

PROJECT REPORT **FORMAT**

1. INTRODUCTION

Project Overview

Purpose

2. LITERATURE SURVEY

Existing problem

References

Problem Statement Definition

3. IDEATION & PROPOSED SOLUTION

Empathy Map Canvas

Ideation & Brainstorming

Proposed Solution

Problem Solution fit

4. REQUIREMENT ANALYSIS

Functional requirement

Non-Functional requirements

5. PROJECT DESIGN

Data Flow Diagrams

Solution & Technical Architecture

User Stories

6. PROJECT PLANNING & SCHEDULING

Sprint Planning

Sprint Estimation and Delivery Schedule

7. CODING & SOLUTIONING (Explain the features added in the project along with code)

Sendgrid

Database Schema

8. RESULTS

9. ADVANTAGES & DISADVANTAGES

10. CONCLUSION

11. FUTURE SCOPE

12. APPENDIX

GitHub & Project Demo Link

1.INTRODUCTION

Project Overview: -

Patients with severe liver disease or numerous clotting factor deficits, as well as those who have undergone trauma, burns, or shock, frequently get plasma. The patient's blood volume is increased as a result, which can aid in blood coagulation and help to prevent shock. The number of people with Covid-19 infection has increased, as has the demand for the plasma of patients who have recovered. The antibodies that are already in our systems can aid someone in overcoming the infection.

Plasma donation saves lives, and donors' and blood/plasma facilities' communication is key to this. Smart apps are increasingly viewed as a crucial communication tool, and if they are created with the users' requirements and preferences in mind, plasma donation could make the best use of them.

Purpose: -

In our opinion we intend to create an application that is user-friendly for people who require plasma or who wish to donate plasma to anyone who is in need.

However, during design and development, areas of concern including privacy and secrecy should be taken into account. Age was found to be a contributing factor that might reduce donors' propensity to use apps. This system is used if anyone needs a Plasma Donor.

This system comprises of Admin and User where both can request for a Plasma.

- Both parties can Accept or Reject the request.
- The person who wants to donate his/her plasma needs to register in our application providing required information which are name, age, blood group, phone number, and location, etc.
- Patients who need plasma can also fill the form to request the plasma. Patients can directly call the donor by taking his/her

contact number from the application.

- User can also search based on location they are living
- . □ Just a single search allows anyone to reach maximum number of plasma donors in minimum possible time .

2. LITERATURE SURVEY

Existing Problem:

People have to find them physically by visiting hospitals register book and reaching out recovered donors' home and sometimes they will be not available at their places and will be went on work. In this type of scenarios, diseased persons health gets more worsened. This is an expensive and will not work as effectively at emergency situations

Several experiments have been carried out over the years by different groups of researchers. Here are some of the following groups:

1. Denuis O'Neil (1999). "Blood component" Archived from the original on June 5, 2013. Normally, certain amount of human body weight comes from blood. For adults, it is 4-6 liters of blood. This essential liquid plays an important role in transporting oxygen and nutrients to cells and removing carbon dioxide, ammonia and other waste products. Blood is a very common tissue composed of over 4000 different types of components.
2. Ways to keep your plasma healthy, Original Archived November 1, 2013, Accessed November 11, 2011. Plasma donation is one of the most accepted practices for saving lives, while earning a few dollars. The whole process can take some time, but it's well worth it once you experience it a few times. Accepting money in exchange for plasma is welcome. It's a move when you feel like you're not just a hero, but you're adding value to yourself. The term "healthy" does not mean only in the absence of disease. It also means that you are healthy enough.
3. Ripathis S, Kumar V, Prabhakar A, Joshi S, Agarwal A (2015). "Microscale Passive Plasma Separation: A Review of Design Principles and Micro devices," J. Micromech Micro 25 (8): 083001; Plasma separation is of great importance in the fields of diagnosis and healthcare. Due to the lagging transition to micro scale, these recent trends are a rapid shift towards shrinking complex macro processes

4. Guo, Weijin; Hansson, Jonas; van der wijngaart, Wouter(2020).”Synthetic Paper Separates Plasma from Whole Blood with Low Protein Loss”. AnalyticalChemistry.92 (9): 6194-6199

5. CMR Technical Campus, India. Kalpana Devi Guntoju, Tejaswini Jalli, Sreeja Uppala, Sanjay Mallisetti(2022). The main goal of our project is to design a userfriendly web application that is like a scientific vehicle a rapidprocess to find plasma.

