

IBM – NALAIYA THIRAN

PROJECT PLASMA DONOR

APPLICATION

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ABSTRACT

A plasma is a liquid portion of the blood, over 55% of human blood is plasma. Plasma is used to treat various infectious diseases and it is one of the oldest methods known as plasma therapy. Plasma therapy is a process where blood is donated by recovered patients in order to establish antibodies that fights the infection. In this project plasma donor application is being developed by using IBM services. For instance, during COVID 19 crisis the requirement for plasma increased drastically as there were no vaccination found in order to treat the infected patients, with plasma therapy the recovery rates were high but the donor count was very low and, in such situations, it was very important to get the information about the plasma donors. Saving the donor information and notifying about the current donors would be a helping hand as it can save time and help the users to track down the necessary information the donors.

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CHAPTER -1

INTRODUCTION

1.1 PROJECT OVERVIEW:

Cloud computing helps in on-demand deliver of IT resources over the internet with pay-as-you go pricing model where users have to pay only for the resource that they use. This helps to reduce the additional infrastructural cost and users can access technology services such as power, storage, compute, database, networking, analytics and also intelligence over the internet in order to offer flexible, innovation, and economies of scale. Users can run their infrastructure more efficiently and scale their business according to their requirement. Cloud deployment modules such as public cloud, private cloud, hybrid cloud and community cloud help the users to choose the type of deployment options that are beneficial for their company. Cloud service models consists of software as a service (saas), platform as a service (paas) and infrastructure as a service (iaas).

1.2 PURPOSE:

A donor has to register to the website providing his details such as name, contact information (phone number and email id) along with donor's blood group and donor's plasma count. In this project the services used are IBM Service which will allow the users to run the code without managing or provisioning the servers, IBM API gateway is a fully managed service which makes it easy for a developer to create, publish monitor, secure, maintain APIs at any scale. It handles all the tasks which is involved in accepting and processing hundreds of Concurrent API calls along with traffic management, authentication, authorization and API version management. IBM Cloud is a multi-master database used for storing the data.

CHAPTER-2

SURVEY LITERATURE

2.1 EXISTING PROBLEM:

In most of the existing plasma donor application then system is closed for general plasma donation and mainly focused on COVID-19 patients for plasma donation, the android mobile user will not be able to insert or view details if the server goes down and a disadvantage of single point of failure. Most of the user details remains unverified and it's difficult to track the fake users. The user interface of the application is not being user friendly and the user must have a device with android operating system with an active internet connection to interact with this application.

2.2 REFERENCES:

1. The Melbourne Declaration on 100% voluntary non-remunerated donation of Plasma and Plasma components. Geneva: World Health Organization; 2009. [17 August 2012]
2. Global Database on Plasma Safety. Summary report 2011. Geneva: World Health Organization; 2011. [22 August 2012].
3. Eder A, et al. Selection criteria to protect the Plasma donor in North America and Europe: past(dogma), present (evidence), and future (hemovigilance). *Transfusion Medicine Reviews*. 2009;23(3):205–220.

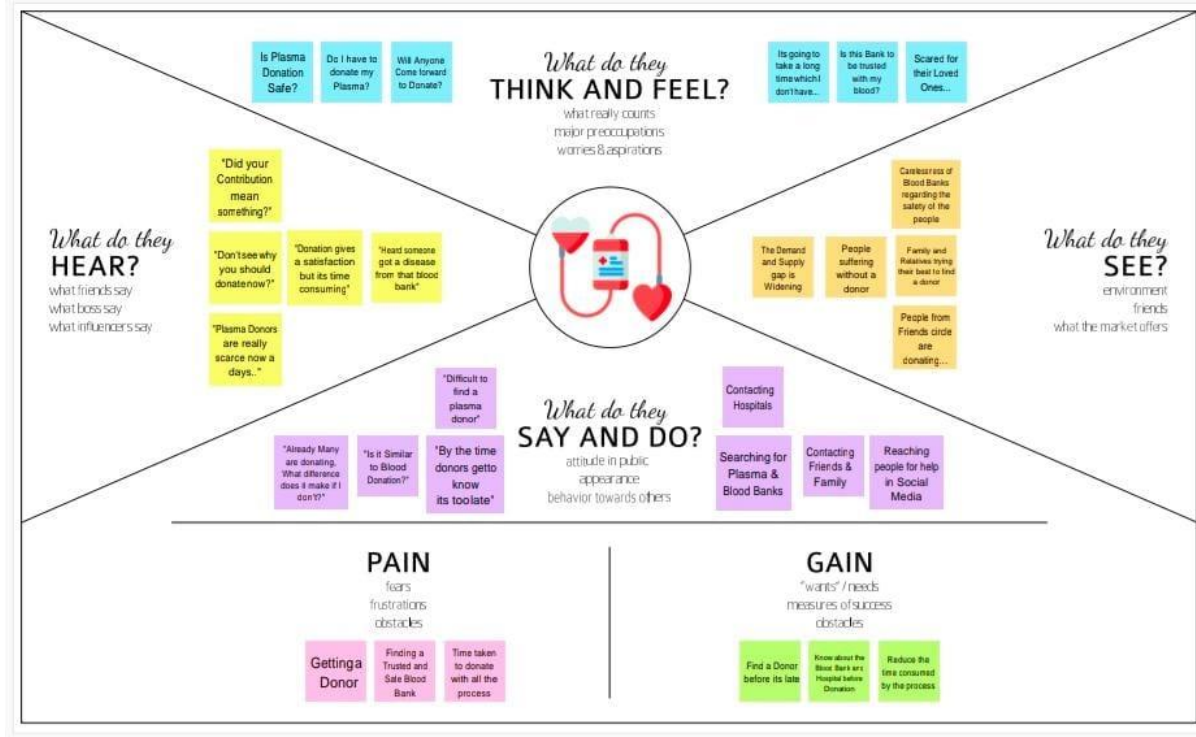
2.3 PROBLEM STATEMENT DEFINITION:

Plasma donation saves lives, and the communication between blood/plasma centres and donors plays a vital role in this. Smart apps are now considered an important communication tool, and could be best utilized in plasma donation if they are designed to fit the users' needs and preferences. We plan to make a User-friendly application for users who are in need for plasma. However, areas of concern, including privacy and confidentiality, should be considered during design and development. Age was identified as a contributing factor that might decrease the likelihood of app usage among donors. The donation centre staff focused on the educational features of the app and emphasized the importance of the app providing statistics and sending notifications and reminders to donors.

