

PET ENGINEERING COLLEGE - VALLIOOR

REPORT

PLASMA DONOR APPLICATION



TEAM ID	PTN2022TMID52198
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1. INTRODUCTION:

1.1 Project Overview:

The main goal of our project is to make it easier 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 for developing the website is to make it easier to get a plasma donor easily and as soon as possible.

The person who wants to donate his/her plasma need to register in our application providing required information which are (name, age, blood group, phone number and location. etc)Patients who need plasma can also fill the form to request the plasma. Patients can directly call the donor by taking his/her contact number from the application. The user can also view the total active cases, recovered cases, in their area hospital's location and helpline number.

1.2 Purpose:

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, the health of those who are sick becomes disastrous. Therefore, it is not considered a rapid process to find plasma. The main purpose of the proposed system, the donor who wants to donate plasma can simply upload their covid19 traced certificate and can donate the plasma to the blood bank, the blood bank can apply for the donor and once the donor has accepted the request, the blood bank can add the units they need 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.

2. LITERATURE SURVEY:

Applying optimization methods to healthcare management and logistics is a developing research area with numerous studies. Specifically, facility location, staff fostering, patient allocation, and medical supply transportation are the main themes analysed. Optimization approaches have been developed for several healthcare related problems, ranging from the resource management in hospitals to the delivery of care services in a territory. However, optimization approaches can also improve other services in the health system that have been only marginally addressed, yet. One of them is the Blood Donation (BD) system, aiming at providing an adequate supply of blood to Transfusion Centres (TCs) and hospitals. Blood is necessary for several treatments and surgeries, and still a limited resource.

The need for blood is about ten million units per year in the USA, 2.1 in Italy and 2 in Turkey; moreover, people still die in some countries because of inadequate supply of blood products (World Health Organization 2014). Hence, BD plays a fundamental role in healthcare systems, aiming at guaranteeing an adequate blood availability to meet the demand and save lives. In Western countries, blood is usually collected from donors, i.e., unpaid individuals who give blood voluntarily. Blood is classified into groups (A and subgroups, B, 0 or AB) and based on the Rhesus factor (Rh+ or Rh-), and each donor should be correctly matched with the patient who receives his/her blood. Moreover, as it may transmit diseases, blood must be screened before utilization.

2.1 Existing Problem:

If we want to donate plasma or we require plasma, we must visit hospital or blood bank. Some Times blood bank doesn't have some rare bloods groups are eg(AB-) , In such hurry situation patients need imitate blood. In such time we must contact the available person and take blood and sometimes the donors are not available in nearby location or sometimes that person comes late from their location, sometimes it lead to dead of the patients.

So we created an user interface its very easy to use. You can get what you want need. In our site we get use details like Name, Gender, Email, Address, Blood Group, Health Details, Contact details Etc. A donor wants to donate blood they must register and give the required details, Once you register your details that details stored in database, If a patients need blood then hospital officials contact the nearby donor take blood and save the patient

2.2 References:

- [1] Dennis O'Neil (1999). "Blood Components" Palomar College. Archived from the original on June-5-2013.
- [2] Tuskegee University(May 29, 2013)"Chapter 9 Blood" tuskegee.edu. Archived from the original on December 28, 2013.
- [3]"Ways to Keep Your Blood Plasma Healthy" Archived from the original on November 1, 2013.Retrieved November 10, 2011.
- [4] Jump up to Maton, Anthea; Jean Hopkins; Charles Wiliam McLaughlin; Susan Johnson; MaryannaQuon Warner LaHart; David LaHart; Jill D. Wright (1993), Human Biology and Health, Englewood Cliffs, New Jersey, USA.
- [5] The Physics Fact book - Density of Blood.
- [6]Basic Biology (2015)."Blood cells". [6] Elkassabany NM, Meny GM, Doria RR, Marcucci C (2008). "Green Plasma Revisited". Anesthesiology 108(4);
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- [8] Tripathi S, Kumar V,Prabhakar A, Joshi S, Agarwal A(2015)."Passive blood plasma separation at the micro scale; a review of design principles and micro devices". J.Micromech, Microeng 25(8); 083001.
- [9] Guo Weijin; Hansson, Jonas; van der wijngaart, Wouter(2020)."Synthetic Paper Separates Plasma from Whole Blood with Low Protein Loss" Analytical Chemistry.92(9): 6194-6199.
- [10] Mani A, Poornima AP, Gupta D (2019) "Greenish discoloration of plasma: Is it really a matter of concern?" , Asian Journal of Transfusion Science.
- [11] Starr, Douglas P.(2000), Blood: An Epic History of Medicine and Commerce. New York: Quill.