References: -

Problem Statement Definition: -

PROBLEM STATEMENT

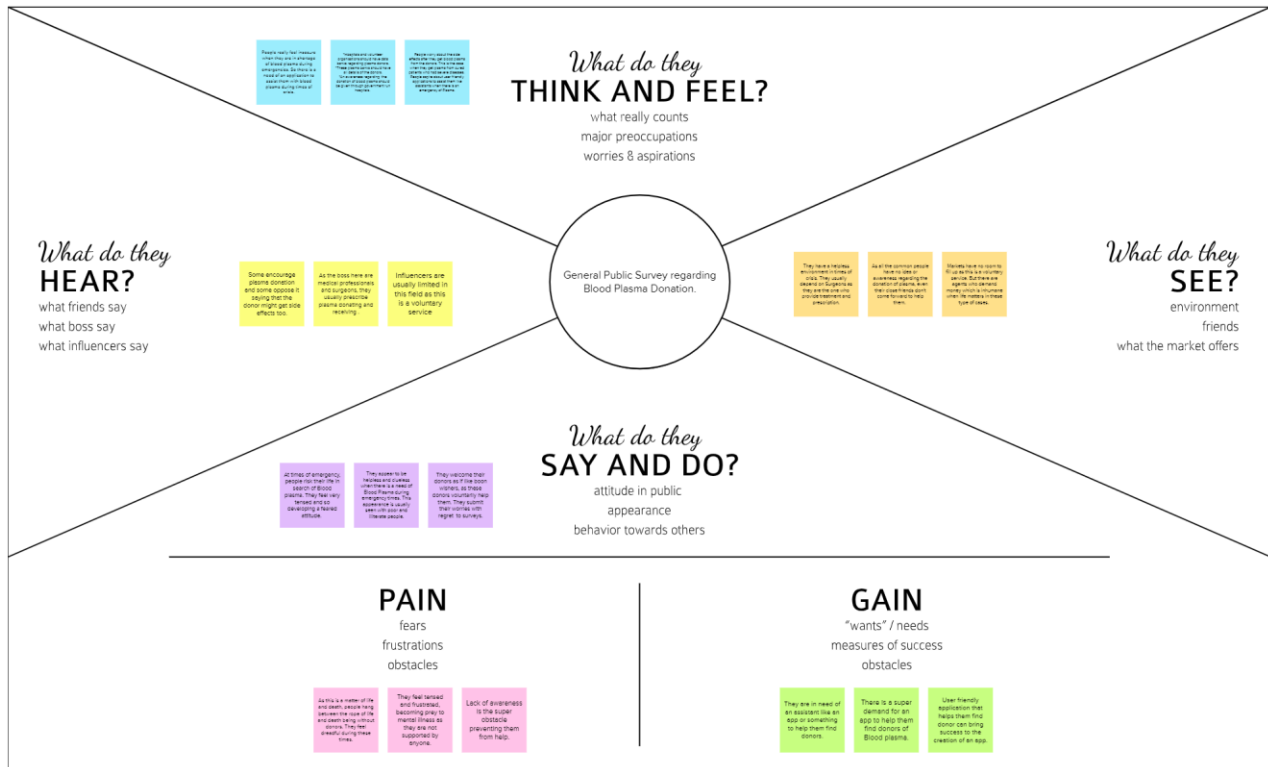


miro

Problem Statemen t (PS)	I am (Custome r)	I'm trying to	But	Because	Which makes me feel
PS-1	A patient in need of blood plasma	Contact a donor to help me with blood plasma	I cannot find oneeasily as it takes long time and hardly possible	The donors are usually far away from me and notready to help me	Sad and anno yed

3. IDEATION & PROPOSED SOLUTION

3.1. Empathy Map Canvas:-



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 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 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.

Proposed Solution:-

S.N o.	Parameter	Description
-----------	-----------	-------------

1.	Problem Statement (Problem to be solved)	People who are in need of plasma are increasing day by day. Plasma is necessary to help our body to recover from injury, distribute nutrients, remove waste and prevent infection, while moving throughout our circulatory system. It is not that people don't want to donate plasma, but they have no idea where they can donate. We are designing a platform which contains all the information regarding Plasma donation.
2.	Idea / Solution description	Ours is a mobile application which aims to serve as a communication tool between plasma donation organizers and plasma donors. To become a member of our system, donors need to create their profile by providing their information like name, blood group, email address, phone number, password and exact location from 'Google Map', which are integrated with this application. This mobile app always keep updating the location of the donor.
3.	Novelty / Uniqueness	Users can submit their comments if they had any difficulties during donation process. This app automatically keeps showing the plasma donors nearby. Donor will save the donor card digitally.
4.	Social Impact / Customer Satisfaction	This app will make revolutionary changes to the medical system as people will be able to donate plasma and serve the mankind. 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.

5.	Business Model (Revenue Model)	There are many private sectors and NGOs, who organize plasma donation camps. Even collaboration with companies like Bioline, and other pharmaceutical companies use plasma to make treatment for conditions such as immune deficiencies and bleeding disorder in order to increase revenue.
6.	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.

Application contains two roles:

☐ Admin

- 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 sent 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 which includes their Name, blood group details, location, last time donated date, phone number, email id.
- After filling the donation form he/she will be redirected to page in which he/she can download the certificate.
- 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.

Admin:

- Admin can login using their credentials.

- Admin can edit the request.
- Admin can delete the request.
- Admin can add volunteers.

Problem Solution Fit:-

Uniqueness:-

A User Interface is simple for users to understand. We can use the application anywhere anytime. The user immediately need the plasma for their treatment but the plasma is not available in nearby hospitals, then user can use this application to raise request and directly contact the donor , request them to donate the plasma. Hospitals can also raise request donors for donation. Somebody wants to donate blood and plasma but they don't know the way to donate then they use this application which will simple to use and it will save lives of many people. Today many of them have mobile phones they can install this application and use it to save the lives of people.

