male	AB+	abc colony	Madurai	Madurai
JAYA HARI PRASATH M	+916380475221	jayahariprasath2001@gmail.com	22	Male	A+	jhbdyhudgw	Madurai	hsgdutw7qer

21°C Mostly clear

Search

ENG IN

23:33 18-11-2022

WhatsApp | Service Details - IBM Cloud | IBM Db2 on Cloud | SQL DELETE Statement | Inbox (4) - jayahariprasath2001@...

bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crm%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F31a37b13ec5a4c549cea0f0656471383%3A0fc28f04-af3b-...

IBM Db2 on Cloud

Load Data | Load History | **Tables** | Views | Indexes | Aliases | MQTs | Sequences | Application objects

ZNJ04989.REQUEST2

Back

Export to CSV

DREMAIL	HOS_NAME	RECNAME	RECMOBILE	RECMAIL	RECEGE	RECGENDER	RECBLOODGROUP	RECAREA	RECCITY	RECDISTRICT
hari@gmail.com	bdygdw7y	JAYA HARI PRASATH M	6380475221	jayahariprasath2001@gmail.com	19	Male	O-	knjhuv	Madurai	fdghuerh

21°C Mostly clear

Search

ENG IN

23:34 18-11-2022

8. TESTING

8.1 Test Cases

Test case ID	Feature Type	Component	Test Scenario	Pre-Requlite	Steps To Execute	Test Data	Expected Result	Actual Result	Status	Comments	TC for Automation(Y/N)	BUG ID	Executed By
TC_0010	UI	Donating Plasma Page	Verify if the submission in Donating Plasma Page is successful	Web Browser	1.Enter URL and click go 2.Click on Login 3.Enter valid username in username field 4.Enter valid password in password field 5.Click on login button 6. Click on Donate Plasma 7. Enter the required fields 8. Click on submit	Mail: nandini@gmail.com	After filling out the register as donor page and clicking submit application should redirect to a "registration success" page	Working as expected	Pass				
TC_0011	Functional	Registration page	Verify if the user received mail after successful registration	Web Browser	1.Enter URL and click go 2.Click on Register 3.Enter Valid email, username, password and mobile number in the form field 4.Click on register button	Your Name - Shashy Kumar Your Email - vi@gmail.com Phone:9943282536 Your Password - Shashy0tes3212	After filling out the registration page and submitting the user should receive a "Registration Success!!" Mail on their registered Email id.	Working as expected	Pass				
TC_0012	Functional	Donate Plasma page	Verify if the user received mail after successfully registering as a donor in Plasma registration Page	Web Browser	1.Enter URL and click go 2.Click on Login 3.Enter valid username in username field 4.Enter valid password in password field 5.Click on login button 6. Click on Donate Plasma 7. Enter the required fields 8. Click on submit	Mail: nandini02@gmail.com	After filling out the registration page and submitting the user should receive a "Registration Success!!" Mail on their registered Email id.	Working as expected	Pass				
TC_0013	Functional	Request Plasma page	Verify if the user(Plasma Recipient) received mail after successfully requesting for plasma	Web browser	1.Enter URL and click go 2.Click on Login 3.Enter valid username in username field 4.Enter valid password in password field 5.Click on login button 6. Click on Request Plasma 7. Enter the required fields 8. Click on submit	Mail: vamsy234@gmail.com	After filling out the request plasma page the user(Plasma Recipient) receives a mail that the request has been successfully posted	Working as expected	Pass				
TC_0014	Functional	Request Plasma page	Verify if the user(Plasma Donor) received mail when a Recipient makes a request for their plasma through the application	Web Browser	1.Enter URL and click go 2.Click on Login 3.Enter valid username in username field 4.Enter valid password in password field 5.Click on login button 6. Click on Request Plasma 7. Enter the donor email and all other required fields 8. Click on submit	Mail: vamsy234@gmail.com	When a Plasma Recipient fills out the request plasma page the Plasma Donor should receive a mail that a Recipient has made a Request to them.	Working as expected	Pass				
TC_0015	Functional	Chatbot	Verify if Chatbot is working properly and deployed universally throughout the application	Web Browser	1.Enter URL and click go 2.Click on virtual assistant at the bottom right corner	http://195.51.104.24:32734/	Chatbot should be accessible inside any webpage such as Login, Home or Register pages and must answer the user queries.	Working as expected	Pass	Could add more queries to chatbot			
TC_0016	Functional	Login Dashboard	Verify if the user is able to logout from the login dashboard	Web Browser	1.Enter URL and click go 2.Click on Login 3.Enter valid username in username field 4.Enter valid password in password field 5.Click on login button 6. Click on logout button at the end of login dashboard page	Mail: sanka.p@gmail.com	Clicking on logout should redirect the user to home page.	Working as expected	Pass				

8.2. Performance Testing

Login page :

- ✓ The login page allows a user to gain access to an application by entering their username and password or by authenticating using a social media login.
- ✓ Advantages of Social Logins
 - Improved user experience
 - Mobile-friendly
 - Increased data collection. .



Register page:

- ✓ Registration provides greater protection for the public.
- ✓ Every time after the initial registration, the user will log on to the system using the username and password you created



Donor Page:

After login the user can donate plasma or request plasma



8.3. User Acceptance Testing

- Defect Analysis

This report shows the number of resolved or closed bugs at each severity level, and how they were resolved

Resolution	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
By Design	4	2	5	4	15
Duplicate	3	0	2	0	5
External	4	2	0	1	7
Fixed	2	15	6	19	42
Not Reproduced	0	0	2	0	2
Skipped	0	0	3	0	3
Won't Fix	0	2	1	3	6
Totals	13	21	19	27	80