2.3 Problem Statement:

To identify and manage the loss of some of these substances through plasma donation can lead to an electrolyte imbalance

Who does the problem affect?	There can be minor side effects of plasma donor: Plasma is the liquid part of the blood. It contains proteins and antibodies that are crucial for clotting and immunity. Around 55% of the blood is plasma.
What are the boundaries of the problem?	For most people, donating plasma does not cause any side effects, but some donors can experience fatigue, bruising, bleeding, or dehydration. Additionally, you may feel dizzy or lightheaded. While not typical, fainting can also occur. It's rare, but more serious infections or reactions can occur, which can be treated.
What is the issue?	BLOODR application can resolve these issues by connecting patients promptly with a large pool of donors in the same region via an authorized clinic. When a patient needs a blood donation, the clinic (where the patient is admitted) can use the application to contact the blood donors in the vicinity or nearby city based on their location.
When does the issue occurs?	Certain chronic illnesses, such as hepatitis and HIV, automatically disqualify someone from donating. Other active conditions, such as tuberculosis, must be treated first for a certain amount of time before an individual can donate blood or plasma.
Where is the issue occurring?	It occurs if the body has low levels of nutrients and salts. Fatigue after plasma donation is another common side effect, but it's usually mild.
Why is it important that we fix the problem?	Your donation helps patients who need plasma-derived biotherapies to improve or save their lives. Those in need are suffering from life-threatening conditions such as hemophilia, immune deficiencies, and other blood disorders.

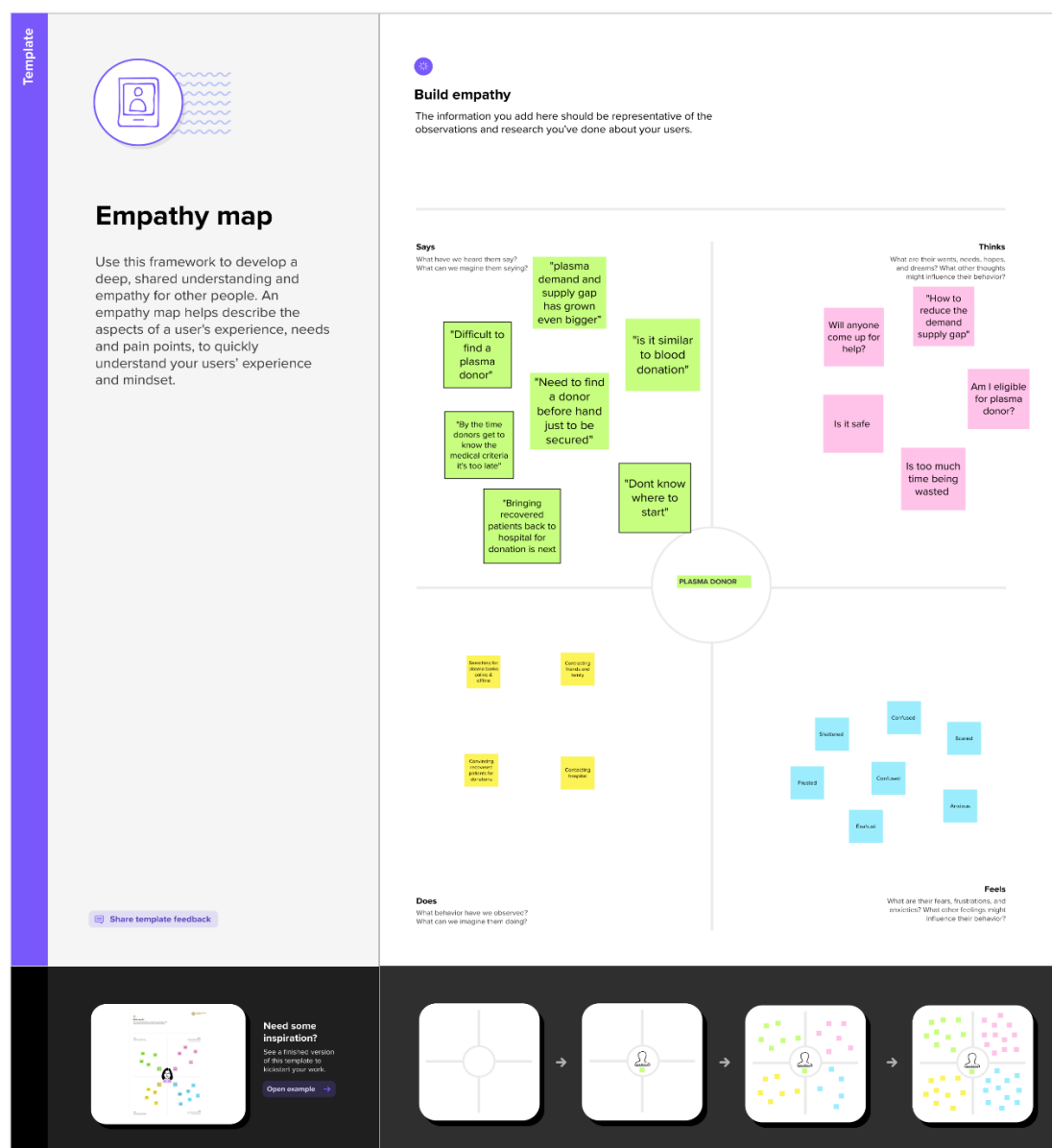
3. IDEATION & PROPOSED SOLUTION

3.1 Empathy Map Canvas:

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviours and attitudes. It is a useful tool to help teams better understand their users. Empathy mapping is a simple workshop activity that can be done with stakeholders, marketing and sales, product development, or creative teams to build empathy for end users.

Creating an effective solution requires understanding the true problem and the person who is experiencing it. The exercise of creating the map helps participants consider things from the user's perspective along with his or her goals and challenges.

