PROJECT REPORT FORMAT

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1.INTRODUCTION

1.1 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 aids in blood coagulation and helps 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.

1.2 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.

1. Both parties can Accept or Reject the request.
2. 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.

3. 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.
4. 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

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 its 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: -

S NO	TITLE	Authors	Abstract	Drawbacks
1	Developing a plasma donor application using Function-as-a-service in AWS	Aishwarya R Gowri, Jain University Department of MCA, computer science	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 AWS services. The services used are AWS Lambda, API gateway, DynamoDB, AWS Elastic Compute Cloud with the help of these AWS services, it eliminates the need of configuring the servers and reduces the infrastructural costs associated with it and helps to achieve serverless computing. Situations like if the donor count is very low, it is 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 about the donors.	1. It cannot auto verify user genuineness. 2. It requires an active internet connection.

2	Plasma Donation App	Jenny Shersten	Motivation for further plasma collection from donors for recipients, as well as fast communication with them. For both groups - always up-to-date information and the ability to follow statistics and data in the city and in the country	1. Internet Connection is mandatory 2. Reports are not verified
3	Instant Plasma Donor Recipient Connector Web Application	● Ripathi S ● Kumar V ● Prabhakar A	The world is suffering from COVID 19 crisis, and we haven't found any vaccine yet. But there is another scientific way from which we can help to lower the death ratio or help the COVID 19 affected person is by donating Plasma from recovered patients. With no approved antiviral treatment plan for the deadly COVID-19 infection, plasma therapy is an experimental approach to treat COVID positive patients and help them recover faster. The therapy considered to be safe and promising. If a particular person is fully recovered from COVID 19 he/she is applicable to donate their plasma. In the proposed system, donors who need to donate plasma can donate by uploading covid-19 certificate and blood bank can view donors and can raise requests to donors and the hospital can register/login and can search for plasma, they can raise requests to blood bank and can get the plasma.	1. Tedious work. 2. Expensive. 3. Requires more man power. 3. Time Consuming.

4	Plasma-Donor-App	• Dheeraj Kotwani • Pragathi Verma • Sitam Sardar • Vatsal Kesarwani • Nakul Sharma • Nuh Koca • Harsh Rajgor	An Open-Source App which fills the gap between the patients and the Plasma Donors.	• No search filter available • Cannot login through Chrome • UI improvement in Login page
5	Plasma Donation Website using MERN stack	Neha Soni , • Software Engineering Intern at FICO | Technical Blogger	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. The user can also view the total active cases, recovered cases, vaccine centres in their area, hospital location, and helpline number.	1. Internet: It would require an internet connection for the working of the website. • Auto- Verification: It cannot automatically verify the genuine users.

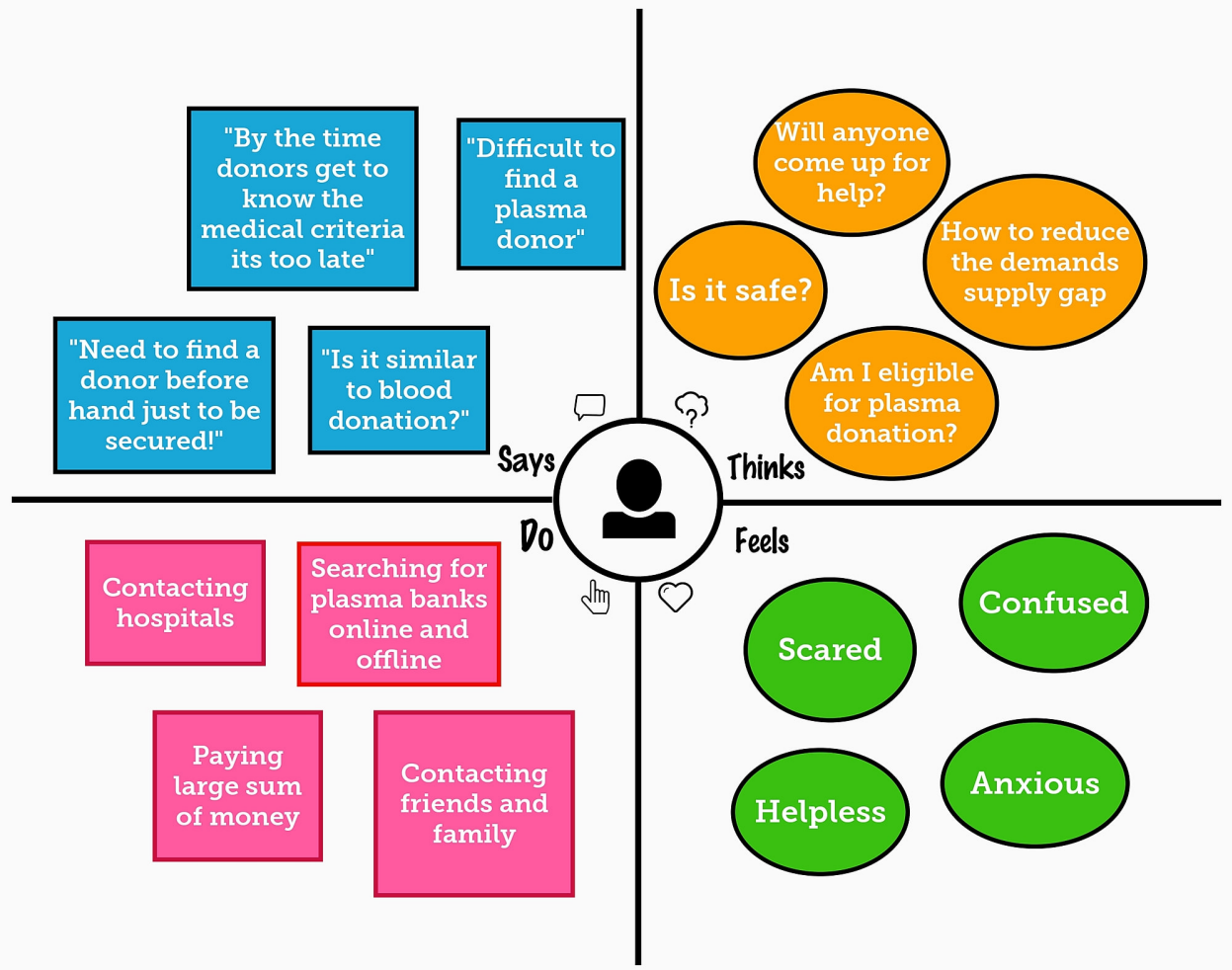
2.3 Problem Statement Definition: -

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 or who wish to donate plasma to anyone who are in need. 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.

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:-

1. This system is used if anyone needs a Plasma Donor. This system comprises of Admin and User where both can request for a Plasma.
2. In this system there is something called an active user, which means the user is an Active member of the App and any sort of infection or disease he/she has recovered from.
3. Both parties can Accept or Reject the request.
4. The person who wants to donate his/her plasma needs to register in our application providing required information which are name, age, plasma group, phone number, and location, etc.
5. 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.
6. User can also search based on location they are living in using their phone’s network to let them find and connect with people for plasma requirements.