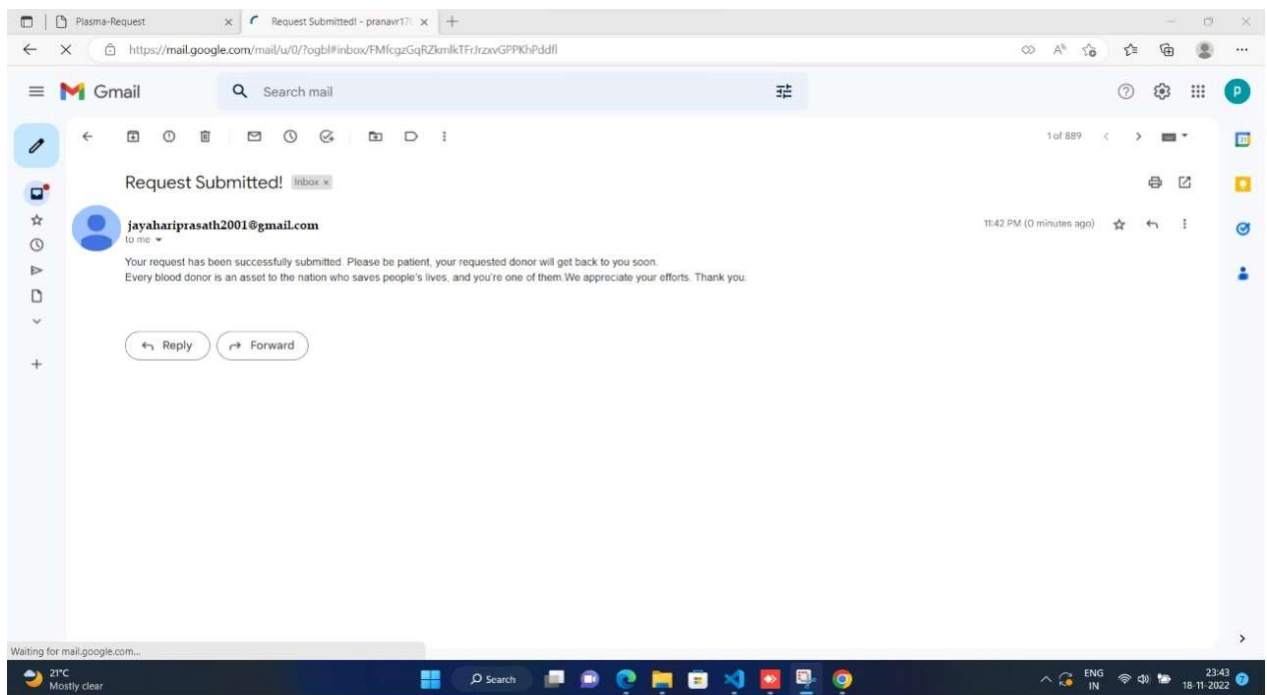
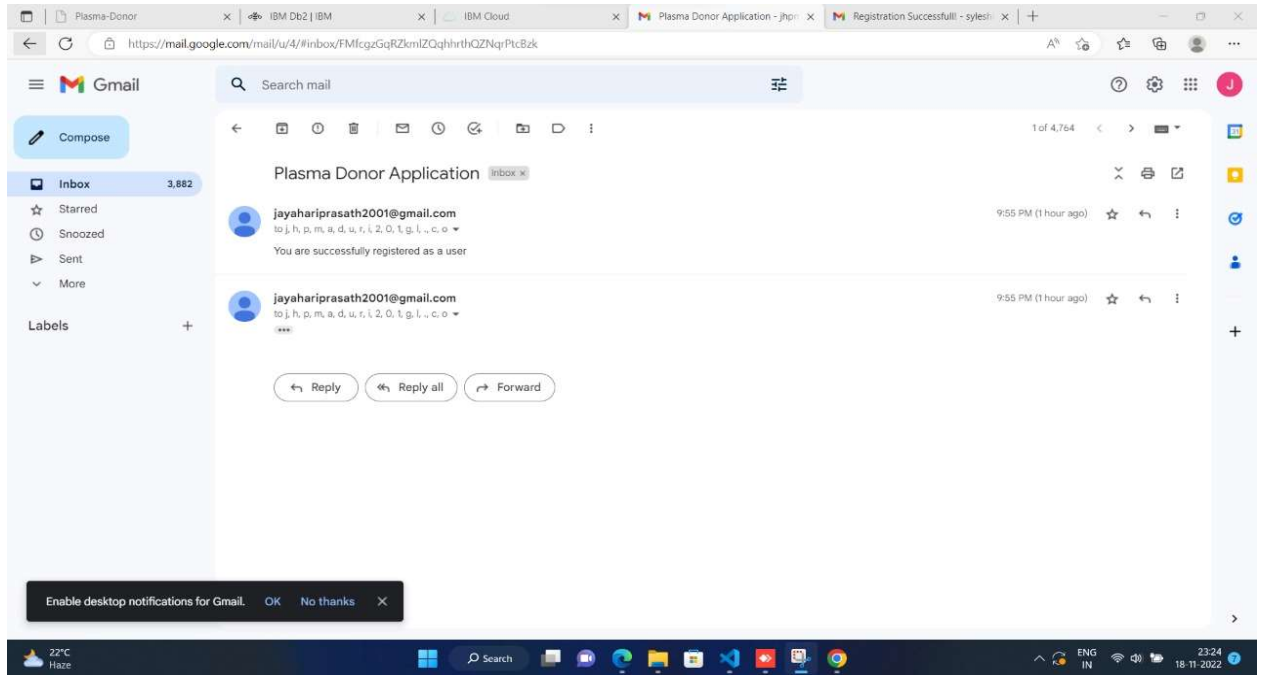
- **TEST CASE ANALYSIS:**

This report shows the number of test cases that have passed, failed, and untested

Section	Total Cases	Not Tested	Fail	Pass
Print Engine	6	0	0	6
Client Application	49	0	0	49
Security	4	0	0	4
Outsource Shipping	5	0	0	5
Exception Reporting	7	0	0	7
Final Report Output	3	0	0	3
Version Control	1	0	0	1

9 .RESULT

9.1 Performance Metrics



10 .ADVANTAGES & DISADVANTAGES

ADVANTAGES:-

The application must have a simple accessible interface for donors to register and donate blood to the allocated blood bank. The users can create an account that can be used for registration and scheduling appointments at the nearest blood bank for blood donation. Hospitals in need for blood plasma can request blood from blood banks. This application should have a wider reach to appeal to more potential blood donors.

