PROJECT REPORT DOCUMENTATION

TEAM ID : PNT2022TMID04418

PROJECT : PLASMA DONOR APPLICATION

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INTRODUCTION

1.1   Project Overview

Plasma Donar is a web-based project that is available online. Through internet services, you can simply connect with anything today. So for our project, an internet platform is the greatest option. Human welfare is one of the goals of plasma donation. We have all the knowledge you may possibly need. Many individuals are willing to lend a hand, donate blood for you at any time, and are here for you. Everything has been completed by us; you are responsible for the remaining tasks. Look up the blood type you require. If you are willing to donate blood when needed, you can help us by signing up on Plasma Donar. You may assist someone in need as a responsible person and a proud member of Plasma donar. Therefore, give blood online.

By Using a username and password, a person who needs to donate blood can sign up on our website. Those in need of blood donors can use our website to seek for and contact blood donors. Following a search, a list of potential donors will be shown, and the user can view a summary of their contact information, email address, and location to facilitate communication.

1.2 Purpose

The target audience for this initiative is mostly those who want to give blood to patients. This approach will make it simpler to link donors with blood bank officials and discover donors who match a certain blood type. The primary goal of developing

this software was to formalise the blood donation process and encourage donors to donate blood. We made an effort to keep all the donor information that the physicians could easily comprehend, making it simple for them to locate the donor.

2. LITERATURE SURVEY

2.1 Existing problem

In the current situation, blood donors can be found by calling toll-free lines or blood bank locations. It has so far been a lengthy procedure. because it requires a lot of manual labour. If a certain group of blood is not accessible and a user must frequently wait in line, going to the blood bank is a waste of time.

2.2 References

1. Ripathis S, Kumar V, Prabhakar A, Joshi S, Agarwal A (2015). "Microscale Passive Plasma Separation: A Review of Design Principles and Microdevices," J. Micromech Micro 25 (8): 083001; Plasma separation is of great importance in the fields of diagnosis and healthcare. Due to the lagging transition to micro scale, these recent trends are a rapid shift towards shrinking complex macro processes.
2. Kalpana DeviGuntoju, Tejaswini Jalli, Sreeja Uppala, Sanjay Mallisettiinstant plasma donor recipient connector web application 2022. JOURNAL: InternationalResearch Journal of modernization in engineering technology and Science
3. M Sai Tarun, Ravi Kishan, Shaik AzaadSuraz Basha, Shaik RajAhammad, Chandrasekhar, Neha BaggaBlood BankManagement System2021. Journal of Emerging Technologies and InnovativeResearch.
4. Nayan Das, MDAsif Iqbal Nearest Blood Plasma Donor Finding: A Machine Learning Approach 2020 23rd International Conference on Computer and Information Technology.
5. Ms.PradnyaJagtap, Ms.MonikaMandale, Ms.PrachiMhaske, Ms.SonaliVidhate, Mr. S.S. Patil Implementation of blood donation application using android smartphone 2018 Open access International journal of science & engineering

2.3 Problem Statement Definition

Plasma is commonly given to trauma, burn and shock patients, as well as people with severe liver disease or multiple clotting factor deficiencies. It helps boost the patient's blood volume, which can prevent shock, and helps with blood clotting. With the number of people affected by COVID-19 infection, the demand for the plasma of recovered patients has also gone up tremendously. The antibodies, which are present in our body, can help someone fight the infection and emerge victorious. Our Plan: We plan to make a User-friendly application for users who are in need for plasma or who wish to donate plasma to anyone who are in need. However, areas of concern, including privacy and confidentiality, should be considered during design and development. Age was identified as a contributing factor that might decrease the likelihood of app usage among donors. The donation center staff focused on the educational features of the app and emphasized the importance of the app providing statistics and sending notifications and reminders to donors.

