IBM NALAIYATHIRAN
PROJECT REPORT

PLASMA DONOR APPLICATION

Team id	**PNT2022TMID04979**
Project Name	**Plasma Donor Application**
Team Members	**ILAKKIYA S** (9213191041063) **KARTHEESWARI M** (921319104089) **KETHRIN MALAR D**(921319104098) **LAKSHMI PRIYA B** (921319104104)

Table Of Contents

1.INTRODUCTION

1.1 Project Overview

Plasma is a critical part of the treatment for many serious health problems. Therefore, there are blood drives asking people to donate blood plasma. The main goal of our project is to make it easier for the COVID-19 patients to get a plasma donor easily as well as donate plasma if they have recovered. The system targets two types of users: the people who want to donate plasma and the people who need plasma. The user can also view the total active cases, nearby vaccine centres, hospitals address.

The main objective of developing the website is to make it easier for the COVID-19 patients to get a plasma donor easily and as soon as possible. Yet, the need for plasma-derived products has been strongly increasing for some years, and blood collection agencies have to adapt if they want to meet this demand. This article aims to review the main motivations and deterrents to whole blood donation, and to compare them with those that we already know concerning plasma donation. Current evidence shows similarities between both behaviours, but also differences that indicate a need for further research regarding plasma donation.

1.2 Purpose

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 donors list, would be a helping hand. Regarding the problem faced, an application is to be built which would take the donor details, store them and inform them upon a request.

2. LITERATURE SURVEY

2.1 EXIXTING PROBLEM

- Only web-based system is available no mobile based system is available
- Less Security
- No proper coordination between different applications and users
- Cannot upload and download the latest updates at right time
- Fewer users-friendly

2.2 REFERENCE

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.

[2] ways to keep your plasma healthy, Original Archived November 1, 2013, Accessed November 11, 2011.

[3] 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;

[4] P. C. P. C. a. V. I. M. Yan, "Building a chatbot with server less computing," IBM watson research center, 2016.

[5] S. E. a. B. J. J. Short, ""Cloud Event Programming Paradigms: Applications and Analysis,"," 9th IEEE International Conference on Cloud Computing (CLOUD), pp. pp. 4 00-406, 2017.

2.3 Problem Statement Definition

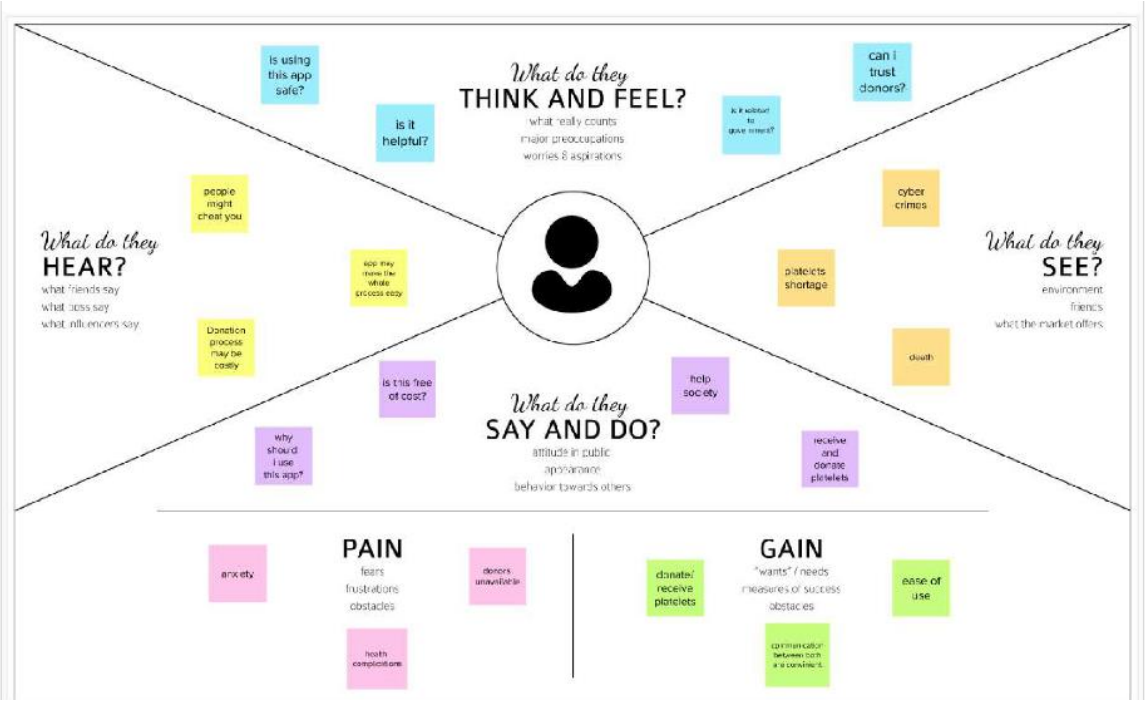
During COVID 19 crisis the requirement for plasma increased drastically as there were no vaccinations found in order to treat the infected patients.

In such situation it was very difficult to find the plasma donor, check whether the donor was infected previously and was recovered, and which donor is eligible to donate plasma was a challenging task.

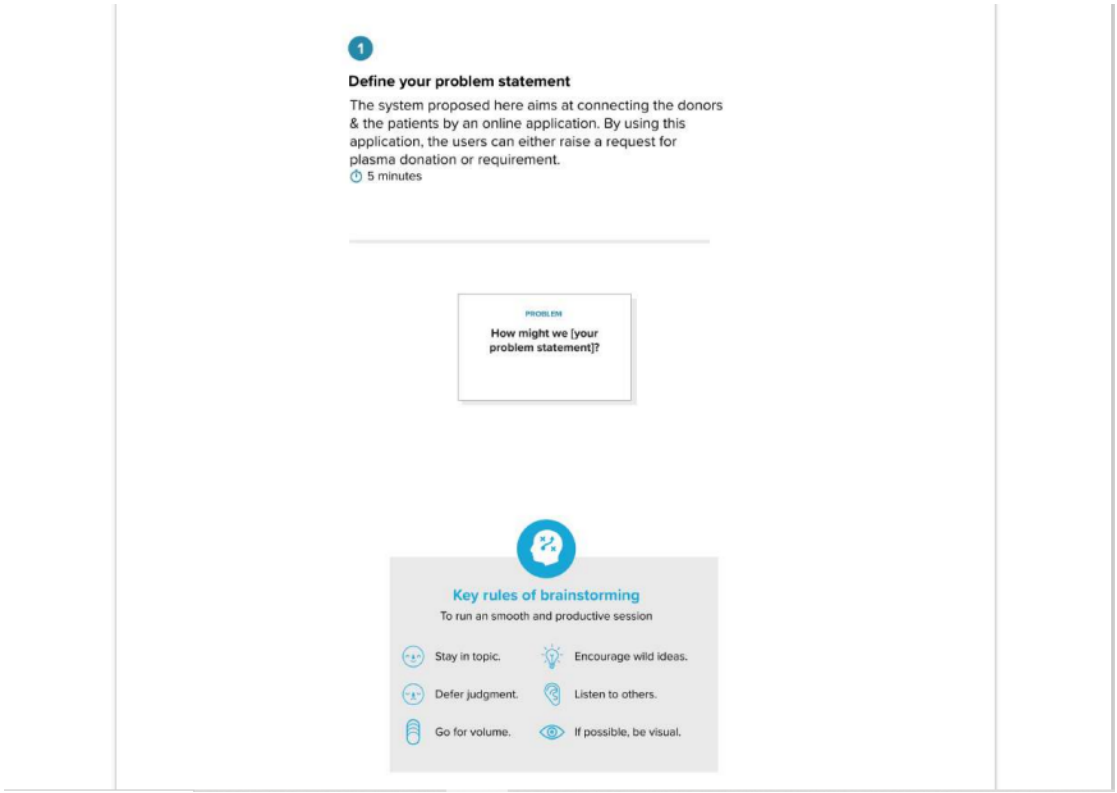
As the plasma therapy was one of the ways to treat the infected patients getting the donor details played a major role.

