PLASMA DONOR APPLICATION

REPORT

Team Members

Abinaya L (19EUIT003)

Anjali Niranjana (19EUIT017)

Anu Gayathri S (19EUIT020)

Ashrutha S (19EUIT023)

Mentor

T R Kalaiarasan Sir,

Assistant Professor,

Dept of IT, SKCET

1. INTRODUCTION

1.1 Project Overview

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. In regard to the problem faced, an application is to be built which would take the donor details, store them and inform them upon a request.

1.2 Purpose

For instance, during COVID 19 crisis the requirement for plasma increased drastically as there were no vaccination found in order to treat the infected patients, with plasma therapy the recovery rates 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 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.

2. LITERATURE SURVEY

2.1 Existing problem

- In existing Plasma Donor Application, not all users can get access to the information because of the low working of the application or is not able to access any site.
- Sometimes the information is not updated or available for a particular place.
- In existing system the security is less and latest updates and uploads are not so frequent.

2.2 References

- [R. C. Gojko Adzic, "Serverless computing: Economic and architectural impact," ESEC/FSE, 2017.
- P. C. P. C. a. V. I. M. Yan, "Building a chatbot with serverless computing," IBM watson research center, 2016.
- S. E. a. B. J. J. Short, ""Cloud Event Programming Paradigms: Applications and Analysis,"," 9th IEEE International Conference on Cloud Computing (CLOUD), pp. pp. 400-406, 2017.
- Z. Al-Ali, ""Making Serverless Computing More Serverless,"," IEEE 11th International Conference on Cloud Computing (CLOUD), pp. pp. 456-459, 2018., 2018.
- S. a. S. Jindal, ""EMARS: Efficient Management and Allocation of Resources in Serverless,"," IEEE 11th International Conference on Cloud Computing (CLOUD), pp. pp. 827-830, 2018.

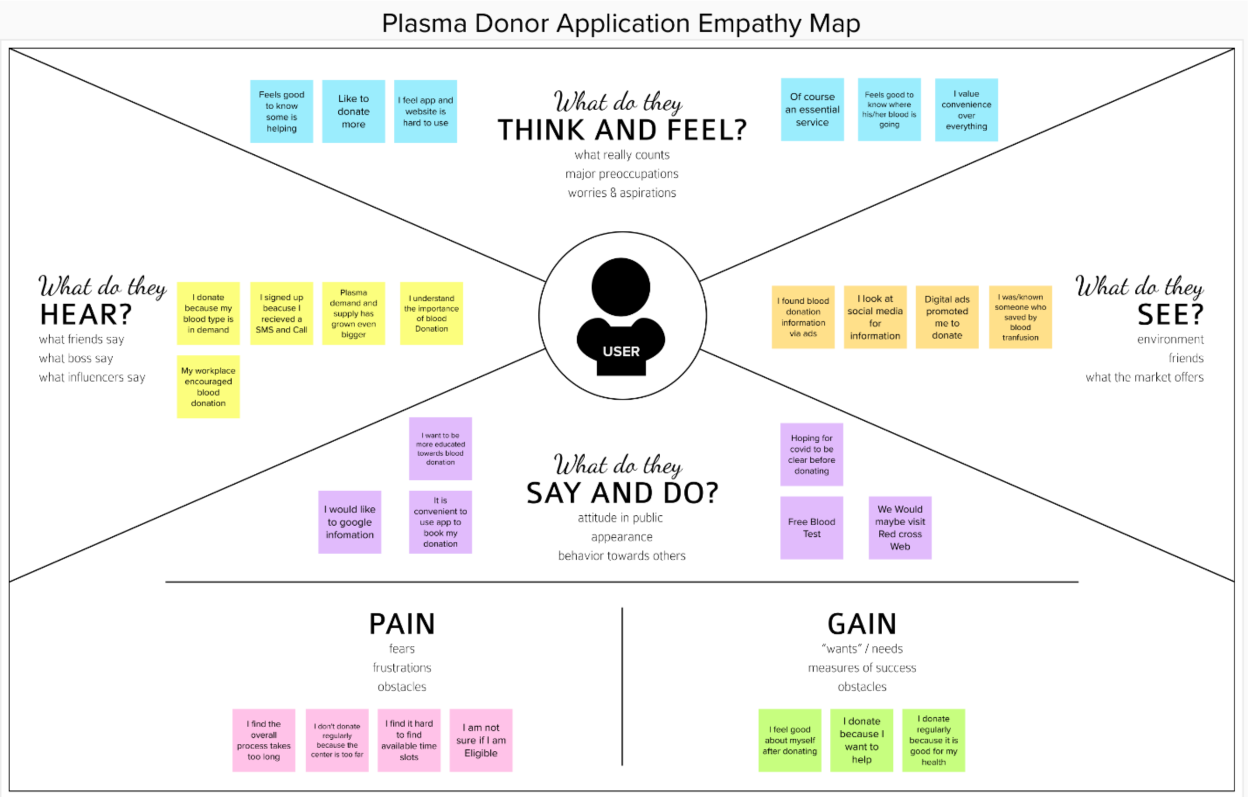
2.3 Problem Statement Definition

The problem definition of the system is to launch an online interaction medium for the blood donation management. The main aim of this project is to help the people who needs blood in emergency and to associate some donors who are willing to donate their blood to needy people and save their lives.

- Search donors of suitable blood groups and contact them if needed.
- Donate blood by registering themselves with our system and can also become donors.
- Will be able to see the stock of various blood groups.
- Send request for blood via Email.

IDEATION &PROPOSED SOLUTION

2.4 Empathy Map Canvas



Plasma Donor Application Empathy Map

What do they THINK AND FEEL?

what really counts

major preoccupations

worries & aspirations

Feels good to know some is helping

Like to donate more

I feel app and website is hard to use

Of course an essential service

Feels good to know where his/her blood is going

I value convenience over everything

What do they HEAR?

what friends say

what boss say

what influencers say

I donate because my blood type is in demand

I signed up beacuse I recieved a SMS and Call

Plasma demand and supply has grown even bigger

I understand the importance of blood Donation

My workplace encouraged blood donation

USER

What do they SEE?

environment

friends

what the market offers

I found blood donation information via ads

I look at social media for information

Digital ads promoted me to donate

I was/known someone who saved by blood tranfusion

What do they SAY AND DO?

attitude in public

appearance

behavior towards others

I want to be more educated towards blood donation

I would like to google infomation

It is convenient to use app to book my donation

Hoping for covid to be clear before donating

Free Blood Test

We Would maybe visit Red cross Web

PAIN

fears

frustrations

obstacles

I find the overall process takes too long

I don't donate regularly because the center is too far

I find it hard to find available time slots

I am not sure if I am Eligible

GAIN

"wants" / needs

measures of success

obstacles

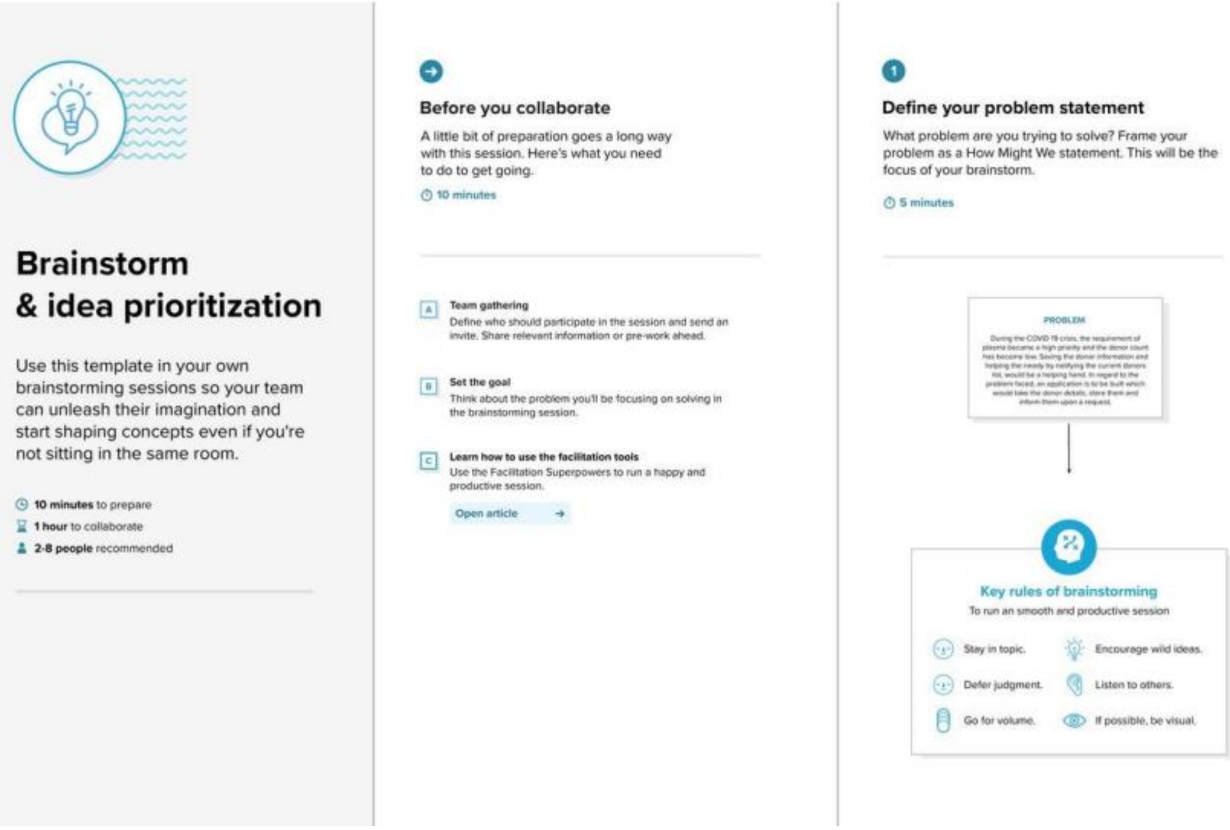
I feel good about myself after donating

I donate because I want to help

I donate regularly because it is good for my health

2.5 Ideation & Brainstorming

Step-1: Team Gathering, Collaboration and Select the Problem Statement



Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

- **10 minutes** to prepare
- **1 hour** to collaborate
- **2-8 people** recommended

Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

10 minutes

A **Team gathering**
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

B **Set the goal**
Think about the problem you'll be focusing on solving in the brainstorming session.