3 IDEATION & PROPOSED SOLUTION

3.1 Empathy Map Canvas

An empathy map is a collaborative tool team can use to gain a deeper insight into their customers. This tool helps to understand the reason behind some actions a user takes deeply. This tool helps build empathy towards users and helps design teams shift focus from the product to the users who are going to use the product.

Deaf and mute people think how do I communicate with others? and is speaking the only way to communicate? They feel Am I a normal person. Deaf and mute people communicate using pen and paper and using proper aids (devices in the market).

Pains are Abnormal looks, Improper communication, and Socializing issues. The gains are Hassle-free communication, independent, and a Cheaper solution.

3.2 Ideation & Brainstorming

There are various ideas to implement sign language recognition.

- A study on-manual sign involves the facial region, including the movement of the lead, eye blinking, eyebrow movement, and mouth shape. This can be traced and interpreted to show communication.
- The recognition of signs with facial expressions, hand gestures, and body movement simultaneously with better recognition accuracy in real-time with improved performance helps in better communication.
- Blind people can use smart sticks to enable visually impaired people to find difficulties in detecting obstacles and dangers in front of them during walking and to identify the world around them and it acts like an artificial vision and alarm unit.

- The keyboard for the deaf feature can support the sign language images and symbols in the keyboard as a different feature to convert between the normal person language and the deaf language.

- The deaf person faces a very difficult problem to understand or identify the medicine's instructions. Idea is to prepare a sign language video have all the instructions on the medicine and what is the quantity of the medicine that should be taken by the deaf person.

- Object detection models can be used in order to specify the objects in front of the people with the positions of the objects which can be said in text/audio as per the need.

After brainstorming, selecting the best idea to propose the sign language recognition. Choosing recognition of signs with facial expression, hand gestures, and body movement simultaneously with better accuracy in real-time with improved performance. Using LSTM Model to implement this solution by using media-pipe holistic for taking inputs from the user.

Step-1:

sanjeev kumar

newsletter	one on one phone calls	application evenyts
Menbership program	donation tracking	message to donar
onation check	meet up for donation	upload necessary details and certificates

pranesh

terms nd conditions for registering	allow or not allow to share user medical detail	visualize the process and donation
notify counts of donation by the donar	restrict donar from frequent donation	rreating a seperate space for each blood group
providing upto 3 input languages	providing navigation hints to reach the location for user	provide users recent activities

richard

personalchat option for donar and patientt	allow or decline chat option	accept&reject request
notify the accepted or rejected request	location information about upcoming drives	ealth tips for after and before plasma donation
restrict or allow to make calls	only eligible donars should donate	groups can be created

rohit

screeing of donation	post collection information	suitablity of donar
plasma collection establishment	bags for collection and storage of plasma	transport of plasma
quality assurance system	predonation tests	olcollaboration of objects based on time sequences

Step-2:

Message

allow or decline chat	message to donar	groups can be created
one on one phone calls	personal chat option for donar and patient	notify counts of donation by the donar