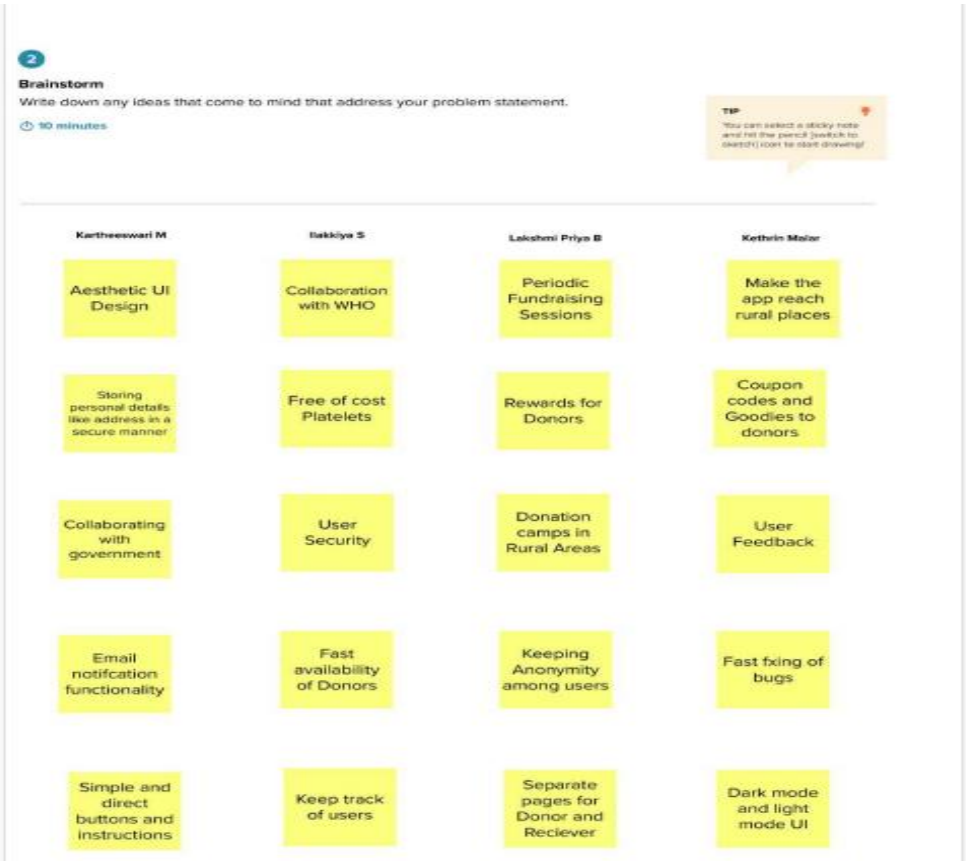
3. IDEATION AND PROPOSED SYSTEM

3.1 Empathy Map Canvas



3.2 Ideation and Brainstorming





3.3 Proposed Solution:

S.No.	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 Biolife, 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.

3.4 Problem Statement Fit

4. REQUIREMENT ANALYSIS

4.1 Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	**Access Website**	Software operator should be capable to access web- application through either an application browser or similar on the pc.
FR-2	**Software operator Registration**	The software operator should be able to register through the web-application. The donor software operator must provide user name,gender,blood/plasma group,location,contact.
FR-3	**Login/logout/update details**	The login information will be stored on the database for future use.
FR-4	**Search for donor**	Search result can be viewed in a list.Each element in the list represents a specific donor with the donor details.
FR-5	**User plasma request**	Users can request to donate plasma by filling out the request form on the page. Once the request is submitted, they will get an email.
FR-6	**View distribution details**	The plasma bank should be able to view the status of the distribution details.

4.2 Non-functional Requirements:

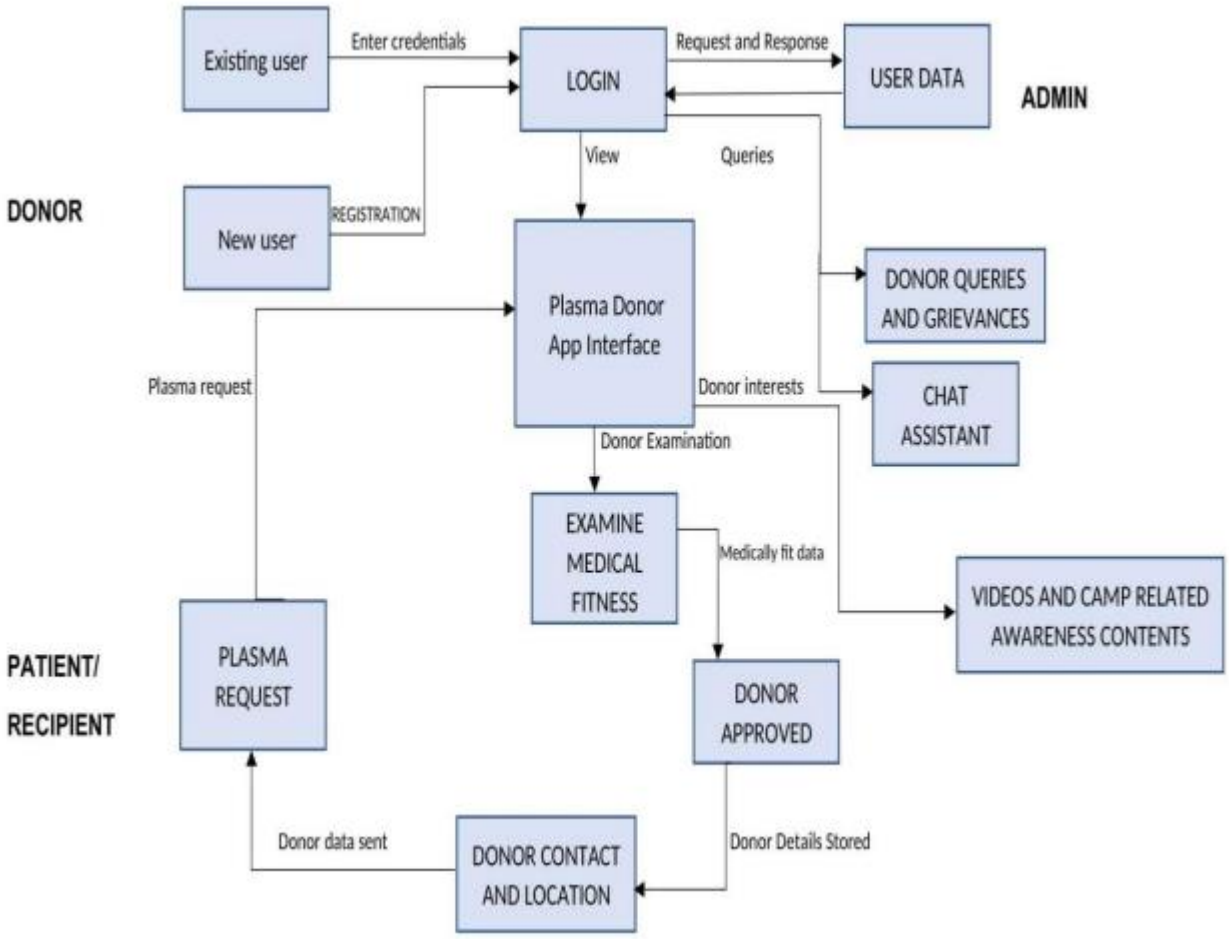
Following are the non-functional requirements of the proposed solution.

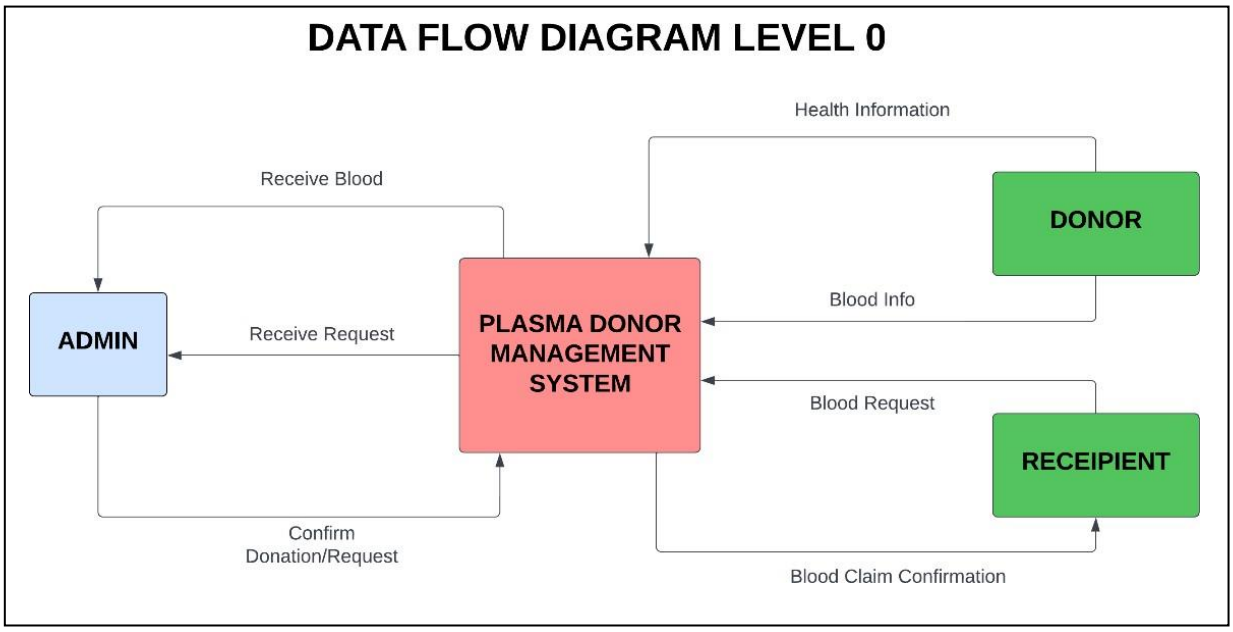
FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The plasma donor application must have a good looking user friendly interface.
NFR-2	**Security**	The plasma donor application must be secured with proper user name and passwords.
NFR-3	**Reliability**	The plasma donor application should work properly,even when faults occur.
NFR-4	**Performance**	The plasma donor application must perform well