<p>Define CS, fit into CC</p> <p>1. CUSTOMER SEGMENTS</p> <ul style="list-style-type: none"> -Our customers include the people who are in need of blood plasma. -All the Hospitals and voluntary organizations. 	<p>6. CUSTOMER CONSTRAINTS</p> <ul style="list-style-type: none"> -Lack of communication details of the blood plasma donor. -Lack of awareness among people as no one comes forward to help with blood plasma. 	<p>5. AVAILABLE SOLUTIONS</p> <ul style="list-style-type: none"> -Customers try with their relatives and friends on social media platforms in case of an emergency. -Places where the donor can be found sometimes but lack of availability of contact details of the donor makes it difficult to find them.
<p>2. JOBS TO BE DONE / PROBLEMS</p> <ul style="list-style-type: none"> -Communication between recipient and donor. -Notify the donor regarding the emergency. -Also sending notifications to nearby blood banks to find recipients. 	<p>9. PROBLEM ROOT CAUSE</p> <ul style="list-style-type: none"> -The Lack of awareness between common people to come forward to donate plasma has become less as they fear the side effects and the impact of Global Pandemic, Covid-19 has created a demand for blood plasma as it is the available cure for the sickness. 	<p>7. BEHAVIOUR</p> <ul style="list-style-type: none"> -The customer checks for the donor within his/her circle which is directly related. -Indirectly associated behaviour includes complaining towards people the lack of availability and searching for the donor with irrelevant contacts.
<p>3. TRIGGERS</p> <ul style="list-style-type: none"> -Rewards to the donors who has completed donation. -Advertise through Ads and Videos regarding awareness of blood plasma donation. <p>4. EMOTIONS BEFORE/AFTER</p> <ul style="list-style-type: none"> -Before: Anxiety, Stress, volatile. -After: Happy, Relaxed. 	<p>10. YOUR SOLUTION</p> <ul style="list-style-type: none"> -The app provides the confidence without fear. -The app gives assurance that the patient will somehow get the blood plasma. -It sends alerting messages to the donor for quick response from the donor. 	<p>8. CHANNELS OF BEHAVIOUR</p> <ul style="list-style-type: none"> -Through online, the customer can find the details of the donor from social media platforms. -Through offline, the customer can find the details of the donor from their friends/family circle.

4. REQUIREMENT ANALYSIS

Functional Requirements:-

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 Email and Social media accounts
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User Login	Login through registered email id
FR-4	User Examination	Medical Examination before donating
FR-5	Recipient Request	The recipient makes request for blood type for plasma
FR-6	Donor Request Alert	The Donor gets alerted through email
FR-7	Closed Request Verification	Donor gets an e-certificate and rewards once donation is completed
FR-8	Videos and Donation camps	Users can look up the benefits of plasma donation and information related
FR-9	Chat Assistant	Helps to solve queries related to donation within the app

Non- Functional Requirements:-

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	This app is easy to use, easy to learn and navigate. Tasks such as booking a donation appointment could be completed in few steps and no instructions and training are required and this app is usable by people of all age group.
NFR-2	Security	This is a secure web application plus a secure database system that provides a safe environment for patients, doctors and transplant centres to create online profile for patients seeking living donors of plasma. Fake login and bots are carefully removed.
NFR-3	Reliability	All information that the user enters into the app is voluntary and the user can cease the usage at any time and delete their profile. If the user has shared any information through social network portals, it can also be removed. This app creates a friendly bond with the donors.
NFR-4	Performance	There is no lag during usage and the user can experience a glitch free usage. The user also gets route and tips on how to travel conveniently to the donation point.
NFR-5	Availability	This App will be available on Google Play store and App Store and also in web.
NFR-6	Scalability	This App has ability to handle multiple donors at a time and provides users with good user