7. Just a single search allows anyone to reach maximum number of plasma donors in minimum possible time and that too within just 5kms from where the plasma is required.
8. Also saves plasma donation history, to increase the possibility of saving lives.

Novelty:

Cloud communicating is an emerging technology that can be integrated with traditional health management used to provide better health services. Traditional healthcare systems mainly include personal and public healthcare services, teaching and research activities. Personal healthcare services are offered at hospitals, homes and different organizations. Public healthcare services involve guidelines for drugs, food and safety policies to maintain a healthy environment. Teaching and research activities are essential for prevention, detection, tracking and treatment of diseases. Healthcare information systems are designed today for the convenience of the user who obtains its bene fits. In many emergency situations there is an immediate, critical need for specific plasma. In addition to emergency requirements, advances in medicine have increased the need for plasma in many ongoing treatments and medical surgeries. To motivate people for plasma donation and to help patients receive plasma in emergency situations, we have designed an application to overcome all the problems which the current offline as well as online systems face. If in emergency a patient requires plasma, using this application we'll not just be able to contact Blood/Plasma Bank and Hospitals but can also seek help from individual registered Donors. In developing countries,

especially like India, the plasma resource lacks in quantity which is a barrier to others life. The willingness of donor and the closeness of the donor to the place from where the call is coming are also accounted for in defining this algorithm. Based on the algorithm the most eligible donor is found out. From the server the call from the required person is routed to the eligible donor's number. We utilized the cloud computing service for keeping the application data available anywhere and anytime. The superior feature of our application is to use it as a volunteer plasma donor as well requester. Requester can broadcast the message along urgency sign of required plasma to the registered users and notification message will send to all the volunteer plasma donors.

Feasibility Of Ideas:

Admin:

Admin can manage both donors & acceptors. He can add or remove any user from the system. Each member in a donor &

acceptor is given a user id and password, which identifies him uniquely. From admin module use can change donor details,

delete donor or change the password.

· Change Password

· Modify donor details

· Delete donor details

· Logout

Login:

To login in the system user has first register himself/herself. After successful

Registration user can login into the system Plasma

Donor.

Acceptors:

This module helps user to find plasma group. When user click on find a plasma group system ask him to enter plasma group he wants to search. After entering the plasma group, system search for the availability of the plasma group and give him the list of the donors who has the same plasma group. Whenever a user wants to change password, he can select the change password option. Then system ask the user to enter old username and password then system check the credentials and change the password. Clicking on logout button user can log out from the system.

Business Model:

The people who are in need of plasma can search in our site for getting the details of donors having the same plasma group and

within the same city or his current location. They can directly search a donor and can select a city name as well as the plasma

group which he needs. He then gets the details of the donors who exist within the city and the same plasma that he has selected. If no match was are found for the city and group selected by him, he gets a message ‘SORRY DONORS ARE NOT AVAILABE WITH THE FOLLOWING PLASMA GROUP AND AREA’.

Scalability:

The aim is to build a Lifesaver E-Plasma Donation App using Cloud with

advanced features that will help to overcome the barrier between plasma bank, plasma donor and patient. To build an android application that will help people to get plasma in emergency situations like natural disasters using features like geo-tagging, SMS Gateway and payment gateway. To motivate people for plasma donation and to help patients receive plasma in emergency situations, we have designed an application to overcome all the problems which the current offline as well as online systems face. If in emergency a patient requires plasma, using this application we'll not just be able to contact plasma Bank and Hospitals but can also seek help from individual registered Donors

4. REQUIREMENT ANALYSIS

4.1. Functional Requirements:-

Following are the functional requirements of the proposed solution.

FR No.	**Functional Requirement (Epic)**	**Sub Requirement (Story / SubTask)**
FR-1	User Registration	Registration through Website
FR-2	User Confirmation	Confirmation via Email
FR-3	User Login	Login using Registered email Id
FR-4	Sent Request	If plasma is required, the receiver will contact the donor
FR-5	Contact Donor	Contact the donor directly if a phone number is given

FR-6	View donation camps	View the list of donation camps happening nearby

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 user interface of the plasma donor system must be well-designed and welcoming.
NFR-2	**Security**	Data storage is required by security systems, just like it is by many other applications. Databases are able to keep all the donor information that is viewed by applications. It must be secured with email Id and password.

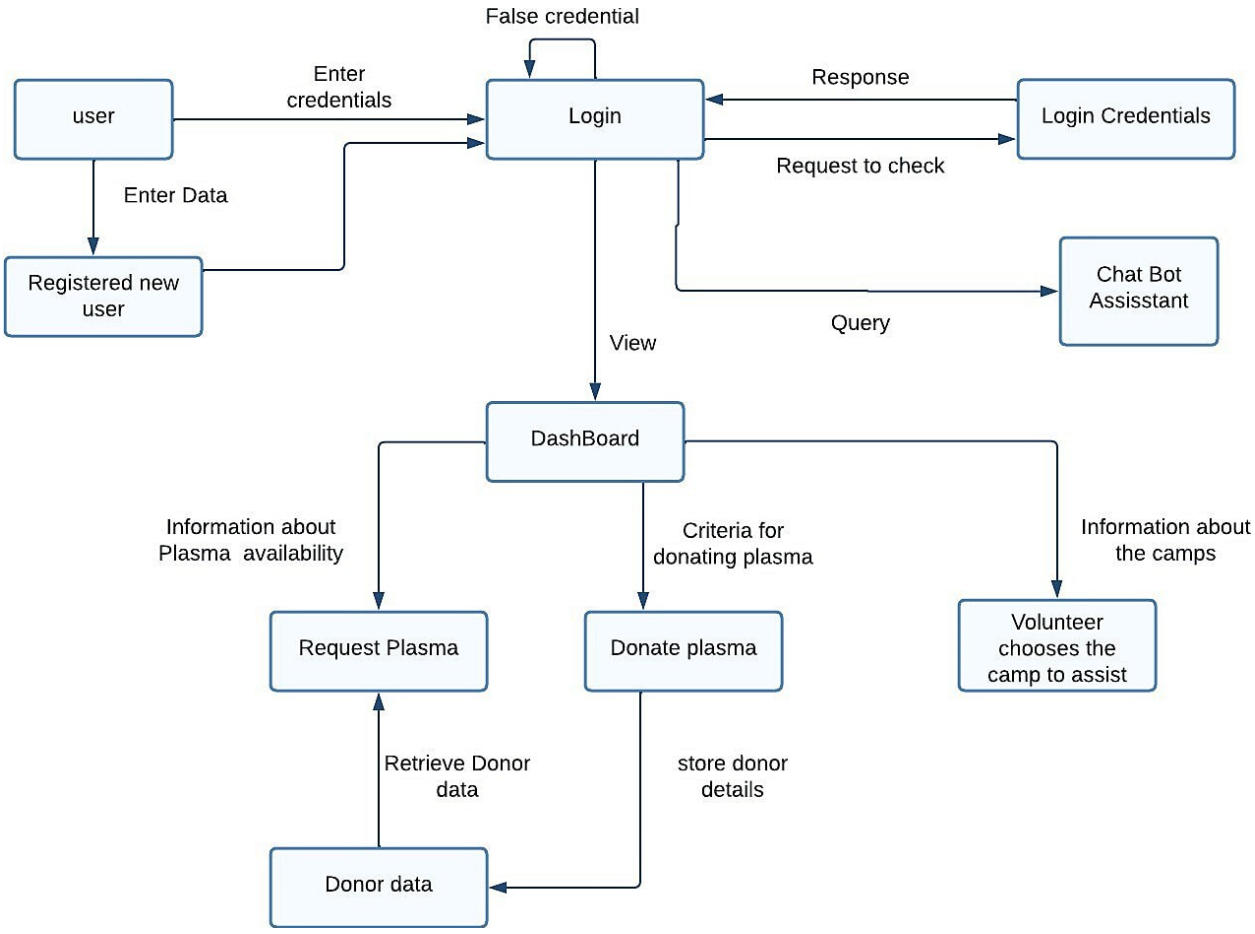
NFR-3	**Reliability**	The system has the ability to work all the times without failures apart from network failure. A donor can have the faith on the system. The authorities will keeps the privacy of all donors in a proper manner
NFR-4	**Performance**	The Plasma donor System must perform well in different scenarios. The system is interactive and delays involved are less.
NFR-5	**Availability**	The system, including the online components, should be available 24/7.
NFR-6	**Scalability**	The system offers the proper resources for issue solutions and is designed to protect sensitive information during all phases of operation.