C **Learn how to use the facilitation tools**
Use the Facilitation Superpowers to run a happy and productive session.

Open article →

1 **Define your problem statement**

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

5 minutes

PROBLEM

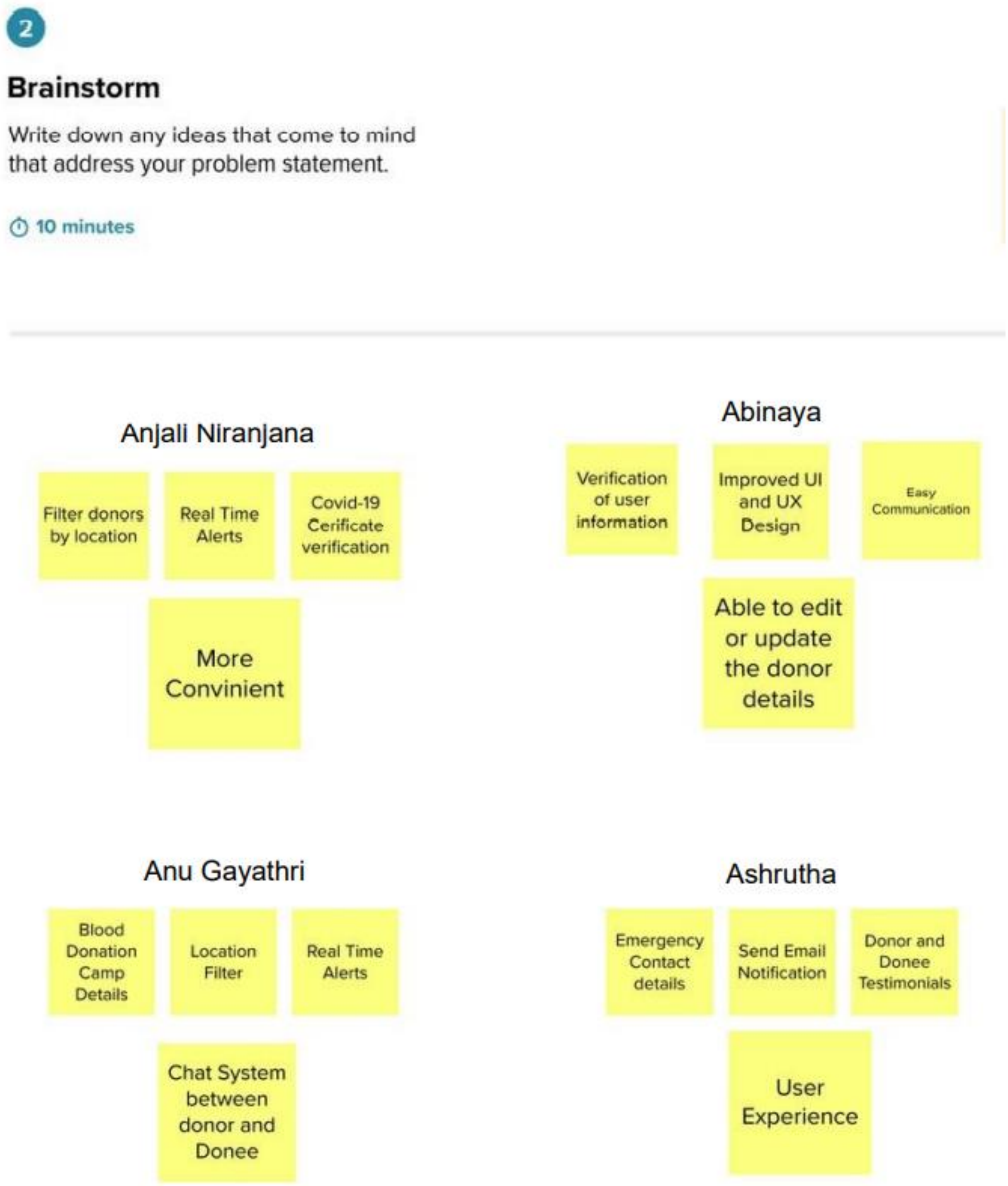
During the COVID 19 crisis, the requirement of plasma became a high priority and the donor count has become low. Saving the donor information and helping the needy by notifying the current donors list, would be a helping hand. In regard to the problem faced, an application is to be built which would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

Key rules of brainstorming

To run an smooth and productive session

- Stay in topic.
- Encourage wild ideas.
- Defer judgment.
- Listen to others.
- Go for volume.
- If possible, be visual.

Step-2: Brainstorm and Idea Listing



2

Brainstorm

Write down any ideas that come to mind that address your problem statement.

10 minutes

Anjali Niranjana

- Filter donors by location
- Real Time Alerts
- Covid-19 Cerificate verification
- More Convinient

Abinaya

- Verification of user information
- Improved UI and UX Design
- Easy Communication
- Able to edit or update the donor details

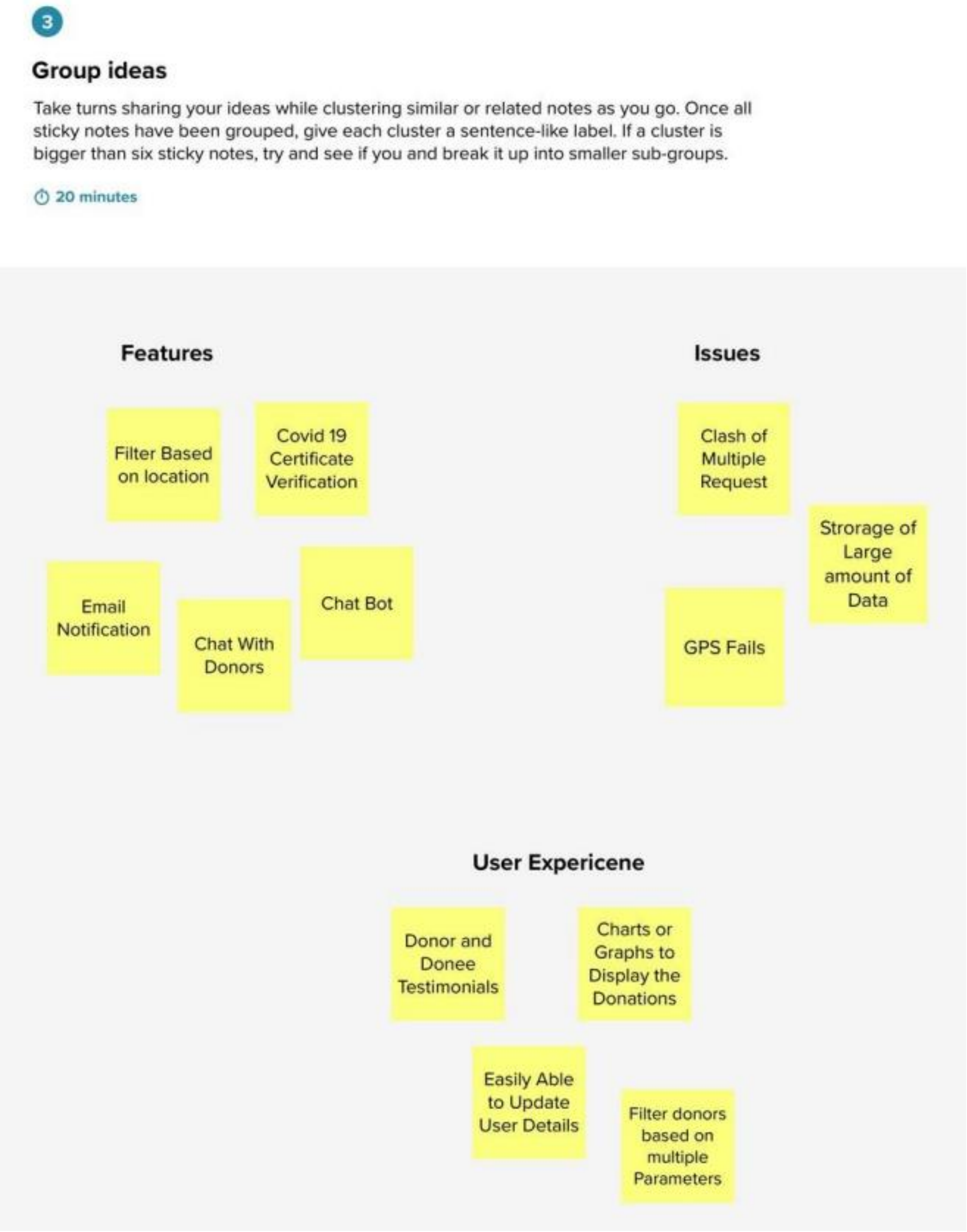
Anu Gayathri

- Blood Donation Camp Details
- Location Filter
- Real Time Alerts
- Chat System between donor and Donee

Ashrutha

- Emergency Contact details
- Send Email Notification
- Donor and Donee Testimonials
- User Experience

Step-3: Grouping



3

Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you and break it up into smaller sub-groups.

