PROJECT REPORT DOCUMENTATION

DATE	**21 November 2022**
TEAM ID	**PNT2022TMID24313**
PROJECT	**PLASMA DONOR APPLICATION**

1. INTRODUCTION

1.1 Project Overview:

The main goal of our project is to design a user-friendly web application that is like a scientific vehiclefrom which we can help reduce mortality or help those affected by COVID-19 bydonating plasma from patients who have recovered without approved antiretroviral therapy planning for deadly COVID-19 infection, plasma therapy is an experimental approach to treat those COVID-positive patients and help them recover faster. Therapy, which is considered reliable and safe. If a particular person has fully recovered from COVID-19, they are eligible to donate their plasma. As we all know, the traditional methods of finding plasma, one has to find out for oneself by looking at hospital records and contacting donors have been recovered, sometimes may not be available at home and move to other places. In this type of scenario, thehealth of those who are sick becomes disastrous. Therefore, it is not considered a rapidprocess to find plasma. The main purpose of the proposed system, the donor who wants to donate plasma can simplyregister through the web application and can donate the plasmato the blood bank, the blood bankcan apply for the donor and once the donor has accepted the request, the blood bank can add the units theyneed and the hospital can also send the request to the blood bank that urgently needs the plasma for the patient and can take the plasma from the blood bank.

1.2 Purpose:

The Plasma Donation Application would help Donors, as well as patients in need of plasma. It wouldallow you to search for Plasma Donors within your city and having a specific Blood Group.People who havefully recovered from COVID-19 have antibodies in their plasmathat can attackthe virus. This convalescentplasma is being evaluated as a treatment for patients with seriousor immediately life-threatening COVID- 19 infections, or those judged by a healthcare provider to be at high risk of progression to severe or life- threatening disease. This application can be considered as a contribution of its developers towards the medicalunit of the country as well as towards humanity.

2. LITERATURE SURVEY

2.1 Existing Problem:

When a patient needs plasma, he/she has to contact a compatible donor on their circle, but it isdifficult to find a suitable donor in a group for a particular time of period. Currently people in need of plasma post pleas on

social media to attract potential donors, but pleas on social media take longer to reach a wider audience. As a result,recipients are unableto find the donors withinthe required time.

2.2 References:

1. Ripathis S, Kumar V, Prabhakar A, Joshi S, Agarwal A (2015). "Microscale Passive Plasma Separation:A Review of Design Principles and Microdevices," 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.

2. Kalpana DeviGuntoju, Tejaswini Jalli, Sreeja Uppala, Sanjay Mallisettiinstant plasma donor recipient connectorweb application 2022. JOURNAL: InternationalResearch Journalof modernization in engineering technology and Science

3. M Sai Tarun, Ravi Kishan, Shaik AzaadSuraz Basha, Shaik RajAhammad, Chandrasekhar, Neha BaggaBlood BankManagement System2021. Journalof Emerging Technologies and InnovativeResearch.

4. Nayan Das, MDAsif Iqbal Nearest Blood Plasma Donor Finding: A Machine Learning Approach 2020 23rd International Conference on Computer and Information Technology.

5. Ms.PradnyaJagtap, Ms.MonikaMandale, Ms.PrachiMhaske, Ms.SonaliVidhate, Mr. S.S. Patil Implementation of blood donation application using android smartphone 2018 Open access International journal of science & engineering.

2.3 Problem Statement Definition:

During the COVID-19 crisis, the requirement of plasma became a high priority and the donor count has become low. Saving the donor information and helping the needy by notifying the current donor list, would be a helping hand. In regard to theproblem faced, an application is to be built which would take thedonor details,store them and inform them upon a request.

Whodoes the problemaffect?

People who are affected by COVID and are in need of a PlasmaDonor.

What is the issue?

When a patient needs plasma,he/she has to contact a compatible donor on their circle,family and friends but it is difficult to find suitable donor within a limited group of people in a given time.

What is the impactof the issue?

During the COVID 19 crisis, the requirement of plasma became high and the donor count being low. It is very difficultto find the respective blood group donorswhen someone is in need.

What would happen if we didn’tsolve the problem?

The gap between the Donor and Recipient would widen. People who are eager to donate plasma cannot find the right recipient. Currently, people in need of Plasma post Pleas on Social Media to attract potential donors. But Plea’s on social media take longer to reach a wider audience. As a result recipients are unable to find donors withinthe required time.

What would happenwhen it is fixed?

The application makes it feasible for the COVID-19 patients to get a plasma donor easily and makes it possible to find a plasma donor without much difficulty.

Why is it importantthat we fix the problem?

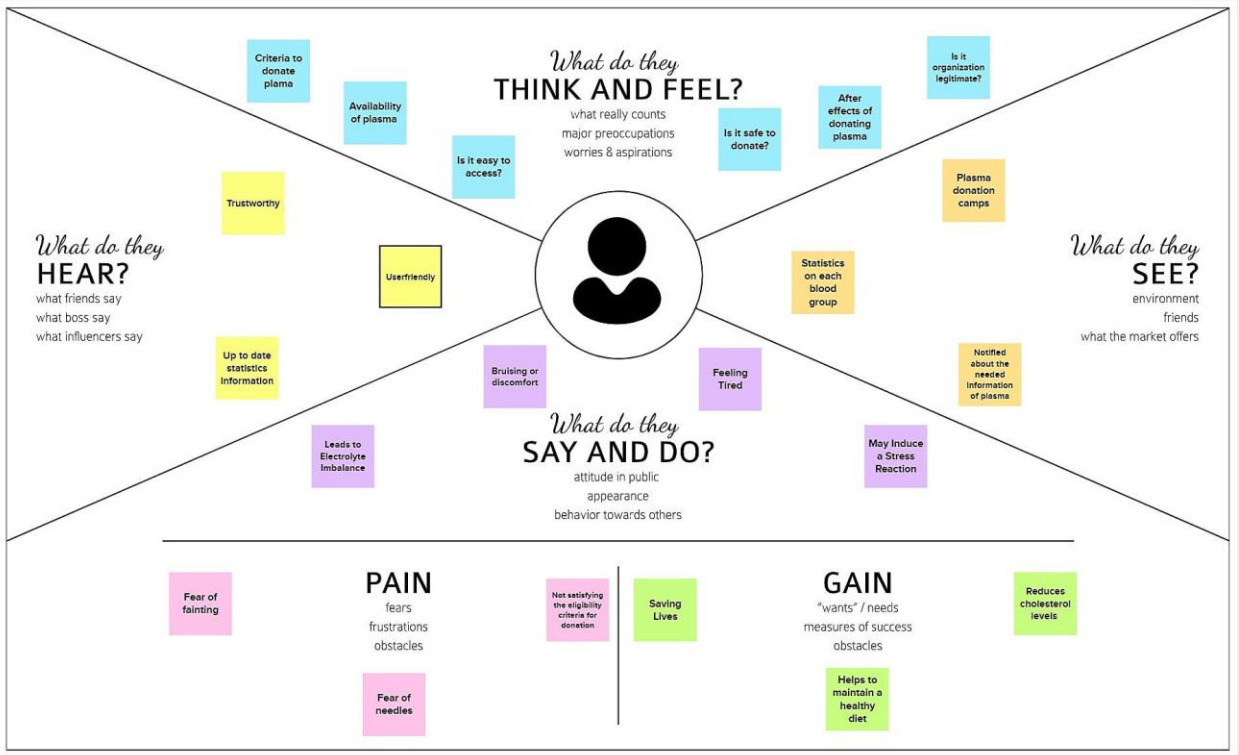
In severe cases if the recipient is unable to find a donor, then his/her condition could worsen and may potentially resultin death.