5. PROJECT DESIGN

5.1 Data Flow Diagrams: -

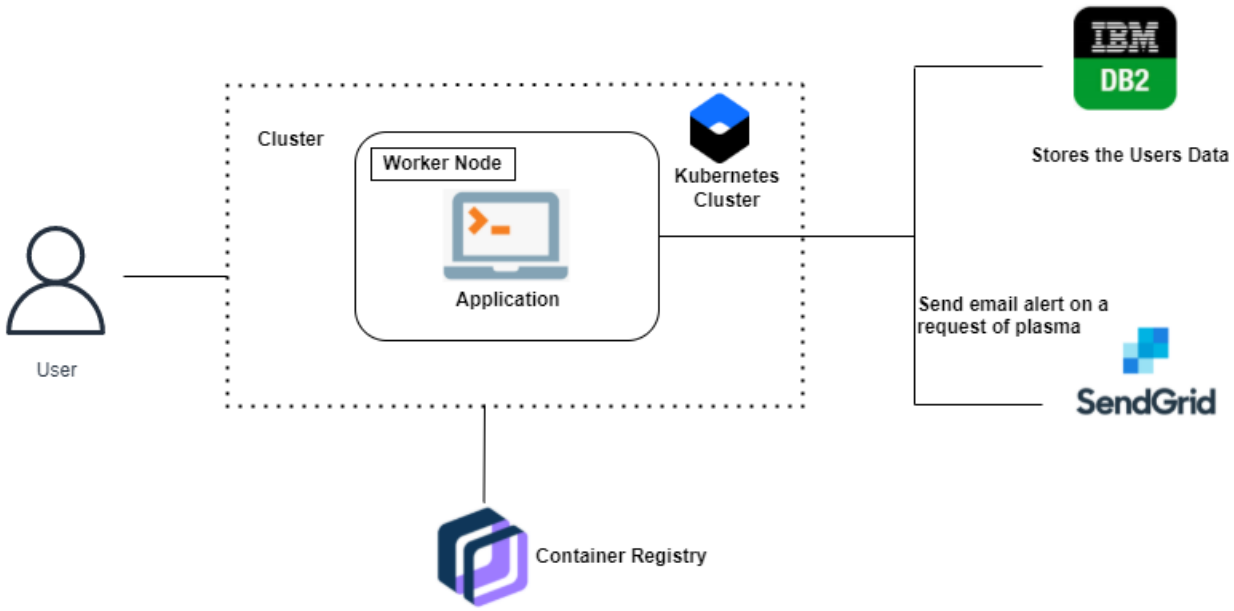
Data Flow Diagrams:

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.