CHAPTER-3

IDEATION & PROPOSED SOLUTION

3.1 EMPATHY MAP CANVAS:



3.2 IDEATION & BRAINSTROMING:

Plasma is used for the treatment of serious health problems. This is why there are blood drives asking people to donate blood, plasma. Plasma is utilized to treat different irresistible sicknesses and it is one of the most established strategies known as plasma treatment.

During Coronavirus emergency the necessity for plasma expanded radically as there were no immunization found to treat the contaminated patients, with plasma therapy the recovery rates where high but the donor count was very low and in such situations it was very important to get the information about the plasma donors. Saving the contributor data and telling about the ongoing givers would be some assistance as it can save time and assist the clients with finding the vital data about the contributors.



3.3 PROPOSED SOLUTION:

The proposed method helps the users to check the availability of donors. A donor has to register to the website providing their details. The registered users can get the information about the donor count of each blood group. The database will have all the details such as name, email, phone number, infected status. Whenever a user requests for a particular blood group then the concerned blood group donors will receive the notification regarding the requirement. A Json code is written to store the information, to fetch the requested information in lambda.

PLASMA DONOR APPLICATION

Proposed Solution Template:		
S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	User can view information of nearby hospitals, blood banks and they can also receive blood from different donors.
2.	Idea / Solution description	By using this application, the users can either raise a request for plasma donation or requirement.
3.	Novelty / Uniqueness	There is GPS, it provides a list of blood banks in the user area.
4.	Social Impact / Customer Satisfaction	The user get satisfied when they receive blood at the critical situation.
5.	Business Model (Revenue Model)	Not Calculated
6.	Scalability of the Solution	The hospitals will update the blood volume of each group immediately.

3.4 PROBLEM SOLUTION FIT

Problem-Solution fit canvas 2.0		Purpose / Vision	
Define CS, fit into CC	1. CUSTOMER SEGMENT(S) CS Who is your customer? <ul style="list-style-type: none"> All kind of people who wish to contribute and avail blood plasma Blood banks and blood camps that store different kinds of blood plasma 	6. CUSTOMER CONSTRAINTS CC What constraints prevent your Customers from taking action or limit their choices of solutions? <ul style="list-style-type: none"> Network connection. Available devices. Blood group constraints. Location Constraints. Donors reputability. Donors availability at required time. 	5. AVAILABLE SOLUTIONS AS Which solutions are available to the customers when they face the problem or need to get the job done? In existing solution there is no means of connecting the Donor and acceptor without another entity like hospitals or blood banks. In case there is a lack of availability of the required blood plasma in the specified blood bank or hospital the acceptor is limited and is completely constrained by the resources available in the blood bank. <u>What have they tried in the past?</u> Tried to access existing system without the help of internet limiting the options given to the user and often resulting in a costlier or unavailability constraint that is not suitable for the user. <u>What pros & cons do these solutions have?</u> Connects the Donors and Users 24/7 using internet always ensuring that the requests are completed, and even if the required request is not completed immediately it is given utmost importance based on the FCFS basis and providing service as soon as the required constraints are met.
	2. JOBS-TO-BE-DONE / PROBLEMS J&P Which job-to-be-done (or problems) do you address for your customers? <ul style="list-style-type: none"> Connecting the Donors and Acceptors over the internet. Allowing users to request any blood plasma types to all available donors. Sorting Timely help when in need of plasma by any user. There could be more than one; explore different sides.	9. PROBLEM ROOT CAUSE RC <u>What is the real reason that this problem exists?</u> <ul style="list-style-type: none"> Lack of information/awareness required based on the need to donate blood and due to this the scarcity created in the blood banks and other factors like Covid-19, lockdowns affect this drastically. All the blood groups are not available in all the blood banks at all the time so limiting the survival chances of patients during emergency. Cost also plays a role where due to the emergency situation some people can also take advantage of this not being fair to every user. <u>What is the back story behind the need to do this job?</u> Lack of technology and availability of timely service was not available in the required time leading to around 12000 people deaths in India die due to the sheer lack of donated blood in India.	7. BEHAVIOUR BE <u>What does your customer do to address the problem and get the job done?</u> <u>Directly related:</u> When the User requires a specific blood plasma type they request for that specific blood plasma type and any donor that are available with the suitable type are notified. <u>Indirectly associated:</u> Contribute to the Blood banks available offline as well to update and cater to needs in places where internet connection is not possible or stable.
Focus on J&P, tap into BE, understand RC	3. TRIGGERS TR What triggers customers to act? <ul style="list-style-type: none"> Customers are required to existing services provided by our application ensuring the timely and effective service catering to their needs during emergency which enforces them to depend and rely on our services when they are facing the same issues. Creating awareness in social platforms which allows more people to know about the issue and allow them to participate and also avail the services when needed. 	10. YOUR SOLUTION SL The application we create will be able to connect the user and donor where the user can also become a donor if he wishes. When the user requests a specific blood plasma all the suitable donors of the particular blood type are notified.	8. CHANNELS of BEHAVIOUR CH 8.1 ONLINE What kind of actions do customers take online? Extract online channels from #7 Sign-up and create a profile to either be a donor or an acceptor. Contact Donors with multiple access including Phone number and email services. Request Blood plasma at any time on their needs. 8.2 OFFLINE What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development. Access local blood banks which is powered by our application which connects and allows the blood bank to not be limited by the availability of the specified plasma group in that particular bank.
	4. EMOTIONS: BEFORE / AFTER EM How do customers feel when they face a problem or a job and afterwards? <ul style="list-style-type: none"> When customers face a problem or a job they are often lost, scared, helpless, unstable and are in a hurry to get the required blood group. When they use our application to avail the blood they require they feel safe and feel assured that their needs will be definitely satisfied and feel relieved. 		Extract online & offline CH into BE

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AMALTAMA

CHAPTER-4 REQUIREMENT ANALYSIS

4.1 FUNCTIONAL REQUIREMENT:

PLASMA DONOR APPLICATION

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form (WebApp)
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Certification	After the donor donates plasma, we will give them a certificate of appreciation and authentication.
FR-4	Statistical data	The availability of plasma is given in the page as stats, which will be helpful for the users.
FR-5	User Plasma Request	Users can request to donate plasma by filling out the request form on the page. Once the request is submitted, they will get an email
FR-6	Searching/reporting requirements	Users can use the search bar to look up information about camps and other topics.
FR-8	Virtual Assistants	A virtual assistant is a software agent that can carry out tasks or provide services on behalf of a person in response to commands or inquiries. When users enter their inquiries, the system will respond with pertinent information about plasma and details of plasma donation.