3. IDEATION & PROPOSED SOLUTION

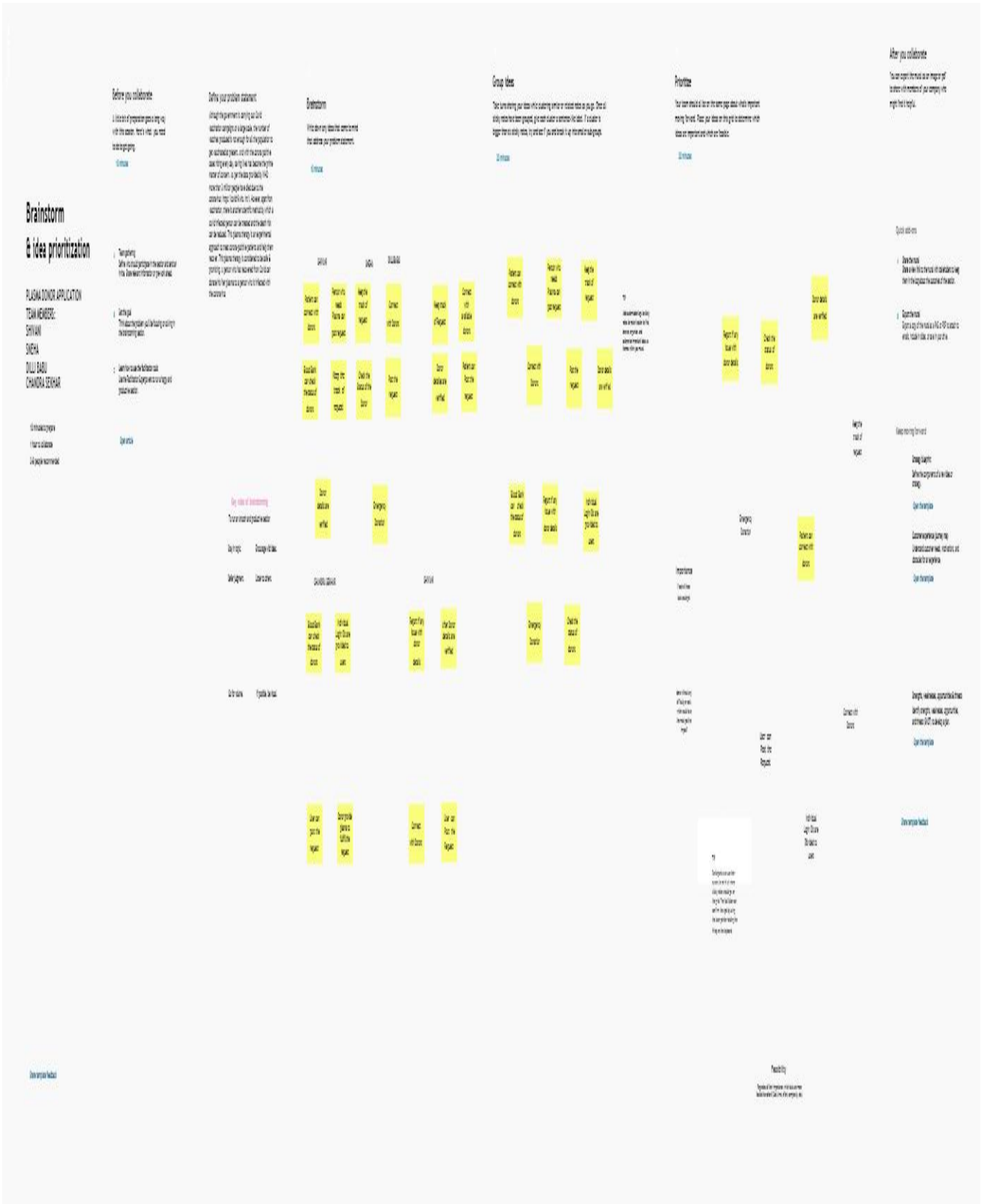
3.1 Empathy Map Canvas

1

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



3.2 Ideation and Brainstorming



3.3 Proposed Solution:-

This proposed system 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 requirements.

The basic solution is to create a centralized system to keep a track on the upcoming as well as past Plasma Donation Events. The recommendation solution is as follows:

Application contains two roles:

- Admin
- User User:

1. If the user wants to donate or receive they have to register with their personal details.
2. After successful registration of user.
3. A successful registration email is send to the user.
4. After successful registration user will be directed to home page.
5. They will be asked to press whether they will be donor or receiver.
6. 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.
7. After filling the donation form he/she will redirected to page in which he/she can download the ecertificate.
8. 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:

9. Admin can login using their credentials.
10. Admin can edit the request.
11. Admin can delete the request.
12. Admin can add volunteers.

3.4 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.

Social Impact / Customer Satisfaction:-

We are living in a modern world and everything can be accessed online. Even though there are many application there is no proper application for plasma donation . Many of them wish to donate blood and plasma but they are unaware about donation and how they can donate. This application provides opportunity to those who want to donate plasma. Donation of plasma are happening in many places many of them come forward to donate but it is not available at right time for use. Sometimes there is a shortage of plasma of particular type. Additional facilities that we need is to access the patients information quickly before plasma transfusion. To solve this issue software applications are employed with Cloud computing and Internet of Things tool which enable features such as information retrieval and continuous data tracking with analytics. This application avoids circulating of wrong information. A single platform for maintaining genuine information and increase the trust of participants involved int his activity. It increases the number of donors.

Business Model (Revenue Model):-

This application is accessible by everyone . It is free. Because of the trouble in finding givers who match a specific blood bunch, this application empowers clients to enlist individuals who wish to give plasma and keep their data in a data set. Nowadays the need for plasma increases. Anyone with basic knowledge can access this app. This can be used anywhere anytime. working with the government we can utilize an application to help those needing plasma.

Scalability of the Solution :-

This application helps users to find plasma donors by sitting in home itself instead of searching donors everywhere. When there is a emergency then plasma request to send to everyone. Once the donor is ready to donate receiver is notified about donation. Receiver can contact the donor. With this app donor can know the eligibility to donate and making it easier to locate suitable donor at right time.

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.

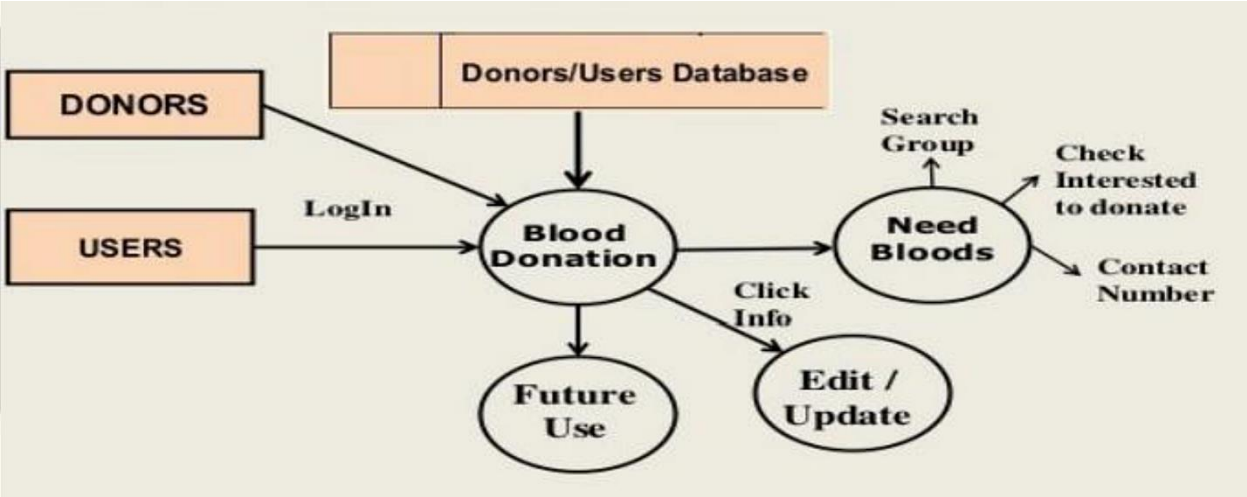
FR No.	Non-Functional Requirement	Description
NFR-1	Usability	User friendly interface with easily accessible,well-looking and interactive chatbots.
NFR-2	Security	Data of donor and recipient should be saved in a secured manner.The usercan only loggedin using the correctpassword and username.
NFR-3	Reliability	The systemshould be builtin such a way thatitis reliable in its operations as well as to secure thesensitive details.
NFR-4	Performance	Users should have a proper internetconnection.
NFR-5	Availability	The system should have efficient active service. Must be available all times. Incase ofhardware or database corruption, backups ofthe data should beretrieved fromthe web application.

NFR-6	Scalability	The systemshould be scalable to handle a large number of users and should not get disrupted whileusingthe system application.