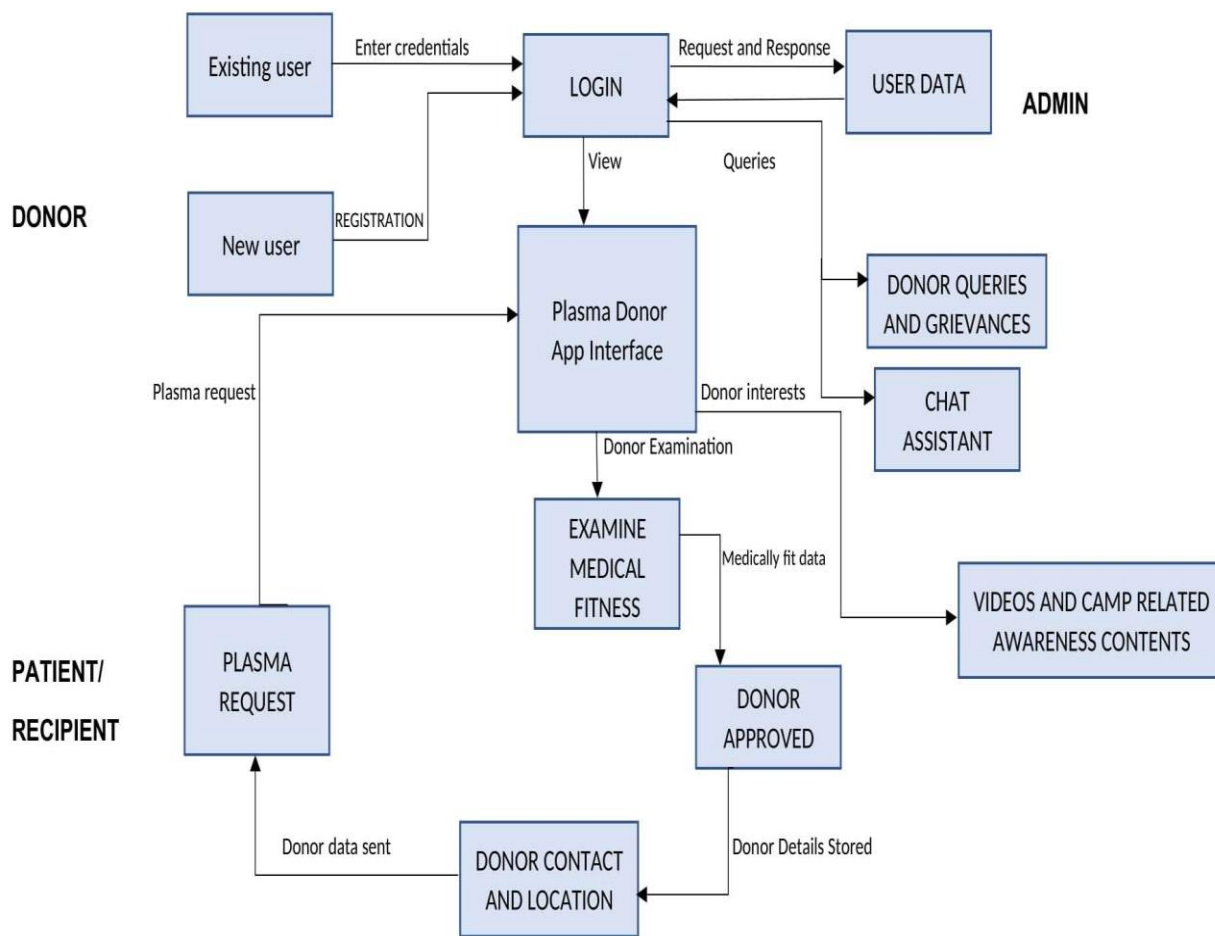
		experience and reacts fast according to growing number of requests.
--	--	---

5.PROJECT DESIGN

Data Flow Diagrams: -

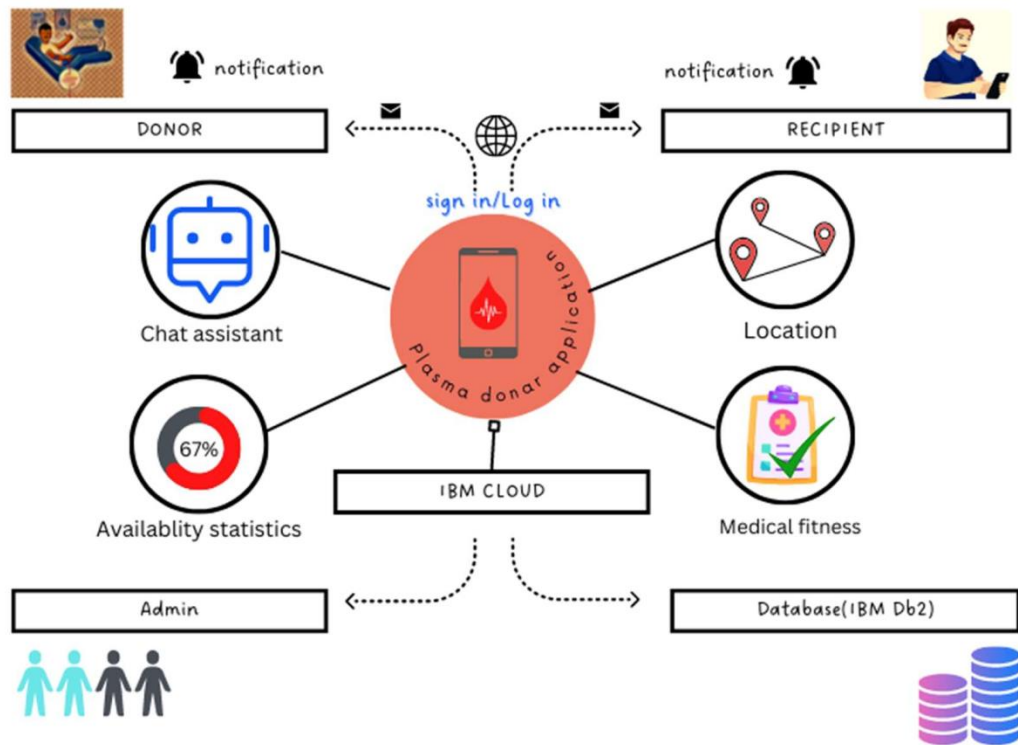
Data Flow Diagrams:

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.