		in different scenarios.
NFR-5	**Availability**	The plasma donor application must available 24 hours a day with no bandwidth issues.
NFR-6	**Scalability**	The plasma donor application should able to increase or decrease in performance and cost in response to changes in application and system processing demands.

5. PROJECT DESIGN

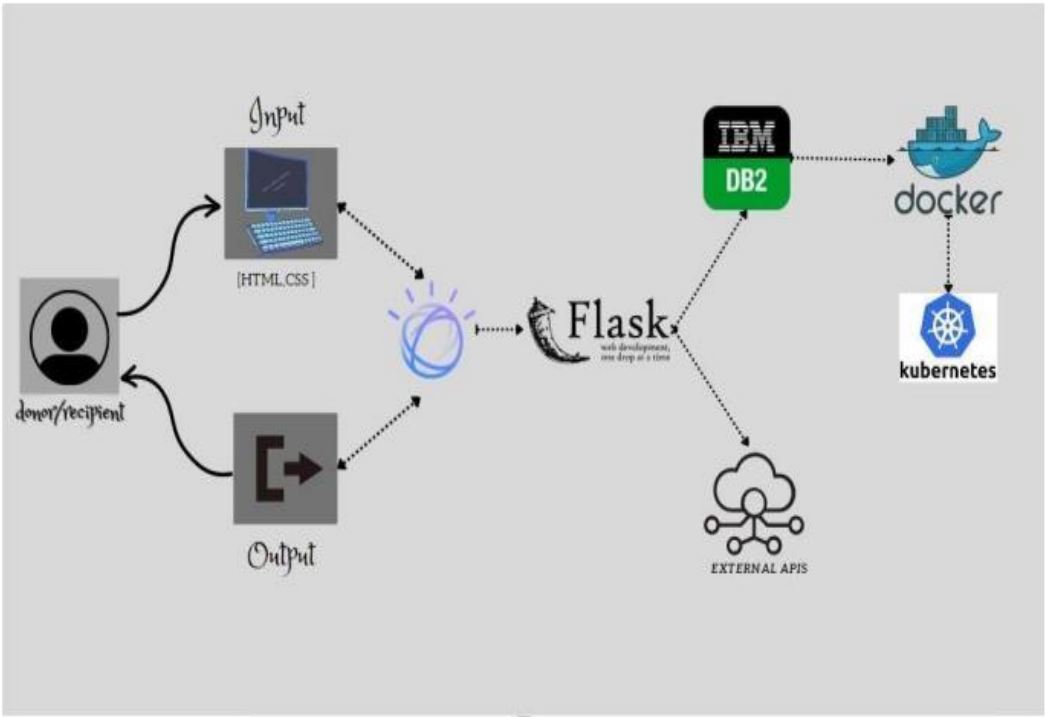
5.1 Data Flow Diagram:





5.2 Solution and Technical Architecture :

Technical Architecture:



5.3 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 through Social media accounts	I can register & access the app with Social media account	Low	Sprint-2
		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 and other technical glitches in the app	I can check request numbers and troubleshoot problems in the app	Medium	Sprint-4
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

6.1 Sprint Planning & Estimation

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	4	High	M.kartheeswari S.Ilakkiya
Sprint-1	Email Confirmation	USN-2	As a user, I will receive confirmation email once I have registered for the application	4	High	B.Lakshmi Priya D.Kethrin Malar
Sprint-1	Registration	USN-3	As a user, I can register for the application through Gmail and other Email services	2	Medium	M.kartheeswari
Sprint-1	Login	USN-4	As a user, I can log into the application by entering email & password	4	High	S.Ilakkiya
Sprint-1	Profile	USN-5	As a user, I am able to register myself as a registered plasma donor and view my profile page.	4	High	B.Lakshmi Priya D.Kethrin Malar
Sprint-2	Social Media	USN-6	As a user, I can link and register to the application through social media accounts	2	Low	B.Lakshmi Priya
Sprint-2	Virtual Donor Badge	USN-7	As a user, I can receive a virtual donor badge once I am successfully registered.	4	Medium	M.kartheeswari S.Ilakkiya
Sprint-2	Plasma Request	USN-8	As a user, I can place a plasma request or donate plasma. I will include the Hospital details with the request.	4	High	B.Lakshmi Priya D.Kethrin Malar
Sprint-2	Verifying Request	USN-9	As a user, I will wait until my request is verified through Administrators of the app. (We Admins	4	High	M.kartheeswari

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
			will verify the request after confirming with the concerned Hospital)			S.Ilakkiya
Sprint-2	Verifying Donor	USN-10	As a user, I will wait until my donorship is verified through administrators of the app. (We Admins will verify the donor from a list of registered donors and share his details to the requester.)	4	High	B.Lakshmi Priya D.Kethrin Malar
Sprint-3	Donation Alarm	USN-11	The Registered Donor is notified with an alarm and a message regarding the request.	5	High	M.kartheeswari S.Ilakkiya B.Lakshmi Priya
Sprint-3	Accept the Request	USN-12	As a Donor, I will accept the plasma request based on my interest and volunteer for the donation.	4	Medium	D.Kethrin Malar S.Ilakkiya
Sprint-3	Communication Channel	USN-13	The Communication details of the donor will be sent to the Requester and vice versa. The Requester can personally communicate with the Donor. (Details of the donor will be provided according to the level of urgency)	5	High	M.kartheeswari S.Ilakkiya
Sprint-3	Donor Details	USN-14	The details of the volunteered donor are stored in the database.	4	Medium	B.Lakshmi Priya D.Kethrin Malar
Sprint-4	Support	USN-15	As a user, I can chat with a chatbot regarding my queries and doubts.	3	Medium	M.kartheeswari B.Lakshmi Priya
Sprint-4	Grievances and FAQ	USN-16	As a user, I can post my worries and grievances in the comment section. I can also find Frequently asked Questions with answers in the FAQ section.	3	Medium	S.Ilakkiya B.Lakshmi Priya
Sprint-4	Certificate and Rewards	USN-17	As a donor, I will receive an e-certificate after donations. Virtual rewards are also provided to the donor.	3	Low	M.kartheeswari S.Ilakkiya
Sprint-4	About	USN-18	As a user, I will find about the importance of plasma donation in this section of the application.	3	Medium	S.Ilakkiya B.Lakshmi Priya
Sprint-4	Administrator		We admins will approve all the plasma transaction in the application after proper verification.	3	High	D.Kethrin Malar