⏱ 20 minutes

Features

- Filter Based on location
- Covid 19 Certificate Verification
- Email Notification
- Chat With Donors
- Chat Bot

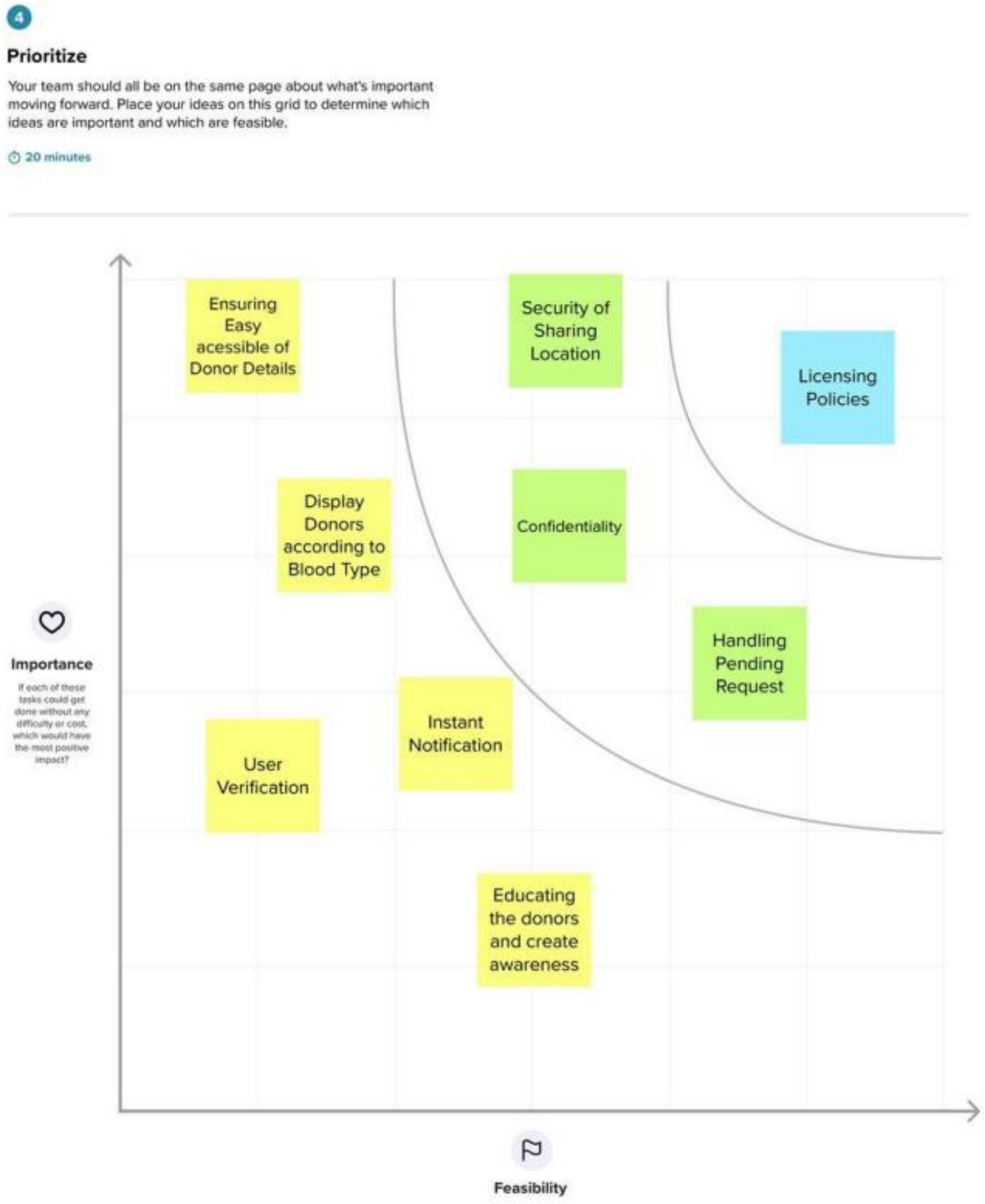
Issues

- Clash of Multiple Request
- Strorage of Large amount of Data
- GPS Fails

User Expericene

- Donor and Donee Testimonials
- Charts or Graphs to Display the Donations
- Easily Able to Update User Details
- Filter donors based on multiple Parameters

Step-4: Idea Prioritization



4

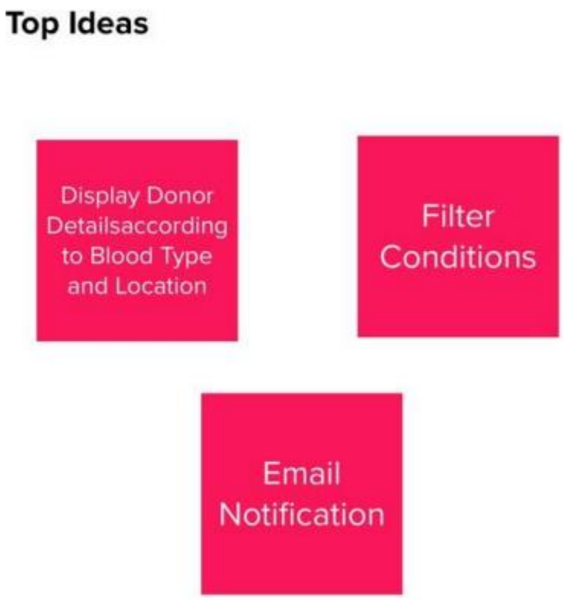
Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

⏱ 20 minutes

Ensuring Easy acessible of Donor Details
Security of Sharing Location
Licensing Policies
Display Donors according to Blood Type
Confidentiality
Handling Pending Request
Instant Notification
User Verification
Educating the donors and create awareness
Importance
If each of these tasks could get done without any difficulty or cost, which would have the most positive impact?
Feasibility

Step-5: Top Ideas



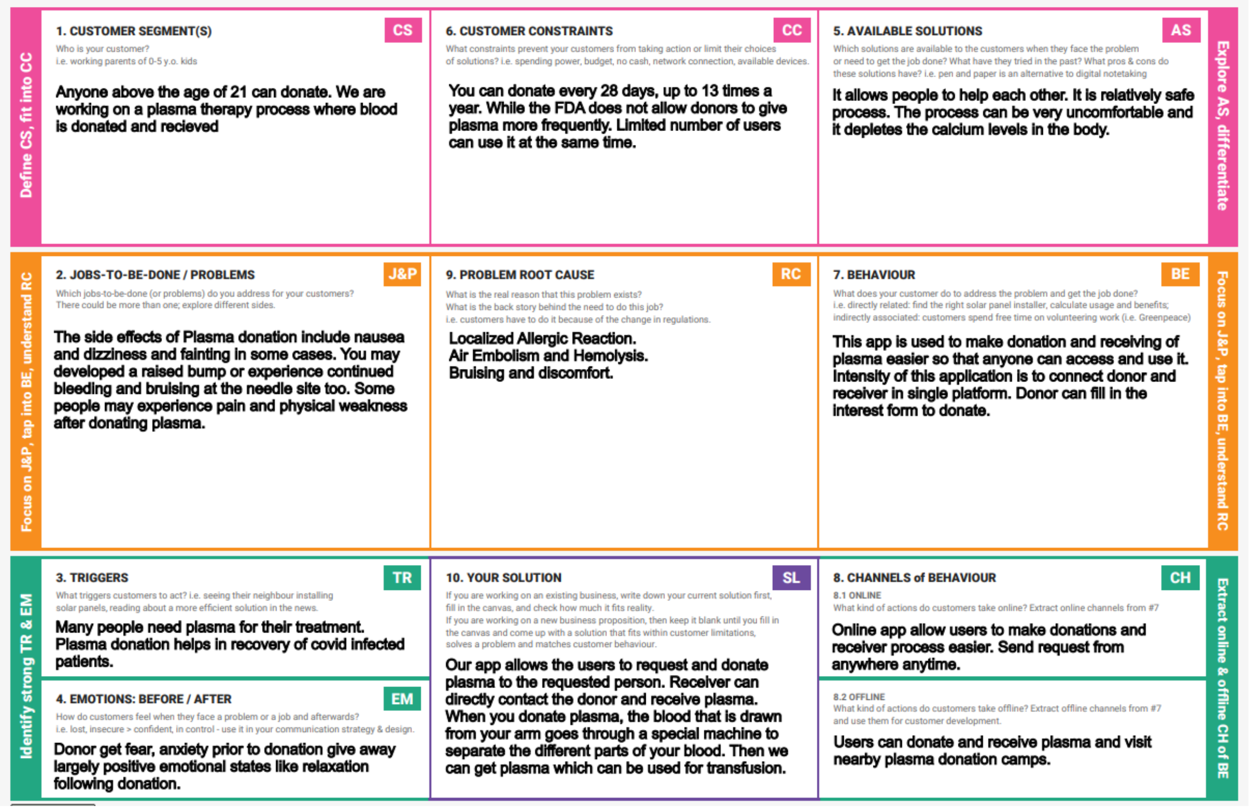
2.6 Proposed Solution

S.No	Parameter	Description
1.	Problem statement (Problem to be solved)	With the number of people affected by COVID-19 infection the demand for the plasma of recovered patients has gone up tremendously. This creates chaotic situation for everyone as this is very crucial because this may risk many lives. So, this situation needs a systematic and quick solution. Searching eligible donor would surely be strenuous job.
2.	Idea / Solution	Smart application would be the perfect solution to manage donating and searching donors for plasma.