5. PROJECT DESIGN

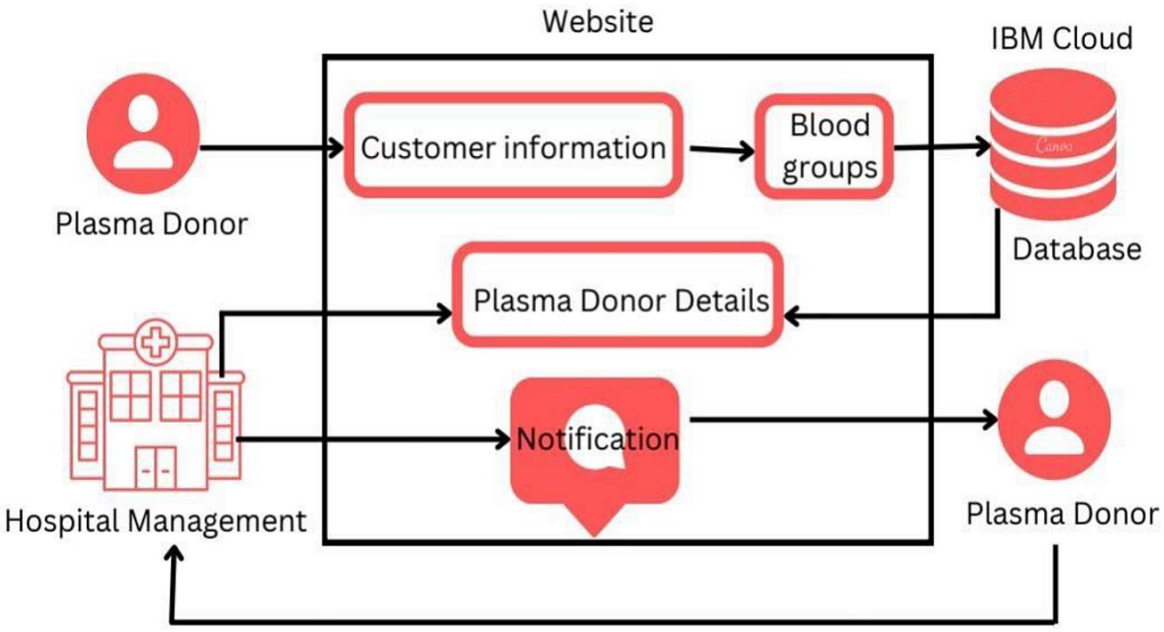
5.1 Data Flow Diagrams

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 showshow data enters and leaves the system, what changes the information, and where data is stored.



5.2 Solution & Technical Architecture: -

Solution Architecture: -



5.2.2 Technical Architecture

The deliverable shall include the architectural diagram as below

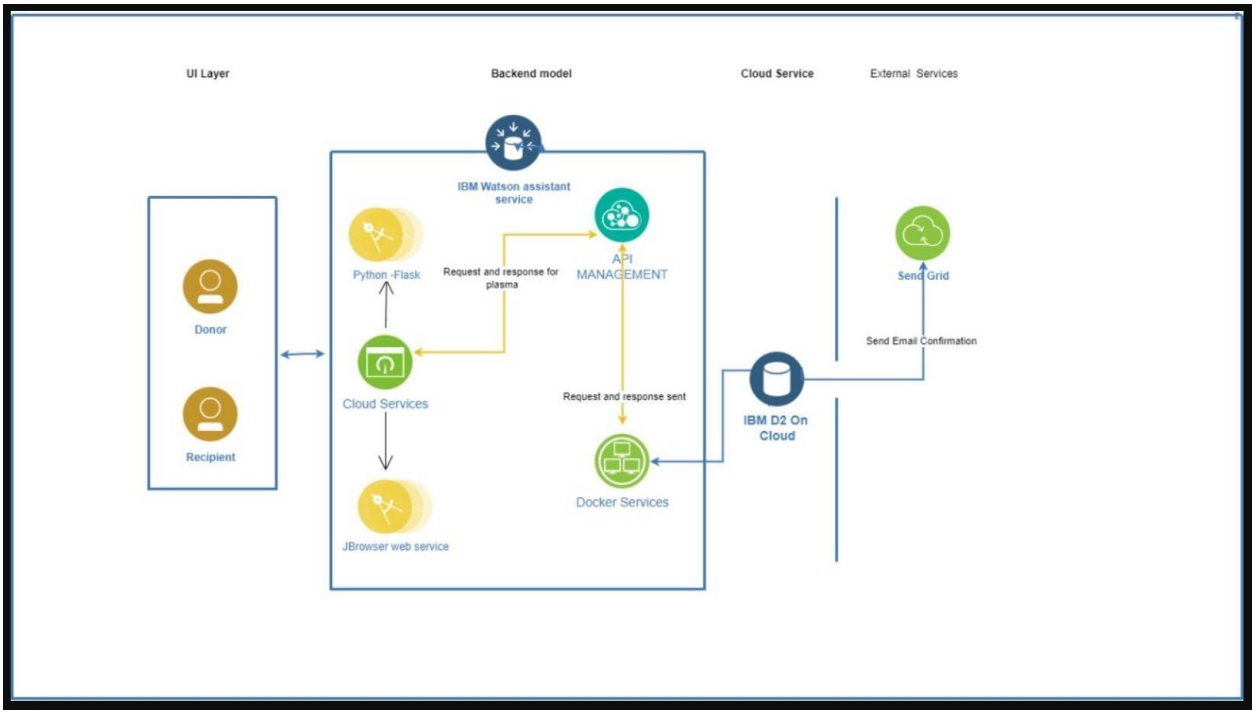


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts withapplicatione.g.Web UI, MobileApp, Chatbot etc.	HTML, CSS
2.	Application Logic-1	NewUser registers in the applicationby giving thegenuine contact details which willbe storedin the database.	Flask,HTML,CSS
3.	Application Logic-2	Usersloginto the application byproviding theusername and password.	Flask,IBM DB2
4.	Application Logic-3	Stats page displays the blood unit count available and thenumber of donors available for eachblood group	IBM WatsonAssistant
5.	Application Logic-4	A request page that collects thename,contact number,gender andthe bloodgroup needed.Finallythe requestis sent to a donor whoseblood group matches withthe request.	Sendgrid
6.	Database	Characters,Integers,String,Long, Configurations	IBM DB2, MySQL
7.	Cloud Storage	Database service on cloud	IBM DB2, IBM Block Storageor Other Storage Service or LocalFilesystem
8.	External API-1	Authentication, used to store,manageanddeploycontainer images.	Flask, Container registry
9.	External API-2	Sending request to donors	Sendgrid
10.	Infrastructure (Server/ Cloud)	Application Deployment	Kubernetes, cloudfoundry

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Python Flask
2.	Security Implementations	List all the security / access controls implemented,use of firewalls etc.	Doctor content Trust (DCT), Transport LayerSecurity(TLS), Containerregistry
3.	Scalable Architecture	Justifying the scalability of architecture (3 – tier, Micro-services) Kubernetesprevents hardwareproblems likedowntime error.	Docker, Kubernetescluster
4.	Availability	Use of load balancers, distributed servers. Kubernetes provide all timeavailability.	Kubernetes
5.	Performance	Application performance is improved by Docker	Docker

6. PROJECT PLANNING AND SCHEDULING

6.1Sprint Planning and Estimation

Sprint	Functional Requirement	User StoryNumber	User Story / Task Story	Points	Priority
Sprint-1	Registration	PDA-1	As a user, I can register for theapplication by entering my Name, email, password,	3	High

			confirming my password, Age, Blood Group.		
Sprint -3	Registration	PDA-2	As a user, I will receive confirmation email once I haveregistered for the application	3	Medium
Sprint -2	Registration	PDA-3	Connecting with IBM Database	5	Medium
Sprint -1	Login	PDA-4	As a user, I can log into the application by entering email andpassword	1	High
Sprint -3	Handle request	PDA-5	As a donor ,I will receive requestmail from therecipient	4	Medium
Sprint -4	Handle request	PDA-6	Confirmation mail for requestedrecipient	2	Low
Sprint -4	Deployment	PDA-28	Deploying the app to IBM Kubernetes	2	Low
Sprint -1	Home Page	PDA-10	As a user, I can view the homepage of the website	2	Medium
Sprint -1	About Page	PDA-12	As a user,I can view the aboutpage on the website and get information related to Plasma Donation	2	Medium
Sprint -2	Register as Donor	PDA-13	As a user, I can register as a donorby submitting a form anduploading certificate of recovery from Covid-19	3	High
Sprint -2	Send Request	PDA-14	As a user, I can raise a requestforplasmadonation with specific requirements through	2	High
			the request page.		