- Notification of blood group for plasma donation
- connect the donors & the patients by an online application
- It will help people to find plasma easily.
- Helpful emergency situation.
-

DISADVANTAGES:-

Some of the disadvantages of the application are,

- The donor may reached their donation limit
- Internet Connection is mandatory.
- In order to donor he/she has to be a registered user
- Notification can irritate them if they are not ready to donate.
- Need to login every time while accessing the application

11. CONCLUSION

An Plasma Donor application is an exclusive suite of services for people who are in need of Plasma. It helps you track all the details about the Plasma Donors. The basic solution is to create a centralized system to keep a track on the upcoming as well as past Plasma Donation Events.

The Plasma donor application was developed out of a need to make finding plasma supplies or a willing donor on time and using lesser time in searching for either of the two. This system should be made available to everyone because it will help the search of plasma supplies during emergency cases faster. This helps to avoid health complication and also possible deaths due to delays in search of Plasma.

12. FUTURE SCOPE

In future, our algorithm more congenial with more features such as

- The application can be implemented using Artificial Intelligence and Deep Learning Algorithms.
- Donors last donated details can be automatically updated in the App.
- Increase efficiency and customer satisfaction with an app aligned to their needs.
- Seamlessly integrate with existing infrastructure
- The analysis such as Frequently requested zone or hospital for Plasma, Number of donors, mostly asked Blood Group, Age group of Patients need for plasma etc. can be added as additional features.
- NGOs and NCC Units information's can be made available in the application.

13. APPENDIX

13.1 Source Code:

[home.css](#)

```
@media only screen and (max-width: 500px) {  
  /* For mobile phones: */  
  .landing, .landing-text h1, .landing-text h3, .landing-text .btn, img, .landing-text .btn a {  
    width: 100%;  
    height: auto;  
  }  
}  
.landing {  
  margin-top: 100px;  
  margin-left: 50px;  
  margin-right: 50px;  
}  
.  
landing-text h1 {  
  font-size: 65px;  
}  
.  
landing-text h3 {  
  margin: 6px;  
  font-size: 15px;  
  line-height: 1.8;  
  color: #e16eb5;  
  margin-right: 20px;  
}  
.  
landing-text .btn {  
  width: 200px;  
  margin-top: 30px;  
  padding: 14px 20px 12px 20px;  
  background-color: #31cf4b;  
  border-radius: 45px;  
  text-align: center;  
}
```

```

header{
  background-color: #212121;
}

.landing-text .btn a{
  font-size: 18px;
  color: #fff;
}

img {
  float: right;
}

```

Style.css

```

*{
  font-family: 'Montserrat', sans-serif;
}

#icon{
  color: rgb(239, 193, 214);
  padding-right: 2px;
}

.custom{
  background-color: #212121;
  color: white;
}

```

Admin login.html

```

{% extends 'base.html'%}

<!--title tag-->
{% block title %}
<title>Admin-LogIn</title>
{% endblock %}

<!--Login Content-->

```

```

{% block content %}
<!--Registration form-->
<div class="container">
  <div class="text-center mt-5"><h2>LogIn as Admin</h2></div>

</div>

<div class="container mt-5">
  <div class="row justify-content-center">
    <div class="col-sm-6 ">
      <div class="card">
        <div class="card-body">
          <!--Form content---->
          <form action="/" method="post">

            <div class="form-group">
              <label for="email">Email</label>
              <input type="email" class="form-control" name="" id="email" required
placeholder="Enter your Email">
            </div>
            <div class="form-group">
              <label for="password">Password</label>
              <input type="password" class="form-control" name="" id="password"
placeholder="Enter Password" required>
            </div>

            <!--button-->
            <div class="form-group text-center">

              <button type="submit" class="btn btn-success">Submit</button>
            </div>

          </form>
        </div>
      </div>
    </div>
  </div>
</div>

```

```

    </div>
  </div>
</div>

{% endblock %}

```

Base.html

```

<!DOCTYPE html>
<html lang="en">
<head>
  <!-- Required meta tags -->
  <meta charset="utf-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
  <!--font awesome-->
  <script src="https://kit.fontawesome.com/15af226b72.js"
crossorigin="anonymous"></script>

  <!-- Bootstrap CSS -->
  <link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.3.1/dist/css/bootstrap.min.css"
integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw1T"
crossorigin="anonymous">

  <!--Google Font-->
  <style>
    @import
url('https://fonts.googleapis.com/css2?family=Montserrat:ital,wght@0,100;0,200;0,300;0,40
0;0,500;0,600;0,700;0,800;0,900;1,100;1,200;1,300;1,400;1,500;1,600;1,700;1,800;1,900&di
splay=swap');
  </style>
  <!--contains style for all pages-->
  <link rel="stylesheet" href="{{ url_for('static',filename='style.css')}} ">
  <script src="https://kit.fontawesome.com/000fb23390.js"
crossorigin="anonymous"></script>
  {% block link %}
  {% endblock %}
  {% block title %}
  {% endblock %}

```

```

</head>
<body>

    <!-- Header -->
    <header>
<nav class="navbar navbar-expand-lg custom" style="color: white;">
    <div class="container">
        <a href="{{ url_for('index')}}" class="navbar-brand"><i class="fa-solid fa-droplet"
id="icon" style="color: white;"></i>
        Plasma Donor Application</a>

        <button class="navbar-toggler" type="button" data-toggle="collapse" data-
target="#myNavBar"
            aria-controls="myNavBar" aria-expanded="false" aria-label="Toggle navigation">

            <span class="navbar-toggler-icon"></span>
        </button>

        <div class="collapse navbar-collapse" id="myNavBar">
            <ul class="navbar-nav ml-auto">
                <li class="nav-item active">
                    <a href="{{ url_for('home_page')}}" class="nav-link">Home</a>
                </li>

                <li class="nav-item">
                    <a href="{{ url_for('signin')}}" class="nav-link" style="color:white
;">Register</a>
                </li>
                <li class="nav-item">
                    <a href="{{ url_for('login')}}" class="nav-link" style="color:white ;">Login</a>
                </li>

            </ul>
        </div>
    </div>

</nav>
</header>
    <!-- End Header -->