process

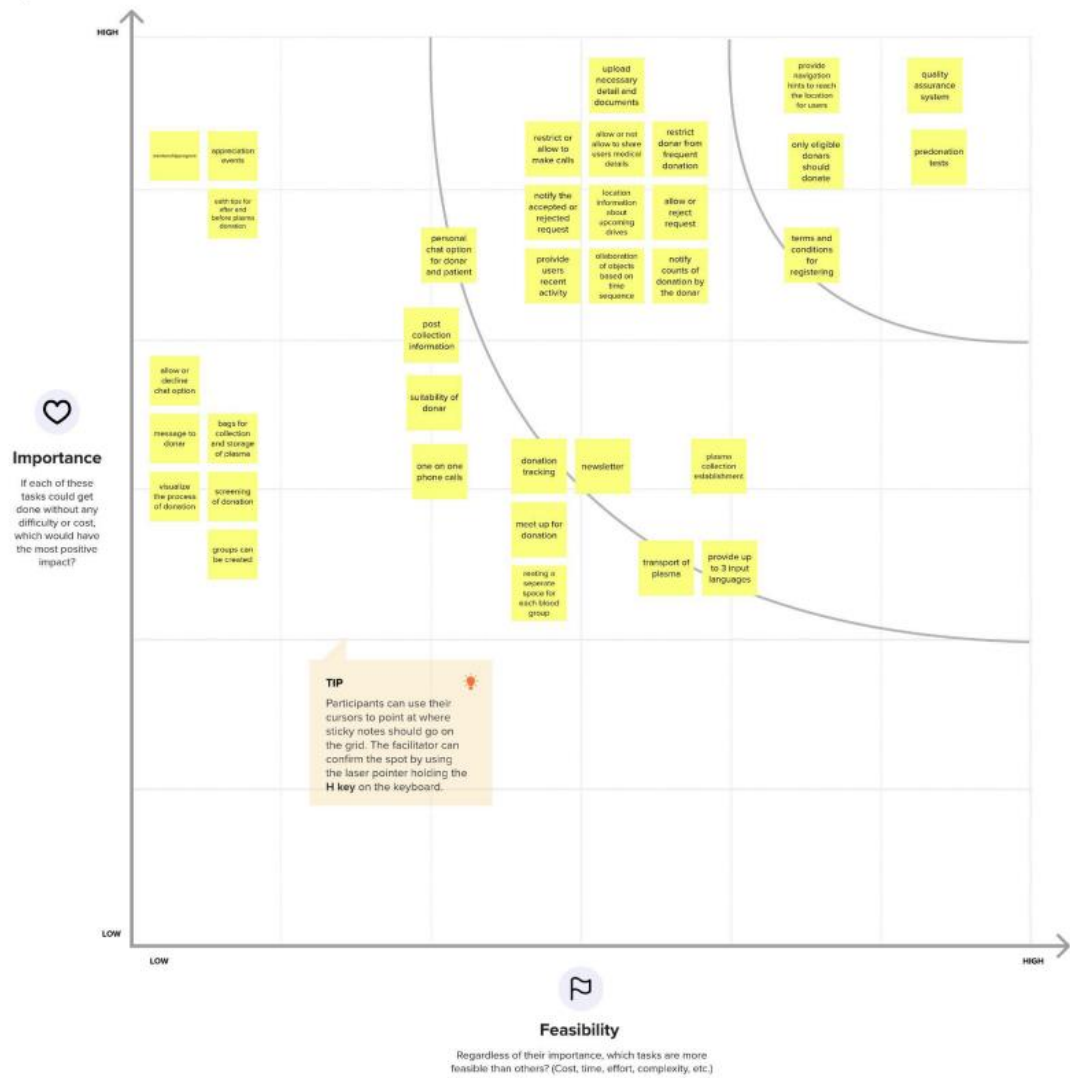|			
health tips for after and before plasma donation	allow or reject request	notify the accepted or rejectedrequest	quality assurance system
newsletter	post collection information	screening of donation	membership program
allow or not allow to share users medical details	appreciation events	provide up to 3 input languages	vissualize the process of donation

Location

location information about upcoming drives	donation ttracking	transpoirt of plasma	proivide users recent activity
bags for collection and storage of plasma	plasma collection establishment	meet up for donation	provide navigation hints to reach the locxation for user

Norms

only eligible donars should donate	terms and condition for registering	restrict donar from frequnt donation	predonation tests
restrict or allow to make calls	suitablity of donar	uploadnecessary details ans documents	

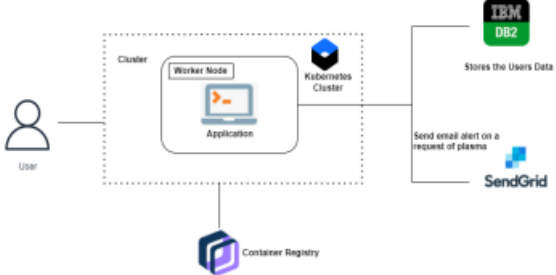# Step-3:

HIGH (top of Y axis)

LOW (bottom of Y axis)

LOW (left of X axis) ... **HIGH** (right of X axis)

Sticky notes (Importance vs Feasibility matrix):

- appreciation events
- with tips for after end before plasma donation
- allow or decline chat option
- message to donor
- bags for collection and storage of plasma
- visualize the process of donation
- screening of donation
- groups can be created
- personal chat option for donor and patient
- post collection information
- suitability of donor
- one on one phone calls
- upload necessary detail and documents
- restrict or allow to make calls
- allow or not allow to share users medical details
- restrict donor from frequent donation
- notify the accepted or rejected request
- location information about upcoming drives
- allow or reject request
- provide users recent activity
- collaboration of objects based on time sequence
- notify counts of donation by the donor
- donation tracking
- newsletter
- plasma collection establishment
- meet up for donation
- creating a separate space for each blood group
- transport of plasma
- provide up to 3 input languages
- provide navigation hints to reach the location for users
- quality assurance system
- only eligible donors should donate
- predonation tests
- terms and conditions for registering

TIP

Participants can use their cursors to point at where sticky notes should go on the grid. The facilitator can confirm the spot by using the laser pointer holding the **H key** on the keyboard.

Importance

If each of these tasks could get done without any difficulty or cost, which would have the most positive impact?

Feasibility

Regardless of their importance, which tasks are more feasible than others? (Cost, time, effort, complexity, etc.)

3.3 Proposed Solution

To model a system for aiding deaf and dumb people and help them to communicate in real time. We start by collecting key points from mediapipe holistic and collect a bunch of data from key points, then build an LSTM model and train with our stored data which helps us to detect action with a number of frames. Once training is done, we can use this model for real-time hand gesture detection and simultaneously convert the gesture to speech using OpenCV.

We will be using the latest and trending wearable technology which makes it possible to access (Web applications) easily anywhere and everywhere by disabled persons which make communication possible by both specially abled and normal people. We will be using the most recent convolution neural network architecture to improve the efficiency of the trained model

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	People that want to donate but are too busy to do so because they are unsure of where and when to do so
2.	Idea / Solution description	We are developing a system that includes all the details of blood donation camps that are taking place in a specific location so that those who wish to donate blood will be informed about these camps.
3.	Novelty / Uniqueness	Plasma proteins can also be isolated to make treatments for uncommon chronic illnesses including haemophilia and auto immune disorder.
4.	Social Impact / Customer Satisfaction	The satisfaction that has been attained is the result of a number of factors, including partnership cooperation built on trust and open communication, products that satisfy the customer's needs and help them achieve their goals.
5.	Business Model (Revenue Model)	
6.	Scalability of the Solution	highly scalable

3.4 Problem Solution fit

Communication between specially-abled and ordinary people has always been a challenging task. We take this problem and give a solution by recognizing words or sentences using sign language. This solution is extremely helpful for people who face difficulty with hearing or speaking. Hearing disabilities and speaking problems are becoming common among kids.

The recognition of signs with facial expressions, hand gestures, and body movement simultaneously with better recognition accuracy in real-time with improved performance helps in better communication. Deaf and mute people face difficulties in communicating with normal people, not being understood, and being left out of important discussions. Sign language recognition is the task of recognizing sign language glosses from video streams and the glosses are converted into audio. It can bridge the communication gap between deaf and mute people, facilitating the social inclusion of hearing-impaired people.

1. CUSTOMER SEGMENT(S)

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

CS

It enables for the identification of donors' current and projected needs and motivations; maximises the advantages of a single donor; ability to compete with blood donation centres.

6. CUSTOMER CONSTRAINTS

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.

CC

Families that are struggling financially are more prone to borrow money from nonbank or alternative lenders.

5. AVAILABLE SOLUTIONS

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

AS

Chat with customer to ask blood donations

2. JOBS-TO-BE-DONE / PROBLEMS

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

J&P

User friendly

9. PROBLEM ROOT CAUSE

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.