4.2 NON-FUNCTIONAL REQUIREMENTS:

PLASMA DONOR APPLICATION

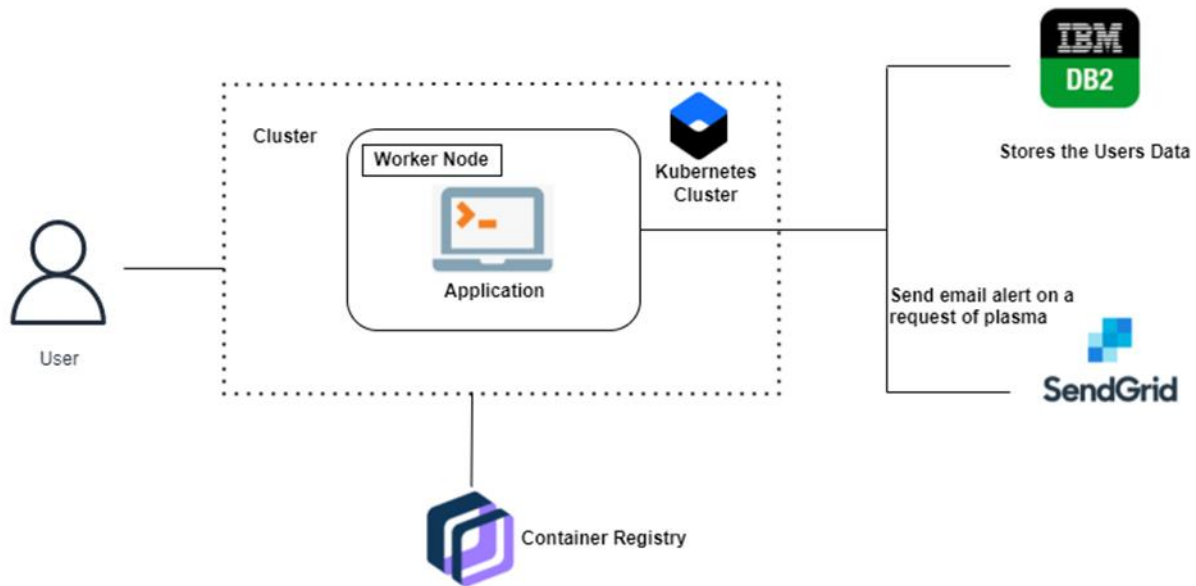
FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Must have a good looking User friendly interface.
NFR-2	Security	It must be secured with the proper username and password.
NFR-3	Reliability	The system should be made in such a way that it is reliable in its operations and for securing the sensitive details.
NFR-4	Performance	Users should have a proper Internet Connection.
NFR-5	Availability	The system including the online and offline components should be available 24/7.
NFR-6	Scalability	The application has the ability to handle growing numbers of users and load without compromising on performance and causing disruptions to user experience.

CHAPTER-5

PROJECT DESIGN

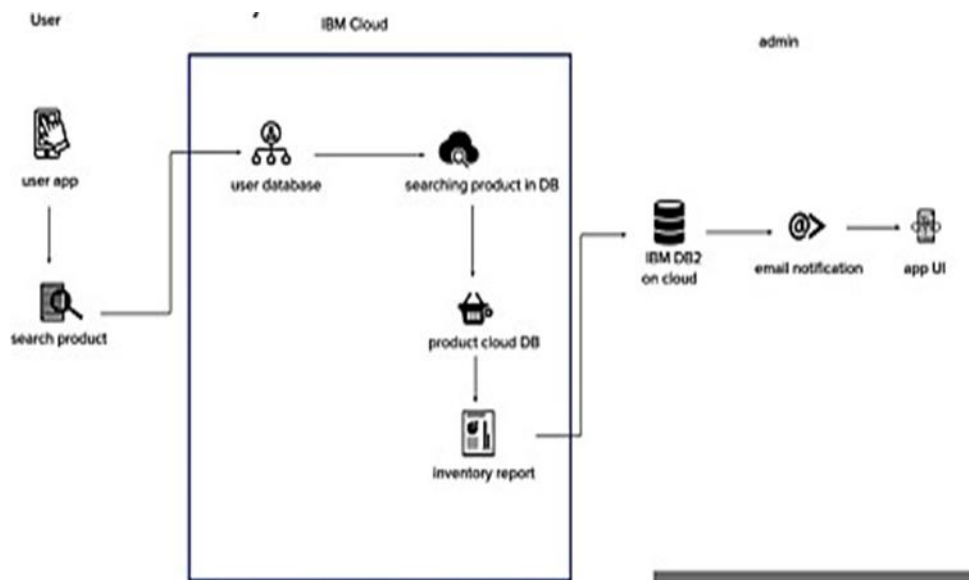
5.1 DATA FLOW DIAGRAMS:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.



5.2 SOLUTION & TECHNICAL ARCHITECTURE:

- i. Include all the processes (As an application logic / Technology Block)
- ii. Provide infrastructural demarcation (Cloud)
- iii. Indicate external interfaces (third party API's etc.)
- iv. Indicate ibm cloud Data Storage components / services
- v. Indicate user interface to inventory report mail



5.3 USER STORIES:

Use the below template to list all the user stories for the product.