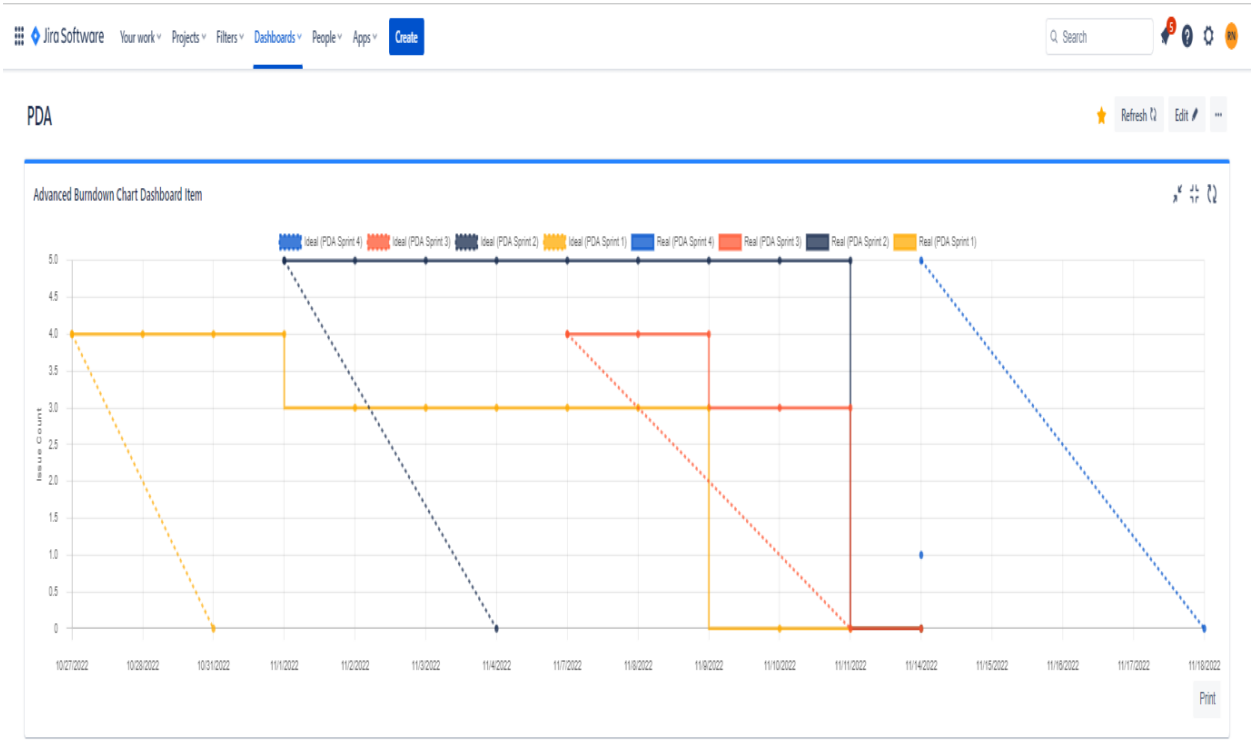
Sprint-3	View Requests	PDA-15	As a user, I can view requests forplasma donation verified byadmin	4	Medium
Sprint-4	Maintenance	PDA-16	As an admin, I can maintain thedatabases involved	2	Medium
Sprint-2	Handle Requests	PDA-17	As an admin, I can view all requests for plasma donation	1	High
Sprint-4	Handle Requests	PDA-18	As an admin, I can delete requests that are past some time period or have been closed	3	Low
Sprint-3	Handle Requests	PDA-27	Confirmation mail registereddonors	1	Low
Sprint-4	Handle Requests	PDA-8	Confirmation mail for requestedrecipient	2	Medium
Sprint-2	Solving User Queries	PDA-19	Creating an ChatBotthat helpsto solve the queries of the user.	2	High

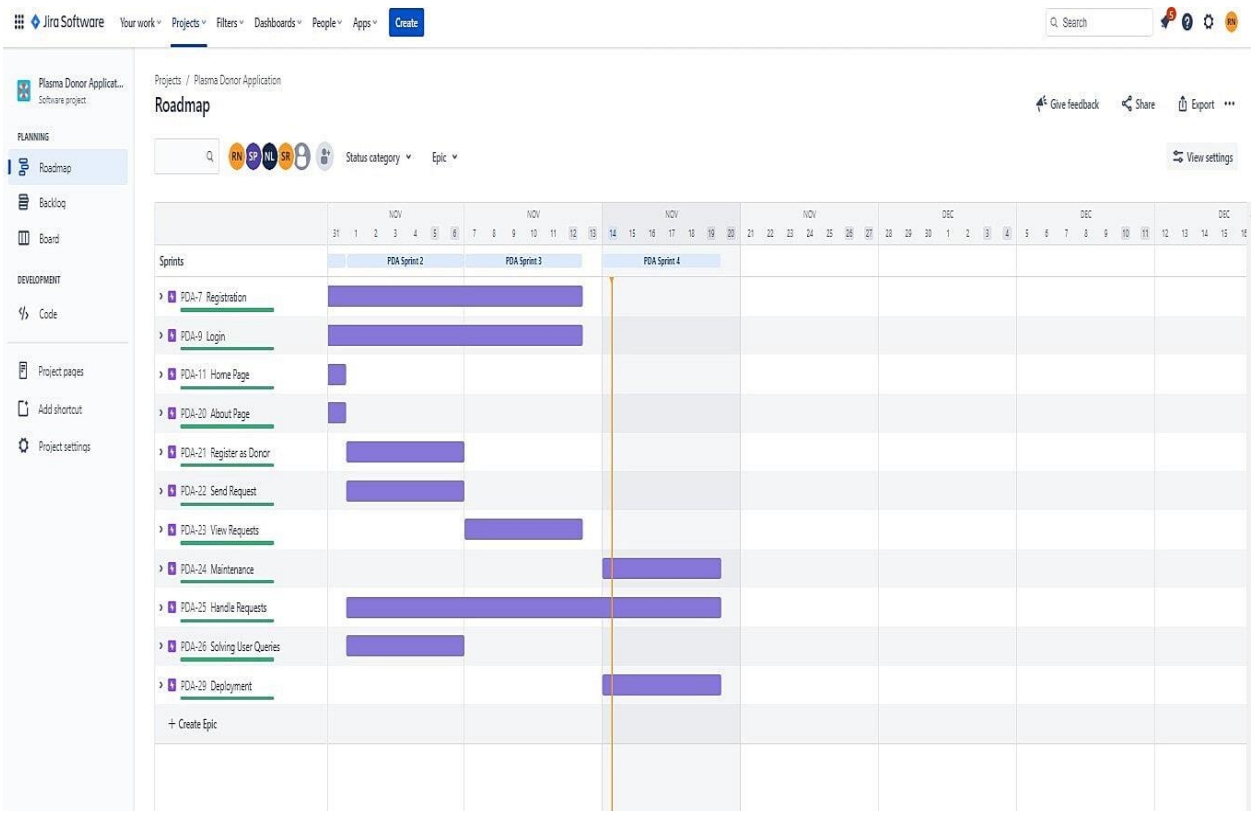
6.2 Sprint Delivery Schedule

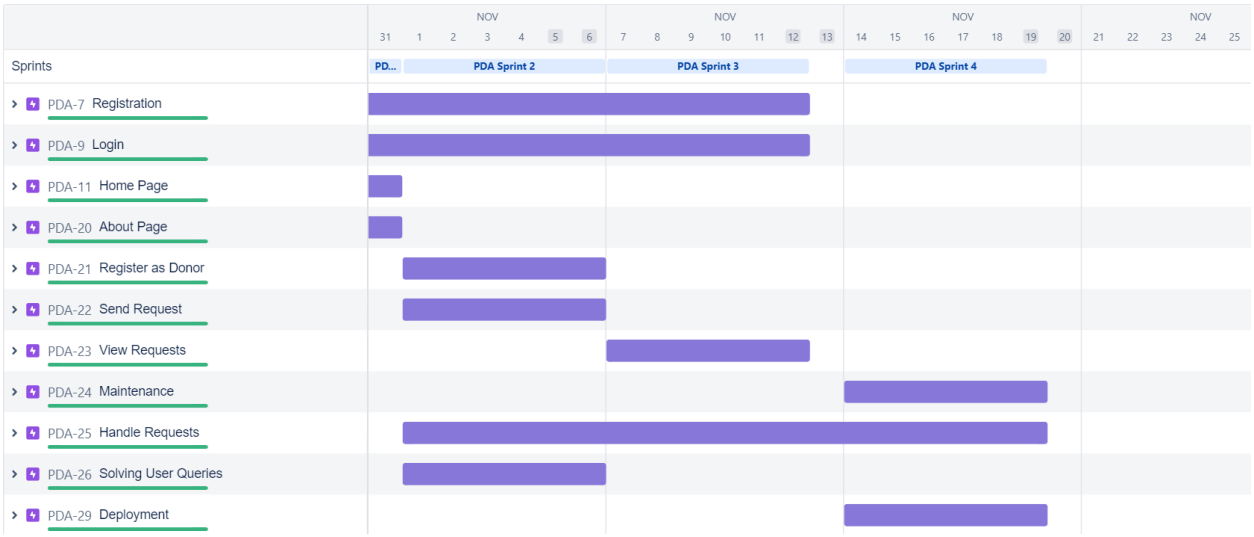
Sprint	**Total Story Points**	**Duration**	**Sprint Start Date**	**Sprint EndDate(Planned)**	**Sprint Release(Actual release)**
Sprint-1	8	5 Days	27 Oct 2022	31 Oct 2022	30 Oct 2022
Sprint-2	13	6 Days	1 Nov 2022	06 Nov 2022	05 Nov 2022
Sprint-3	12	6 Days	07 Nov 2022	12 Nov 2022	11 Nov 2022

Sprint-4	11	6 Days	14 Nov 2022	19 Nov 2022	13 Nov 2022

6.3 Reports from JIRA







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

6. 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.
7. Change your SMTP username and password to your SendGrid credentials.
8. Set the server host name to smtp.sendgrid.net
9. Use ports 25 or 587 for plain/TLS connections and port 465 for SSL connections.