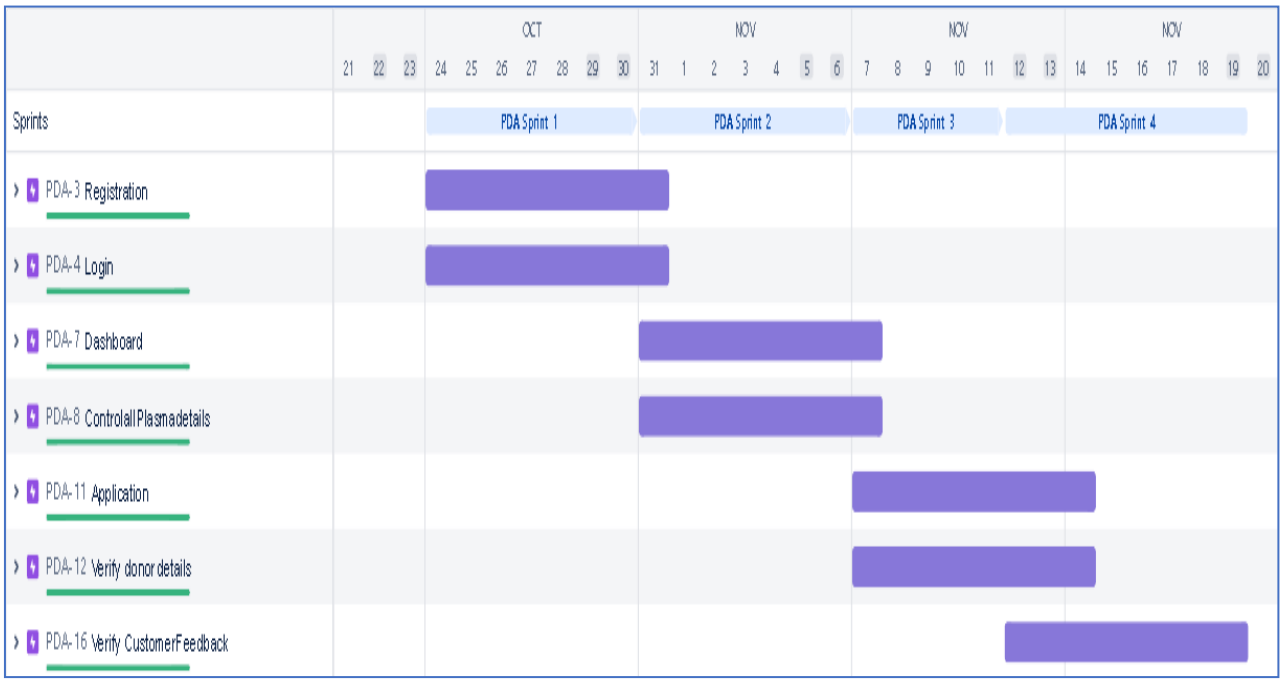
Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
						M.kartheeswari S.Ilakkiya
Sprint-4			We admins will update the plasma availability and donor count periodically.	3	Medium	M.kartheeswari S.Ilakkiya B.Lakshmi Priya D.Kethrin Malar
Sprint-4			We admins will give fine touch to the application based on any updates needed in the future.	3	Medium	M.kartheeswari S.Ilakkiya B.Lakshmi Priya D.Kethrin Malar

6.2 Sprint delivery schedule

Project Tracker:

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	18	6 Days	24 Oct 2022	29 Oct 2022	18	29 Oct 2022
Sprint-2	18	6 Days	31 Oct 2022	05 Nov 2022	18	05 Nov 2022
Sprint-3	18	6 Days	07 Nov 2022	12 Nov 2022	18	12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	19 Nov 2022

6.3 Reports from JIRA



7. CODING & SOLUTIONING

7.1 Feature 1:

Python

- Python is a widely-used, interpreted, object-oriented, and high-level programming language with dynamic semantics, used for general-purpose programming. It's everywhere, and people use numerous Python-powered devices on a daily basis, whether they realize it or not.
- Python was created by Guido van Rossum, and first released on February 20, 1991.
- Python is derived from many other languages, including ABC, Modula-3, C, C++, Algol-68, Smalltalk, and Unix shell and other scripting languages.
- Python is copyrighted. Like Perl, Python source code is now available under the GNU General Public License (GPL)
- It is easy to learn – the time needed to learn Python is shorter than for many other languages; this means that it's possible to start the actual programming fast
- It is easy to use for writing new software – it's often possible to write code faster when using Python.
- It is easy to obtain, install and deploy – Python is free, open and multiplatform; not all languages can boast that.
- Programming skills prepare you for careers in almost any industry and are required if you want to continue to more advanced and higher-paying software development and engineering roles.
- Python is now maintained by a core development team at the institute, although Guido van Rossum still holds a vital role in directing its progress.

7.2 Feature 2:

Flask

- **Flask** is a micro web framework written in Python. It is classified as a microframework because it does not require particular tools or libraries.
- It has no database abstraction layer, form validation, or any other components where pre-existing third-party libraries provide common functions. However, Flask supports extensions that can add application features as if they were implemented in Flask itself.
- Extensions exist for object-relational mappers, form validation, upload handling, various open authentication technologies and several common framework related tools.
- Applications that use the Flask framework include Pinterest and LinkedIn.

7.3 Database Scheme

IBM Db2

- DB2 is a database product from IBM.
- It is a Relational Database Management System (RDBMS). DB2 is designed to store, analyze and retrieve the data efficiently.
- DB2 product is extended with the support of Object-Oriented features and non-relational structures with XML.
- Provide a massively parallel processing (MPP) architecture Exploits Hive, HBase and Apache Spark concurrently for best-in-class analytic capabilities.
- Provides low latency support for ad-hoc and complex queries, high performance, and federation capabilities Understands dialects from other

vendors and various products from Oracle, IBM® Db2® and IBM Netezza® Enables advanced row and column security

Kubernates

- **Kubernetes** is also known as **'k8s'.**
- **Kubernetes** is an extensible, portable, and open-source platform designed by **Google** in **2014**.
- It is mainly used to automate the deployment, scaling, and operations of the container-based applications across the cluster of nodes.
- Kubernetes helps to manage containerised applications in various types of physical, virtual, and cloud environments.
- Google Kubernetes is a highly flexible container tool to consistently deliver complex applications running on clusters of hundreds to thousands of individual servers
- Kubernetes is the Linux kernel which is used for distributed systems.
- It helps you to be abstract the underlying hardware of the nodes(servers) and offers a consistent interface for applications that consume the shared pool of resources.

8.TESTING

8.1 Test case

- It is the process of exercising software with the intent of ensuring that the Software system meets its requirements and user expectation and does not fail in an unacceptable manner.
- There are various types of test. Each test type addresses a specific testing requirement

Test case ID	Feature Type	Component	Test Scenario	Steps To Execute	Test Data	Expected Result	Actual Result	Status	Comments	TC for Automation(Y/N)	BUG ID	Executed By
LoginPage_TC_OO1	UI	Admin Login Page	Verify user is able to see the Login/Signup popup when user clicked on My account button	1.Enter URL http://127.0.0.1:8000/ and click go 2.Click on My Account dropdown button 3.Verify login/Singup popup displayed or not	Username: rit password: rit123	Login/Signup popup should display and navigate to Admin dashboard	Working as expected	Pass		Y		Admin
LoginPage_TC_OO2	Functional	Patient Login page	Verify user is able to log into application with InValid credentials	1.Enter URL http://127.0.0.1:8000/ and click go 2.Click on 3.Verify login/Singup popup with below Patient elements: a.username text box b.password text box c.Login button	Username: shriram password: 2019011280	Application should show 'Incorrect Username or password ' validation message.	Working as expected	Fail	Steps are not clear to follow	N	BUG-1234	Patient
LoginPage_TC_OO3	Functional	Donor Login Page	Verify user is able to log into application with Valid credentials	1.Enter URL http://127.0.0.1:8000/and click go 2.Click on 3.Enter Valid username/email in Email text box 4.Enter valid password in password text box 5.Click on login button	Username: sathish password: 201901120	User should navigate to user Donor Home Page	Working as expected	Pass		Y		Donor
LoginPage_TC_OO4	Functional	Patient Login page	Verify user is able to log into application with InValid credentials	1.Enter URL http://127.0.0.1:8000/and click go 2.Click on 3.Enter Valid username/email in Email text box 4.Enter valid password in password text box 5.Click on login button	Username: shriram password: 201901128	User should navigate to user Donor Home Page	Working as expected	Pass		Y		Patient

8.2 User Acceptance Testing

1.Purpose of Document

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

2. 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	Sub total
By Design	8	4	2	3	17
Duplicate	1	0	2	1	4
External	2	3	0	1	6
Fixed	10	2	5	18	35
Not Reproduced	0	0	1	0	1
Skipped	0	0	1	1	2
Won't Fix	0	3	2	1	6
Totals	21	12	13	25	71

3. 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	8	0	0	8
Client Application	50	0	0	50
Security	2	0	0	2
Outsource Shipping	3	0	0	3
Exception Reporting	10	0	0	10
Final Report Output	6	0	0	6
Version Control	3	0	0	3