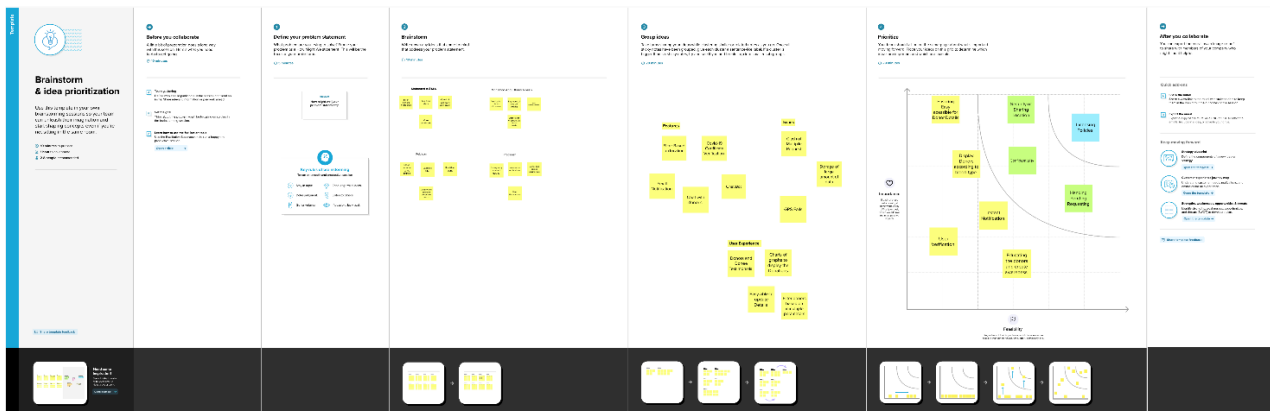
Empathy maps are most useful at the beginning of the design process after user research but before requirements and concepting. The mapping process can help synthesize research observations and reveal deeper insights about a user's needs.



3.2 Ideation & Brainstorming:

Brainstorming is a method design teams use to generate ideas to solve clearly defined design problems. In controlled conditions and a free-thinking environment, teams approach a problem by such means as “How Might We” questions. They produce a vast array of ideas and draw links between them to find potential solutions.

Brainstorming is part of design thinking. You use it in the ideation phase. It’s extremely popular for design teams because they can expand in all directions. Although teams have rules and a facilitator to keep them on track, they are free to use out-of-the-box and lateral thinking to seek the most effective solutions to any design problem. By brainstorming, they can take a vast number of approaches—the more, the better—instead of just exploring conventional means and running into the associated obstacles. When teams work in a judgment-free atmosphere to find the real dimensions of a problem, they’re more likely to produce rough answers which they’ll refine into possible solutions later



3.3 Proposed Solution:

S. No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	To create an application for people who want to donate the plasma for the people who Need It mostly in time so emergency.
2.	Idea/Solution description	The application will enable people to register themselves in the portal for donating their plasma and there cipients who need it can see Their details so that they can get the plasma.
3.	Novelty/Uniqueness	When the user requests for plasma transmission, if there is lack of plasma at the time of request, automatically user will be marked in hold back list. Later when there is availability of plasma, the receiver waiting in hold back list will be alerted via Calling system.
4.	Social Impact/Customer Satisfaction	The application is user friendly and any one with basic knowledge can access it. The application seamlessly connects the donor and the person who need it and also hospitals who have Availability of the plasma.

5.	Business Model (Revenue Model)	The application is free to use and it come sunder healthcare domain. It helps people who want to donate plasma to the people who need it Data can be stored in IBMDB2 in cloud which Reduces the overall cost incurred for developing the application.
6.	Scalability of the Solution	Since the app is going to store its data in cloud, it will continue to be efficient when large number of people uses it. Also when the number of requests for plasma increases, the call notification system will Work fine without any disruption

3.4 Problem Solution fit:

1. CUSTOMER SEGMENT(S)

- Donors
- Patient
- Hospitals

4.EMOTIONS: BEFORE/AFTER Before:

Patient/ hospital find it hard to get a right resource to get plasma leaving them upset. **After:** The donors and customers have a feeling of satisfaction.

7.BEHAVIOUR

The customer comes forward to • Attend plasma donation camps. • Donate plasma • The hospital management/ patient is able to find plasma donors at the right

2.JOBS-TO-BEDONE/PROBLEMS

- Difficult to find donors at the right time / at the time of emergency.
- Donors not aware of plasma requirements.

5. AVAILABLE SOLUTIONS:

The existing application used only collecting details of donors but it does not notify them at the right time. Our solution is building a website that notifies the donors at the right time

8.CHANNELS OF BEHAVIOUR

Online: Can use the website to find donors.
Offline: Can use the record maintain by the hospital.

3. TRIGGERS

Blood donation improves or saves lives and enhances social solidarity. It is also influenced by increasing deaths due to unavailability of plasma at required times

6. CUSTOMER CONSTRAINTS

- Regular Internet connection
- Donor health condition
- Unavailability of plasma

9. PROBLEM ROOT CAUSE • Not able to find the donors at the time of emergency. • Count of donors has been tremendously decreasing since hospital management couldn't contact them or get them

10. YOUR SOLUTION

Creating website which will provide information about available donors and plasma. If not available, the customer will be notified when plasma is available.

4. REQUIREMENT ANALYSIS

4.1 Functional requirement:

Access Website:

Software operator should be capable to access web-application through either an application browser or similar service on the PC. There should not be any limitation to access web-application.

Software operator Registration:

Given that software operator has accessed web-application, and then the software operator should be able to register through the web-application. The donor software operator must provide first name, gender, blood or plasma group, location, contact, software operator name and password.