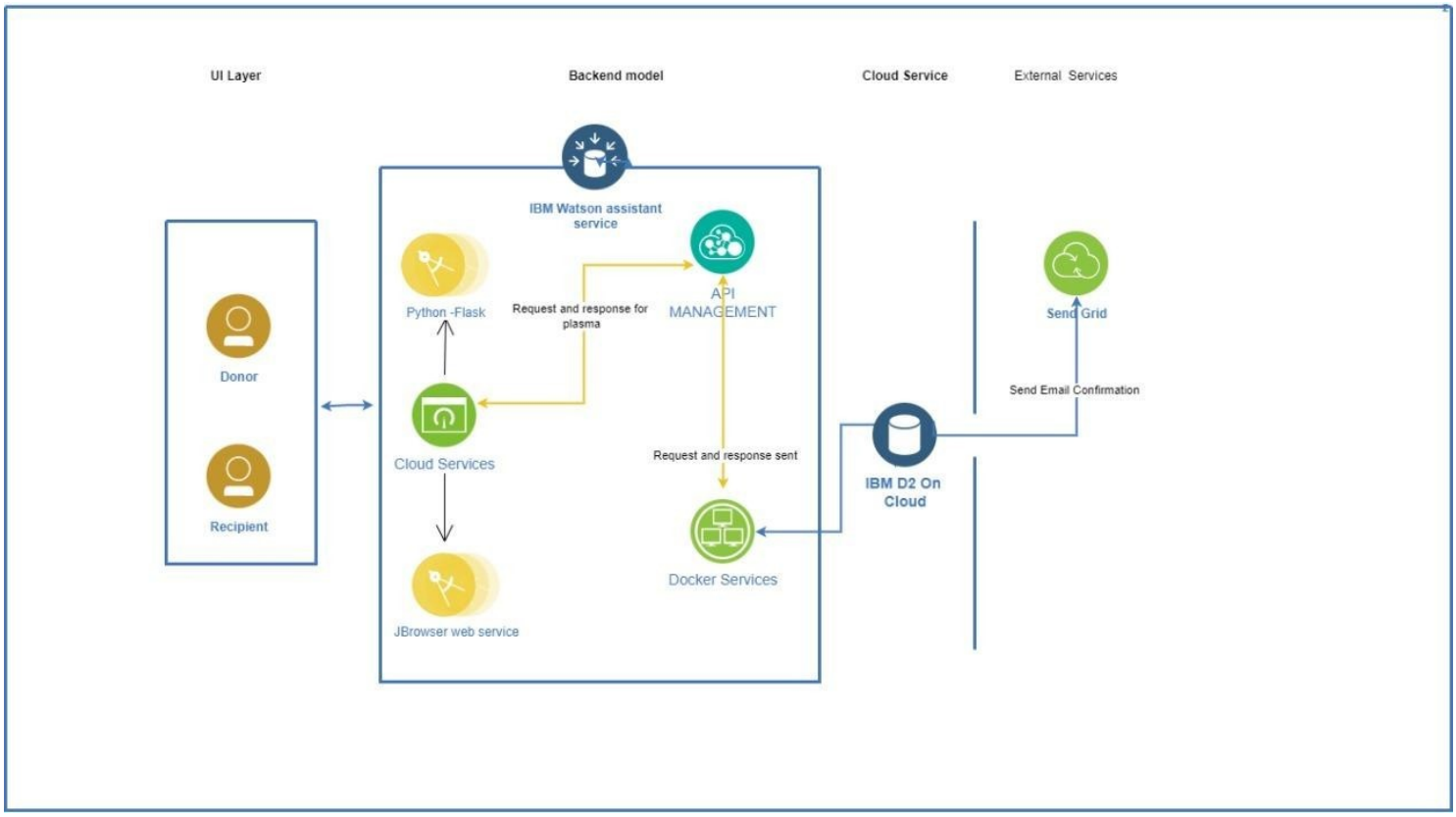


5.2 Solution & Technical Architecture: -

Solution Architecture: -



Technical Architecture:-



5.3 User Stories : -

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobileuser)	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 receiveconfirmation 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 applicationthrough Gmail	I can receive confirmation notifications through Gmail	Medium	Sprint-1
	Login	USN-4	As a user, I can log into theapplication by entering email &password	I can access into my User profile and view detailsin dashboard	High	Sprint-1
	Dashboard	USN-5	As a user,I can send the proper requests to donate and obtain plasma.	I can receive appropriate notifications throughemail	High	Sprint-1
Customer (Web user)	Login	USN-6	As a user,I can register and log into the application by entering email& password to view the profile	I can accessinto my Userprofile and view details in dashboard	High	Sprint-1
	Dashboard	USN-7	As a user,I can send the proper requests todonate and obtain plasma.	I can receive appropriate notifications through email	High	Sprint-1
Customer Care Executive	Application	USN-8	As a customer careexecutive,I can try to address user's concerns and questions	I can view and address their concerns andquestions	Medium	Sprint-2

Administrator	Application	USN-9	As an administrator I can helpwith user-facing aspects of a website, like its appearance, navigation and use of media.	I can change the appearance and navigation in a user friendly manner	Medium	Sprint-3
		USN-10	As an administrator, I can involveworking with the technical sideof websites.	I can help with such as troubleshooting issues,setting up web hosts, ensuring users have access and programming servers	Medium	Sprint-1

6. PROJECT PLANNING AND SCHEDULING

6.1 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

1. Sprint 1 is about creating the login page and the register page.
2. Sprint 2 is about sending the confirmation mail to the users during registration.
3. Sprint 3 is about as a user, can log into application by entering email and password.
4. Sprint 4 is about as user, can register and make request for plasma donation via portal.

Guidelines:

1. Include all the processes (As an application logic / Technology Block)
2. Provide infrastructural demarcation (Local / Cloud)
3. Indicate external interfaces (third party API's etc.)
4. Indicate Data Storage components / services
5. Indicate interface to machine learning models (if applicable)

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user register and login. See the UI.	HTML, CSS, Python Flask
2.	Data maintenance	Store , maintain ,retrieve the user's details.	MYSQL
3.	Chatbot	Clarify user queries.	IBM Watson service
4.	Confirmation Email	Sending the confirmation email to users they have registered successfully.	SendGrid
5.	Cloud Database	Cloud database to store plasma information and View Plasma information.	IBM DB2
6.	File Storage	File storage requirements	IBM Block Storage

7.	Infrastructure (Server / Cloud)	To deploy the application on Local System	Kubernetes

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Python Flask frameworks is used.	Python Flask
2.	Security Implementations	Mandatory Control(MAC) and kubernetes is used.	SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	3-Tier Architecture is used.	Web server-HTML,CSS Application Server-Python Flask Database Server-IBM DB2
4.	Availability	Using Load Balancer to distribute network traffic across Servers.	IBM Load Balancer
5.	Performance	User Friendly UI. Request and Response is faster.	IBM Content Delivery Network

6.2 Sprint Estimation and Delivery Schedule:

A sprint estimation shows how much effort a series of tasks require. It's based on assumptions, requirements, and dependencies of a project.

Use the below template to create product backlog and sprint schedule

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Registration and Login	USN-1	Create UI to interact with pages. To create the user and admin login functionality	20	High	S.Soundaria S.Sindhu S.Sakthi Nivasni S.Subraja
Sprint-2	Cloud and Database	USN-2	Connecting flask app with database[IBMDB2] Implementation of IBM chatbot	20	High	S.Soundaria S.Sindhu S.Sakthi Nivasni S.Subraja
Sprint-3	Deployment in Devops phase	USN-3	Integration with sendgrid to send email to the users.	20	High	S.Soundaria S.Sindhu S.Sakthi Nivasni S.Subraja
Sprint-4	Testing and Deployment to user	USN-4	Creating images with docker, Deploying Kubernetes and adding the mailing service.To make sure	20	High	S.Soundaria S.Sindhu S.Sakthi Nivasni S.Subraja

			that the software is handy to users.			

Sprint	Total Story point	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	5 Days	27 Oct 2022	01 Nov 2022	20	01 Nov 2022
Sprint-2	20	6 Days	02Oct 2022	07 Nov 2022	20	07 Nov 2022
Sprint-3	20	6 Days	08 Nov 2022	13 Nov 2022	20	13 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)

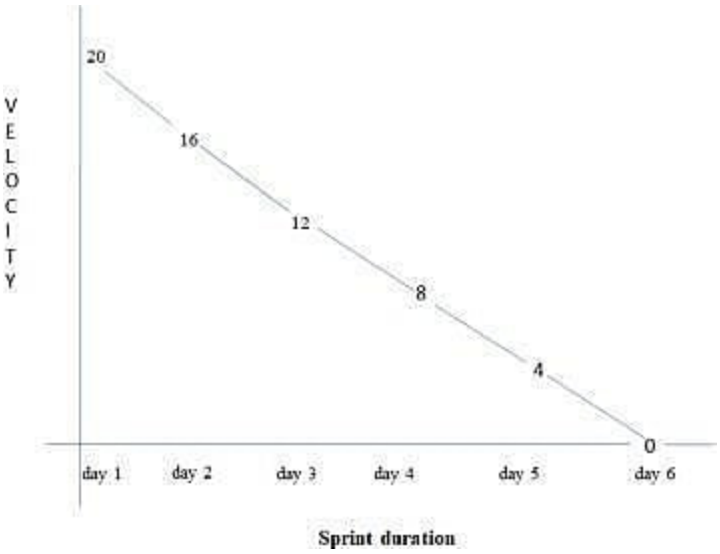
Sprint duration = 6 Days Velocity of the team = 20