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 my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmation email 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 Gmail		Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application by entering email & password	I can access my data by login	High	Sprint-1
	Dashboard	USN-6	As a user, I can view the dashboard and by products		High	Sprint -2
Customer (Web user)	Registration / Login	USN-7	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard		Sprint -1
Customer Care Executive	Contact with Customers	USN-8	As a Customer customers care executive, I solve the customer Requirements and feedback	I can receive calls from customers	High	Sprint-1

CHAPTER-6

PROJECT PLANNING & SCHEDULE

6.1 SPRINT PLANNING & ESTIMATION:

Project Tracker, Velocity & Burndown Chart:

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint 1	30	8 days	22-10-2022	29-10-2022	30	29-10-2022
Sprint 2	50	8 days	29-11-2022	05-11-2022	50	05-11-2022
Sprint 3	30	8 days	05-11-2022	12-11-2022	30	12-11-2022
Sprint 4	20	8 days	12-11-2022	19-11-2022	20	19-11-2022

Velocity:

Let's calculate the team's average velocity (AV) per iteration unit (story points per day).

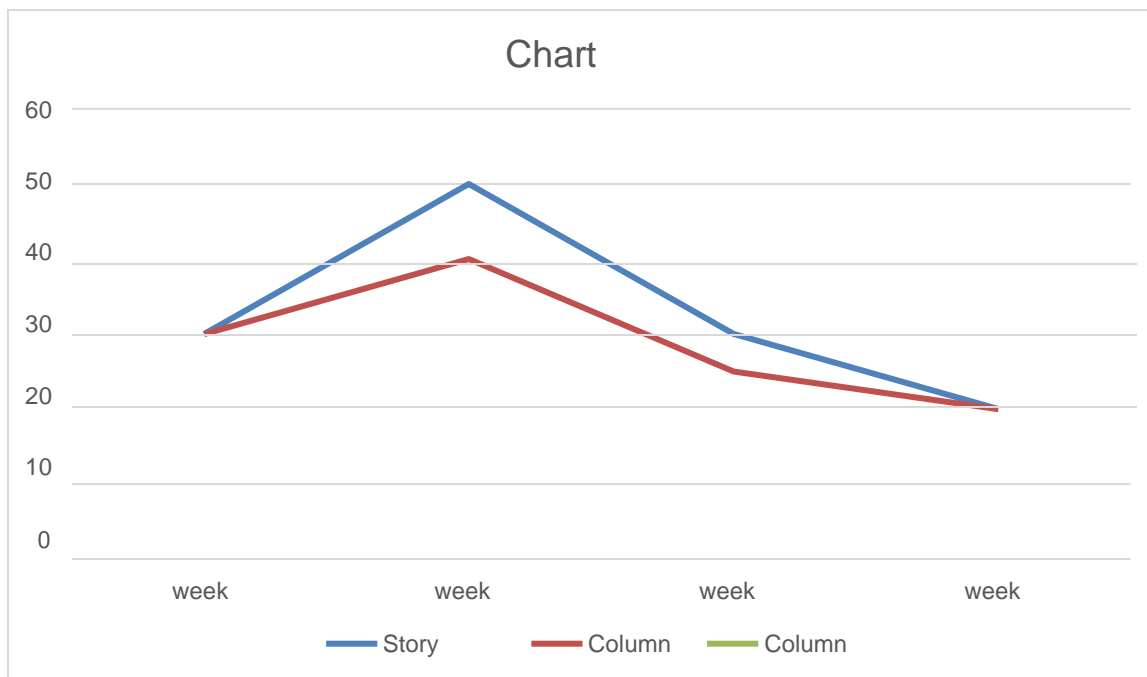
$$\begin{aligned} \text{AV} &= \text{Velocity} / \text{Sprint Duration} \\ &= 30 / 7 \\ &= 4.28 \end{aligned}$$

$$AV = 50 / 7$$
$$= 7.14$$

$$AV = 30 / 7$$
$$= 4.28$$

$$AV = 20 / 7$$
$$= 2.85$$

Burndown Chart:



6.2 SPRINT DELIVERY SCHEDULE:

Product Backlog, Sprint Schedule, and Estimation

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story points	Priority	Team Members
Sprint 1	User Registration	USN-1	As a user, I can register for the application by entering my email, password, confirming my password and phone number..	10	High	Rajasekar R Safnath Jebha Priyan C Manikandan R Ajith Kumar S
Sprint 1	User Login	USN-2	As a user, I can log into the application by entering username & password.	10	High	Rajasekar R Safnath Jebha Priyan C Manikandan R Ajith Kumar S
Sprint 1	Access Website	USN-3	User should be able to access application using browser	10	High	Rajasekar R Safnath Jebha Priyan C Manikandan R Ajith Kumar S
Sprint 2	Dashboard	USN-4	The user upon logging in views the application dashboard where he/she can use all the application's services.	10	High	Rajasekar R Safnath Jebha Priyan C Manikandan R Ajith Kumar S
Sprint 2	Request For Blood plasma	USN-5	The user who is in need of blood plasma can request for blood by specifying the blood type.	20	High	Rajasekar R Safnath Jebha Priyan C Manikandan R Ajith Kumar S

Sprint 2	Switch User Roles	USN-6	As a user, he/she can switch roles between Donor and Receiver.	20	High	Rajasekar R Safnath Jebha Priyan C Manikandan R Ajith Kumar S
Sprint 3	View Plasma Request	USN-7	A donor receives an Email of about the receiver's details of the same blood type.	20	High	Rajasekar R Safnath Jebha Priyan C Manikandan R Ajith Kumar S
Sprint 3	View Donor Details	USN-8	The receiver can view the list of Donors of the blood type requested.	10	High	Rajasekar R Safnath Jebha Priyan C Manikandan R Ajith Kumar S
Sprint 4	Logout Processes	USN-9	The User will be able to Logout of the application.	10	High	Rajasekar R Safnath Jebha Priyan C Manikandan R Ajith Kumar S
Sprint 4	Bot service in the website	USN-10	The user can use Bot Service to request for Blood Plasma and also switch between roles.	10	High	Rajasekar R Safnath Jebha Priyan C Manikandan R Ajith Kumar S

Sprint 3	Verified Donor	USN-7	As a donor, I can request for verified account by providing the required documents and details to the admin through the web application.	8	Medium	Narayana Akilan
Sprint 4	Update the profile	USN-8	As a donor, I can update my profile any time.	8	Medium	Narayana Akilan
Sprint 4	Feedback	USN-9	As a user, I can give the feedback to the Donor.	7	Low	Karna Arul

6.3 REPORTS FROM JIRA:

The screenshot displays a web browser window with multiple tabs open, including IBM-EPE, Sprint, Report, SQL Ser, IBM, Download, (51) Wh, IBM Proj, Word to, and IBM-Proc. The address bar shows the URL: careereducation.smartinternz.com/Student/guided_project_workspace/41542. The browser's toolbar includes links to Gmail, YouTube, Maps, News, Translate, Instagram, (3) WhatsApp, and another Gmail link.