```

```

<!--Future contents-->
{% block content %}
{% endblock %}

<!-- Optional JavaScript -->
<!-- jQuery first, then Popper.js, then Bootstrap JS -->
<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js" integrity="sha384-q8i/X+965DzO0rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
crossorigin="anonymous"></script>
<script src="https://cdn.jsdelivr.net/npm/popper.js@1.14.7/dist/umd/popper.min.js"
integrity="sha384-
UO2eT0CpHqdSjQ6hJty5KVphtPhzWj9WO1clHTMGa3JDZwrnQq4sF86dIHNDz0W1"
crossorigin="anonymous"></script>
<script src="https://cdn.jsdelivr.net/npm/bootstrap@4.3.1/dist/js/bootstrap.min.js"
integrity="sha384-
JjSmVgyd0p3pXB1rRibZUAYoIIy6OrQ6VrjIEaFf/nJGzIxFDsf4x0xIM+B07jRM"
crossorigin="anonymous"></script>
<script>
window.watsonAssistantChatOptions = {
  integrationID: "18cd43fb-1fde-4fb9-b9d2-a7c1095e980b", // The ID of this
integration.
  region: "au-syd", // The region your integration is hosted in.
  serviceInstanceID: "05ba06eb-03f7-412f-b60f-5a4a4f83de97", // The ID of your
service instance.
  onLoad: function(instance) { instance.render(); }
};
setTimeout(function() {
  const t=document.createElement('script');
  t.src="https://web-chat.global.assistant.watson.appdomain.cloud/versions/" +
(window.watsonAssistantChatOptions.clientVersion || 'latest') +
"/WatsonAssistantChatEntry.js";
  document.head.appendChild(t);
});
</script>
</body>
</html>

```

Donor.html

```
{% extends 'base.html'%}

<!--title tag-->
{% block title %}
<title>Plasma-Donor</title>
{% endblock %}

<!--Donor Content-->
{% block content %}
<!--Donor table-->
<div class="container mt-3">
  <div class="row justify-content-center">
    <div class="col-sm-12">
      <div class="msg">{{ msg }}</div>
      <div class="">
        <div class="">
          <h6 style="text-align: center; margin-top: 50px; color: red;">Note: Please note the
donor email from the table you want to request.</h6>
          <table class="table table-hover table-bordered" style="margin: 100px 0px; text-align:
center;">
            <thead class="thead-light">
              <tr>

                <th scope="col">Email</th>
                <th scope="col">Age</th>
                <th scope="col">Gender</th>
                <th scope="col">Blood Group</th>
                <th scope="col">Area</th>
                <th scope="col">City</th>
                <th scope="col">District</th>
                <th scope="col">Make a Request</th>
              </tr>
            </thead>
            <tbody>
              <tr>
                {% for row in donor2 %}
                <td>{{ row["EMAIL"] }}</td>
                <td>{{ row["AGE"] }}</td>
```

```

        <td>{{ row["GENDER"] }}</td>
        <td>{{ row["BLOOD"] }}</td>
        <td>{{ row["AREA"] }}</td>
        <td>{{ row["CITY"] }}</td>
        <td>{{ row["DISTRICT"] }}</td>
        <td>
            <a href="{{ url_for('request_page') }}" class="btn-sm btn-info" style="color: white; text-decoration:none">Request</a>
        </td>
    </tr>
    {% endfor %}

</tbody>
</table>
</div>
</div>
</div>
</div>
</div>
{% endblock %}

```

Home.html

```

{% extends 'base.html' %}

<!--title tag-->
{% block title %}
<title>Plasma-Home</title>
<style>
    body{
        background:#fff;
    }

    .heading{
        padding-top: 30px;
        text-align: center;
        font-weight: 500;
    }

    .profile-area{
        padding:30px 0
    }

```



```

}
.card{
  box-shadow: 0 0 30px rgba(0,0,0,0.1);
  overflow:hidden;
  border-radius:15px;
  margin-top:30px;
}
.img1 img{
  height:100px;
  margin-left:auto;
  margin-right:auto;
  /* border-top-right-radius:15px;
  border-top-left-radius:15px; */
  width:100%;
}

.img2 img{
  margin-left: auto;

  text-align: center;
  border-radius: 50%;
  width: 100px;
}
.card:hover .img2 img{
  border-color:bg-primary;
  transition:.7s
}
.main-text{
  padding: 30px 0;
  text-align:center;
}
.main-text h2{
  top:22px;
  text-transform:uppercase;
  font-weight: 900;
  font-size:20px;
  margin: 0 0 10px;
}
.main-text p{
  font-size:16px;

```

```

padding: 0 35px;
}
.space{
margin-bottom:20px;
}
</style>
{% endblock %}

{% block link %}
<link rel="stylesheet" href="{{ url_for('static',filename='home.css')}}">

{% endblock %}

{% block content %}

<div class="landing">
    <div class="landing-image" data-aos="fade-down" data-aos-duration="2000">
        
    </div>
    <div class="landing-text" data-aos="fade-up" data-aos-duration="1000">
        <h1>Start making a difference in someone's life by <span style="color: #e0501b;
font-size: size 6vw;">Donating Plasma</span></h1>
        <h3>Donate Plasma and Save Lives!! Request Plasma and Get Lives!!</h3>
        <div class="btn">
            <a href="{{ url_for('signin') }}" style="text-decoration: none;">Donate
Plasma</a>
        </div>
    </div>

</div><br><hr>

<!--About-->
<br>
<h1 style="text-align: center; margin-top: 10px;">Know more about Plasma</h1>
<div class = "profile-area">
    <div class = "container">
        <div class="row">
            <div class = "col-12 col-md-6 col-lg-6">