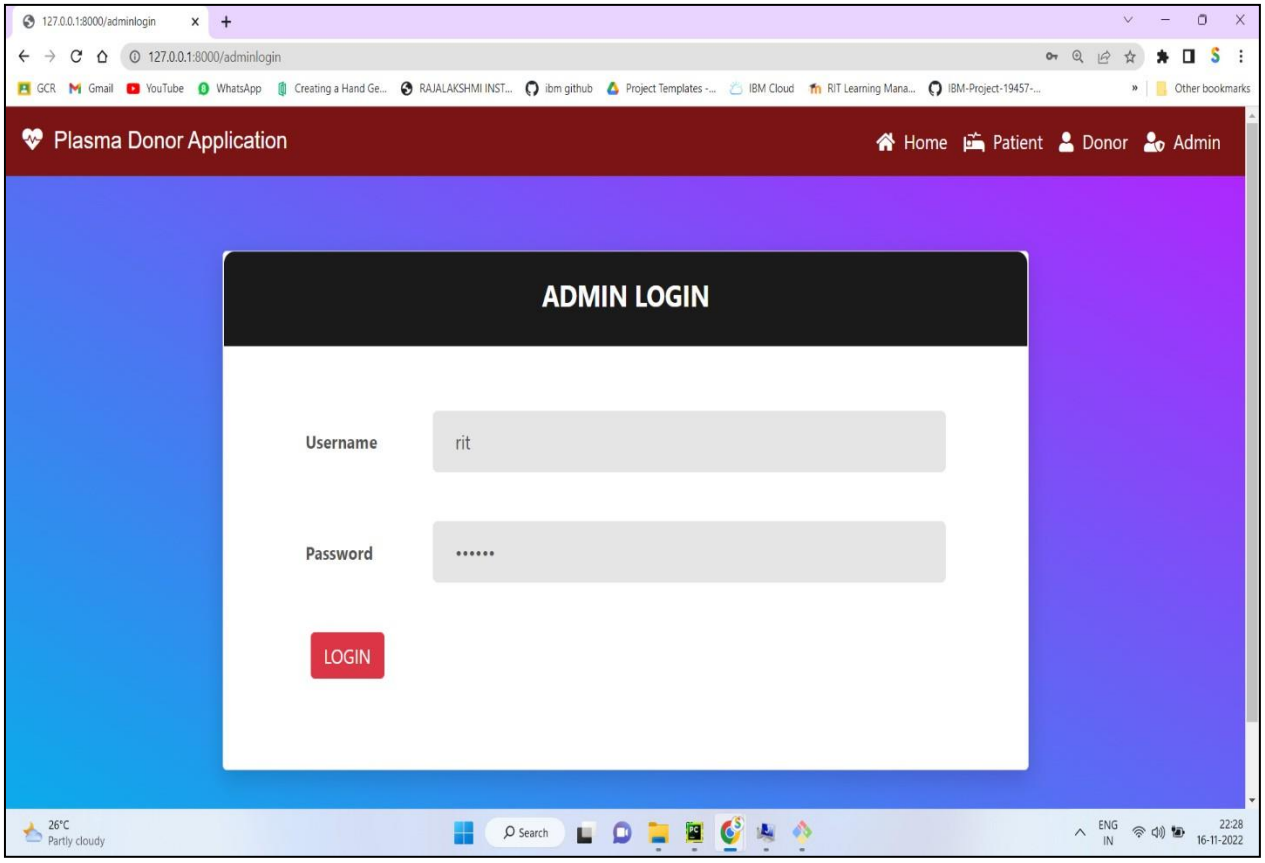
9.RESULTS

9.1 Performance Metrics

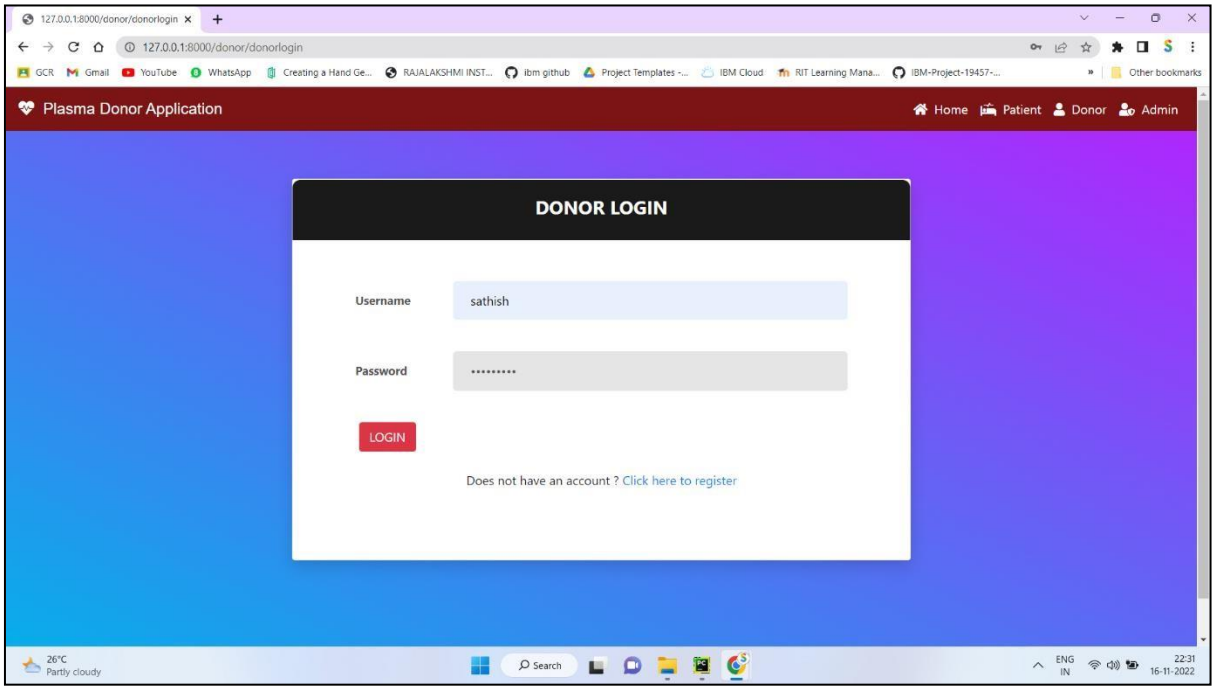
- Project metrics are used to track the progress and performance of a project.
- Monitoring parts of a project like productivity, scheduling, and scope make it easier for team leaders to see what's on track.
- As a project evolves, managers need access to changing
- deadlines or budgets to meet their client's expectations