Below the browser window, a Jira project workspace is visible. It features a toggle switch for "Team Tasks" and "My Tasks". The workspace is organized into four columns: BACKLOG, IN-PROGRESS, REVIEW, and COMPLETE. The IN-PROGRESS column contains three tasks:

- TSK-83779**: Create Flask Project. Progress: 90%.
- TSK-83781**: Create IBM Cloud Account. Progress: 90%.
- TSK-83783**: Install IBM Cloud CLI.

Below the IN-PROGRESS column, there are four additional task categories listed in a separate section:

- IMPLEMENTING WEB APPLICATION
- INTEGRATING SENDGRID SERVICE
- DEPLOYMENT OF APP IN IBM CLOUD
- IDEATION PHASE

The Windows taskbar at the bottom shows the search bar with the text "Type here to search", several application icons (including a red apple icon), and the system clock indicating 10:27 PM on 11/19/2022.

CHAPTER-7

CODING & SOLUTIONING

7.1 FEATURE1:

HOME.HTML

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

```
{% 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-danger;
transition: .7s
}
. main-text {
padding: 30px 0;
text-align: center;
/* background-color: #dc3545; */
}
. 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="./static/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>A DROP FOR YOU!AN OCEAN FOR SOMEONE ELSE...
    DONATE PLASMA SAVE SOMEONES LIFE.</h1>
    <div class="btn btn-danger" style="background-color: #ffffff;">
        <a href="{{ url_for('signin') }}" style="text-decoration: none;"><span
style="color: #000000; font-size: size 6vw;">Donate Plasma</a>
    </div>
</div>

```

```

</div><br><hr>

```

```

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

                    <div class = "main-text card-body">
                        <h2 class="card-title">What is Plasma? </h2>
                        <p class="card-body">The liquid portion of whole blood
known as plasma contains the suspended cellular components.
It has more proteins, which help the blood coagulate and fight
infection. Plasma from blood group AB donors is known as AB plasma.
Because it is suitable for all recipients, regardless of blood group,
it is known as "universal donor" plasma. </p>
                    </div>
                </div>
            </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">Plasma is typically isolated from whole blood and
collected via a process called plasmapheresis. Blood enters a machine
containing a sterile, disposable plastic kit through a single needle
inserted into an arm vein. #dc3545 blood cells and other components of
your blood is returned to you through the same needle after the plasma has
been separated and routed out into a special

```


bag. </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. All plastics and needles that come into touch with you are used just once before being disposed, and the machine and the operation have been examined and approved by the Food and Drug Administration (FDA). There is no chance of returning the incorrect blood to you since at no point during the procedure is the blood being returned to you removed from the needle in your arm. </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">The plasmapheresis process lasts for about 40 minutes, but the staff will need an additional 20 minutes to get your medical history. The experience will be made as delightful and peaceful as possible. </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">Be careful to get some rest and eat a nutritious breakfast the day before your plasma donation appointment. Drink a lot of water, but stay away from alcohol, coffee,

and tea because these can dehydrate you. Choose juice or water instead. Before donating plasma, you shouldn't consume anything greasy or oily as this may lower 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">Plasma donation shouldn't be harmful. The experience of giving plasma should be the same as giving blood normally. When the needle is inserted, you might experience some stinging, but after that, the staff will make every effort to keep you comfortable throughout the donation process. </p>