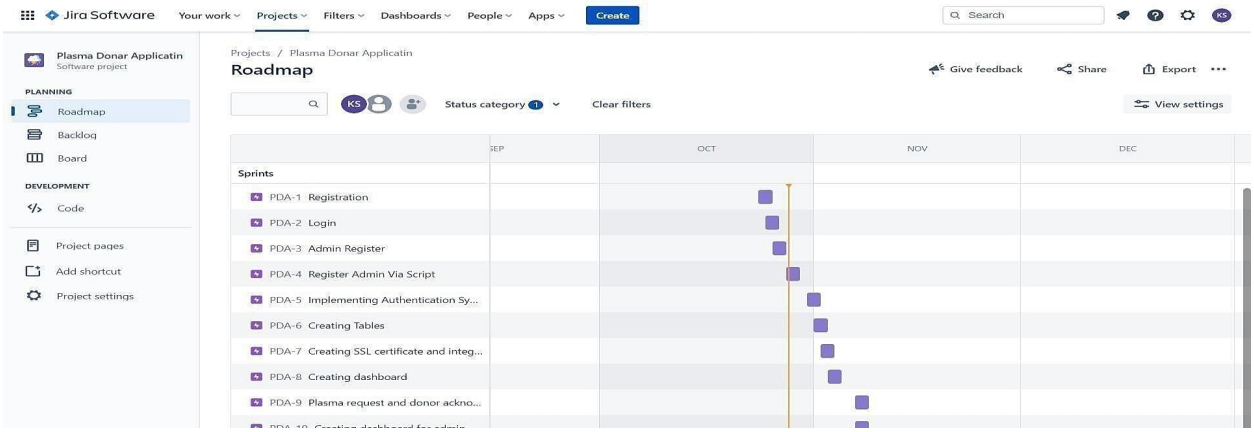
AV = 20 / 6 = 3.34

Average Velocity = 3.34

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

7.1 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 beneft with encoding, and tends to be easier to use. SMTP provides many features by default, but is harder to setup.

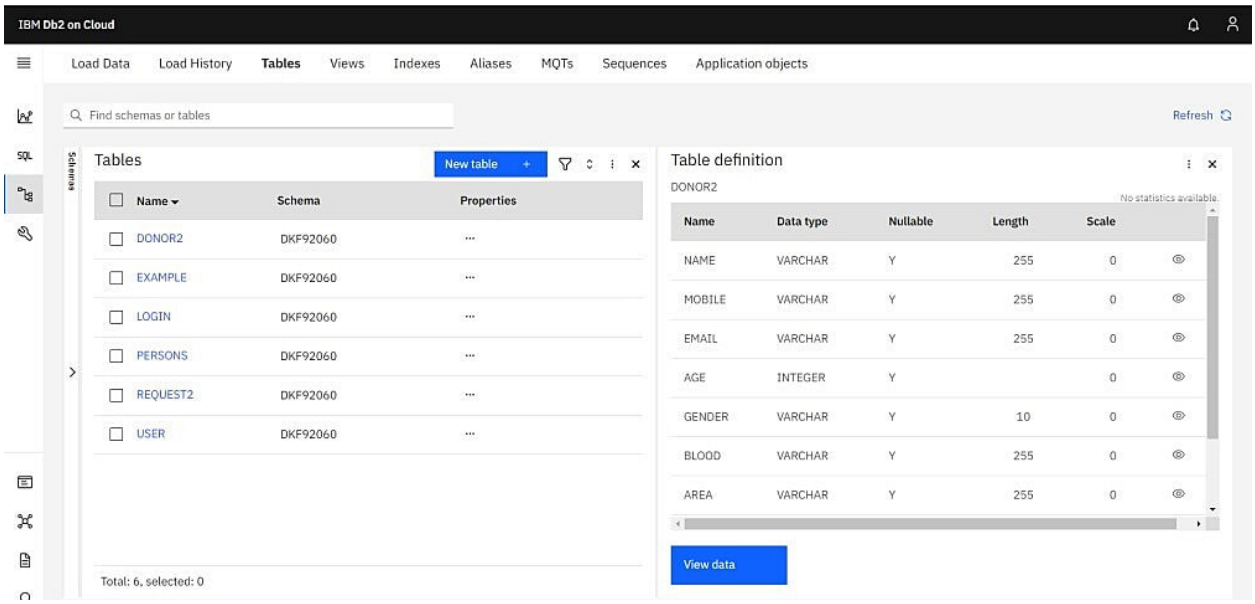
Web API

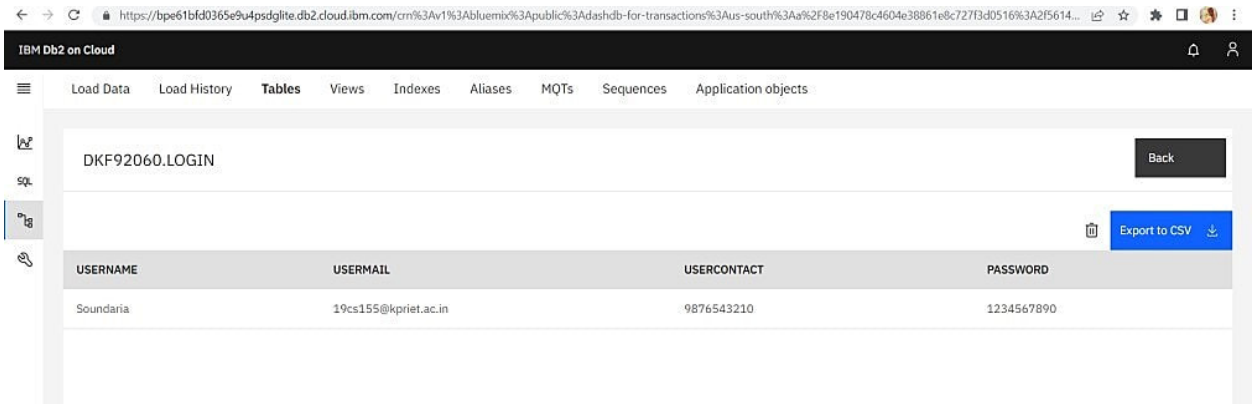
1. The Web API has some advantages over SMTP:
2. If your ISP blocks all outbound mail ports and your only option is HTTP.
3. If there is high latency between your site and ours, the Web API might be quicker since it does not require as many messages between the client and server.
4. If you do not control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

SMTP Relay

1. 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.
2. Change your SMTP username and password to your SendGrid credentials.
3. Set the server host name to smtp.sendgrid.net
4. Use ports 25 or 587 for plain/TLS connections and port 465 for SSL connections.