		So, this application searches perfect donor. The system works with the registration of a donor by providing the required details that gets stored in the database.
3.	Novelty / Uniqueness	There exist applications that allow donors to register for donations. But out application also allow patients to register and the application searches the most eligible donor.
4.	Solution Impact / Customer Satisfaction	Due to Covid-19, supply to the plasma demand became a serious issue. This application aims to ease the procedure of finding the most eligible donor for the patient. Now the user will be able to donate and receive plasma donation with a lot of ease.
5.	Business Model (Revenue Model)	➢ Key partners: SSN and IBM both together will work to develop the application. ➢ Key resources: Resources for development are IDEs, IBM’s database, several software, etc. ➢ Activities: The main activities include development of the application using flask, interfacing with IBM db2, SendGrid and hosting it on cloud. ➢ Value proposition: Users will get a friendly GUI and will serve all the tasks. Data

		will be secure and privacy will be maintained. ➢ Cost structure: No such cost is required. IBM provides the software. Except that, some software may require payments. ➢ Revenue streams: NA ➢ Customer segments: Students, medical professionals, patients, donors ➢ Customer relationships: There will be confidentiality within the users. All users will be treated with fair means. Channels: The website application will be hosted on various social media platforms.
6.	Scalability of Solution	The application will be scalable in future also. This application could be used by NGOs and govt hospitals. Further, developers need to maintain and update the website for future requirements. New features will promote the application and will further attract more users.

2.7 Problem Solution fit


Define CS, fit into CC
Explore AS, differentiate
Focus on J&P, tap into BE, understand RC
Focus on J&P, tap into BE, understand RC
Identify strong TR & EM
Extract online & offline CH of BE

1. CUSTOMER SEGMENT(S) CS

Who is your customer?
i.e. working parents of 0-5 y.o. kids

Anyone above the age of 21 can donate. We are working on a plasma therapy process where blood is donated and recieved

6. CUSTOMER CONSTRAINTS CC

What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices.

You can donate every 28 days, up to 13 times a year. While the FDA does not allow donors to give plasma more frequently. Limited number of users can use it at the same time.

5. AVAILABLE SOLUTIONS AS

Which solutions are available to the customers when they face the problem or need to get the job done? What have they tried in the past? What pros & cons do these solutions have? i.e. pen and paper is an alternative to digital notetaking

It allows people to help each other. It is relatively safe process. The process can be very uncomfortable and it depletes the calcium levels in the body.

2. JOBS-TO-BE-DONE / PROBLEMS J&P

Which jobs-to-be-done (or problems) do you address for your customers?
There could be more than one; explore different sides.

The side effects of Plasma donation include nausea and dizziness and fainting in some cases. You may developed a raised bump or experience continued bleeding and bruising at the needle site too. Some people may experience pain and physical weakness after donating plasma.

9. PROBLEM ROOT CAUSE RC

What is the real reason that this problem exists?
What is the back story behind the need to do this job?
i.e. customers have to do it because of the change in regulations.

Localized Allergic Reaction.
Air Embolism and Hemolysis.
Bruising and discomfort.

7. BEHAVIOUR BE

What does your customer do to address the problem and get the job done?
i.e. directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated: customers spend free time on volunteering work (i.e. Greenpeace)

This app is used to make donation and receiving of plasma easier so that anyone can access and use it. Intensity of this application is to connect donor and receiver in single platform. Donor can fill in the interest form to donate.

3. TRIGGERS TR

What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.

Many people need plasma for their treatment. Plasma donation helps in recovery of covid infected patients.

4. EMOTIONS: BEFORE / AFTER EM

How do customers feel when they face a problem or a job and afterwards?
i.e. lost, insecure > confident, in control - use it in your communication strategy & design.

Donor get fear, anxiety prior to donation give away largely positive emotional states like relaxation following donation.

10. YOUR SOLUTION SL

If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality.
If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour.

Our app allows the users to request and donate plasma to the requested person. Receiver can directly contact the donor and receive plasma. When you donate plasma, the blood that is drawn from your arm goes through a special machine to separate the different parts of your blood. Then we can get plasma which can be used for transfusion.

8. CHANNELS of BEHAVIOUR CH

8.1 ONLINE
What kind of actions do customers take online? Extract online channels from #7

Online app allow users to make donations and receiver process easier. Send request from anywhere anytime.

8.2 OFFLINE
What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.

Users can donate and receive plasma and visit nearby plasma donation camps.

3. REQUIREMENT ANALYSIS

3.1 Functional requirement

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through mobile/ laptop/ PC Registration through telegram group
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Donor Notification	Get notification through register mobile number Get notification through register Email
FR-4	Plasma needer details(person)	Availability details in App Availability details in telegram group
FR-5	Plasma availability(blood)	Availability details in App Availability details in telegram group

3.2 Non-Functional requirements

Availability

The Plasma Donor Application must be available 24 hours a day with no bandwidth issues.

Manageability

The Plasma Donor Application must Alert when the system suffers from a recoverable interruption.

Environmental

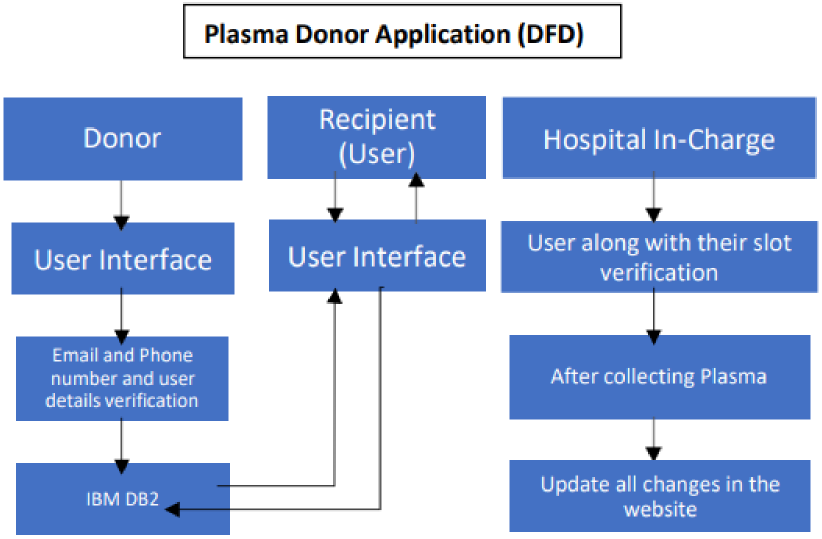
The Plasma Donor Application must be working in latest operating system environments like windows 7, windows 8, windows 10 and on linux.

Data Integrity

All the data in the Plasma Donor Application must be accurate and reliable.