```

```

<div class = "card custom">
  <div class="img1"></div>

  <div class = "main-text card-body">
    <h2 class="card-title">What is Plasma?</h2>
    <p class="card-body">Plasma is the pale yellow liquid part
      of whole blood, in which the cellular elements are suspended. It is enriched in
proteins that help fight infection and aid the blood in clotting. AB plasma is plasma collected
from blood group AB donors. It is considered "universal donor" plasma because it is suitable
for all recipients, regardless of blood group.</p>
    </div>
  </div>
</div>

<div class = "col-12 col-md-6 col-lg-6">
  <div class = "card">
    <div class="img1"></div>
    <div class = "main-text card-body">
      <h2 class="card-title">What is Plasmapheresis?</h2>
      <p class="card-body">Plasmapheresis is the standard procedure by which plasma
is separated from whole blood and collected. Blood flows through a single needle placed in
an arm vein, into a machine that contains a sterile, disposable plastic kit. The plasma is
isolated and channeled out into a special bag, and red blood cells and other parts of the blood
are returned to you through the same needle.</p>
      </div>
    </div>
  </div>

  <div class = "col-12 col-md-6 col-lg-6">
    <div class = "card">
      <div class="img1"></div>
      <div class = "main-text card-body">
        <h2 class="card-title">Is Plasmapheresis Safe?</h2>
        <p class="card-body">Absolutely. The machine and the procedure have been
evaluated and approved by the Food and Drug Administration (FDA), and all plastics and

```

needles coming into contact with you are used once and discarded. At no time during the procedure is the blood being returned to you detached from the needle in your arm, so there is no risk of returning the wrong blood to you.</p>

</div>

</div>

</div>

<div class = "col-12 col-md-6 col-lg-6">

<div class = "card">

<div class="img1"></div>

<div class = "main-text card-body">

<h2 class="card-title">How Long Does Plasmapheresis Take?</h2>

<p class="card-body">Plasmapheresis procedures take about 40 minutes, but you should allow another 20 minutes for staff to obtain your medical history. Every effort will be made to make the experience relaxing and enjoyable.</p>

</div>

</div>

</div>

<div class = "col-12 col-md-6 col-lg-6">

<div class = "card">

<div class="img1"></div>

<div class = "main-text card-body">

<h2 class="card-title">How Do I Prepare to Donate Plasma?</h2>

<p class="card-body">On the day of your plasma donation appointment, make sure that you get some rest and have a healthy breakfast. You should drink lots of fluids, but avoid coffee, tea, and alcohol, as these drinks actually dehydrate you. Opt for water or juice instead. You should not eat anything oily or greasy before donating plasma since this can affect the quality of your plasma.</p>

</div>

</div>

</div>

<div class = "col-12 col-md-6 col-lg-6">

<div class = "card">

<div class="img1"></div>
 <div class = "main-text card-body">
 <h2 class="card-title">Does donating plasma hurt?</h2>
 <p class="card-body">Donating plasma shouldn't hurt. Donating plasma should
feel the same as a regular blood donation. You might feel a stinging sensation when the
needle is inserted, but after that, the staff will do its best to make sure that you're comfortable
throughout the donation process.</p>

 </div>
</div>
</div>
<!--end of row-->
</div>
</div>
</div>

```

```
{% endblock %}
```

### Login.html

```
{% extends 'base.html'%}
```

```

<!--title tag-->
{% block title %}
<title>Plasma-LogIn</title>
{% endblock %}

```

```

<!--Login Content-->
{% block content %}
<!--Login form-->
<div class="container">
 <div class="text-center mt-5"><h3>LogIn using UserName and Password</h3></div>
</div>

```

```

<div class="container mt-5">
 <div class="row justify-content-center">
 <div class="col-sm-6 ">
 <div class="card">
 <div class="card-body">

```

```

<!--Form content-->
<form action="/login" method="POST">
 <div class="msg" style="color: green;">{{ msg }}</div>

 <div class="form-group">
 <label for="username">User Name</label>
 <input type="text" class="form-control" name="username" id="username"
required placeholder="Enter UserName">
 </div>
 <div class="form-group">
 <label for="password">Password</label>
 <input type="password" class="form-control" name="password"
id="password" placeholder="Enter Password" required>
 </div>

 <!--button-->
 <div class="form-group text-center">

 <input type="submit" value="LogIn" class="btn btn-success">
 </div>

 <div style="text-align: center;">
 <p>Don't have an account Register
here
 </div>

</form>
</div>
</div>
</div>
</div>
</div>
{% endblock %}

```

### Register.html

```
{% extends 'base.html' %}
```

```
<!--title tag-->
```



```

<div class="form-row">
 <div class="col-sm-4">
 <div class="form-group mr-4">
 <label for="age">Age</label>
 <input type="number" class="form-control" name="age" id="age" required
 placeholder="Enter your Age">
 </div>
 </div>

 <div class="col-sm-4">
 <div class="form-group mr-4">
 <label for="gender" class="form-label">Gender</label>

 <select id="gender" class="form-control" name="gender">
 <option selected>Select your Gender</option>
 <option>Male</option>
 <option>Female</option>
 <option>Other</option>
 </select>
 </div>
 </div>

 <div class="col-sm-4">
 <div class="form-group mr-4">
 <label for="blood-group" class="form-label">Blood Group</label>

 <select id="blood-group" class="form-control" name="blood">
 <option selected>Select your blood group</option>
 <option>O+</option>
 <option>O-</option>
 <option>A+</option>
 <option>A-</option>
 <option>B+</option>
 <option>B-</option>
 <option>AB+</option>
 <option>AB-</option>
 </select>
 </div>
 </div>
</div>

```



```

<div class="form-row">
 <div class="col-sm-4">
 <div class="form-group mr-4 ">
 <label for="Area">Area</label>
 <input type="text" class="form-control" name="area" id="Area" required
 placeholder="Enter your Area Name">

 </div>
 </div>
 <div class="col-sm-4">
 <div class="form-group">
 <label for="city">City</label>
 <input type="text" class="form-control" name="city" id="city" required
 placeholder="Enter your City Name">