OUTPUT SCREENS

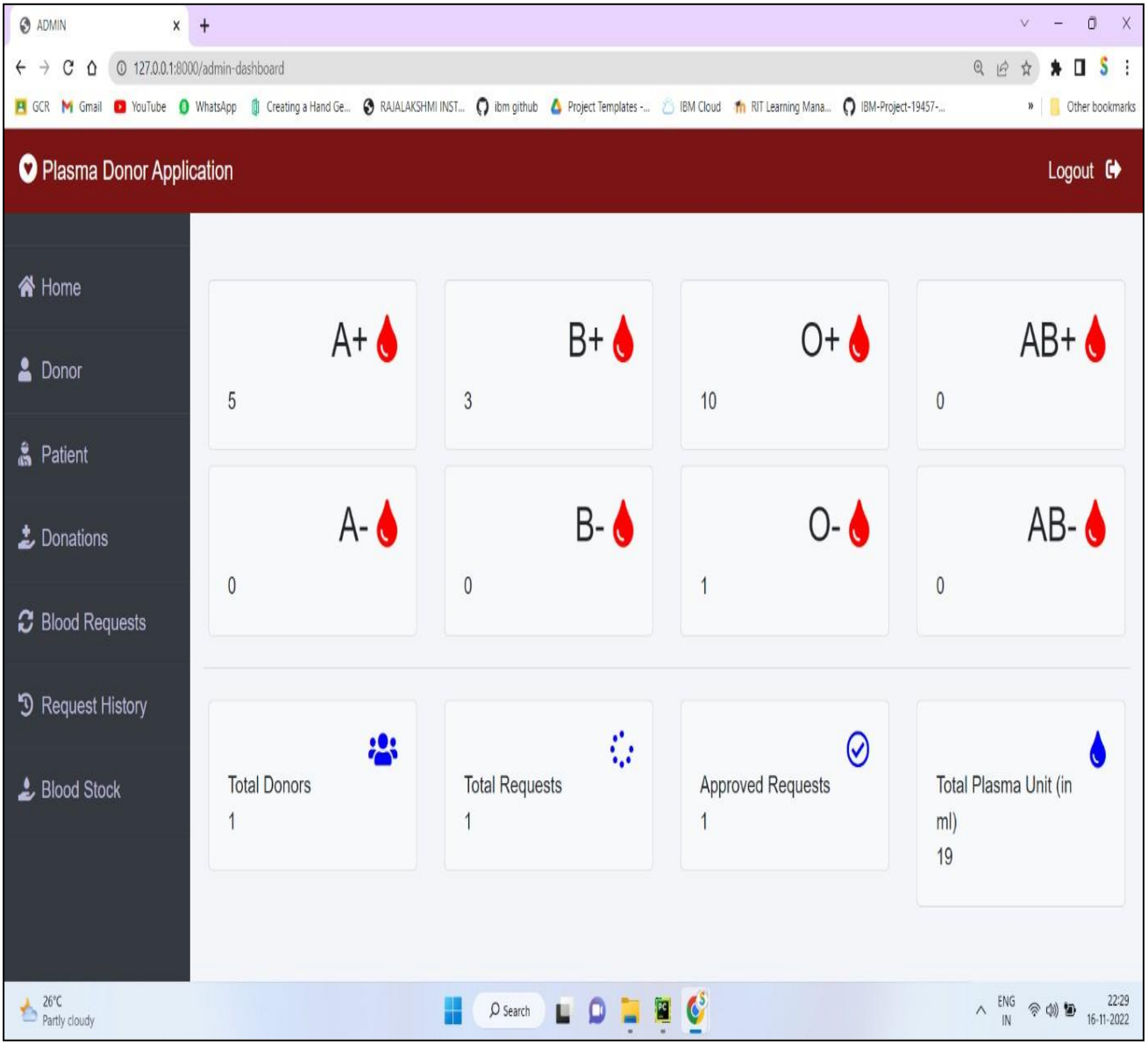
Login page



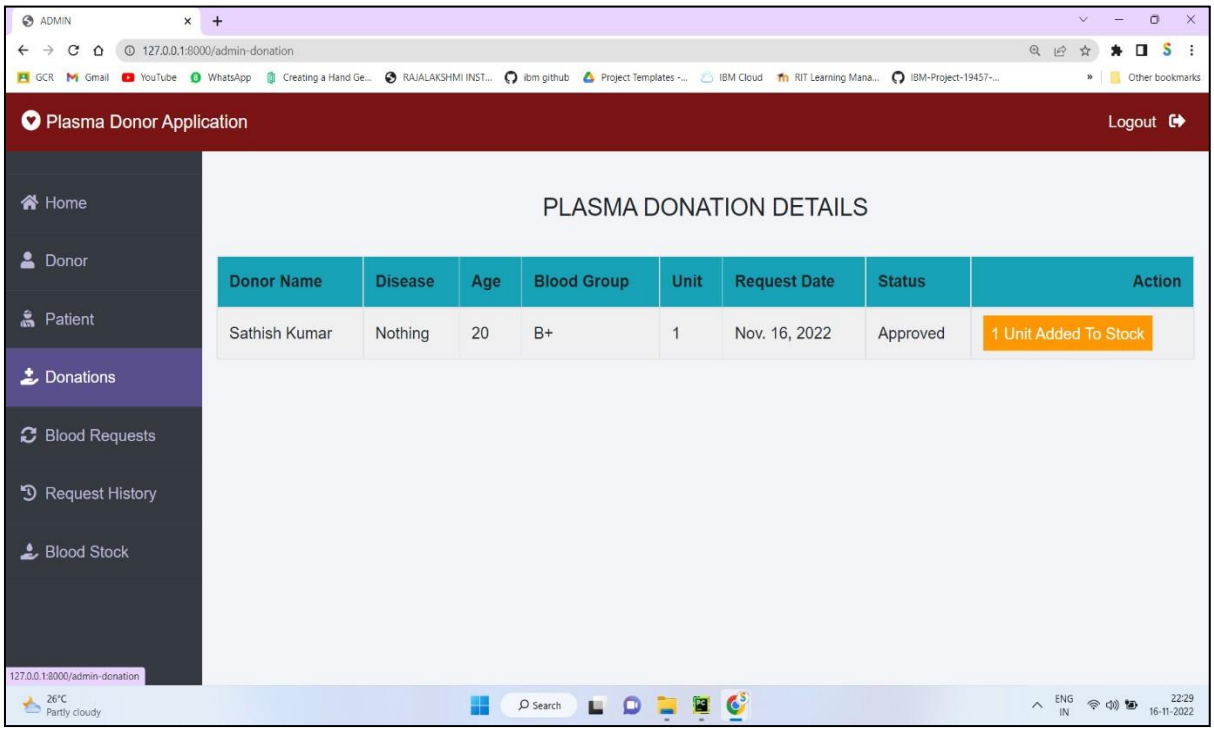
Donor Login



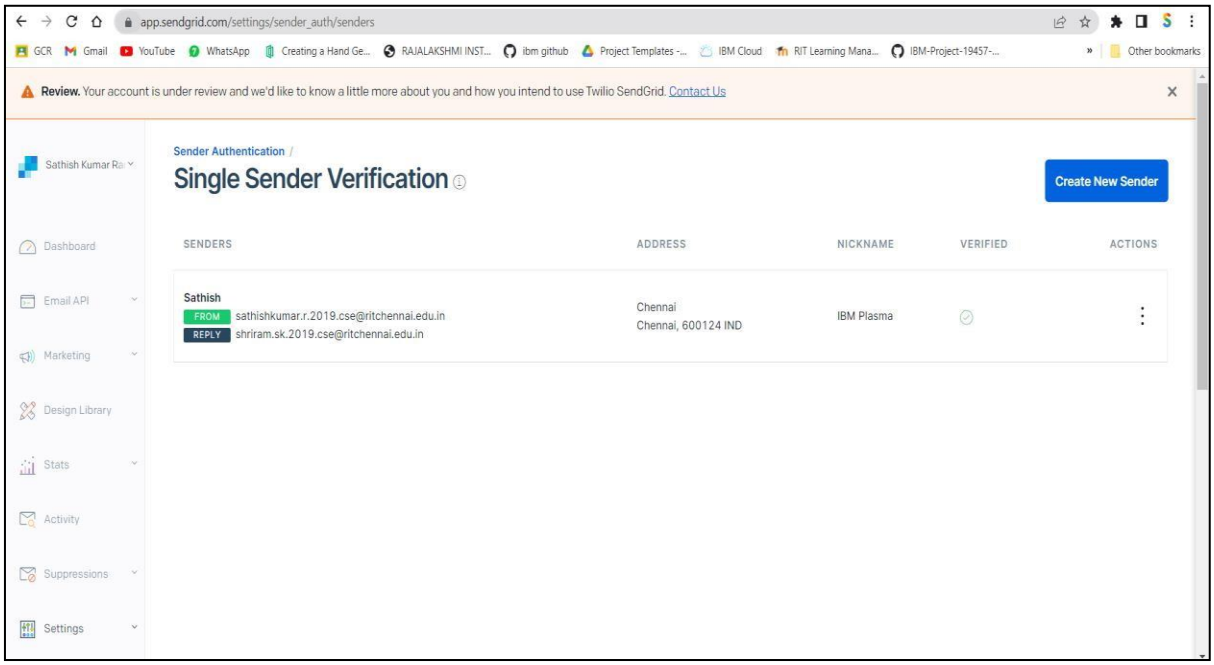
Admin Dashboard Page



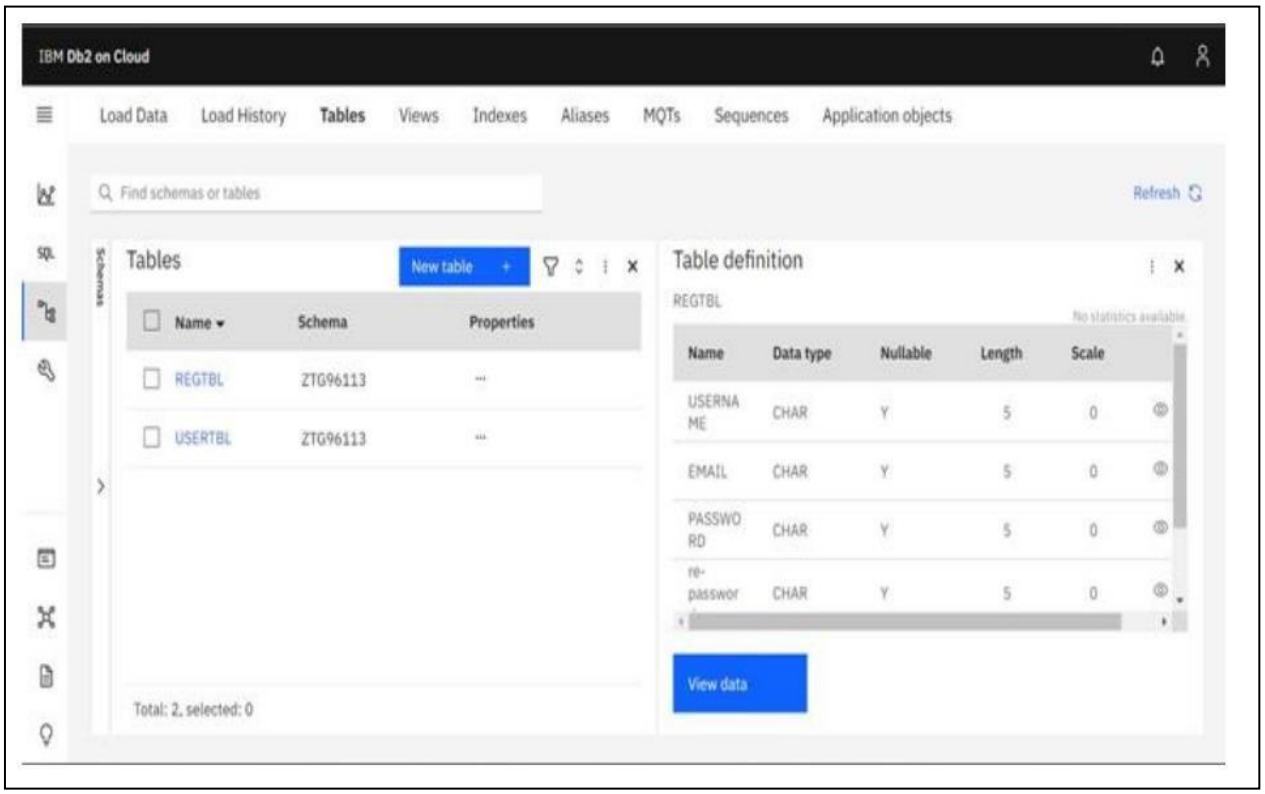
Plasma Donor Page

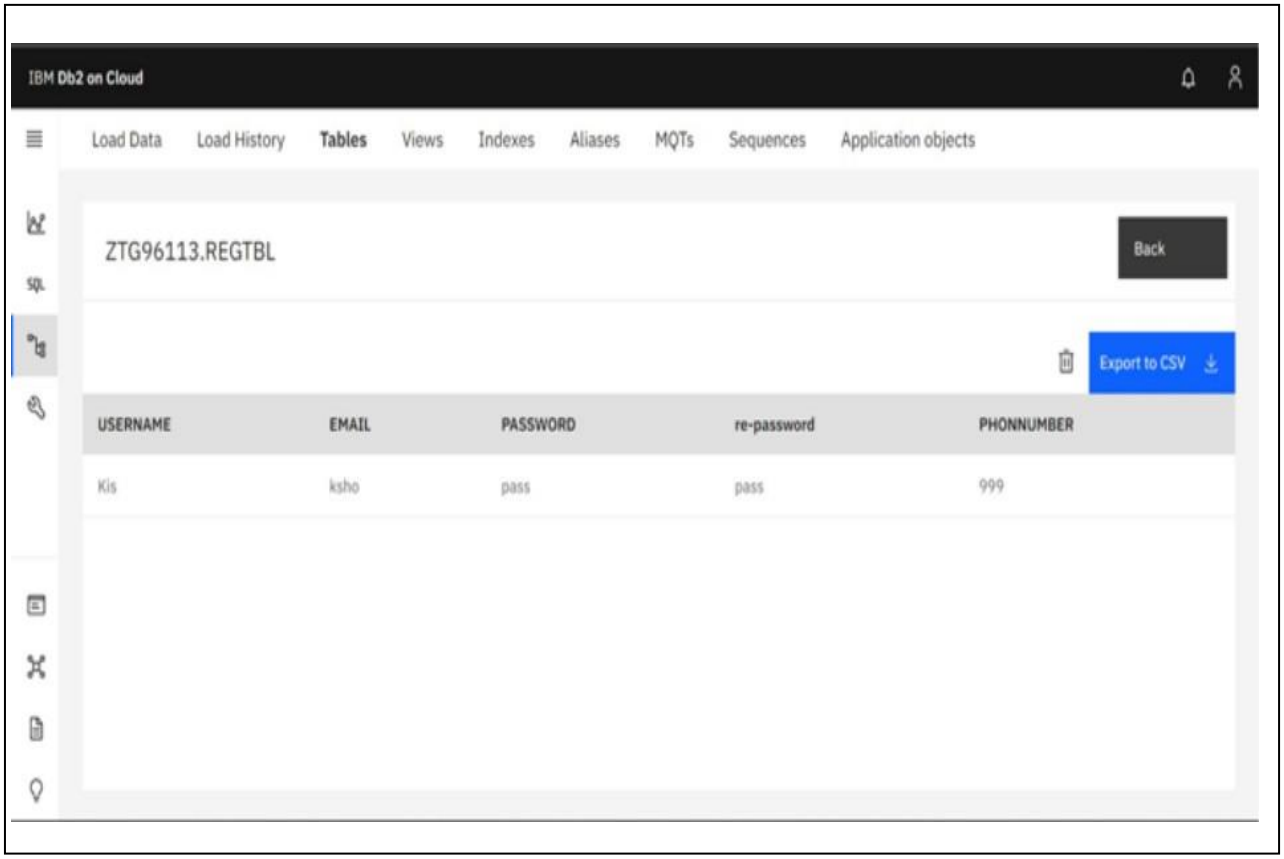


SEND GRID



IBM DB2


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
REGTBL
ZTG96113
USERTBL
ZTG96113
Total: 2, selected: 0
Table definition
REGTBL
No statistics available.
Name
Data type
Nullable
Length
Scale
USERNAME
CHAR
Y
5
0
EMAIL
CHAR
Y
5
0
PASSWORD
CHAR
Y
5
0
re-passwor
CHAR
Y
5
0
View data


IBM Db2 on Cloud
Load Data
Load History
Tables
Views
Indexes
Aliases
MQTs
Sequences
Application objects
ZTG96113.REGTBL
Back
Export to CSV
USERNAME
EMAIL
PASSWORD
re-password
PHONNUMBER
Kis
ksho
pass
pass
999

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

- The efficient way of finding plasma door for the infected people is implemented using the plasma donor website that is hosted on IBM Cloud platform.

- To ensure the smooth functioning of the web site operation. I have hosted the website in IBM Db2 & Kubernates Cluster to make sure the operations are running successfully Cloud lambda function is used and to deploy the application IBM Db2 service is used.

12. FUTURE SCOPE

- Upgrading the UI that is more user-friendly which will help many users to access the website and also ensures that many plasma donors can be added into the community.

- Using elastic load balancer, it helps to handle multiple requests at the same time which will maintain the uptime of the website with negligible downtime