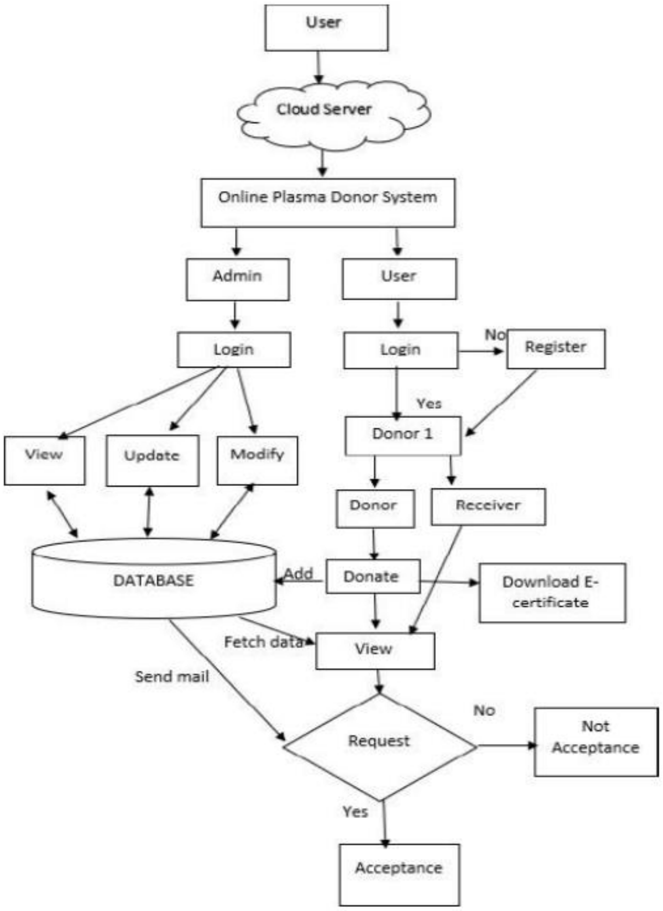
4. PROJECT DESIGN

4.1 Data Flow Diagram

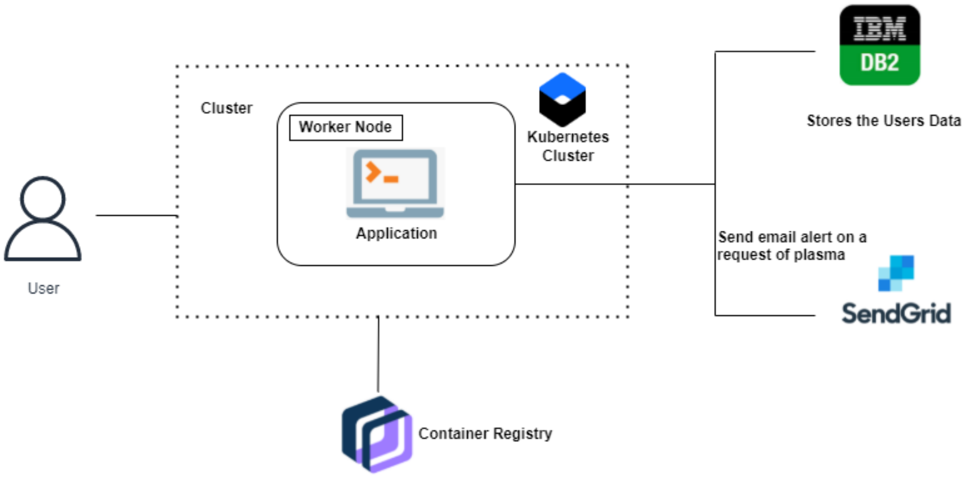

Plasma Donor Application (DFD)
Donor
Recipient (User)
Hospital In-Charge
User Interface
User Interface
User along with their slot verification
Email and Phone number and user details verification
After collecting Plasma
IBM DB2
Update all changes in the website

4.2 Solution & Technical Architecture

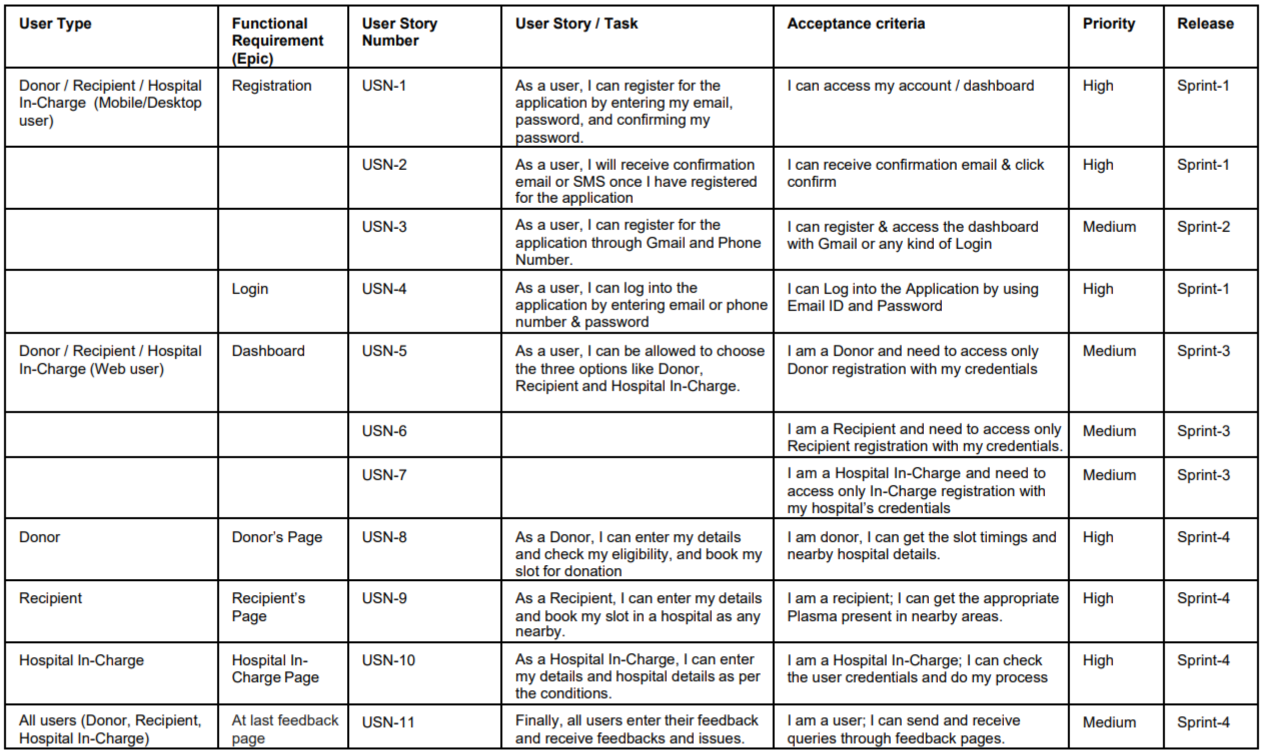
Solution Architecture



Technical Architecture



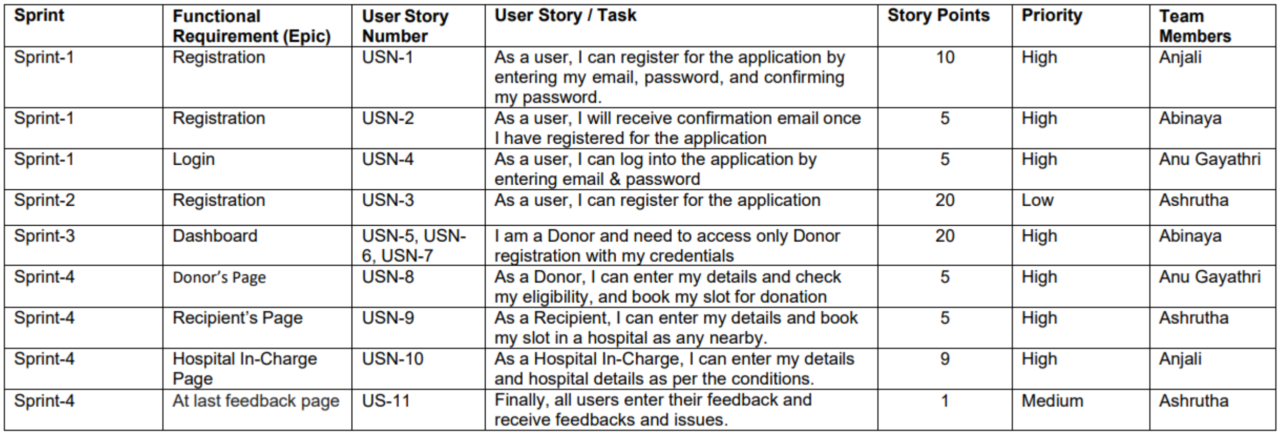
4.3 User Stories



User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Donor / Recipient / Hospital In-Charge (Mobile/Desktop user)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmation email or SMS 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 Gmail and Phone Number.	I can register & access the dashboard with Gmail or any kind of Login	Medium	Sprint-2
	Login	USN-4	As a user, I can log into the application by entering email or phone number & password	I can Log into the Application by using Email ID and Password	High	Sprint-1
Donor / Recipient / Hospital In-Charge (Web user)	Dashboard	USN-5	As a user, I can be allowed to choose the three options like Donor, Recipient and Hospital In-Charge.	I am a Donor and need to access only Donor registration with my credentials	Medium	Sprint-3
		USN-6		I am a Recipient and need to access only Recipient registration with my credentials.	Medium	Sprint-3
		USN-7		I am a Hospital In-Charge and need to access only In-Charge registration with my hospital's credentials	Medium	Sprint-3
Donor	Donor's Page	USN-8	As a Donor, I can enter my details and check my eligibility, and book my slot for donation	I am donor, I can get the slot timings and nearby hospital details.	High	Sprint-4
Recipient	Recipient's Page	USN-9	As a Recipient, I can enter my details and book my slot in a hospital as any nearby.	I am a recipient; I can get the appropriate Plasma present in nearby areas.	High	Sprint-4
Hospital In-Charge	Hospital In-Charge Page	USN-10	As a Hospital In-Charge, I can enter my details and hospital details as per the conditions.	I am a Hospital In-Charge; I can check the user credentials and do my process	High	Sprint-4
All users (Donor, Recipient, Hospital In-Charge)	At last feedback page	USN-11	Finally, all users enter their feedback and receive feedbacks and issues.	I am a user; I can send and receive queries through feedback pages.	Medium	Sprint-4