 </div>
 </div>
 <div class="col-sm-4">
 <div class="form-group mr-4 ">
 <label for="district">District</label>
 <input type="text" class="form-control" name="district" id="district" required
 placeholder="Enter your District Name">

 </div>
 </div>
</div>

<!--button-->
<div class="form-group text-center">
 <input type="reset" value="Reset" class="btn btn-dark mr-2">
 <input type="submit" value="Submit" class="btn btn-success">

</div>

</form>
</div>
</div>

```

```
</div>
</div>
</div>
```

```
{% endblock %}
```

### Request.html

```
{% extends 'base.html'%}
```

```
<!--title tag-->
{% block title %}
<title>Plasma-Request</title>
{% endblock %}
```

```
<!--Login Content-->
{% block content %}
<!--Registration form-->
```

```
<div class="container mt-5" id="request-form">
 <div class="row justify-content-center">
 <div class="col-sm-12 ">
 <div class="card">
 <div class="msg" style="color: green;">{{ msg }}</div>
 <div class="card-body">
 <h4 style="text-align: center;">Request for Plasma</h4>
 <!--Form content-->

 <form action="/request_page" method="post">

 <div class="form-row">
 <div class="col-sm-6">
 <div class="form-group mr-4 ">
 <label for="drmail">Enter Donor Mail</label>
 <input type="email" class="form-control" name="drmail" id="drmail"
required
placeholder="Enter Donor mail from the table">
```

```

 </div>
 </div>
 <div class="col-sm-6">
 <div class="form-group">
 <label for="hospitalname">Hospital Name</label>
 <input type="text" class="form-control" name="hospitalname"
id="hospitalname" required
placeholder="Enter Hospital Nmae">

 </div>

 </div>
</div>

<div class="form-row">
 <div class="col-sm-4">
 <div class="form-group mr-4 ">
 <label for="fullname">FullName</label>
 <input type="text" class="form-control" name="recname" id="fullname"
required
placeholder="Enter your FullName">

 </div>
 </div>
 <div class="col-sm-4">
 <div class="form-group">
 <label for="mobile">Mobile Number</label>
 <input type="tel" class="form-control" name="recmobile" id="mobile"
required
placeholder="Enter your Mobile Number">

 </div>
 </div>
 <div class="col-sm-4">
 <div class="form-group mr-4 ">
 <label for="recmail">Your Mail</label>
 <input type="email" class="form-control" name="recmail" id="recmail"
required
placeholder="Enter your Email">

```

required

```
</div>
</div>
</div>

<div class="form-row">
 <div class="col-sm-4">
 <div class="form-group mr-4">
 <label for="age">Age</label>
 <input type="number" class="form-control" name="recage" id="age"
placeholder="Enter your Age">

 </div>
 </div>

 <div class="col-sm-4">
 <div class="form-group mr-4">
 <label for="gender" class="form-label">Gender</label>

 <select id="gender" class="form-control" name="recgender">
 <option selected>Select your Gender</option>
 <option>Male</option>
 <option>Female</option>
 <option>Other</option>
 </select>
 </div>
 </div>

 <div class="col-sm-4">
 <div class="form-group mr-4">
 <label for="blood-group" class="form-label">Blood Group</label>

 <select id="blood-group" class="form-control" name="recbloodgroup">
 <option selected>Select your blood group</option>
 <option>O+</option>
 <option>O-</option>
 <option>A+</option>
 <option>A-</option>
 <option>B+</option>
```

```

 <option>B-</option>
 <option>AB+</option>
 <option>AB-</option>
 </select>
</div>
</div>
</div>

<div class="form-row">
 <div class="col-sm-4">
 <div class="form-group mr-4 ">
 <label for="Area">Area</label>
 <input type="text" class="form-control" name="recarea" id="Area"
required
 placeholder="Enter your Area Name">

 </div>
 </div>
 <div class="col-sm-4">
 <div class="form-group">
 <label for="city">City</label>
 <input type="text" class="form-control" name="reccity" id="city"
required
 placeholder="Enter your City Name">

 </div>
 </div>
 <div class="col-sm-4">
 <div class="form-group mr-4 ">
 <label for="district">District</label>
 <input type="text" class="form-control" name="recdistrict"
id="district" required
 placeholder="Enter your District Name">

 </div>
 </div>
</div>

```

```

 <!--button-->
 <div class="form-group text-center modal-footer">
 <button type="reset" class="btn btn-secondary" data-
dismiss="modal">Reset</button>
 <button type="submit" class="btn btn-success">Request</button>
 </div>

 </form>
</div>
</div>
</div>
</div>
</div>
</div>

{% endblock %}

```

### Signin.html

```

{% extends 'base.html'%}

<!--title tag-->
{% block title %}
<title>Plasma-Signin</title>
{% endblock %}

<!--Login Content-->
{% block content %}
<!--Registration form-->

<div class="container mt-5" id="request-form">
 <div class="row justify-content-center">
 <div class="col-sm-6 ">
 <div class="card">
 <div class="card-body">
 <h4 style="text-align: center;">Register as a user</h4>
 <!--Form content-->
 <form action="/signin" method="post">
 <div class="form-group">
 <label for="your-name">User Name</label>

```

```

 <input type="text" class="form-control" name="username" id="your-name"
required
 placeholder="Enter your UserName">
 </div>

 <div class="form-group">
 <label for="email">Your Email</label>
 <input type="email" class="form-control" name="usermail" id="email"
required
 placeholder="Enter your Email">
 </div>
 <div class="form-group">
 <label for="phone">Phone</label>
 <input type="tel" class="form-control" name="usercontact" id="phone"
placeholder="Enter your mobile number"
required>
 </div>
 <div class="form-group">
 <label for="password">Your Password</label>
 <input type="password" class="form-control" name="password"
id="password" placeholder="Create a Password"
required>
 </div>

 <!--button-->
 <div class="form-group text-center modal-footer">
 <input type="reset" value="Reset" class="btn btn-dark mr-2">
 <input type="submit" value="Register" class="btn btn-success">
 </div>