7.2 Database Schema


IBM Db2 on Cloud
Load Data
Load History
Tables
Views
Indexes
Aliases
MQTs
Sequences
Application objects
Find schemas or tables
Refresh
Schema
Tables
New table
Name
Schema
Properties
DONOR2 DKF92060
EXAMPLE DKF92060
LOGIN DKF92060
PERSONS DKF92060
REQUEST2 DKF92060
USER DKF92060
Total: 6, selected: 0
Table definition
DONOR2
No statistics available.
Name Data type Nullable Length Scale
NAME VARCHAR Y 255 0
MOBILE VARCHAR Y 255 0
EMAIL VARCHAR Y 255 0
AGE INTEGER Y 0
GENDER VARCHAR Y 10 0
BLOOD VARCHAR Y 255 0
AREA VARCHAR Y 255 0
View data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IBM Db2 on Cloud
Load Data
Load History
Tables
Views
Indexes
Aliases
MQTs
Sequences
Application objects
DKF92060.LOGIN
Back
Export to CSV
USERNAME USERMAIL USERCONTACT PASSWORD
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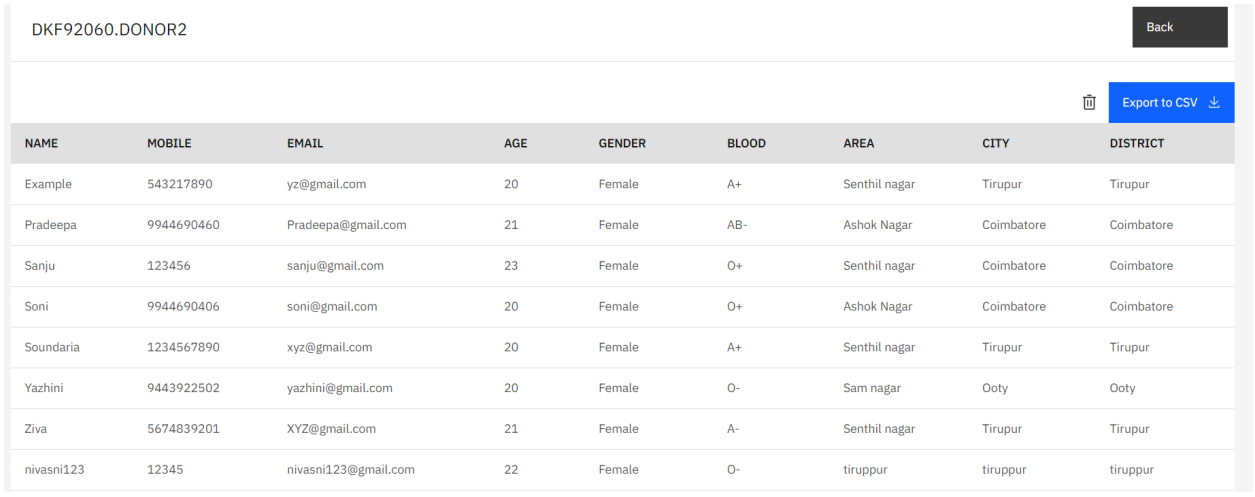

DKF92060.DONOR2
Back
Export to CSV
NAME MOBILE EMAIL AGE GENDER BLOOD AREA CITY DISTRICT
Example 543217890 yz@gmail.com 20 Female A+ Senthil nagar Tirupur Tirupur
Pradeepa 9944690460 Pradeepa@gmail.com 21 Female AB- Ashok Nagar Coimbatore Coimbatore
Sanju 123456 sanju@gmail.com 23 Female O+ Senthil nagar Coimbatore Coimbatore
Soni 9944690406 soni@gmail.com 20 Female O+ Ashok Nagar Coimbatore Coimbatore
Soundaria 1234567890 xyz@gmail.com 20 Female A+ Senthil nagar Tirupur Tirupur
Yazhini 9443922502 yazhini@gmail.com 20 Female O- Sam nagar Ooty Ooty
Ziva 5674839201 XYZ@gmail.com 21 Female A- Senthil nagar Tirupur Tirupur
nivasni123 12345 nivasni123@gmail.com 22 Female O- tiruppur tiruppur tiruppur

8.TESTING :

TEST ID	FEATURE / MODEL	DESCRIPTION OF TASKS	CONDITION	EXPECTED RESULTS	RESULT	DEFECT / COMMENTS / ADDITIONS	BUG ID
1	Regester Page	A signup page (also known as a registration page) enables users and organizations to independently register and gain access to your system. It is common to have multiple signup pages depending on the types of people and organizations you want to register.	New User Regester	Enter their data's to the user Table	Pass	Everything is working Fine	Nil
			Already Registered User	Ask the user to log in	Pass		Nil
2	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.	If the entered email id and password match with the datat in the database.	Move to the dashboard	Pass	Working good	Nil

			If the entered email id and password not match with any of the data in the database.	show the error message	Pass	**Comments:** After the error message move the user to the login page.	Nil
3	Dashboard Page	In this dash board we can able to see the total two options one is for the requestor page and another one is donor.	If the user is loged in.	Shows the data's that are related to that logged in user.	Pass	Working fine	Nil
4	Donor Page	In Donor page one can able to donate their plasma.	User can able to donate	User is able to donate plasma	Pass	**Comments:** After the donate show the user that the update alert message not just the normal message at the top.	Nil
			Click Logout Button	Clear the flask session variables and move to the login page	Pass		Nil

5	Requestor page	In Requestor page one can able to request for plasma from the donor lise	On filling the form user can receive plasma	The user can raise a request	Pass	**Comments:** Display alert message after the addition of details.	Nil
6	SendGrid	By using the SendGrid we can able to send the mail to the user. About the Expense is over the budget.		Mail to the user's registered email	Pass		Nill

i. **Acceptance Testing:**

Purpose of Document

The purpose of this document is to briefly explain the test coverage and open issues of the Plasma Donor application project at the time of the release to User Acceptance Testing (UAT).

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	3	4	2	3	20
Duplicate	1	0	3	0	4

External	2	3	0	1	6
Fixed	12	2	4	20	37
Not Reproduced	0	0	1	0	1
Skipped	0	0	4	2	2
Won't Fix	0	5	2	1	8
Totals	24	14	16	27	77

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	5	0	0	5
Client Application	30	0	0	30
Security	3	0	0	3
Outsource Shipping	3	0	0	3
Exception Reporting	5	0	0	5
Final Report Output	3	0	0	3
Version Control	3	0	0	3

9. RESULT

9.1 Authentication Module

• 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.