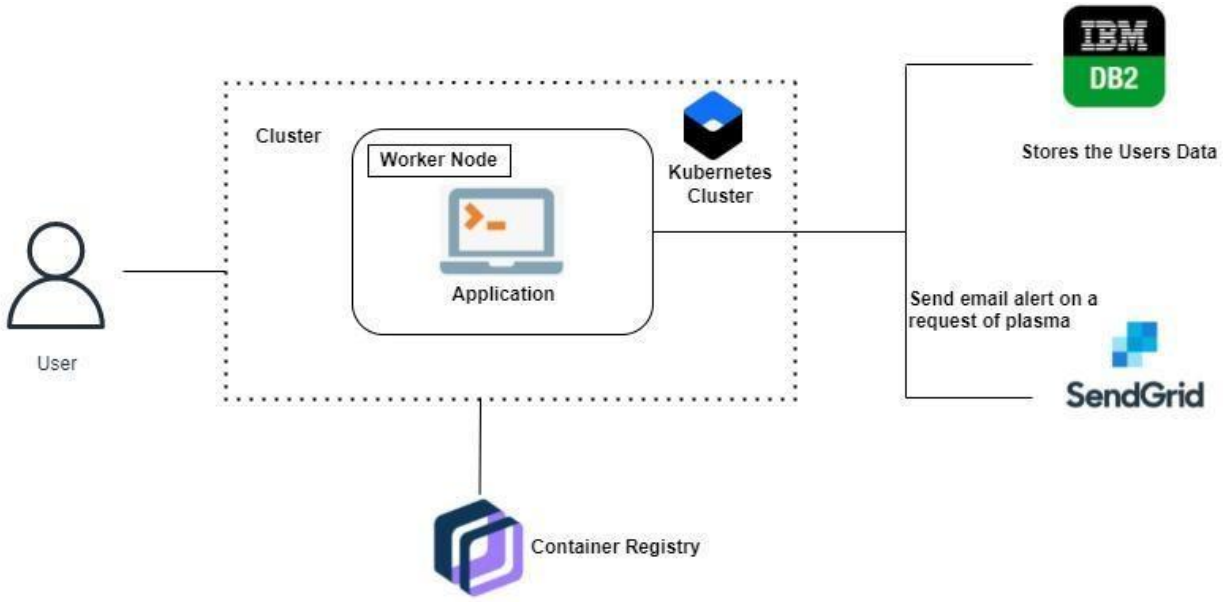


Solution & Technical Architecture: -

Solution Architecture: -



Technical Architecture:-



5.3 User Stories: -

User Stories:

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user) Donor	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	I can register & access the app with Social media	Low	Sprint-2

			through Social media accounts	account		
		USN-4	As a user, I can register for the application through Gmail other Email services	I can register the app with email account	Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application by entering email & password	I can register and access user profile with Gmail account	High	Sprint-1
Patient	Recipient	USN-6	As a requester, I can request the blood group for which I need plasma	I can get plasma from donors when available	High	Sprint-2
Customer (Web user) Donor	Profile	USN-7	As a user, I can see registration page, login page and chat bot for which the user can access to donate and to request for the required blood group plasma.	I can login through email and social media account for registration.	Medium	Sprint-2
Customer Care Executive	Help desk /User support for App	USN-8	As a helpdesk supporter, I can solve the queries and grievances of the user	I can reply to queries and give solutions to problems	High	Sprint-3
Administrator	Registration support	USN-9	As an admin, I can view the database of the registered user	I can check and verify the registered user's login credentials	Medium	Sprint-4
	Dashboard	USN-9	As an admin, I can manage plasma requests	I can check request numbers and	Medium	Sprint-4

			and other technical glitches in the app	troubleshoot problems in the app		
Chat Assistant	Dashboard	USN-10	In addition to customer care executive, I can help with user's queries within the app	I can reply to user's queries in the app	Medium	Sprint-4

6.PROJECT PLANNING AND SCHEDULING

Sprint Planning

Sprints are the backbone of any good Agile development team. And the better prepared you are before a sprint, the more likely you are to hit your goals. Spring planning helps to refocus attention, minimize surprises, and (hopefully) guarantee better code gets shipped. The main event during agile methodology is the sprint, the stage where ideas turn into innovation and valuable products come to life. On one hand, agile sprints can be highly effective and collaborative. At the same time, they can be chaotic and inefficient if they lack proper planning and guidance. And for this reason, making a sprint schedule is one of the most important things you can do to ensure that your efforts are successful.

We categorized the sprint as 4 phases for creating the application

- Sprint 1 is about creating the login page and the register page.
- Sprint 2 is about sending the confirmation

mail to the users during registration.

- Sprint 3 is about as a user, can log into application by entering email and password.
- Sprint 4 is about as user, can register and make request for plasma donation via portal.

Milestone and Activity list

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Simulation creation	USN-1	Connect with python code	2	High	Ragamaliga D S Shabana Ashmi M Swarnadevi V Abi R
Sprint-2	Software	USN-2	Creating an IBM Watson in Cloud platform	2	High	Ragamaliga D S Shabana Ashmi M Swarnadevi V Abi R
Sprint-3	MIT App Inventor	USN-3	Develop an Plasma donor application	2	High	Ragamaliga D S Shabana Ashmi M Swarnadevi V Abi R
Sprint-4	Dashboard	USN-4	Design the Modules and test the app	2	High	Ragamaliga D S Shabana Ashmi M Swarnadevi V Abi R

Sprint-5	Web UI	USN-5	To make the user to interact with software.	2	High	Ragamaliga D S Shabana Ashmi M Swarnadevi V Abi R
----------	--------	-------	---	---	------	--

Sprint Estimation and Delivery Schedule:

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	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

Velocity:

Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day) .

$$AV = \frac{\text{sprint duration}}{\text{velocity}} = \frac{20}{10} = 2$$

Burndown Chart:

A burn down chart is a graphical representation of work left to do versus time. It is often used in agile software development methodologies such as Scrum. However, burn down charts can be applied to any project containing measurable progress over time.