 <div>
 <p style="text-align: center;">Already a user? <a href="{{ url_for('login')
}}">LogIn</p>
 </div>

</form>
</div>

```

```
 </div>
 </div>
</div>
</div>
```

```
{% endblock %}
```

### Success.html

```
{% extends 'base.html'%}
```

```
<!--title tag-->
```

```
{% block title %}
```

```
<title>Plasma-Success</title>
```

```
{% endblock %}
```

```
{% block link %}
```

```
{% endblock %}
```

```
<!--User Content-->
```

```
{% block content %}
```

```
<div class="container-fluid">
```

```
<div class="text-center">
```

```
<style>
```

```
.hide {
```

```
 display: none;
```

```
}
```

```
.myDIV:hover + .hide {
```

```
 display: block;
```

```
 color: red;
```

```
text-align: top;
```

```
}
```

```
</style>
```





```

padding:70px 0;
border: 2px solid rgba(233, 226, 226,0.4);
margin-right: 190px;
margin-left: 190px;
margin-top: 50px;
}
.card{
box-shadow: 0 0 30px rgba(0,0,0,0.1);
overflow:hidden;
border-radius:15px;
margin-top:30px;
background-image: linear-gradient(#538FFB,#538FFB);
height: 200px;

}
.card:hover{
border-color:#0804f9;
transform: rotate(1deg);
transition:.7s
}
.main-text, .card-body{
text-align: center;
padding-top: 69px;
}
.btn{
padding: 10px 10px;
margin-bottom: 20px;
}
</style>
{% endblock %}

{% block link %}

{% endblock %}
<h2 class="page-header text-center" style="margin-top: 30px; color:black">Your
Profile</h2>

<!--User Content-->
{% block content %}

```

```

<div class="container">
<h3 class="text-danger" style="margin-top: 50px;">Welcome :
{{session["username"]}}!!</h3>
</div>
<div class = "profile-area">
<div class = "container">
 <div class="msg">{{ msg }}</div>
 <div class="row">

 <div class = "col-12 col-md-6 col-lg-6">
 <div class = "card">
 <div class = "main-text card-body">
 <div>Donate
Plasma</div>
 </div>
 </div>
 </div>
 <div class = "col-12 col-md-6 col-lg-6">
 <div class = "card">
 <div class = "main-text card-body">
 <div>Request
Plasma</div>
 </div>
 </div>
 </div>
 </div>

<div class="container">
 Log Out</div>

{% endblock%}

```

### App.py

```
from flask import Flask,render_template,request,url_for,flash,redirect,session
import ibm_db
import sendgrid
import re
from sendgrid.helpers.mail import *
from mail import Mail

send = Mail()

app = Flask(__name__)
print(__name__)
app.secret_key="1"

conn = ibm_db.connect

@app.route("/")
def index():
 return render_template('home.html')

@app.route("/home")
def home_page():
 return render_template('home.html')
#-----

@app.route("/login",methods = ['POST', 'GET'])
def login():
 global userid
 msg = ""
 if request.method == 'POST' :
 username = request.form['username']
 password = request.form['password']
 sql = "SELECT * FROM LOGIN WHERE username=? AND password=?"
 stmt = ibm_db.prepare(conn, sql)
 ibm_db.bind_param(stmt,1,username)
 ibm_db.bind_param(stmt,2,password)
 ibm_db.execute(stmt)
 account = ibm_db.fetch_assoc(stmt)
```

```

print (account)
if account:
 session['loggedin'] = True
 session['id'] = account['USERNAME']
 userid= account['USERNAME']
 session['username'] = account['USERNAME']
 msg = 'Logged in successfully !'

 return render_template('user_profile.html', msg = msg)
else:
 msg = 'Incorrect username / password !'
return render_template('login.html', msg = msg)

#-----
After login
@app.route('/afterlogin')
def afterlogin():
 return render_template("user_profile.html")

#-----

@app.route("/signin",methods = ['POST', 'GET'])
def signin():
 msg = "
 if request.method == 'POST' :
 username = request.form['username']
 usermail = request.form['usermail']
 usercontact = request.form['usercontact']
 password = request.form['password']
 sql = "SELECT * FROM LOGIN WHERE username =?"
 stmt = ibm_db.prepare(conn, sql)
 ibm_db.bind_param(stmt,1,username)
 ibm_db.execute(stmt)
 account = ibm_db.fetch_assoc(stmt)
 print(account)
 if account:
 msg = 'Account already exists !'
 elif not re.match(r'^[@]+@[^@]+\.[^@]+', usermail):
 msg = 'Invalid email address !'
 elif not re.match(r'[A-Za-z0-9]+', username):

```

```

 msg = 'name must contain only characters and numbers !'
 else:
 mailtest_registration(usermail)
 insert_sql = "INSERT INTO LOGIN VALUES (?, ?, ?, ?)"
 prep_stmt = ibm_db.prepare(conn, insert_sql)
 ibm_db.bind_param(prepare_stmt, 1, username)
 ibm_db.bind_param(prepare_stmt, 2, usermail)
 ibm_db.bind_param(prepare_stmt, 3, usercontact)
 ibm_db.bind_param(prepare_stmt, 4, password)
 ibm_db.execute(prepare_stmt)
 msg = 'You have successfully registered !'
 # mailtest(usermail)
 return render_template('login.html', msg = msg)
 elif request.method == 'POST':
 msg = 'Please fill out the form !'

 return render_template('signin.html', msg = msg)
#-----
sendgrid integration
def mailtest_registration(to_email):
 # sg = sendgrid.SendGridAPIClient(api_key= 'apikey')
 # from_email = Email("chinnukool72@gmail.com")
 # subject = "Registration Successfull!"
 # content = Content("text/plain", "You have successfully registered as user. Please Login
using your Username and Password to donate/request for Plasma.")
 # mail = Mail(from_email, to_email, subject, content)
 # response = sg.client.mail.send.post(request_body=mail.get())
 # print(response.status_code)
 # print(response.body)
 # print(response.headers)

 send.sendEmail('Plasma Donor Application', 'You are successfully registered as a user',
to_email)