</div>

</div>

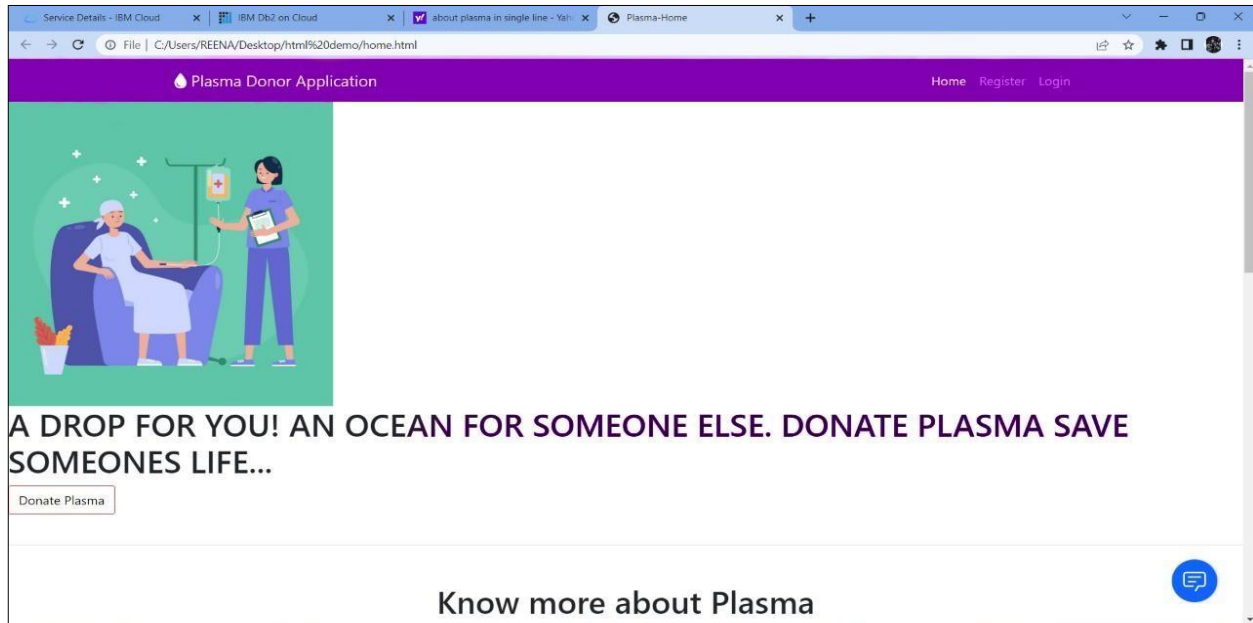
</div>

</div>

</div>

</div>

{% endblock %}



7.2 FEATURE 2:

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:
#dc3545;">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>reenusebas31@gmail.com</td>
    <td>21</td>
    <td>Female</td>
    <td>o+ve</td>
    <td>No:11, RK Street</td>
    <td>T Nagar</td>
    <td>Chennai</td>
    <a href="{{url_for('request_page')}}" class="btn-sm btn-info"
style="color: white; text-decoration:none">Request</a>
    <td>shireenalju@gmail.com</td>
    <td>23</td>
    <td>Female</td>
    <td>ab+ve</td>
    <td>No:02, Sara Nagar</td>
    <td>Alangudi</td>
    <td>Karaikudi</td>
    <a href="{{url_for('request_page')}}" class="btn-sm btn-info"
style="color: white; text-decoration:none">Request</a>