7.CODING & SOLUTIONING

SendGrid

SendGrid is a cloud-based SMTP provider that allows you to send email without having to maintain email servers. SendGrid manages all of the technical details, from scaling the infrastructure to ISP outreach and reputation monitoring to whitelist services and real time analytics.

SendGrid provides two ways to send email: through our SMTP relay or through our Web API. SendGrid provides client libraries in many languages. This is the preferred way to integrate with SendGrid. If you choose to use SendGrid without a client library, the

Web API is recommended in most cases as it is faster, provides some benefit with encoding, and tends to be easier to use. SMTP provides many features by default, but is harder to setup.

Web API

- The Web API has some advantages over SMTP:
- If your ISP blocks all outbound mail ports and your only option is HTTP.
- If there is high latency between your site and ours, the Web API might be quicker since it does not require as many messages between the client and server.
- If you do not control the application environment and cannot install and configure an SMTP library.
- If you build a library to send email, developing against a web API provides quicker development.

SMTP Relay

- If you are integrating SendGrid with an existing application, setting up the application to use our SMTP relay is easiest, as it only requires modifying SMTP configuration.
- Change your SMTP username and password to your SendGrid credentials.
- Set the server host name to smtp.sendgrid.net
- Use ports 25 or 587 for plain/TLS connections and port 465 for SSL connections.

Code:

sendgridmail

```
import sendgrid
```

```
import os
```

```
from sendgrid.helpers.mail import *
```

```
api_key = "SG.XetJv3WqSfyN2Jx_PYI3YQ.QdmtXUQpcTpjqkFjR-  
6ptyXyp7k-rM92gYFdBMJzTfU"
```

```
sg = sendgrid.SendGridAPIClient(api_key)
```

```
from_email = Email("sabanaashmi22022002@gmail.com")
```

```
to_email = To("dsraga7@gmail.com")
```

```
subject = "Your little efforts can give others second chances to live life."
```

```
content = Content("text/plain", "Thank you for choosing our plasma  
donor application for donating plasma. Your account has been created  
and one step ahead to go, please verify your email ID.")
```

```
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)
```

Database Schema

The screenshot displays the IBM Cloud 'Resource list' page. The browser address bar shows 'cloud.ibm.com/resources'. The page header includes the IBM Cloud logo, a search bar, and navigation links for 'Catalog', 'Manage', and the user profile 'RAGAMALIGA D S's Ac...'. A 'Create resource' button is located in the top right corner.

The main content area features a table with the following columns: Name, Group, Location, Product, Status, and Tags. The table lists various resource categories with counts in parentheses: Compute (0), Containers (0), Networking (0), Storage (0), AI / Machine Learning (0), Analytics (0), Blockchain (0), Databases (1), Developer tools (0), and Logging and monitoring (0). The 'Databases' category is expanded, showing a single resource: 'Db2-sz'.

Name	Group	Location	Product	Status	Tags
Db2-sz	Default	Dallas	Db2	Active	-

The Windows taskbar at the bottom shows the search bar, task view button, and several application icons. The system tray on the right indicates the time as 20:57 and the date as 06-11-2022.

IBM Cloud dashboard showing the Db2-sz resource. The interface includes a sidebar with 'Manage' options (Getting started, Service credentials, Connections) and a main content area with 'Getting started' and 'Need help?' sections. The 'Getting started' section provides instructions on finding credentials and includes buttons for 'Go to UI' and 'Getting started docs'. The 'Need help?' section includes a 'Support case' button.

Resource list / Db2-sz Active Add tags Details Actions...

Manage

- Getting started
- Service credentials
- Connections

Getting started

Where can I find my credentials?

Get your username and password by clicking the "Service Credentials" link to the left and selecting "New Credentials".

Don't see this menu on the left? Click on "Manage in IBM Cloud" to open the IBM Cloud dashboard.

[Go to UI](#) [Getting started docs](#)

Need help?

Submit a IBM Cloud Support Case to our team.

[Support case](#)

IBM Db2 on Cloud interface showing the 'Tables' tab. The interface includes a sidebar with 'Schemas' and 'Tables' sections. The main content area displays a table definition for the 'DONOR' table, including columns: Name, Data type, Nullable, Length, and Scale. The table definition is as follows:

Name	Data type	Nullable	Length	Scale
BLOOD GROUP	VARCHAR	Y	32	0
ADDRESS	VARCHAR	Y	32	0
NAME	VARCHAR	Y	32	0
EMAIL	VARCHAR	Y	32	0
PHONE NO.	VARCHAR	Y	32	0

View data

IBM Db2 on Cloud

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

Find schemas or tables Refresh

Tables New table

Name	Schema	Properties
<input checked="" type="checkbox"/> DONOR	MWT73641	...
<input checked="" type="checkbox"/> REGISTER	MWT73641	...

Total: 2, selected: 2

Table definition REGISTER

No statistics available.

Name	Data type	Nullable	Length	Scale
USERNAME	VARCHAR	Y	32	0
EMAIL	VARCHAR	Y	32	0
PASSWORD	VARCHAR	Y	32	0

View data

IBM Db2 on Cloud

The name of the object to be created is identical to the existing name "MWT73641.REGISTER" of type "TABLE".. Show logs

Find schemas or tables Refresh

Tables New table

Name	Schema	Properties
<input type="checkbox"/> DONOR	MWT73641	...
<input type="checkbox"/> LOGIN	MWT73641	...
<input checked="" type="checkbox"/> REGISTER	MWT73641	...
<input checked="" type="checkbox"/> REGISTER1	MWT73641	...