9.2 Service Provider Module

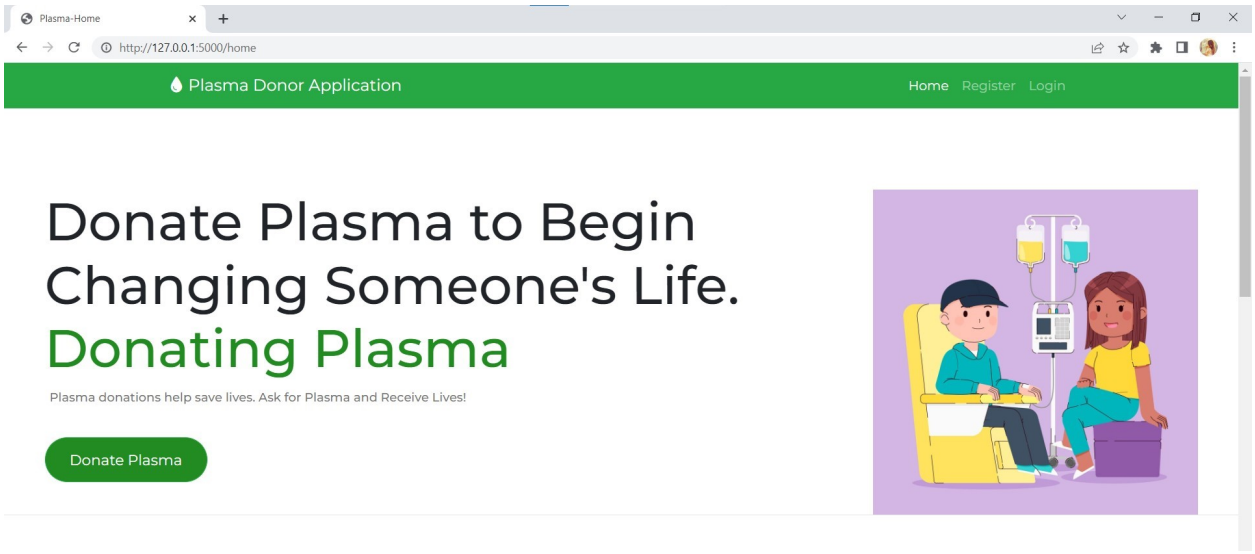
• Add New Donor

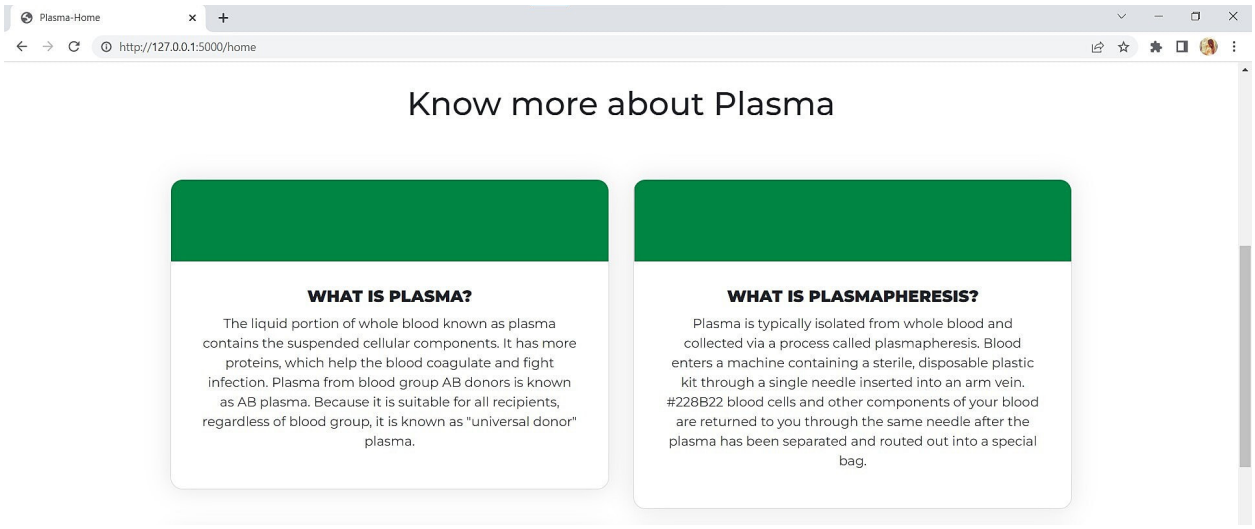
User can be able to register to add donor details

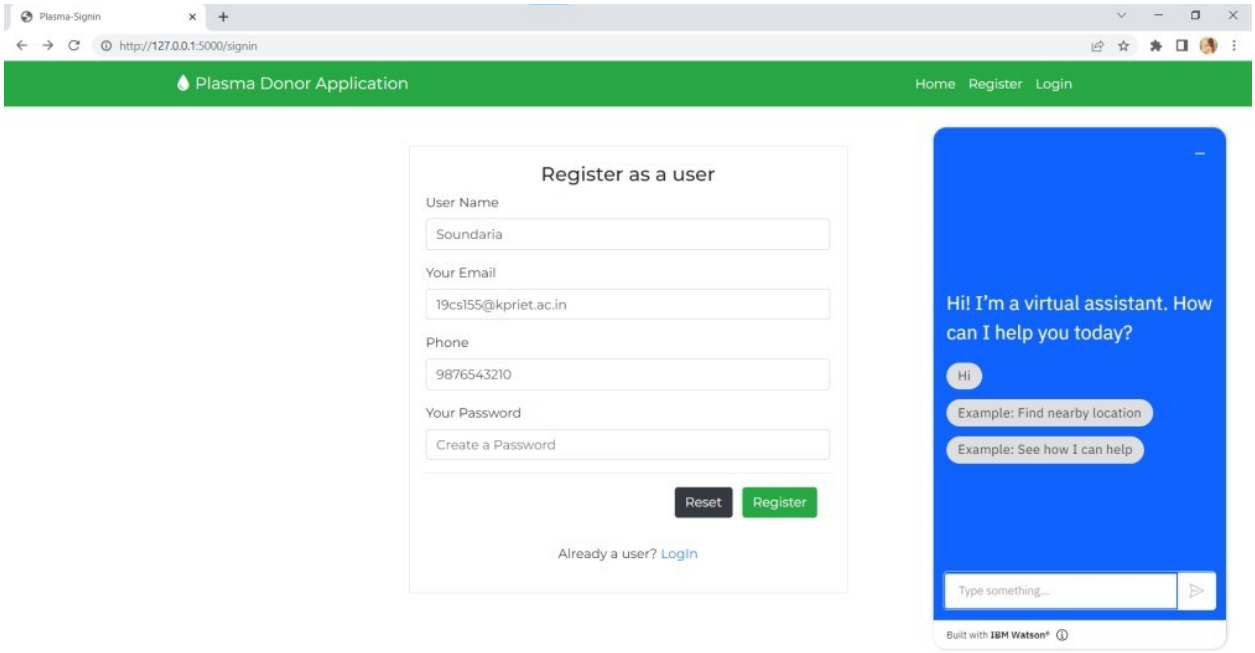
. • List All Donor

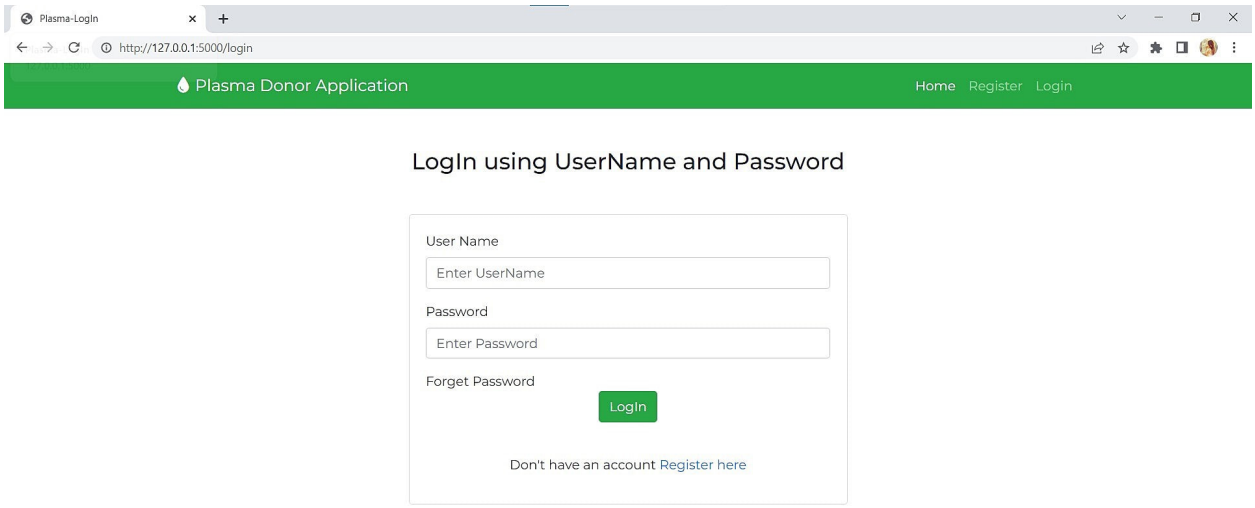
User can be able to view all Donor who all use our Plasma Donor Application. • Edit Customer Plan Details User can be able to edit the existing Donor details as the Donor wish.