Software operator log-in:

Given that the software operator has registered, then the software operator should be able to login to the web-application. The login information will be stored on the database for future use.

Search result in a list view:

Search result can be viewed in a list. Each element in the list represents a specific donor. Each element should include first name, gender, blood or plasma group location, contact according to the software operator position. There should be maximum of ten result display.

Request Blood:

Software operator (Clinic) should be able to request for blood or plasma at emergency situation, software operator need to define blood group, location, required date, contact, The blood or plasma request requested will be sent to blood bank and then to the Inventory to check the availability. If available, the requested blood or plasma will be sent to the requested donor (Clinic).

View Request:

The Blood Bank should be able to view received request and then respond to them and can search requests by selecting two options select blood group and provision.

4.2 Non-Functional requirements:

- Secure access of confidential data (user's details). SSL can be used. 24 X 7 availability
- Better component design to get better
- performance at peak time Flexible service-based architecture will be highly
- desirable for future extension

Reliability requirements:

The Performance and response rate of the system should remain constant even as the number of concurrent users or data levels increase. Architecture used to build the system should be flexible enough to allow integration with other systems if need be in the future.

Usability requirements:

The system should have an attractive, user friendly and interactive graphical user interface and it should be easy to use even with the person with least knowledge of computers.

Security requirements:

This system must be highly secured in the login part. This is because some of the privileges are only allowed for the admin level.

Implementation requirements:

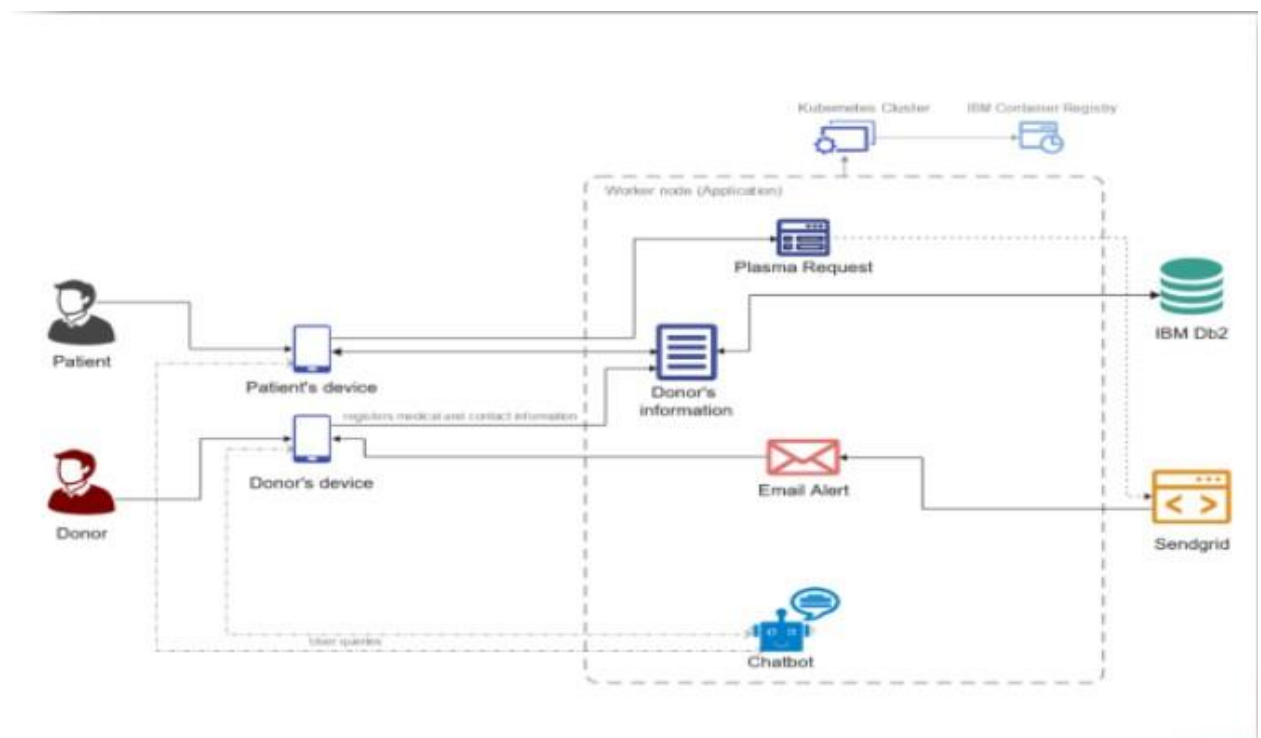
In implementing the system, it uses html, python, flask, cascading style sheet as the main programming language and tools. This forms the front-end and the middleware.

At the back-end, IBM DB2 is used to maintain the information in the database. This is formed by the databases and other data stores.