#-----
@app.route("/register")
def register():
 return render_template('register.html')

```

```

@app.route("/adddonor",methods = ['POST','GET'])
def adddonor():

 if request.method == 'POST':
 name = request.form['name']
 mobile = request.form['mobile']
 email = request.form['email']
 age = request.form['age']
 gender = request.form['gender']
 blood = request.form['blood']
 area = request.form['area']
 city = request.form['city']
 district = request.form['district']

 sql = "SELECT * FROM DONOR2 WHERE name =?"
 stmt = ibm_db.prepare(conn, sql)
 ibm_db.bind_param(stmt,1,name)
 ibm_db.execute(stmt)
 account = ibm_db.fetch_assoc(stmt)

 if account:
 return render_template('donor.html', msg="You are already a member, please login
using your details")
 else:
 #mailtest_donor(email)
 insert_sql = "INSERT INTO DONOR2 VALUES (?,?,?,?,?,?,?,?,?)"
 prep_stmt = ibm_db.prepare(conn, insert_sql)
 ibm_db.bind_param(prepare_stmt, 1, name)
 ibm_db.bind_param(prepare_stmt, 2, mobile)
 ibm_db.bind_param(prepare_stmt, 3, email)
 ibm_db.bind_param(prepare_stmt, 4, age)
 ibm_db.bind_param(prepare_stmt, 5, gender)
 ibm_db.bind_param(prepare_stmt, 6, blood)
 ibm_db.bind_param(prepare_stmt, 7, area)
 ibm_db.bind_param(prepare_stmt, 8, city)
 ibm_db.bind_param(prepare_stmt, 9, district)
 ibm_db.execute(prepare_stmt)
 return render_template('success.html', msg="Registered successfully..")
#-----

```

```

@app.route('/donorlist')
def donorlist():
 donor2 = []
 sql = "SELECT * FROM DONOR2"
 stmt = ibm_db.exec_immediate(conn, sql)
 dictionary = ibm_db.fetch_both(stmt)
 while dictionary != False:
 donor2.append(dictionary)
 dictionary = ibm_db.fetch_both(stmt)
 if donor2:
 return render_template("donor.html", donor2 = donor2)

#-----
@app.route("/request_page", methods = ['GET','POST'])
def request_page():
 msg = "
 if request.method == 'POST' :
 drmail = request.form['drmail']
 hospitalname = request.form['hospitalname']
 recname = request.form['recname']
 recmobile = request.form['recmobile']
 recmail = request.form['recmail']
 recage = request.form['recage']
 recgender = request.form['recgender']
 recbloodgroup = request.form['recbloodgroup']
 recarea = request.form['recarea']
 reccity = request.form['reccity']
 recdistrict = request.form['recdistrict']
 sql = "SELECT * FROM REQUEST2 WHERE recname =?"
 stmt = ibm_db.prepare(conn, sql)
 ibm_db.bind_param(stmt,1,recname)
 ibm_db.execute(stmt)
 account = ibm_db.fetch_assoc(stmt)
 print(account)
 if account:
 msg = 'Request already exists !'
 else:
 # mailtest_request(recmail)
 # mailtest_requesttodonor(drmail)
 insert_sql = "INSERT INTO REQUEST2 VALUES (?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?)"

```



```

 prep_stmt = ibm_db.prepare(conn, insert_sql)
 ibm_db.bind_param(prepare_stmt, 1, drmail)
 ibm_db.bind_param(prepare_stmt, 2, hospitalname)
 ibm_db.bind_param(prepare_stmt, 3, recname)
 ibm_db.bind_param(prepare_stmt, 4, recmobile)
 ibm_db.bind_param(prepare_stmt, 5, recmail)
 ibm_db.bind_param(prepare_stmt, 6, recage)
 ibm_db.bind_param(prepare_stmt, 7, recgender)
 ibm_db.bind_param(prepare_stmt, 8, recbloodgroup)
 ibm_db.bind_param(prepare_stmt, 9, recarea)
 ibm_db.bind_param(prepare_stmt, 10, reccity)
 ibm_db.bind_param(prepare_stmt, 11, recdistrict)
 ibm_db.execute(prepare_stmt)
 msg = 'Your request has been submitted!'
 return render_template('request.html', msg = msg)
elif request.method == 'POST':
 msg = 'Please fill out the form !'

 return render_template('request.html', msg = msg)

#-----
@app.route('/logout')
def logout():
 session.clear()
 return redirect(url_for("index"))

if __name__ == '__main__':
 app.run(host='0.0.0.0', port=5000, debug=True)

```

### mail.py

```

import smtplib
from email.mime.text import MIMEText
from email.mime.base import MIMEBase
from email.mime.multipart import MIMEMultipart
from email import encoders
import os

```

```

class Mail():
 # mail server essentials
 smtpHost = "smtp.gmail.com"
 smtpPort = 587
 mailUName = 'jayahariprasath2001@gmail.com'
 mailPwd = 'psvpaubplcqqjtrr'
 fromMail = 'jayahariprasath2001@gmail.com'

 # mail body, subject
 mailSubject = ""
 mailContent = ""
 recipient = []

 def sendEmail(self, subject, content, receivers):
 msg = MIMEMultipart()

 msg['From'] = self.fromMail
 msg['To'] = ','.join(receivers)
 msg['Subject'] = subject
 msg.attach(MIMEText(content, 'html'))

 # sending the message object
 s = smtplib.SMTP(self.smtpHost, self.smtpPort)
 s.starttls()
 s.login(self.mailUName, self.mailPwd)
 msgText = msg.as_string()
 sendErrs = s.sendmail(self.fromMail, receivers, msgText)

 s.quit()

```

## 13.2 GitHub & Project Demo Link

**GitHub link:** <https://github.com/IBM-EPBL/IBM-Project-39532-1660455806>

**Project Demo link:** <https://youtu.be/6X5jZXc9szI>