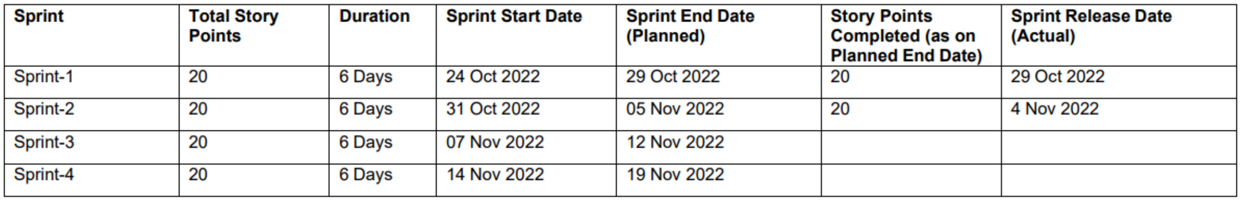
5. PROJECT PLANNING & SCHEDULING

5.1 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.	10	High	Anjali
Sprint-1	Registration	USN-2	As a user, I will receive confirmation email once I have registered for the application	5	High	Abinaya
Sprint-1	Login	USN-4	As a user, I can log into the application by entering email & password	5	High	Anu Gayathri
Sprint-2	Registration	USN-3	As a user, I can register for the application	20	Low	Ashrutha
Sprint-3	Dashboard	USN-5, USN-6, USN-7	I am a Donor and need to access only Donor registration with my credentials	20	High	Abinaya
Sprint-4	Donor's Page	USN-8	As a Donor, I can enter my details and check my eligibility, and book my slot for donation	5	High	Anu Gayathri
Sprint-4	Recipient's Page	USN-9	As a Recipient, I can enter my details and book my slot in a hospital as any nearby.	5	High	Ashrutha
Sprint-4	Hospital In-Charge Page	USN-10	As a Hospital In-Charge, I can enter my details and hospital details as per the conditions.	9	High	Anjali
Sprint-4	At last feedback page	US-11	Finally, all users enter their feedback and receive feedbacks and issues.	1	Medium	Ashrutha

5.2 Sprint Delivery Schedule



Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	6 Days	24 Oct 2022	29 Oct 2022	20	29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	4 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022		
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022		

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

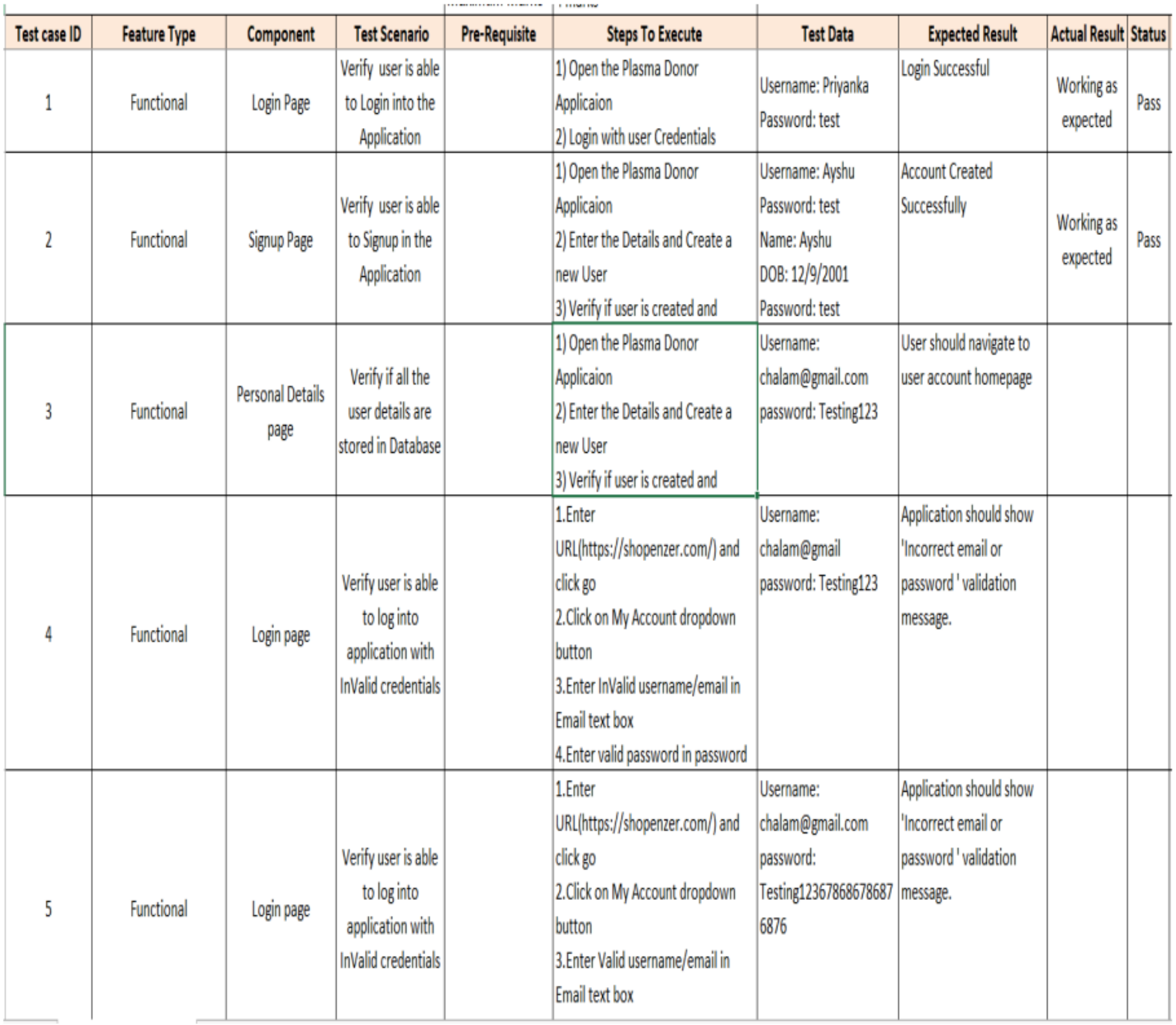
6.1 Features

- Filter based on location
- Covid 19 Certificate Verification
- Email Notifications
- Chat with donors

6.2 Database Schema (if Applicable)

7. TESTING

7.1 Test Cases

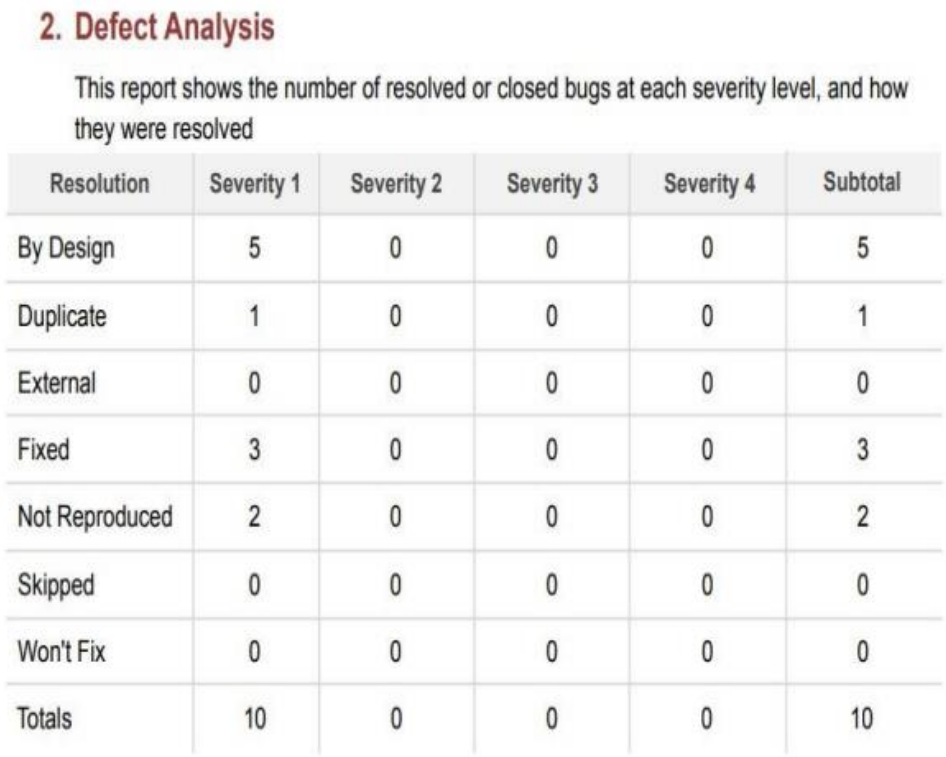


Test case ID	Feature Type	Component	Test Scenario	Pre-Requisite	Steps To Execute	Test Data	Expected Result	Actual Result	Status
1	Functional	Login Page	Verify user is able to Login into the Application		1) Open the Plasma Donor Applicaion 2) Login with user Credentials	Username: Priyanka Password: test	Login Successful	Working as expected	Pass
2	Functional	Signup Page	Verify user is able to Signup in the Application		1) Open the Plasma Donor Applicaion 2) Enter the Details and Create a new User 3) Verify if user is created and	Username: Ayshu Password: test Name: Ayshu DOB: 12/9/2001 Password: test	Account Created Successfully	Working as expected	Pass
3	Functional	Personal Details page	Verify if all the user details are stored in Database		1) Open the Plasma Donor Applicaion 2) Enter the Details and Create a new User 3) Verify if user is created and	Username: chalam@gmail.com password: Testing123	User should navigate to user account homepage		
4	Functional	Login page	Verify user is able to log into application with InValid credentials		1.Enter URL(https://shopenzer.com/) and click go 2.Click on My Account dropdown button 3.Enter InValid username/email in Email text box 4.Enter valid password in password	Username: chalam@gmail password: Testing123	Application should show 'Incorrect email or password ' validation message.		
5	Functional	Login page	Verify user is able to log into application with InValid credentials		1.Enter URL(https://shopenzer.com/) and click go 2.Click on My Account dropdown button 3.Enter Valid username/email in Email text box	Username: chalam@gmail.com password: Testing12367868678687 6876	Application should show 'Incorrect email or password ' validation message.		