Code: *import os from dotenv import load_dotenv load_dotenv()*

from sendgrid import SendGridAPIClient from

sendgrid.helpers.mail import Mail def

sendmail(usermail,subject,content):

message = Mail(from_email='maryada@student.tce.edu',to_emails=usermail,subject=subj ect,html_content=' {} '.format(content)) try:

sg = SendGridAPIClient(os.getenv('SENDGRID_API_KEY')) response =

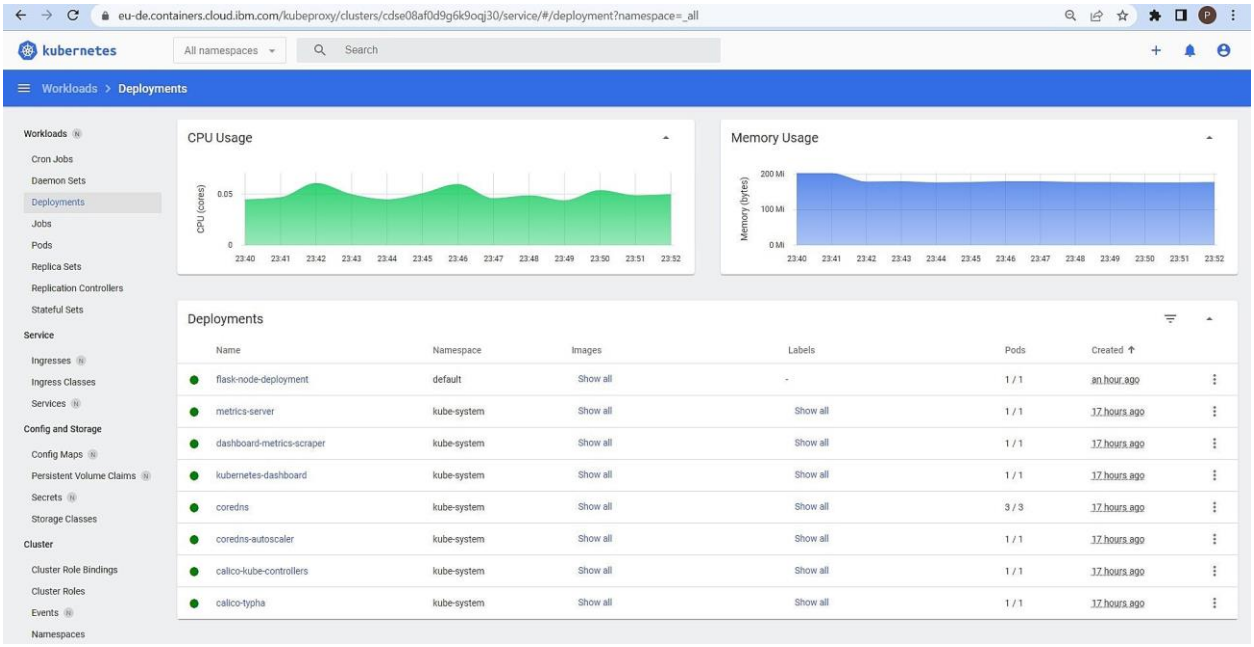
sg.send(message) print(response.status_code) print(response.body)

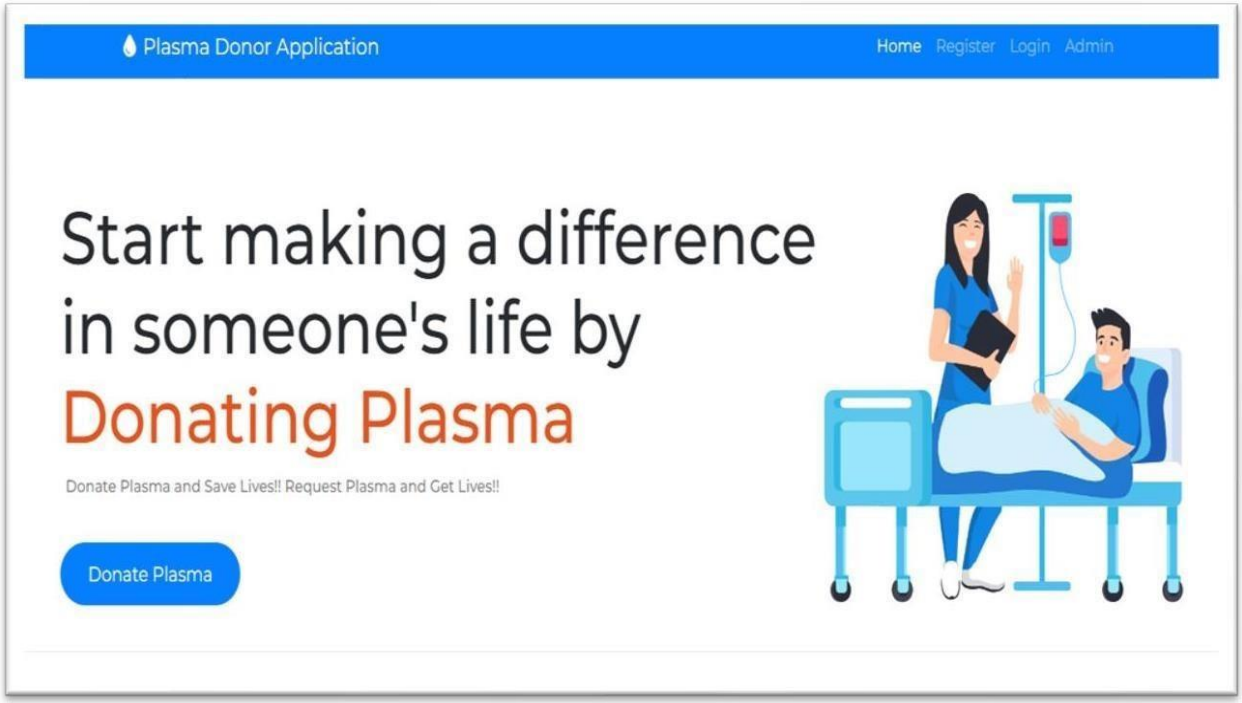
print(response.headers) except Exception as e: print(e.message)