Total: 4, selected: 2

Table definition LOGIN

No statistics available.

Name	Data type	Nullable	Length	Scale
user name	VARCHAR	Y	32	0
PASSWORD	VARCHAR	Y	32	0

View data

IBM Db2 on Cloud

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

MWT73641.REGISTER

Back

Export to CSV

USERNAME	EMAIL	PASSWORD
ABS	abs@gmail.com	AGA13
ABU	azbuu@gmail.com	BUU
oreo	oreo@gmail.com	SHARA

8. RESULT

Authentication Module

- Sign Up

New user or donor can create an account to use in the blood/plasmadonor 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.

Service Provider Module

- Add New Donor

User can be able to register to add donor details.

- List All Donor

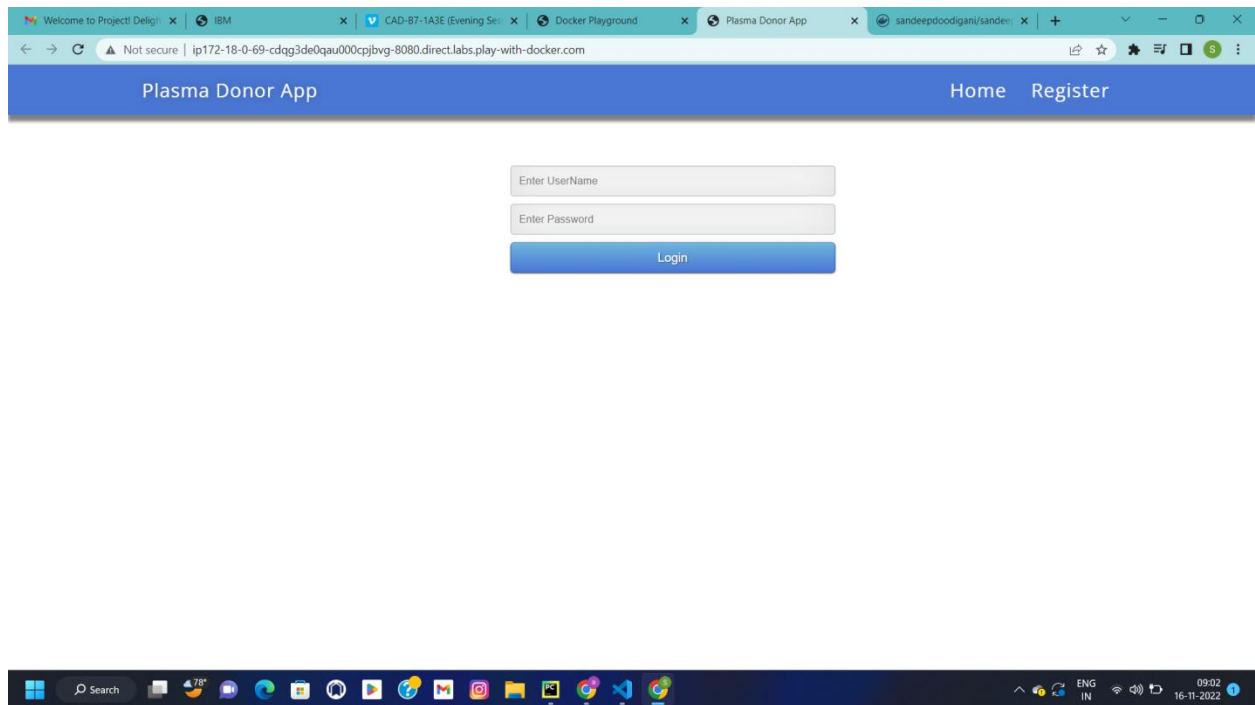
User can be able to view all Donor who all use our Plasma Donor Application.