13. APPENDIXES

13.1 SAMPLE SOURCE CODE:

DONOR

form.py

```
class DonorUserForm(forms.ModelForm):

    class Meta:
        model=User
        fields=['first_name','last_name','username','password']
        widgets = {
        'password': forms.PasswordInput()
        }

class DonorForm(forms.ModelForm):
    class Meta:
        model=models.Donor
        fields=['bloodgroup','address','mobile','profile_pic']

class DonationForm(forms.ModelForm):
    class Meta:
        model=models.BloodDonate
        fields=['age','bloodgroup','disease','unit']
```

model.py

```
class Donor(models.Model):
    user=models.OneToOneField(User,on_delete=models.CASCADE)
                                                                profile_pic=
models.ImageField(upload_to='profile_pic/Donor/',null=True,blank=True)


    bloodgroup=models.CharField(max_length=10)


    address = models.CharField(max_length=40)
    mobile = models.CharField(max_length=20,null=False)

    @property
```

```
    def get_name(self):
        return self.user.first_name+" "+self.user.last_name
    @property
    def get_instance(self):
        return self
    def__str__(self):
        return self.user.first_name

class BloodDonate(models.Model):
    donor=models.ForeignKey(Donor,on_delete=models.CASCADE)
    disease=models.CharField(max_length=100,default="Nothing")
    age=models.PositiveIntegerField()
    bloodgroup=models.CharField(max_length=10)
    unit=models.PositiveIntegerField(default=0)
    status=models.CharField(max_length=20,default="Pending")
    date=models.DateField(auto_now=True)
    def__str__(self):
        return self.donor
```