7.2 Feature 2

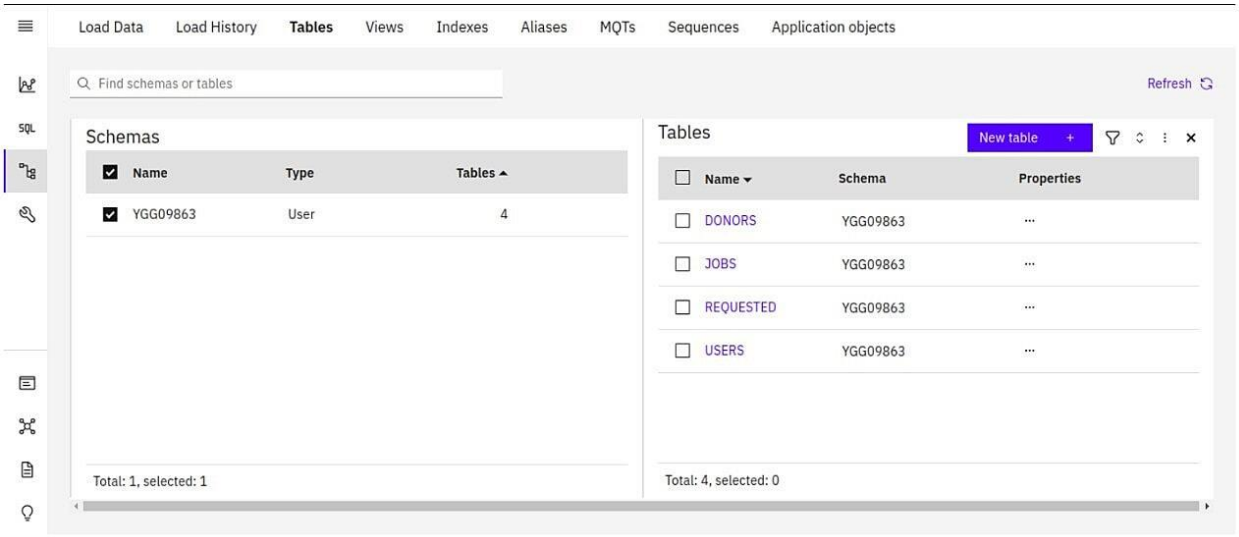
KUBERNETES

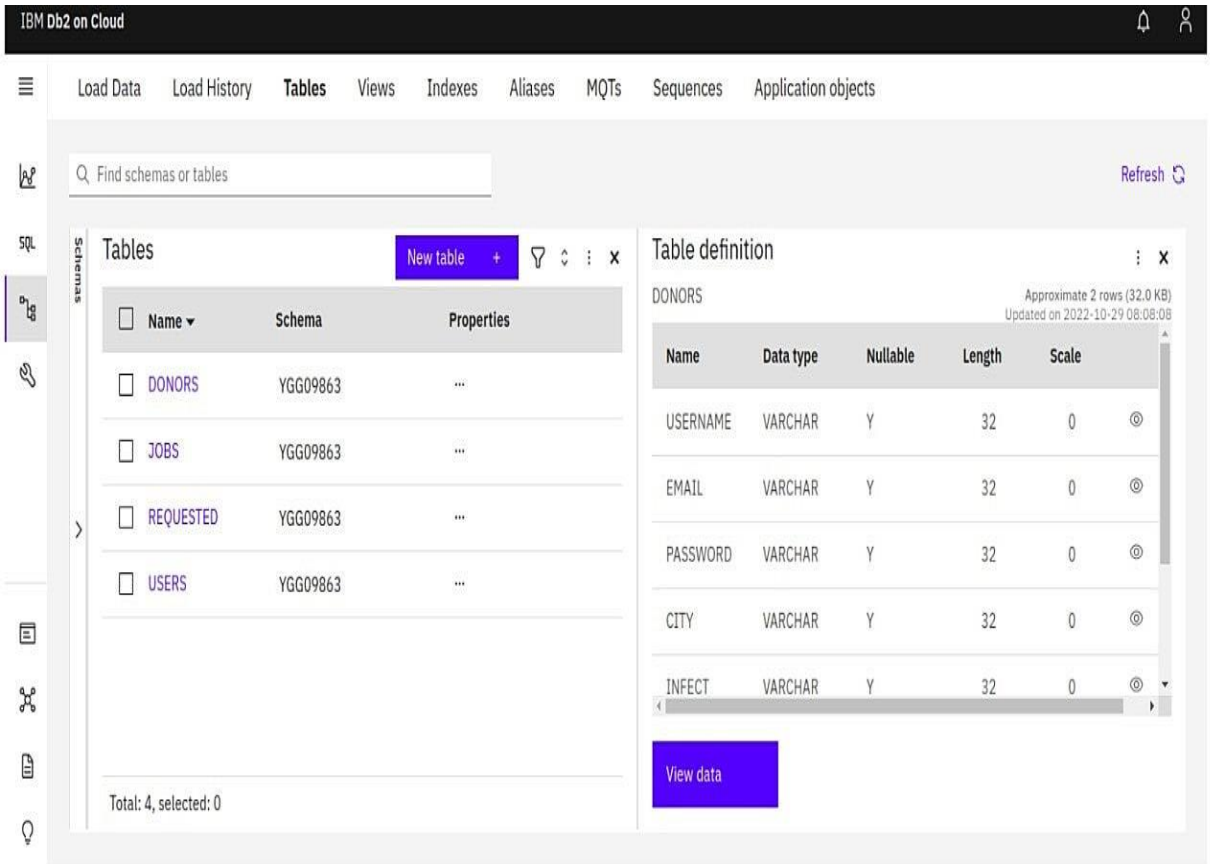
Kubernetes has been used to deploy the application we built to the IBM Cloud

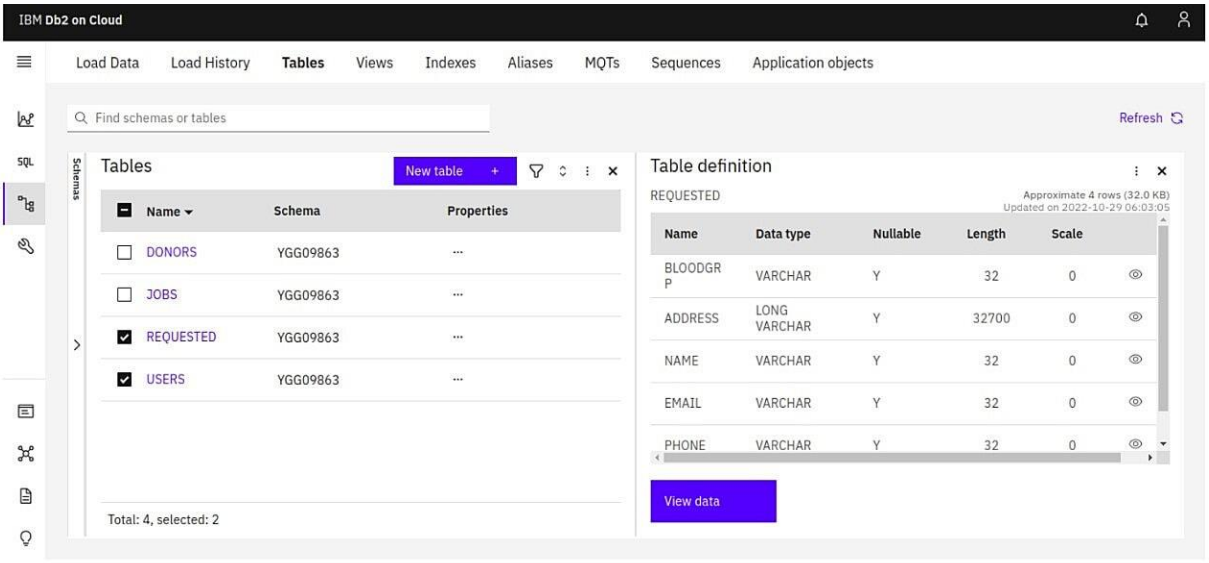

eu-de.containers.cloud.ibm.com/kubeproxy/clusters/cdse08af0d9g6k9oqj30/service/#/deployment?namespace=_all
kubernetes
All namespaces
Search
Workloads > Deployments
Workloads
Cron Jobs
Daemon Sets
Deployments
Jobs
Pods
Replica Sets
Replication Controllers
Stateful Sets
Service
Ingresses
Ingress Classes
Services
Config and Storage
Config Maps
Persistent Volume Claims
Secrets
Storage Classes
Cluster
Cluster Role Bindings
Cluster Roles
Events
Namespaces
CPU Usage
CPU (cores)
0.05
0
23:40 23:41 23:42 23:43 23:44 23:45 23:46 23:47 23:48 23:49 23:50 23:51 23:52
Memory Usage
Memory (bytes)
200 Mi
100 Mi
0 Mi
23:40 23:41 23:42 23:43 23:44 23:45 23:46 23:47 23:48 23:49 23:50 23:51 23:52
Deployments
Name Namespace Images Labels Pods Created
flask-node-deployment default Show all - 1 / 1 an hour ago
metrics-server kube-system Show all Show all 1 / 1 17 hours ago
dashboard-metrics-scraper kube-system Show all Show all 1 / 1 17 hours ago
kubernetes-dashboard kube-system Show all Show all 1 / 1 17 hours ago
coredns kube-system Show all Show all 3 / 3 17 hours ago
coredns-autoscaler kube-system Show all Show all 1 / 1 17 hours ago
calico-kube-controllers kube-system Show all Show all 1 / 1 17 hours ago
calico-typha kube-system Show all Show all 1 / 1 17 hours ago


Plasma Donor Application
Home Register Login Admin
Start making a difference in someone's life by
Donating Plasma
Donate Plasma and Save Lives!! Request Plasma and Get Lives!!
Donate Plasma

7.2 Database Schema







8. TESTING

8.1 Test Cases

Test caseID	Test Scenario	Test Data	ExpectedResult	Actual Result	Status
TC_OO1	Verify user is able to see theLogin/Signup popup when user clicked on Loginor Register button	http://169.51.203.154:30009/	Login/Signup popup should display and the user must be abletoswitch between the pageswith a single click	Workingas expected	Pass
TC_OO2	Verify the UI elements are responsive when changingthe window size	http://169.51.203.154:30009/	Application shouldre-align theimage and text according tothe new windowsize and should be responsive	Workingas expected	Pass