    </td>
    {% endfor %}

  </tr>
</tbody>
</table>
</div>
</div>
</div>
</div>

```

</div>
{% endblock %}

New TabGoogle AccountWelcome to Project DeligIBMIBM-Project-41223-16606Plasma-Donor

File | C:/Users/REENA/Desktop/html%20demo/donor.html

HomeRegisterLogin

Plasma Donor Application

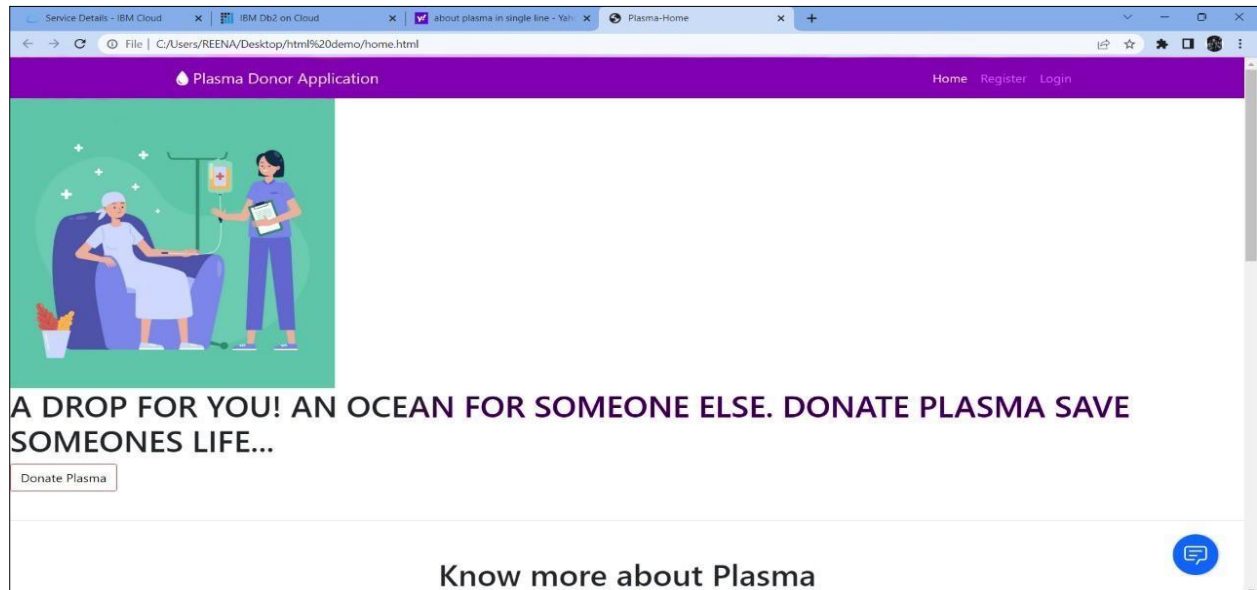
DONOR PAGE

Email	Age	Gender	Blood Group	Area	City	District	Make a Request
reenusebas31@gmail.com	21	Female	o+ve	No:11, RK Street	T Nagar	Chennai	Request
shireenalju@gmail.com	23	Female	ab+ve	No:02, Sara Nagar	Alangudi	Karaikudi	Request

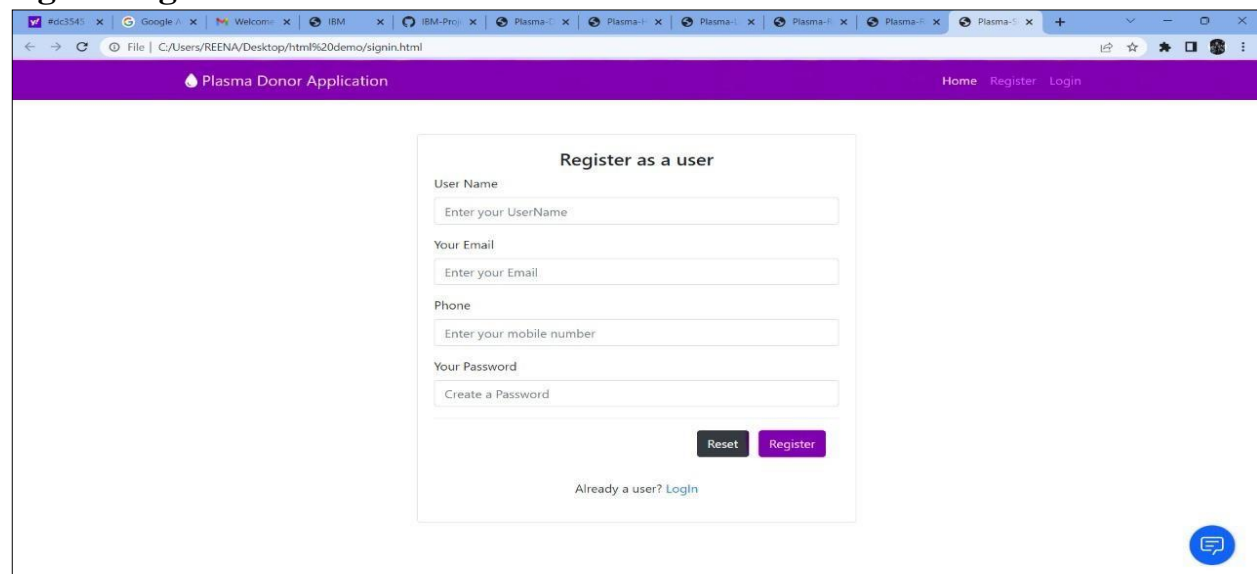
CHAPTER-8

TESTING

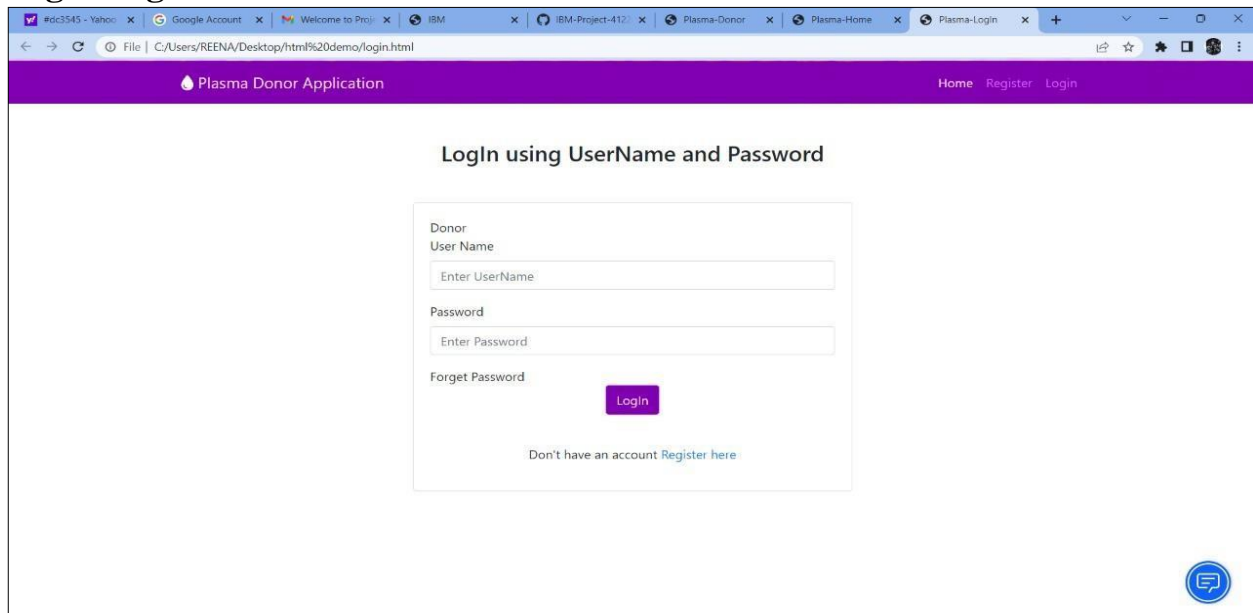
8.1 TEST CASES: Home



Signin Page:



Login Page:

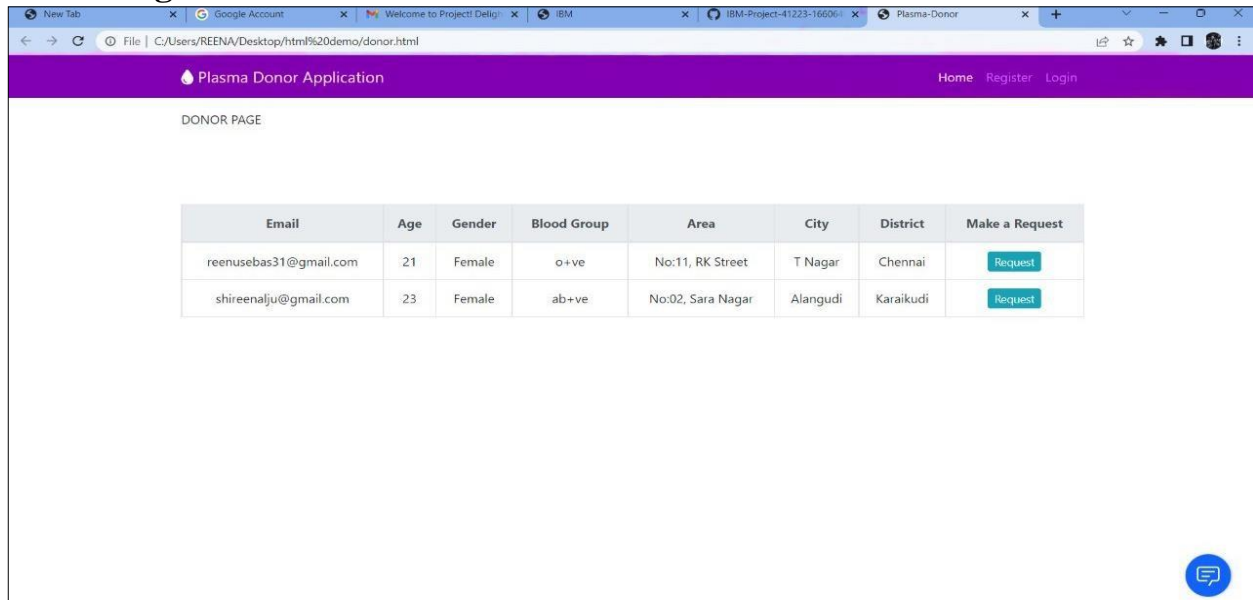


The screenshot shows a web browser window with multiple tabs. The active tab is titled "Plasma-Login". The address bar shows the file path "C:/Users/REENA/Desktop/html%20demo/login.html". The page has a purple header with the text "Plasma Donor Application" and navigation links "Home", "Register", and "Login". The main content area is titled "Login using UserName and Password". It contains a form with the following elements:

- Donor User Name: A text input field with the placeholder "Enter UserName".
- Password: A text input field with the placeholder "Enter Password".
- Forget Password: A link below the password field.
- Login: A purple button.
- Don't have an account Register here: A link below the login button.

A blue chat icon is visible in the bottom right corner of the page.

Donor Page:



The screenshot shows a web browser window with multiple tabs. The active tab is titled "Plasma-Donor". The address bar shows the file path "C:/Users/REENA/Desktop/html%20demo/donor.html". The page has a purple header with the text "Plasma Donor Application" and navigation links "Home", "Register", and "Login". The main content area is titled "DONOR PAGE". It contains a table with the following data:

Email	Age	Gender	Blood Group	Area	City	District	Make a Request
reenusebas31@gmail.com	21	Female	o+ve	No:11, RK Street	T Nagar	Chennai	Request
shireenalju@gmail.com	23	Female	ab+ve	No:02, Sara Nagar	Alangudi	Karaikudi	Request

A blue chat icon is visible in the bottom right corner of the page.

User Profile Page:

The screenshot shows the 'Your Profile' page of the Plasma Donor Application. The page has a purple header with the application name and navigation links. The main content area is white and contains a welcome message, two large purple buttons for 'Donate Plasma' and 'Request Plasma', a 'Log Out' button, and a chat icon.

Plasma Donor Application

Home Register Login

Your Profile

Welcome : Shireenajju!!

Donate Plasma Request Plasma

Log Out

Request For Plasma:

The screenshot shows the 'Request for Plasma' form in the Plasma Donor Application. The form is titled 'Request for Plasma' and contains various input fields for donor information, hospital name, and contact details. It also includes 'Reset' and 'Request' buttons.

Plasma Donor Application

Home Register Login

Request for Plasma

Donor Information

Enter Donor Mail Hospital Name

Enter Donor mail from the table Enter Hospital Nmae

FullName Mobile Number Your Mail

Enter your FullName Enter your Mobile Number Enter your Email

Age Gender Blood Group

Enter your Age Select your Gender Select your blood group

Area City District

Enter your Area Name Enter your City Name Enter your District Name

Reset Request

Donating Plasma Page:

Plasma Donor Application [Home](#) [Register](#) [Login](#)


Donating Plasma

Full Name

Mobile Number Email


Age Gender Blood Group

Area City District




Plasma Donor Application [Home](#) [Register](#) [Login](#)

Plasma Donor App



Thank you for donating plasma.



CHAPTER-9

RESULTS

9.1 PERFORMANCE METRICS:

- Sign Up New user or donor can create an account to use in the blood/plasma donor application and create a password for account verification and create an identity.

- Sign In Donor Sign In to the account for viewing or editing location details and any other personal information.

- Account Verification If donor changes their password or if they forget the password then we have to verify their account using mail verification.

CHAPTER-10

ADVANTAGES & DISADVANTAGES

ADVANTAGES:

- **Speed**