view.py

```
def donor_signup_view(request):
    userForm=forms.DonorUserForm()
    donorForm=forms.DonorForm()
    mydict={'userForm':userForm,'donorForm':donorForm}
    if request.method=='POST':
        userForm=forms.DonorUserForm(request.POST)
        donorForm=forms.DonorForm(request.POST,request.FILES)
        if userForm.is_valid() and donorForm.is_valid():
            user=userForm.save()
            user.set_password(user.password)
            user.save()
            donor=donorForm.save(commit=False)
```

```
            donor.user=user
            donor.bloodgroup=donorForm.cleaned_data['bloodgroup']
            donor.save()
            my_donor_group = Group.objects.get_or_create(name='DONOR')
            my_donor_group[0].user_set.add(user)
        return HttpResponseRedirect('donorlogin')
    return render(request,'donor/donorsignup.html',context=mydict)



def donor_dashboard_view(request):
    donor= models.Donor.objects.get(user_id=request.user.id)
    dict={
                                                    'requestpending':
bmodels.BloodRequest.objects.all().filter(request_by_donor=donor).filter(status
='Pending').count(),
                                                'requestapproved':
bmodels.BloodRequest.objects.all().filter(request_by_donor=donor).filter(status
='Approved').count(),
                                                    'requestmade':
bmodels.BloodRequest.objects.all().filter(request_by_donor=donor).count(),
                                                'requestrejected':
bmodels.BloodRequest.objects.all().filter(request_by_donor=donor).filter(status
='Rejected').count(),
    }
    return render(request,'donor/donor_dashboard.html',context=dict)



def donate_blood_view(request):
    donation_form=forms.DonationForm()
    if request.method=='POST':
```

```
        donation_form=forms.DonationForm(request.POST)
        if donation_form.is_valid():
            blood_donate=donation_form.save(commit=False)
            blood_donate.bloodgroup=donation_form.cleaned_data['bloodgroup']
            donor= models.Donor.objects.get(user_id=request.user.id)
            blood_donate.donor=donor
            blood_donate.save()
            return HttpResponseRedirect('donation-history')
                                                                    return
render(request,'donor/donate_blood.html',{'donation_form':donation_form})

def donation_history_view(request):
    donor= models.Donor.objects.get(user_id=request.user.id)
    donations=models.BloodDonate.objects.all().filter(donor=donor)
    return render(request,'donor/donation_history.html',{'donations':donations})

def make_request_view(request):
    request_form=bforms.RequestForm()
    if request.method=='POST':
        request_form=bforms.RequestForm(request.POST)
        if request_form.is_valid():
            blood_request=request_form.save(commit=False)
            blood_request.bloodgroup=request_form.cleaned_data['bloodgroup']
            donor= models.Donor.objects.get(user_id=request.user.id)
            blood_request.request_by_donor=donor
            blood_request.save()
            return HttpResponseRedirect('request-history')
```

```
                                                                    return
render(request,'donor/makerequest.html',{'request_form':request_form})


def request_history_view(request):
    donor= models.Donor.objects.get(user_id=request.user.id)
     blood_request=bmodels.BloodRequest.objects.all().filter(request_by_donor=
donor)
                                                                    return
render(request,'donor/request_history.html',{'blood_request':blood_request})
```

BLOOD

admin.html

```
{% extends 'blood/adminbase.html' %}
{% block content %}
{% load widget_tweaks %}
<style>
        .xyz{
      display: table;
     margin-right: auto;
     margin-left: auto;
        }
</style>
<br><br>
<div class="container">
<div class="row">
     <div class="col-sm-3">
```

```
  <div class="card bg-light">
    <div class="card-body">
        <div class="blood">
            <h2>A+ <i class="fas fa-tint"></i></h2>
        </div><br><br>
        <div>
            {{A1.unit}}
        </div>
    </div>
  </div>
</div>
<div class="col-sm-3">
    <div class="card bg-light">
        <div class="card-body">
            <div class="blood">
                <h2>B+ <i class="fas fa-tint"></i></h2>
            </div><br><br>
            <div>
              {{B1.unit}}
            </div>
        </div>
      </div>
</div>
<div class="col-sm-3">
```

```
      <div class="card bg-light">
        <div class="card-body">
          <div class="blood">
            <h2>O+ <i class="fas fa-tint"></i></h2>
          </div><br><br>
          <div>
            {{O1.unit}}
          </div>
        </div>
      </div>
    </div>
    <div class="col-sm-3">
      <div class="card bg-light">
        <div class="card-body">
          <div class="blood">
            <h2>AB+ <i class="fas fa-tint"></i></h2>
          </div><br><br>
          <div>
            {{AB1.unit}}
          </div>
        </div>
      </div>
    </div>
  </div>
```

```
<div class="row">
    <div class="col-sm-3">
      <div class="card bg-light">
        <div class="card-body">
          <div class="blood">
            <h2>A- <i class="fas fa-tint"></i></h2>
          </div><br><br>
          <div>
            {{A2.unit}}
          </div>
        </div>
      </div>
    </div>
    <div class="col-sm-3">
        <div class="card bg-light">
          <div class="card-body">
            <div class="blood">
              <h2>B- <i class="fas fa-tint"></i></h2>
            </div><br><br>
            <div>
              {{B2.unit}}
            </div>
          </div>
        </div>
```

```
</div>
<div class="col-sm-3">
    <div class="card bg-light">
        <div class="card-body">
            <div class="blood">
                <h2>O- <i class="fas fa-tint"></i></h2>
            </div><br><br>
            <div>
              {{O2.unit}}
            </div>
        </div>
      </div>
  </div>
  <div class="col-sm-3">
    <div class="card bg-light">
        <div class="card-body">
            <div class="blood">
                <h2>AB- <i class="fas fa-tint"></i></h2>
            </div><br><br>
            <div>
              {{AB2.unit}}
            </div>
        </div>
      </div>
```

```
        </div>
    </div>
<hr>
<br>
<h3 class="text-center">Update Blood Unit</h3><br>
<div class="xyz">
   <form class="form-inline" method="POST">
        {% csrf_token %}
        <div class="form-group mx-sm-3 mb-6">
<select name="bloodgroup" class="form-control">
            <option disabled="disabled" selected="selected">Choose Blood Group</option>
            <option>O+</option>
            <option>O-</option>
            <option>A+</option>
            <option>A-</option>
            <option>B+</option>
            <option>B-</option>
            <option>AB+</option>
            <option>AB-</option>
          </select>
         </div>
        <div class="form-group mx-sm-3 mb-6">
 <input type="number" class="form-control" name="unit" placeholder="Unit">
        </div>
```

```
        <button type="submit" class="btn btn-primary mb-2">Update</button>
      </form>
</div>
</div>
{% endblock content %}
```

Index.html

```
{% load static %}
<!DOCTYPE html>
<head>
    <style>
        .xyz{
          margin-bottom: 0px;
          background-image: url('{% static "image/homepage3.png" %}');
          background-size: cover;
          background-repeat: no-repeat;
        }
      </style>

</head>
<body>
  {% include "blood/navbar.html" %}
<br>
```

```
<section id="section-jumbotron" style="margin-bottom: 0px;" class="jumbotron jumbotron-fluid d-flex justify-content-center align-items-center xyz">

   <div class="container text-center">

      <br>

<br>

</div>

 </section>

<div class="jumbotron" style="margin-top: 0px;margin-bottom: 0px;">

    <p class="lead text-center"><h3 align = "center">“PNT2022TMID26437"</h3></p>

      <p align="center">SHRIYA R </p>

        <p align="center">SATHISH KUMAR R </p>

         <p align="center">SHRIRAM S K</p>

          <p align="center">SUJITHA A</p><br>

<p class="lead text-center" ><h5 align = "center"><b>“Saving a life won’t cost you anything. Go ahead and donate Plasma”</b></h5>

</p>

<p class="text-center">- Anonymous</p

</div>

 {% include "blood/footer.html" %}

</body>
```

13.2 GITHUB

https://github.com/IBM-EPBL/IBM-Project-8707-1658927490

PROJECT DEMO LINK

https://drive.google.com/file/d/1i-gheKt3L42O98pwtdZQv6mIREgvNAp/view?usp=share_link