7.2 User Acceptance Testing

1. Purpose of Document

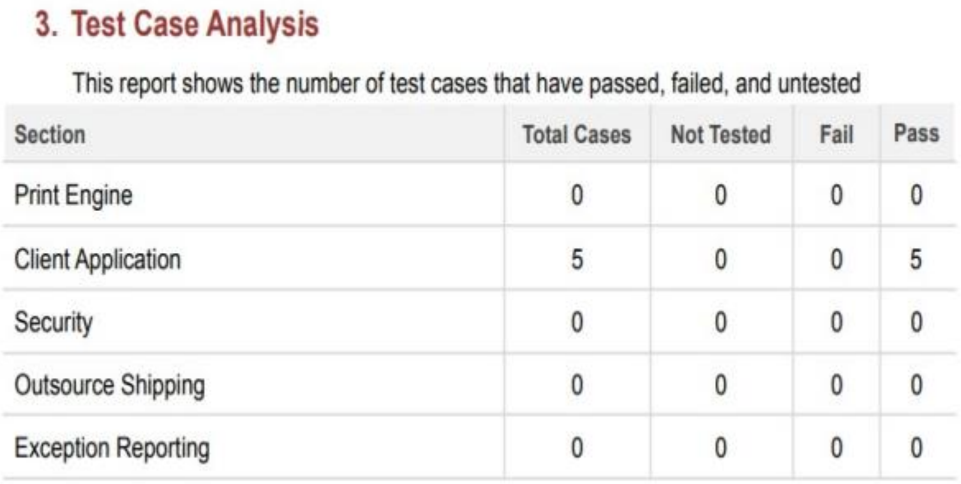
The purpose of this document is to briefly explain the test coverage and open issues of the [ProductName] project at the time of the release to User Acceptance Testing (UAT).



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	Subtotal
By Design	5	0	0	0	5
Duplicate	1	0	0	0	1
External	0	0	0	0	0
Fixed	3	0	0	0	3
Not Reproduced	2	0	0	0	2
Skipped	0	0	0	0	0
Won't Fix	0	0	0	0	0
Totals	10	0	0	0	10



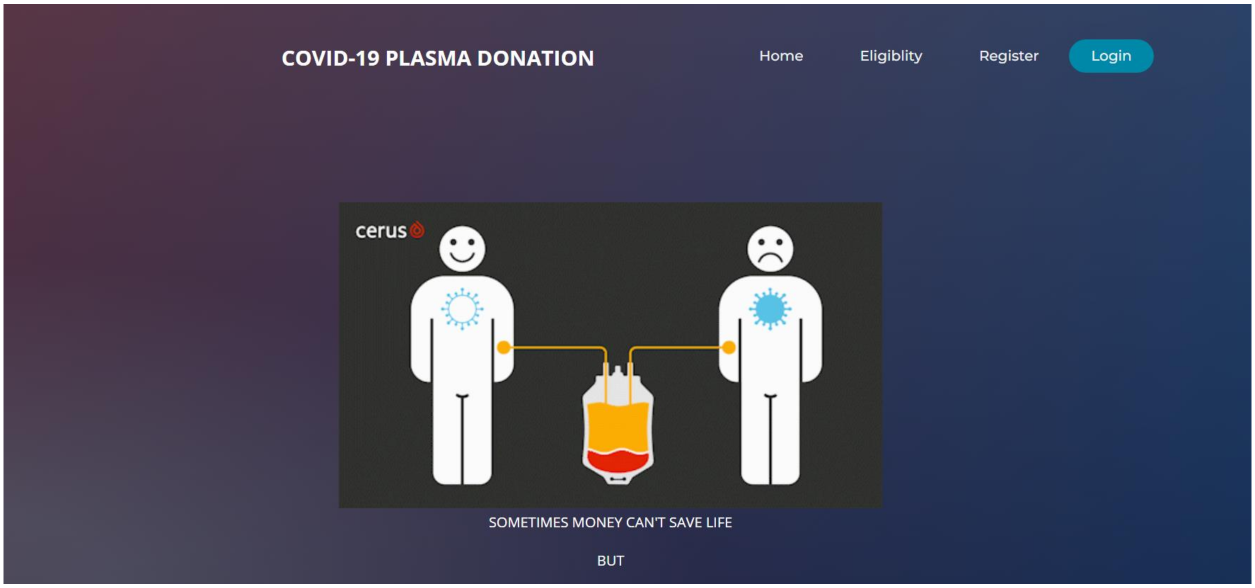
3. Test Case Analysis

This report shows the number of test cases that have passed, failed, and untested

Section	Total Cases	Not Tested	Fail	Pass
Print Engine	0	0	0	0
Client Application	5	0	0	5
Security	0	0	0	0
Outsource Shipping	0	0	0	0
Exception Reporting	0	0	0	0

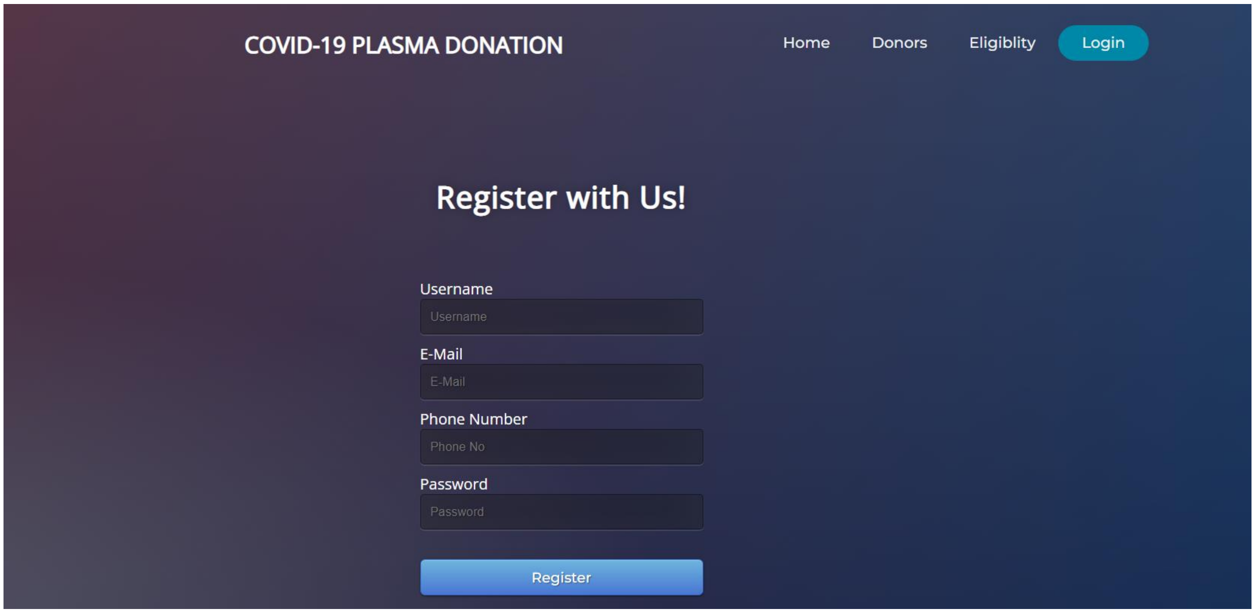
8. RESULTS

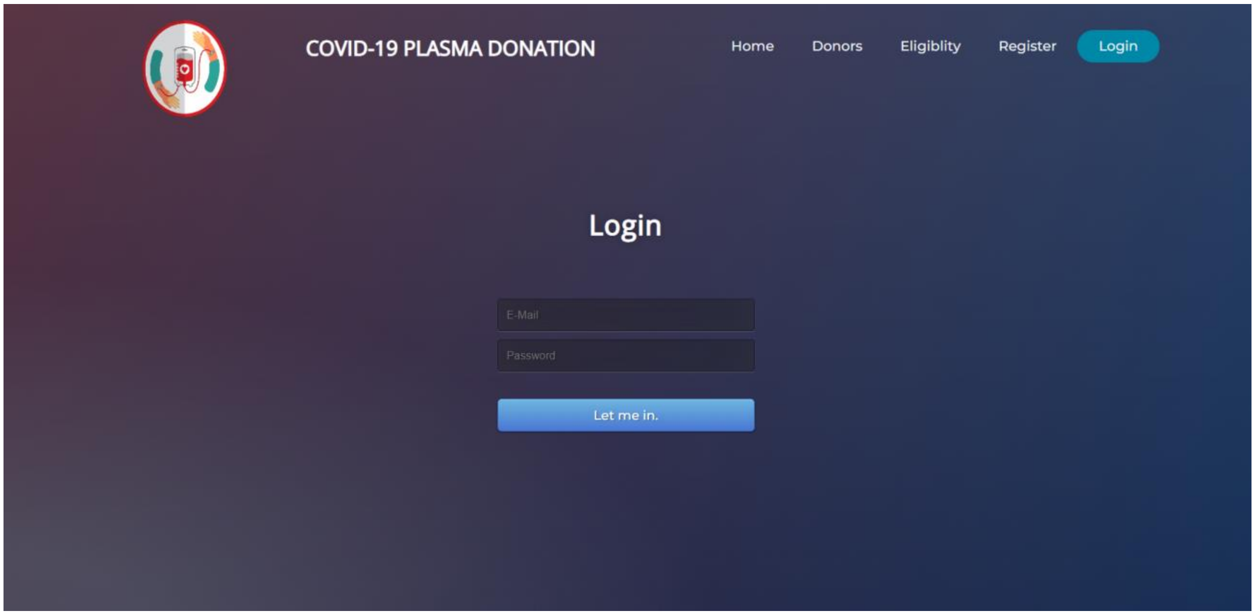
Sample pages:



SOMETIMES MONEY CAN'T SAVE LIFE

BUT





COVID-19 PLASMA DONATION

Login

9. ADVANTAGES & DISADVANTAGES

Advantages:

- Cost-effective
- Always up-to-date
- Runs easy
- Internet Reliance
- Website Dependency

Disadvantages:

- Clash of multiple request
- Storage of large amount of data
- GPS fails

10. CONCLUSION

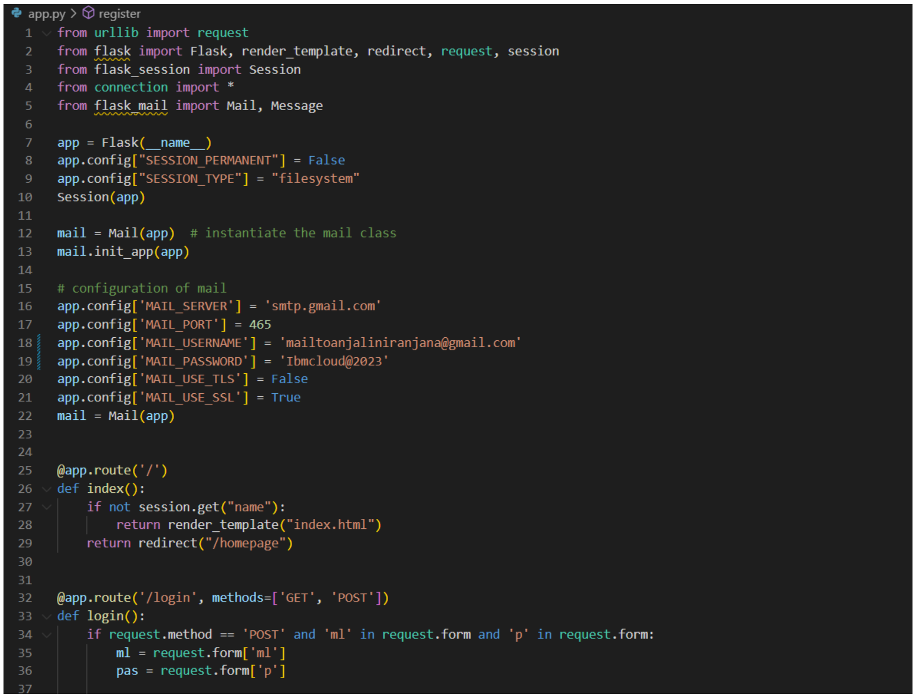
The Plasma Donor Application project is programmed in order to help the humans or patients who are seeking plasma at a particular location. The Plasma Donor Application does not store plasma but it stores the information about the plasma or more precisely we can say it store the information or database of the plasma available in the particular location. The system is basically an E-information system for getting the database for the plasma availability in any particular arena.

11. FUTURE SCOPE

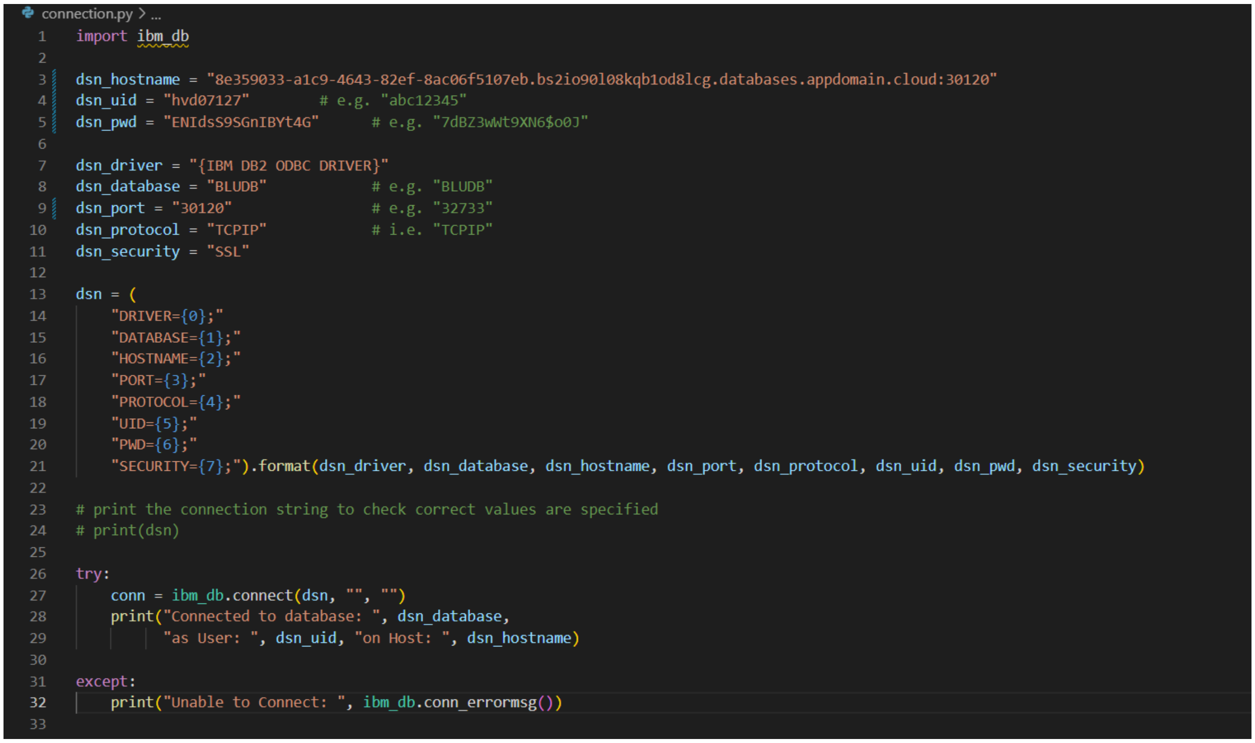
Upgrading the UI that is more user-friendly which will help many users to access the website and also ensures that many plasma donors can be added into the community. Using elastic load balancer, it helps to handle multiple requests at the same time which will maintain the uptime of the website with negligible downtime.

12. APPENDIX

Sample source Code:



```python
from urllib import request
from flask import Flask, render_template, redirect, request, session
from flask_session import Session
from connection import *
from flask_mail import Mail, Message

app = Flask(__name__)
app.config["SESSION_PERMANENT"] = False
app.config["SESSION_TYPE"] = "filesystem"
Session(app)

mail = Mail(app)  # instantiate the mail class
mail.init_app(app)

# configuration of mail
app.config['MAIL_SERVER'] = 'smtp.gmail.com'
app.config['MAIL_PORT'] = 465
app.config['MAIL_USERNAME'] = 'mailtoanjaliniranjana@gmail.com'
app.config['MAIL_PASSWORD'] = 'Ibmcloud@2023'
app.config['MAIL_USE_TLS'] = False
app.config['MAIL_USE_SSL'] = True
mail = Mail(app)


@app.route('/')
def index():
    if not session.get("name"):
        return render_template("index.html")
    return redirect("/homepage")


@app.route('/login', methods=['GET', 'POST'])
def login():
    if request.method == 'POST' and 'ml' in request.form and 'p' in request.form:
        ml = request.form['ml']
        pas = request.form['p']
```



connection.py > ...

```python
import ibm_db

dsn_hostname = "8e359033-a1c9-4643-82ef-8ac06f5107eb.bs2io90l08kqb1od8lcg.databases.appdomain.cloud:30120"
dsn_uid = "hvd07127"        # e.g. "abc12345"
dsn_pwd = "ENIdsS9SGnIBYt4G"      # e.g. "7dBZ3wWt9XN6$o0J"

dsn_driver = "{IBM DB2 ODBC DRIVER}"
dsn_database = "BLUDB"            # e.g. "BLUDB"
dsn_port = "30120"                # e.g. "32733"
dsn_protocol = "TCPIP"            # i.e. "TCPIP"
dsn_security = "SSL"

dsn = (
    "DRIVER={0};"
    "DATABASE={1};"
    "HOSTNAME={2};"
    "PORT={3};"
    "PROTOCOL={4};"
    "UID={5};"
    "PWD={6};"
    "SECURITY={7};").format(dsn_driver, dsn_database, dsn_hostname, dsn_port, dsn_protocol, dsn_uid, dsn_pwd, dsn_security)

# print the connection string to check correct values are specified
# print(dsn)

try:
    conn = ibm_db.connect(dsn, "", "")
    print("Connected to database: ", dsn_database,
          "as User: ", dsn_uid, "on Host: ", dsn_hostname)

except:
    print("Unable to Connect: ", ibm_db.conn_errormsg())

```

GitHub Link: https://github.com/IBM-EPBL/IBM-Project-26485-1660027817

Project Demo Link: https://drive.google.com/file/d/1blIG3rYatjR0s7xW1ExJLJqpbEdtuNVE/view