5 PROJECT DESIGN

5.1 Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a



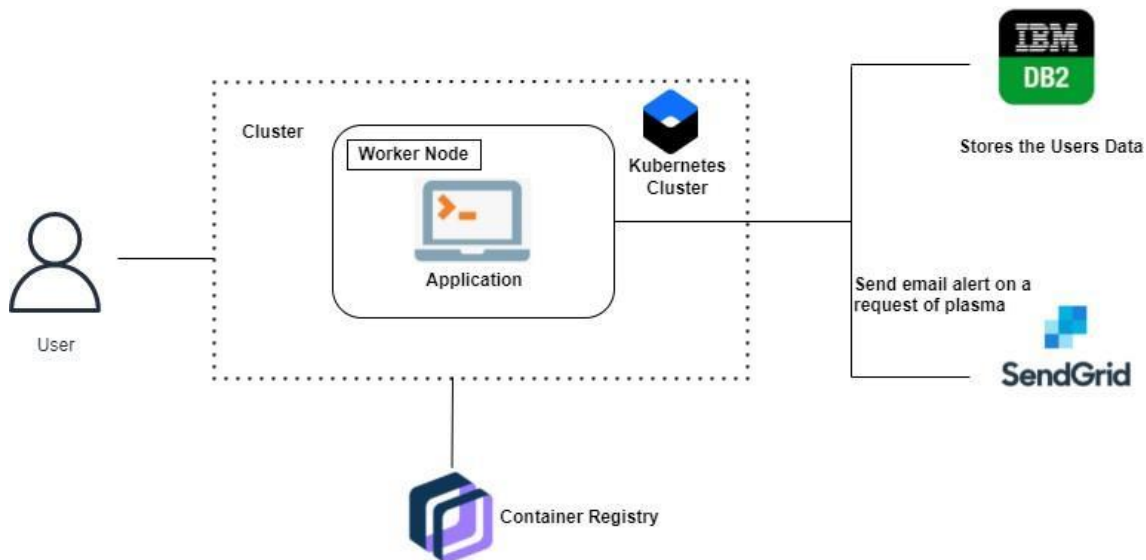
system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

5.2 Solution & Technical Architecture:

Technical Architecture (TA) is a form of IT architecture that is

used to design computer systems. It involves the development of a technical blueprint with regard to the arrangement, interaction, and interdependence of all elements so that system-relevant requirements are met.

- The user interacts with the application.
- Registers by giving the details as a donor.
- The database will have all the details and if a user posts a request then the concerned blood group donors will get notified about it.



5.3 User Stories:

Use the below template to list all the user stories for the product.

User Type	Functional Requirement(Epic)	User Story Number	User Story /Task	Acceptance criteria	Priority	Release
Customer(Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirm in my password.	I can access my account /dashboard	High	Phase-2
		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	Phase-2
		USN-3	As a user, I can register for the application through Face book	I can register & access the dashboard with Face book Login	Low	Phase-2
		USN-4	As a user, I can register for the application through Gmail	I can get the code for Gmail registration	Medium	Phase-2
	Login	USN-5	Assures I can register my health status	I can get the receipt from personal	High	Phase-2

				doctor		
	Dashboard	USN-6	As a User, I can able to update or edit my profile.	I can update the all the files	High	Phase-2
Customer (Web user)	Webpage	USN-7	As a user I able to access all the details from the web page for contact the server	I can feel comfortable for sharing my details	Medium	Phase-2
Customer Care Executive	Database	USN-8	As a user I can get all plasma donors details from the server	I can confirm that details were registered with proper records	Medium	Phase-2
Administrator	Application	USN-9	As a user I can fully satisfied with this ideas	I can able to capture the fair use of the application	High	Phase-2

6. PROJECT PLANNING & SCHEDULING

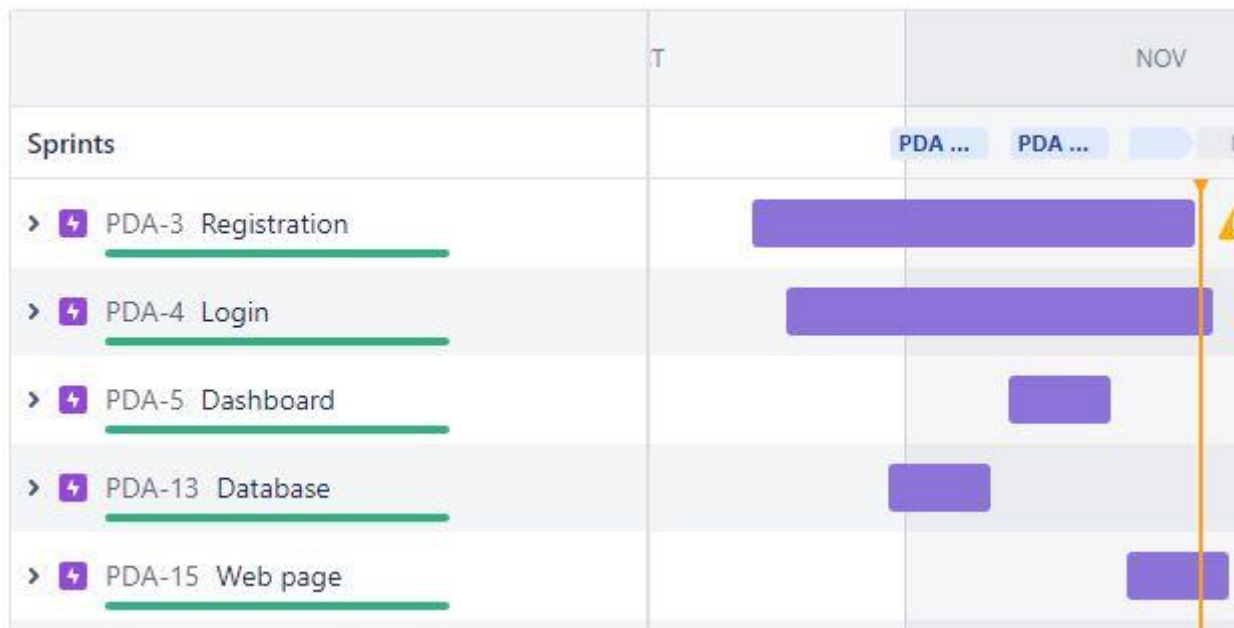
6.1 Sprint Planning & Estimation:

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (As on planned Date)	Sprint Release Date (Actual)
Sprint-1	20	6 Days	20 Oct 2022	24 Oct 2022	20	29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	5 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	20	12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	19 Nov 2022

6.2 Sprint Delivery Schedule:

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task
Sprint-1	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.
Sprint-1		USN-2	As a user, I will receive confirmation email once I have registered for the application
Sprint-2		USN-3	As a user, I can register for the application through phone number and log in using it
Sprint-1	Login	USN-4	As a user, I can log into the application using my registered email & password
Sprint-2	Dashboard	USN-5	As a user, I want to enter/update my medical and contact information
Sprint-4	Chatbot	USN-6	As a user, I can ask questions to the chatbot
Sprint-3	Receive Alerts	USN-7	As a donor, I want to receive immediate alerts upon requests from patient
Sprint-2	Request Plasma	USN-8	As a patient, I want a list of donors
Sprint-4		USN-9	As a patient, I want to sort out donor list
Sprint-3		USN-10	As a patient, I want to request for plasma

6.3 Reports from JIRA:



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

7.1 Flask Mail:

Considering the fact that flask is a micro framework, it has its limitations in providing the facilities to the developer. Although, there are several extensions to the flask like Mail, WTF, SQLite, SQL Alchemy, etc. which facilitates the developer to provide some basic facilities to the user.

A web application must be capable of sending emails to users. The flask-mail extension provides the simple interface for the developer and the email server to send the email through the web application.

For this purpose, we must install the flask-mail extension using the pip installer.

CODE:

```
from flask_mail import Mail, Message
from flask import flask, render_template, request, redirect, url_for, setup
app.config['MAIL_SERVER'] = 'smtp.gmail.com'

app.config['MAIL_PORT'] = 465

app.config['MAIL_USERNAME'] = 'example@gamil.com'
app.config['MAIL_PASSWORD'] = '*****'

app.config['MAIL_USE_TLS'] = False
app.config['MAIL_USE_SSL'] = True

mail = Mail(app)

def index (usermail, subject, content):

    msg = Message (Subject, sender = 'example@gmail.com', recipients =[usermail])

    msg.body = format(content)

    mail.send(msg)

    return "Sent"

@app . route('/Logout')

def Logout()
```

7.2 Web API:

A web API is an application programming interface for either a web server or a web_browser. It is a web development concept, usually limited to a web application's client-side (including any web frameworks being used), and thus usually does not include web server or browser implementation details such as SAPIs or APIs unless publicly accessible by a remote web application.

- Web-based applications typically require the ability to send mail to the user/client. Flask doesn't have an out of the box solution to send mail.
- Instead, the Flask-Mail extension makes it easy to establish a simple interface with any email server.
- Email generally uses two protocols, one for sending mails (smtp) and one for receiving mail (pop3). This article is about sending mails.
- It can extend the functionality of the browser

- It can greatly simplify complex functions
- It can provide easy syntax to complex code

8. TESTING

8.1 Test Cases:

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

Section	Total Cases	Not Tested	Fail	Pass
Print Engine	7	0	0	7
Client Application	51	0	0	51
Security	2	0	0	2
Outsource Shipping	3	0	0	3

Exception Reporting	9	0	0	9
Final Report Output	4	0	0	4
Version Control	2	0	0	2

8.2 User Acceptance Testing:

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	10	4	2	3	20
Duplicate	1	0	3	0	4
External	2	3	0	1	6
Fixed	11	2	4	20	37
Not Reproduced	0	0	1	0	1
Skipped	0	0	1	1	2
Won't Fix	0	5	2	1	8
Totals	24	14	13	26	77

9. RESULTS

9.1 Performance Metrics:

The results of following study are:

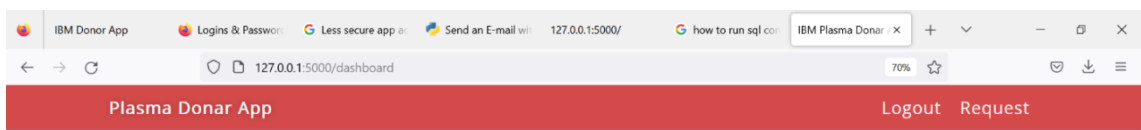
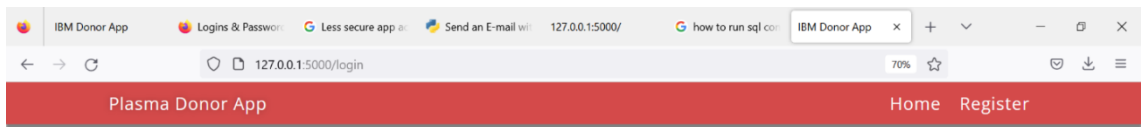
- It will overcome the traditional manual system and therefore fewer human errors.
- One can easily get the information regarding blood donation events in their surroundings.
- App manages all the records regarding how much blood and what type of blood is collected in a certain event.
- Donor can easily get access to his/her account with a single click.