TC_ OO3	Verify that all the fields suchas Username, Mobile Number, Password and Email have a valid placeholder	**Placeholders - Registration Page** Enter your UserName Enter your EmailEnteryour mobilenumber Create a Password **Placeholders - Login** Enter UserNameEnter Password	Placeholders must be visible	Workin gas expecte d	Pass
TC_ OO4	If a user tries to register thenhe/she must fill all the required fields	**Form Details** Your Name – sivani Your Email: prathibhavadlamudi19@gmail.com	Application should show 'Pleasefill this	Workin gas expecte d	Pass
		Phone- Your Password- sivani@1834	field' validation message.		
TC_ OO 5	If a user tries to register then he/she must fill a validEmail address in the Your Email field.Filling string without an @ symbol will throwan error.	**Form Details** Your Name –sivani Your Email – prathibhavadlamudi19@gmail.com Phone-9014022426 Your Password – sivani@1555	Application should show 'Please enter apart following rush123@ ' validation message.	Workin gas expecte d	Pas s
TC_ OO 6	Verify user is able to log into application with Valid credentials	**Username:** sivani **password:** sivani432	Applicatio n should login successfull y	Workin gas expecte d	Pas s

TC_OO7	Verify user is able to log into applicatio n with InValid credential s	**Username:** sivani **password:** sivani432	Applicatio nshould show 'Incorrect email or password ' validation message.	Workin gas expecte d	Pas s
TC_OO8	Verify if the correct username is being displayed besidethe Welcome Section	**Username:** sivani **password:** sivani432	The page should show " Welcome: Prem!!"	Workin gas expecte d	Pas s
TC_OO9	Verify the Donate Plasmaand Request Plasma links	**Username:** sivani **password:** sivani432	Clicking on Donate Plasma should take the user to the donor registration pageand clicking on request plasma should take the user to the donorlist page	Workin gas expecte d	Pas s
TC_OO10	Verify if thesubmission in Donating Plasma Page is successful	**Mail:** prathibhavadlamudi19@gmail.com	After filling out theregister as donor page and clicking submit application should redirect toa "registration success" page	Workin gas expecte d	Pas s

TC_OO11	Verify if the user recievedmail after successful registration	**Your Name** – sivani **Your Email** – prathibhavadlamudi19@gmail.com **Phone**-9014022426 **Your Password** – sivani@1578	After filling out the registration page and submitingthe user should receive a"Registration Success!!" Mail on their registered EmailId.	Working as expected	Pass
TC_OO12	Verify if the user recievedmail after successfully registering as a donor in Plasma registration Page	**Mail:** prathibhavadalmudi19@gmail.com	After filling out the registration page and submitingthe user should receive a"Registration Success!!" Mail on their registered EmailId.	Working as expected	Pass
TC_OO13	Verify if the user(Plasma Recepient) recieved mail after successfully requestingfor plasma	**Mail:** snehaj@gmail.com	After filling outthe request plasma page the user(Plasma Recepient) receivesa mail that the request	Working as expected	Pass

			has beensuccessfully posted		

TC_OO14	Verify if the user(PlasmaDonor) recieved mail when a Recepient makes a request for their plasma through the application	**Mail:**prathibhavadlamudi19@gmail.com	When a Plasma Recepient fills out the request plasmapage the Plasma Donor sould receive a mail that a Recipient has made a Request to them.	Working as expected	P s
TC_OO15	Verify if ChatBot is working properly and deployed universally throughout the application	http://169.51.203.154:30009/	ChatBot shouldbe accessable inside any webpagesuch as Login, Home or Registerpages and must answethe user queries.	Working as expected	P s
TC_OO16	Verify if the user is able tologout from the login dashboard	**Mail:**prathibhavadlamudi19@gmail.com	Clicking on logout should redirect the userto home page.	Working as expected	P s
_OO17	Verify if the recipient should able to view the available donor list	**Username**: prathibhavadlamudi19@gmail.com **Password**: sivani@1723	Clicking on the request for plasma button,the recipient shouldbe able to view the available donorslist	Working as expected	P s

8.2 User Acceptance Testing

The test coverage and open issues of the Plasma Donor Application project at the time ofthe release toUser Acceptance Testing (UAT).

Defect Analysis

Resolution	Severity1	Severity2	Severity 3	Severity 4	Subtotal
Flask	2	2	0	0	4
Cloud account creation	2	1	1	0	3
ConnectingwithDb2	4	3	1	0	8
Sendgrid	2	3	0	1	6
Docker	2	1	0	0	3
Totals	12	10	2	1	25

Test Case Analysis

Section	Total Cases	Not Tested	Fail	Pass
Home Page	5	0	0	5
Login Page	5	0	0	5
Register Page	7	0	0	7
Login Dashboard	5	0	0	5
Donating Plasma Page	8	0	0	8
Request PlasmaPage	8	0	0	8
Chatbot	2	0	0	2
Donor list	6	0	0	6

9. RESULT

9.1 Authentication Module

1. 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.

2. Sign In

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

3. 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.