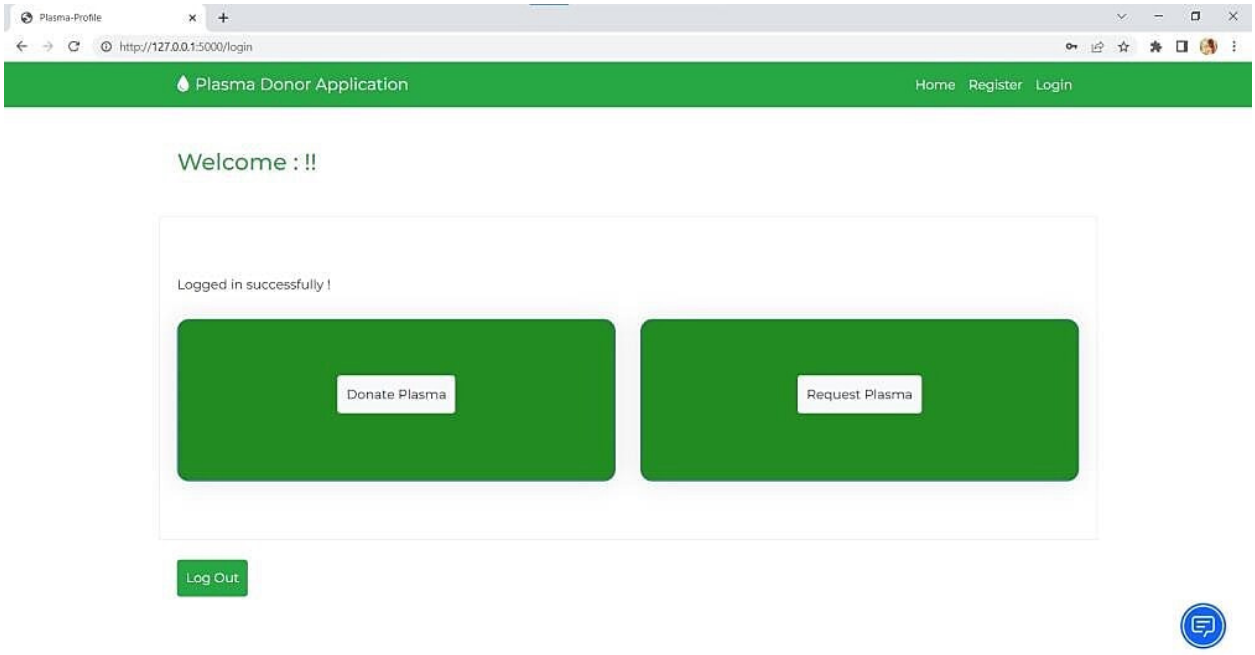
9.3 Screen Layouts

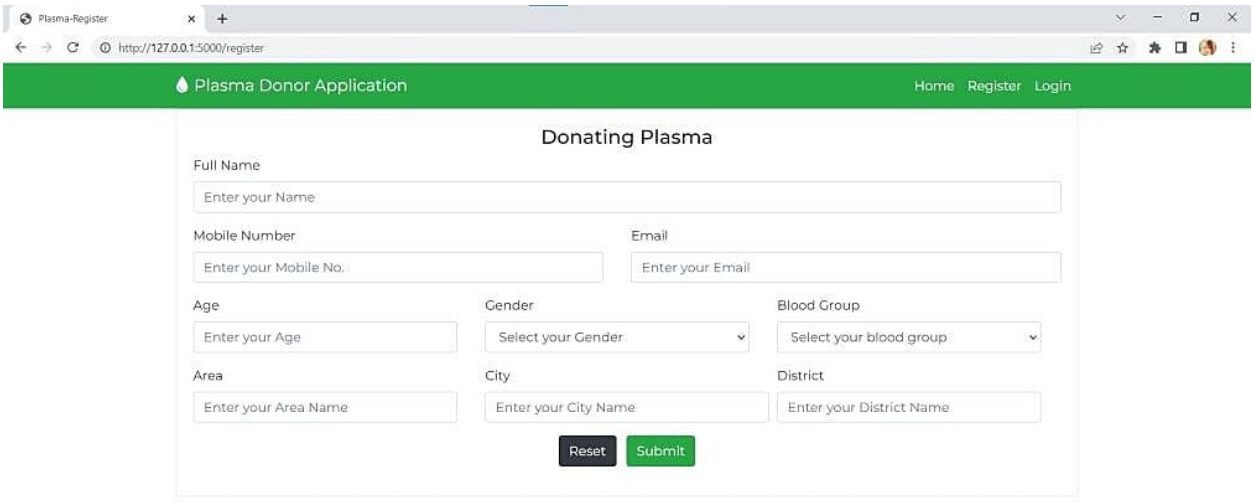



Plasma-Home
http://127.0.0.1:5000/home
Know more about Plasma
WHAT IS PLASMA?
The liquid portion of whole blood known as plasma contains the suspended cellular components. It has more proteins, which help the blood coagulate and fight infection. Plasma from blood group AB donors is known as AB plasma. Because it is suitable for all recipients, regardless of blood group, it is known as "universal donor" plasma.
WHAT IS PLASMAPHERESIS?
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. #228B22 blood cells and other components of your blood are returned to you through the same needle after the plasma has been separated and routed out into a special bag.


Plasma-Signin
http://127.0.0.1:5000/signin
Plasma Donor Application
Home Register Login
Register as a user
User Name
Soundaria
Your Email
19cs155@kpriet.ac.in
Phone
9876543210
Your Password
Create a Password
Reset
Register
Already a user? LogIn
Hi! I'm a virtual assistant. How can I help you today?
Hi
Example: Find nearby location
Example: See how I can help
Type something...
Built with IBM Watson®


Plasma-LogIn
http://127.0.0.1:5000/login
Plasma Donor Application
Home Register Login
LogIn using UserName and Password
User Name
Enter UserName
Password
Enter Password
Forget Password
LogIn
Don't have an account Register here


Plasma-Profile
http://127.0.0.1:5000/login
Plasma Donor Application
Home Register Login
Welcome : !!
Logged in successfully !
Donate Plasma
Request Plasma
Log Out



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, 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.

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.

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 user-friendly frameworks.

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.

13. APPENDIX

- GitHub and Source code Link - https://github.com/IBM-EPBL/IBM-Project-4727-1658738485
- Output Demo link -

https://drive.google.com/file/d/1wnrS9cdK96NpkyZT7iDM3f3wzBl81oPs/view?usp=share_link