The screenshot displays a web browser window with the URL `127.0.0.1:5000/requested`. The page title is "Plasma Donor App" and it features navigation links for "Home", "Register", and "Request". The registration form includes the following fields:

- First Name: mahroof
- Email: mohamedmahroof25@gmail.com
- Phone Number: 9488147782
- Blood Type: A Positive (selected from a dropdown menu)
- Location: Ibuckalay, Kanakumari District - 629375 (selected from a dropdown menu)

A blue "Submit the request" button is located at the bottom of the form. Below the form, a confirmation message states: "Your request is sent to the concerned people."

The bottom of the screenshot shows a Windows taskbar with the date and time as 11/16/2022, 12:37 PM, and the system temperature as 85°F Cloudy.



IBM Db2 on Cloud

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

LJH94224.DONORS Back

Export to CSV

USERNAME	PASSWORD	EMAIL	PHONE	CITY	INFECT	BLOOD
PRADEESH	9940588112	cse19.pradeesh@petengg.ac.in	6379607796	vallioor	uninfected	B Positive
Riyaz	riyaz@1111	cse19.riyaz@petengg.ac.in	8682920165	Tirunelveli	uninfected	B Positive
ali	1234	msali072371@gmail.com	9047255355	Tirunelveli	uninfected	A Positive
mahroof	12345	mohamedmahroof25@gmail.com	9488147782	Thuckalay	infected	A Positive
mlakshmi	456	msali072371@gmail.com	1234567890	s	infected	A Positive

85°F Cloudy Search the web 12:17 PM 11/16/2022

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

Blood is the most essential thing to save a life. By donating blood, we can save many lives. It is also important to remember that any one of us may need blood at some point in our lives, making blood donation is an essential duty of our citizenry. In today's world where people are busy with their lifestyle and those who are eager to donate blood but are not able to, can plan to donate blood by sitting at home just by one click with our application. This application will make revolutionary changes to the medical system as people will be able to donate blood and serve mankind. It can also help people to know about the benefits about blood donation and that their small contribution can help one person to save his/her lives as soon as possible in a quick and well managed manner.

Plasma is a liquid portion of blood; it is a mixture of water, proteins and salts. Antibodies are proteins made by the body in response to an infection. People fully rescued from COVID19 are encouraged to donate plasma, which can help to increase the lifespan of other patients because their plasma contains antigens which helps the affected person to recover faster. These immunoglobulins give your immune system a way to fight the virus when you are sick, so your plasma can be used to help others fight off illness. Individuals must fully resolve symptoms for at least 14 days prior are eligible to donate

12. FUTURE SCOPE

Pre-donation information and counseling are linked to the process of donor selection in which each individual's suitability to donate is carefully assessed against a set of criteria (2,18) related to their medical history and risk for TTI. This is followed by a basic health check to:

- Ascertain that they are healthy, suitable to give blood and will not be harmed by blood donation; and
- Avoid collecting blood from individuals who may be unsuitable due to the risk of TTI or other health factors that may harm patients.

The effectiveness of the donor selection process is enhanced if relevant information and counseling are provided to prospective donors, enabling them to self-defer if they recognize they are unsuitable to donate blood. Blood donors may be deferred, either on a temporary or permanent basis, on the grounds of their health status, medical or travel history, or TTI risk. Pre-donation counseling is particularly important for individuals who are temporarily or permanently deferred from blood donation, as it provides them with clear information about the reasons for deferral, maintaining healthy lifestyles, and referral for further testing, treatment, care and support, as appropriate.

13. APPENDIX

SOURCE CODE:

```
from distutils.log import debug
# from sendgridmail import sendmail
from flask import Flask, render_template, request, redirect, url_for, session
from flask_mail import Mail, Message
import re
import os
import ibm_db
from dotenv import load_dotenv

load_dotenv()
```

```

app = Flask(__name__)

app.secret_key = 'a'

print("Try to connect to Db2")

conn=ibm_db.connect("DATABASE=bludb;HOSTNAME=b1bc1829-6f45-4cd4-bef4-
10cf081900bf.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=32304;UID=ljh94224;
SECURITY=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;PWD=xyRGrmo8S5w73Q
20", "", "")

print("Connected Successfully")


app.config['MAIL_SERVER']='smtp.gmail.com'
app.config['MAIL_PORT'] = 465
app.config['MAIL_USERNAME'] = 'cse19.mohamedmahroof@petengg.ac.in'
app.config['MAIL_PASSWORD'] = 'MOHAMEDMAHROOF'
app.config['MAIL_USE_TLS'] = False
app.config['MAIL_USE_SSL'] = True
mail = Mail(app)


@app.route('/')
@app.route('/login')
def login():

    return render_template('login.html')


@app.route('/loginpage',methods=['GET', 'POST'])
def loginpage():
    global userid
    msg = ""

    if request.method == 'POST' :
        username = request.form['username']
        password = request.form['password']