 - This website is fast and offers great accuracy as compared to manual registered keeping.
- **Maintenance**
 - Less maintenance is required.
- **User Friendly**
 - It is very easy to use and understand. It is easily workable and accessible for everyone.
- **Fast Results**
 - It would help you to provide plasma donors easily depending upon the availability of it.

DISADVANTAGES:

- **Internet**
 - It would require an internet connection for the working of the website.
- **Auto-Verification**
 - It cannot automatically verify the genuine users.

CHAPTER-11

CONCLUSION

Although the government is carrying out Covid vaccination campaigns on a large scale, the number of vaccines produced is not enough for all the population to get vaccinated at present. And with the corona positive cases rising every day, saving lives has become the prime matter of concern. As per the data provided by WHO more than 3 million people have died due to the coronavirus. However, apart from vaccination, there is another scientific method by which a covid infected person can be treated and the death risk can be reduced. This plasma therapy is an experimental approach to treat corona positive patients and help them recover. This plasma therapy is considered to be safe & promising. A person who has recovered from Covid can donate his/her plasma to a person who is infected with the coronavirus. This system proposed here aims at 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. Both parties can Accept or Reject the request. User has to Upload a Covid Negative report to be able to Donate Plasma. This system is used if anyone needs a Plasma Donor Blood and Plasma donation is a kind of citizen's social responsibility in which an individual can willingly donate blood/plasma via our app. This Application has been created with the concept and has sought to make sure that the donor gives blood/plasma to community. This model is made user friendly so anybody can view and maintain his/her account. This application will break the chain of business through blood/plasma and help the poor to find donor at free of cost. This project will help new blood/plasma banks improve their services and progress from traditional to userfriendly frameworks.

CHAPTER-12

FUTURE SCOPE

Plasma Application can be developed to further improve user accessibility via integrating this application with various social networks application program interfaces (APIs). Consequently, users can login and sign up using various social networks. This would increase number of donors and enhances the process of blood donation. User interface (UI) can be improved in future to accommodate global audience by supporting different languages across countries. Data scraping can be done from different social networks and can be shown in the Blood/Plasma Request Feeds. Appointments can be synchronized with Google and Outlook calendars for the ease of users. Donor and Beneficiary Stories feature aims to create a sense of belonging to the community. Donors will be able to view and share personal experiences about their donation; Beneficiaries can share their experiences of receiving blood transfusion which contributed to their improved health and lives. Live Check-in Process feature aims to provide a better experience with regards to the waiting time when the user is in the process of donation. We hypothesise that a more efficient experience will help the user look forward to his blood/plasma donation appointments.

CHAPTER 13

APPENDIX

SOURCE CODE:

LOGIN:

```
{% 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 UserMail 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 Mail</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-danger">
    </div>
    <br>
    <div style="text-align: center;">
        <p>Don't have an account <a href="{{ url_for
('signin') }}">Register here</a>
    </div>

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

{% endblock %}

```

SIGNIN:

```
{% 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-danger">
    </div>

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

  </form>
</div>

```



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

```
{% endblock %}
```

GITHUB & PROJECT DEMO LINK

GITHUB LINK:

<https://github.com/IBM-EPBL/IBM-Project-41542-1660642752>

VIDEO LINK:

<https://youtu.be/DjJB4kHfMKY>