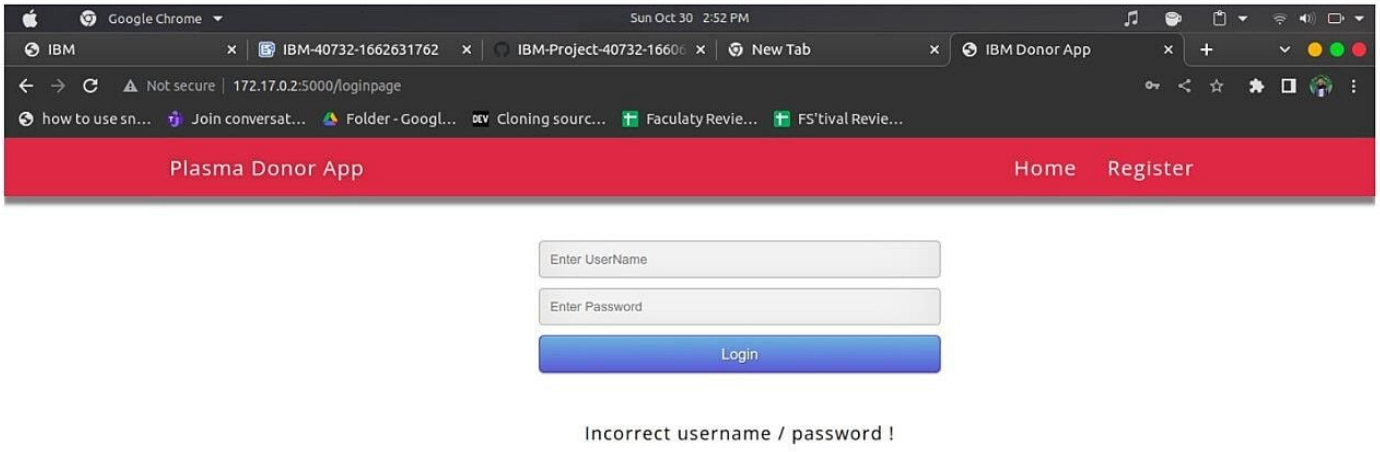
4. List All Donor

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

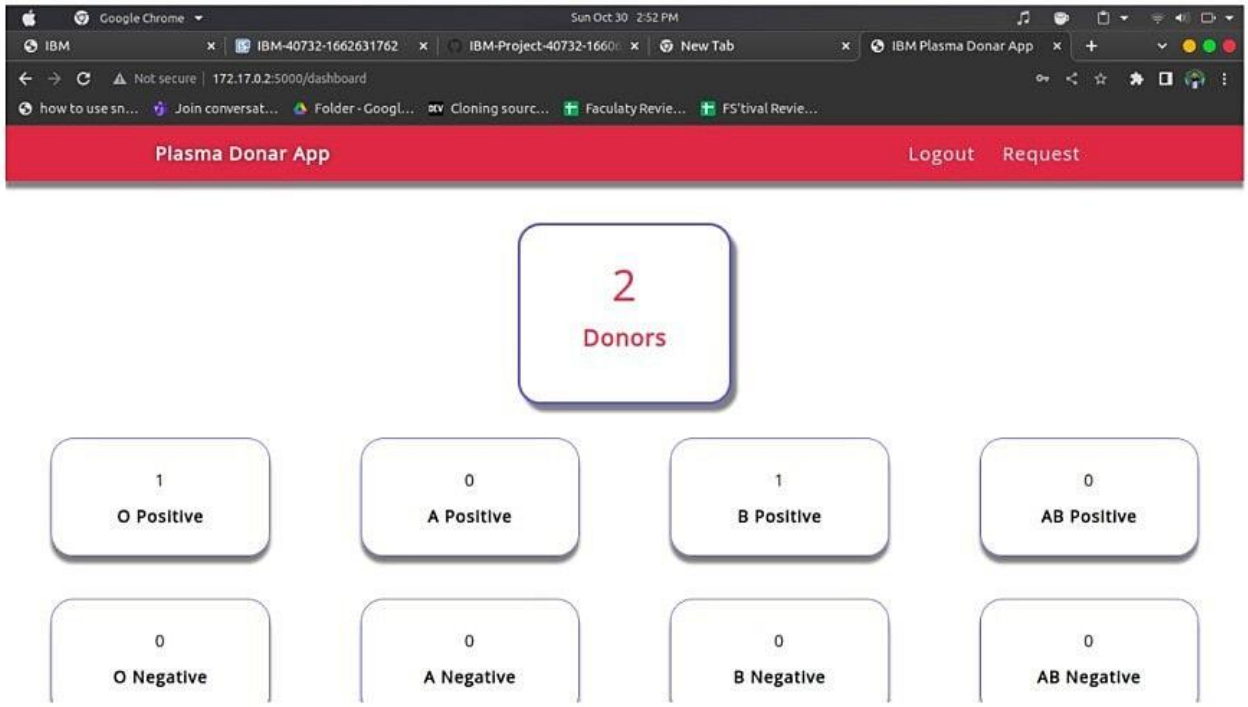
5. Edit Customer Plan Details

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

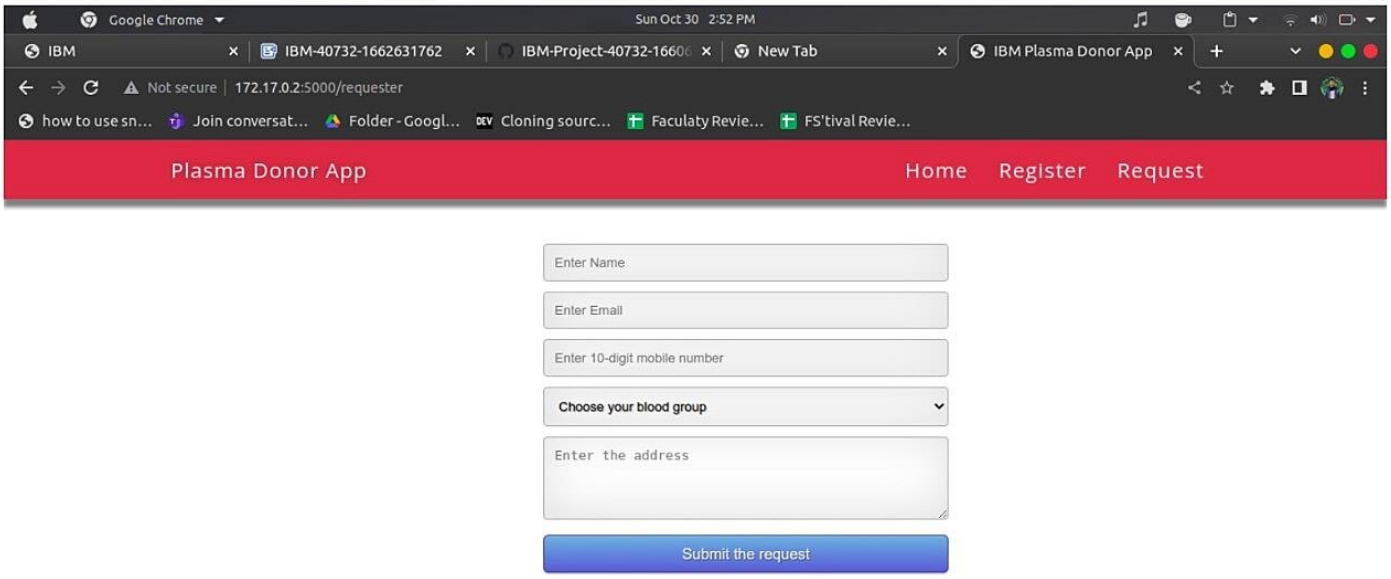
9.3 Screen Layouts

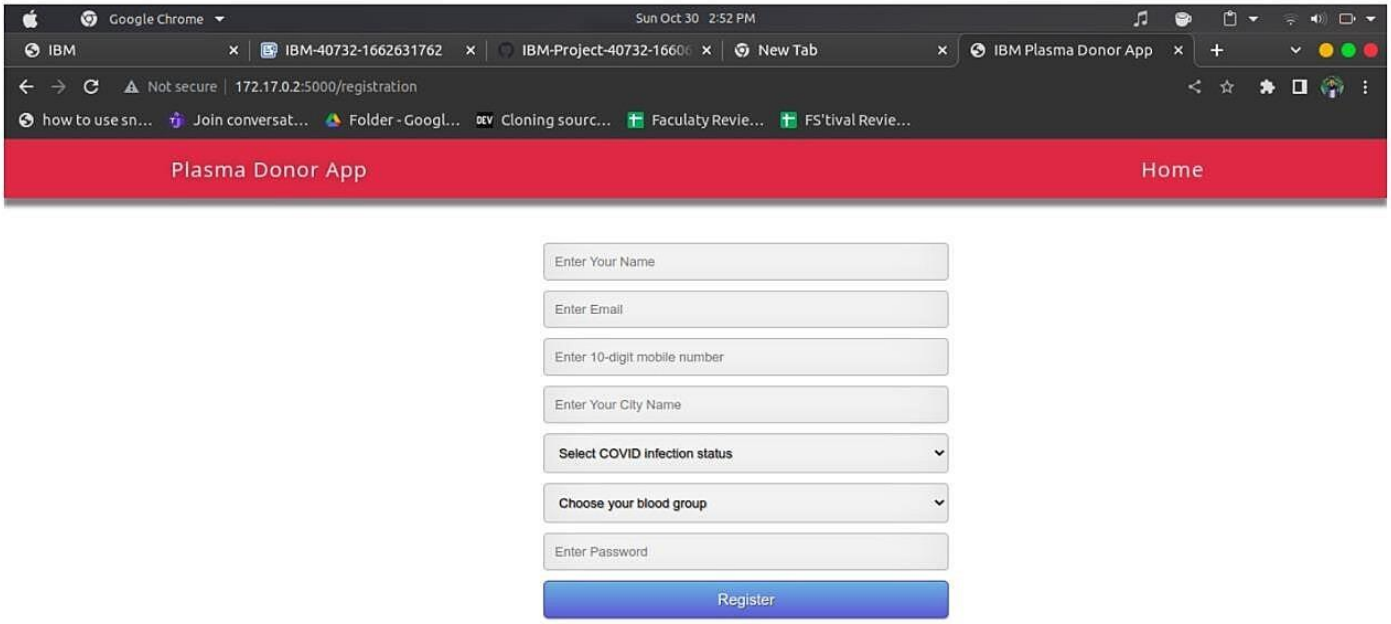


Login page


Google Chrome
Sun Oct 30 2:52 PM
IBM
IBM-40732-1662631762
New Tab
IBM Plasma Donar App
Not secure | 172.17.0.2:5000/dashboard
how to use sn...
Join conversat...
Folder - Googl...
Cloning sourc...
Faculaty Revie...
FS'tival Revie...
Plasma Donar App
Logout
Request
2
Donors
1
O Positive
0
A Positive
1
B Positive
0
AB Positive
0
O Negative
0
A Negative
0
B Negative
0
AB Negative

Home page


Google Chrome
Sun Oct 30 2:52 PM
IBM
IBM-40732-1662631762
New Tab
IBM Plasma Donor App
Not secure | 172.17.0.2:5000/requester
how to use sn...
Join conversat...
Folder - Googl...
Cloning sourc...
Faculaty Revie...
FS'tival Revie...
Plasma Donor App
Home
Register
Request
Enter Name
Enter Email
Enter 10-digit mobile number
Choose your blood group
Enter the address
Submit the request



Registration 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.

10. ADVANTAGES & DISADVANTAGES

Advantages

1. ***Speed***

   This website is fast and offers great accuracy as compared to manual registered keeping.

2. ***Maintenance***

   Less maintenance is required

3. ***User Friendly***

It is very easy to use and understand. It is easily workable and accessible for everyone.

4. ***Fast Results***

   It would help you to provide plasma donors easily depending upon the availability of it.

Disadvantages

1. ***Internet***

   It would require an internet connection for the working of the website.

2. ***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 coronapositive 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 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.

12. APPENDIX

- ***GitHub and Source code Link*** -https://github.com/IBM-EPBL/IBM-Project-49428-1660818837