```

```

sql = "SELECT * FROM donors WHERE username =? AND password=?"
stmt = ibm_db.prepare(conn, sql)
ibm_db.bind_param(stmt,1,username)
ibm_db.bind_param(stmt,2,password)
ibm_db.execute(stmt)
account = ibm_db.fetch_assoc(stmt)
print (account)
if account:
    session['loggedin'] = True
    session['id'] = account['USERNAME']
    userid= account['USERNAME']
    session['username'] = account['USERNAME']
    msg = 'Logged in successfully !'
    index(account['EMAIL'],'Plasma donor App login','You are successfully logged in!')
    return redirect(url_for('dash'))
else:
    msg = 'Incorrect username / password !'
return render_template('login.html', msg = msg)

@app.route('/registration')
def home():
    return render_template('register.html')

@app.route('/register',methods=['GET', 'POST'])
def register():
    msg = "
    if request.method == 'POST' :
        username = request.form['username']
        email = request.form['email']
        password = request.form['password']
        phone = request.form['phone']
        city = request.form['city']

```

```

infect = request.form['infect']
blood = request.form['blood']
sql = "SELECT * FROM donors WHERE username =?"
stmt = ibm_db.prepare(conn, sql)
ibm_db.bind_param(stmt,1,username)
ibm_db.execute(stmt)
account = ibm_db.fetch_assoc(stmt)
print("ac",account)
if account:
    msg = 'Account already exists !'
elif not re.match(r'^@[^@]+\.[^@]+', email):
    msg = 'Invalid email address !'
elif not re.match(r'[A-Za-z0-9]+', username):
    msg = 'name must contain only characters and numbers !'
else:
    insert_sql = "INSERT INTO donors VALUES (?, ?, ?, ?, ?, ?, ?)"
    prep_stmt = ibm_db.prepare(conn, insert_sql)
    ibm_db.bind_param(prepare_stmt, 1, username)
    ibm_db.bind_param(prepare_stmt, 2, password)
    ibm_db.bind_param(prepare_stmt, 3, email)
    ibm_db.bind_param(prepare_stmt, 4, phone)
    ibm_db.bind_param(prepare_stmt, 5, city)
    ibm_db.bind_param(prepare_stmt, 6, infect)
    ibm_db.bind_param(prepare_stmt, 7, blood)

    ibm_db.execute(prepare_stmt)
    msg = 'You have successfully registered, !'
    index(email,'Plasma donor App Registration','You are successfully Registered
{ }'.format(username))

elif request.method == 'POST':
    msg = 'Please fill out the form !'
return render_template('register.html', msg = msg)

```

```

@app.route('/dashboard')

def dash():

    if session['loggedin'] == True:

        sql = "SELECT COUNT(*), (SELECT COUNT(*) FROM DONORS WHERE blood= 'O
Positive'), (SELECT COUNT(*) FROM DONORS WHERE blood='A Positive'), (SELECT
COUNT(*) FROM DONORS WHERE blood='B Positive'), (SELECT COUNT(*) FROM
DONORS WHERE blood='AB Positive'), (SELECT COUNT(*) FROM DONORS WHERE
blood='O Negative'), (SELECT COUNT(*) FROM DONORS WHERE blood='A Negative'),
(SELECT COUNT(*) FROM DONORS WHERE blood='B Negative'), (SELECT COUNT(*)
FROM DONORS WHERE blood='AB Negative') FROM donors"

        stmt = ibm_db.prepare(conn, sql)

        ibm_db.execute(stmt)

        account = ibm_db.fetch_assoc(stmt)

        print(account)

        return render_template('dashboard.html',b=account)

    else:

        msg = 'Please login!'

        return render_template('login.html', msg = msg)


@app.route('/requester')

def requester():

    if session['loggedin'] == True:

        return render_template('request.html')

    else:

        msg = 'Please login!'

        return render_template('login.html', msg = msg)


@app.route('/requested',methods=['POST'])

def requested():

    bloodgrp = request.form['bloodgrp']

    address = request.form['address']

    name= request.form['name']

    email= request.form['email']

```

```

phone= request.form['phone']
insert_sql = "INSERT INTO requested VALUES (?, ?, ?, ?, ?)"
prep_stmt = ibm_db.prepare(conn, insert_sql)
ibm_db.bind_param(prepare_stmt, 1, bloodgrp)
ibm_db.bind_param(prepare_stmt, 2, address)
ibm_db.bind_param(prepare_stmt, 3, name)
ibm_db.bind_param(prepare_stmt, 4, email)
ibm_db.bind_param(prepare_stmt, 5, phone)
ibm_db.execute(prepare_stmt)
index(email,'Plasma donor App plasma request','Your request for plasma is recieved.')
return render_template('request.html', pred="Your request is sent to the concerned people.")

```

```

def index(usermail,subject,content):

```

```

    msg = Message(subject, sender = 'cse19.mohamedmahroof@petengg.ac.in', recipients =
[usermail])
    msg.body = format(content)
    mail.send(msg)
    return "Sent"

```

```

@app.route('/logout')

```

```

def logout():

```

```

    session.pop('logged_in', None)
    session.pop('id', None)
    session.pop('username', None)
    return render_template('login.html')

```

```

if __name__ == '__main__':

```

```

    app.run(host='0.0.0.0',debug='TRUE')

```


GITHUB & PROJECT DEMO LINK:

GitHub Link:

<https://github.com/IBM-EPBL/IBM-Project-44993-1660727751/tree/main/FINAL%20DELIVERY>

Demo Link:

https://drive.google.com/drive/folders/1L58kHsw_1Qf4p0H2HNLnt2bGoOI375DG