- Edit Customer Plan Details

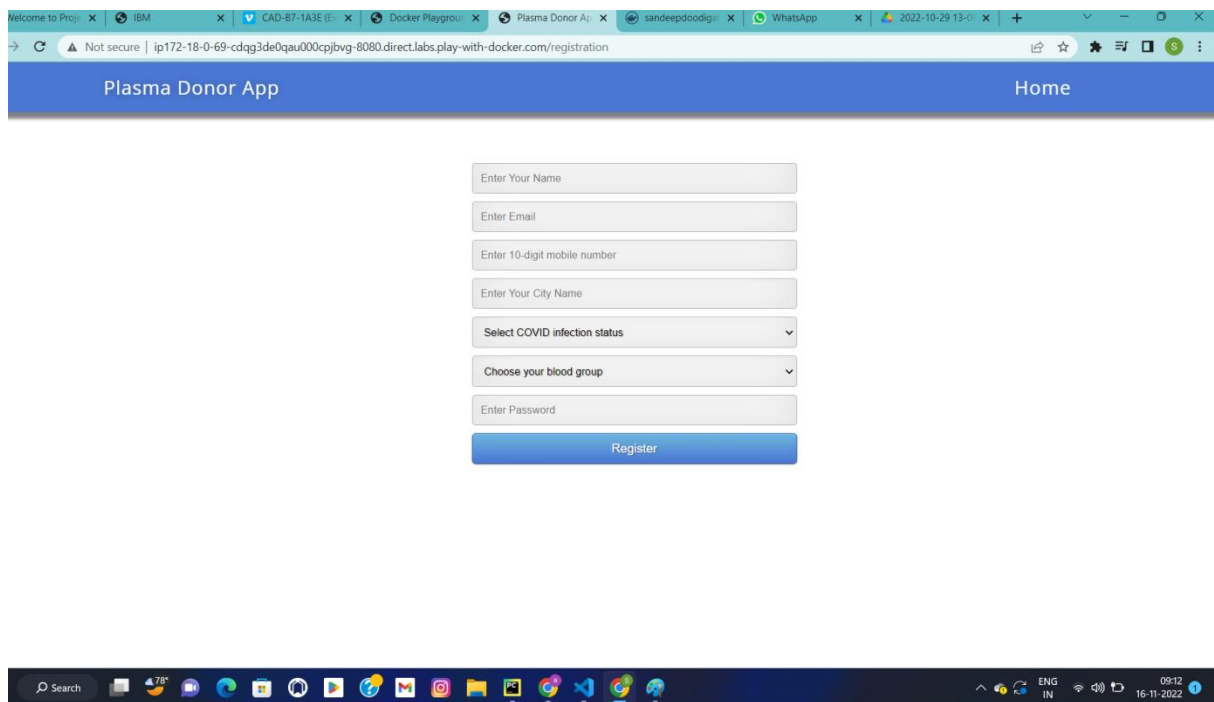
User can be able to edit the existing Donor details as the Donor wish.

Screen Layouts

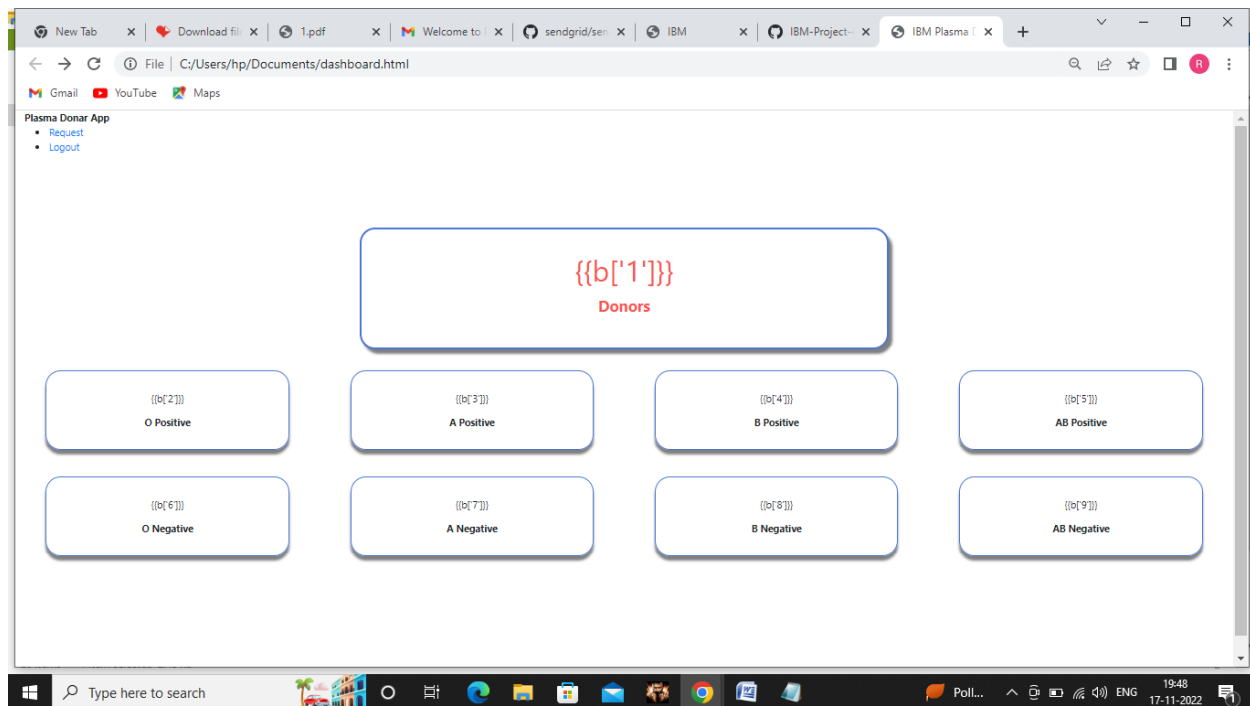
Login page



Registration page



Home page



The Donors can register their account using their email ID. Once registered, The Donor can sign-up by using his\her respective password. The login page for Plasma Donors is shown in the figure, which contains the E-mail and Password field. The profile of the Donor, where he/she needs to enter the required details. After registration Donor can maintain according to his availability. The registration page with Full Name, Email Address, Last donated date, Password, Contact Details, Blood Group, Location and all other details, which is illustrated. The details of the available donors can be displayed and viewed by other users.

9. 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.

10. 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 user-friendly frameworks.

11.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 signup 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.

12.APPENDIX

GitHub and Source code Link: <https://github.com/IBM-EPBL/IBM-Project-45836-1660732630>

Project Demo Link: <https://dragon.online-convert.com/download-file/7f831192-a2de-4262-90f4-1013ae57db4b/94478796-6ccb-4dfb-b4ce-7e0149117602>