RC

Helps customers to find blood using chat and post

7. BEHAVIOUR

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)

BE

1. Identify the problem
2. Analzye the problem
3. Develop multiple solution
4. Choose the optimize solution

3. TRIGGERS

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

TR

Difficult to find blood in recent days so our website used to find the right customer

10. YOUR SOLUTION

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.

SL

Interested customer can post the blood and willingness so it is easy to identify and chat with them to donate

8. CHANNELS of BEHAVIOUR

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

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

CH

user can log in and find the suitable blood and chat with them

4. EMOTIONS: BEFORE / AFTER

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.

EM

Emotion : Before is difficult to find the right donar
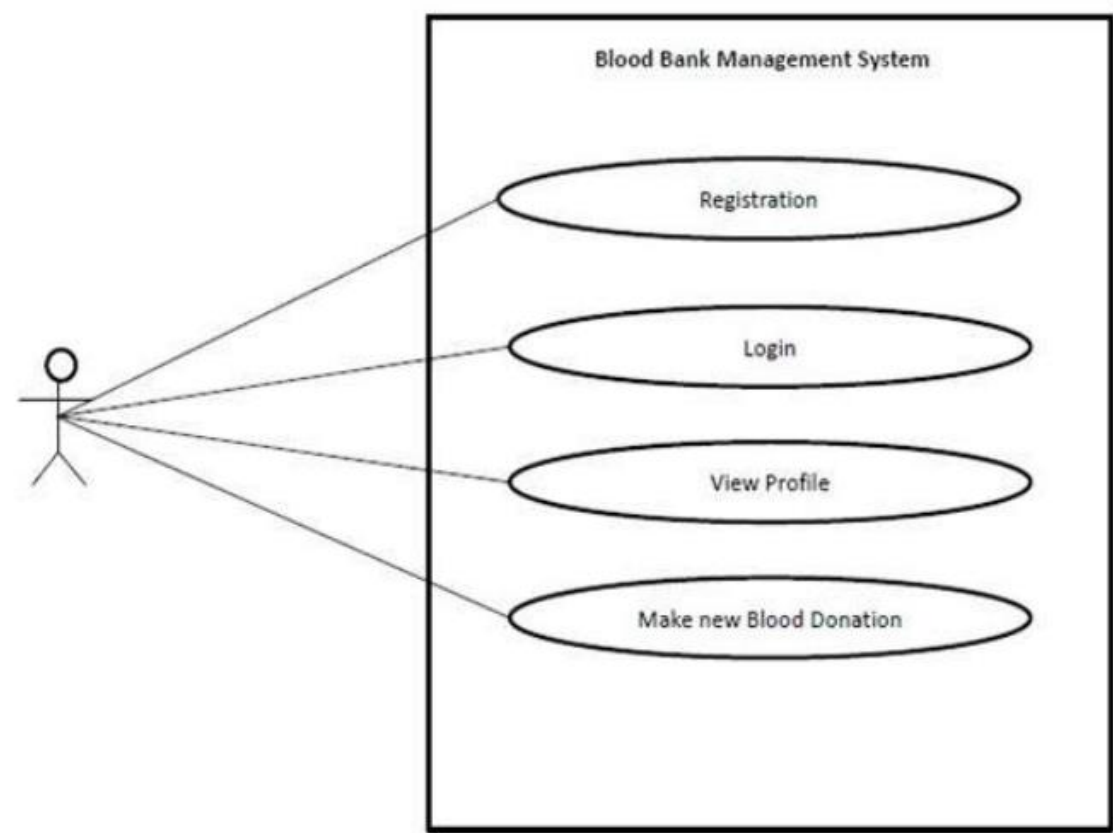**Emotion : After it is easy to find the donar and chat with them**

4 REQUIREMENT ANALYSIS

4.1.Functionalrequirement

Admin

Donor

Blood Bank Management System

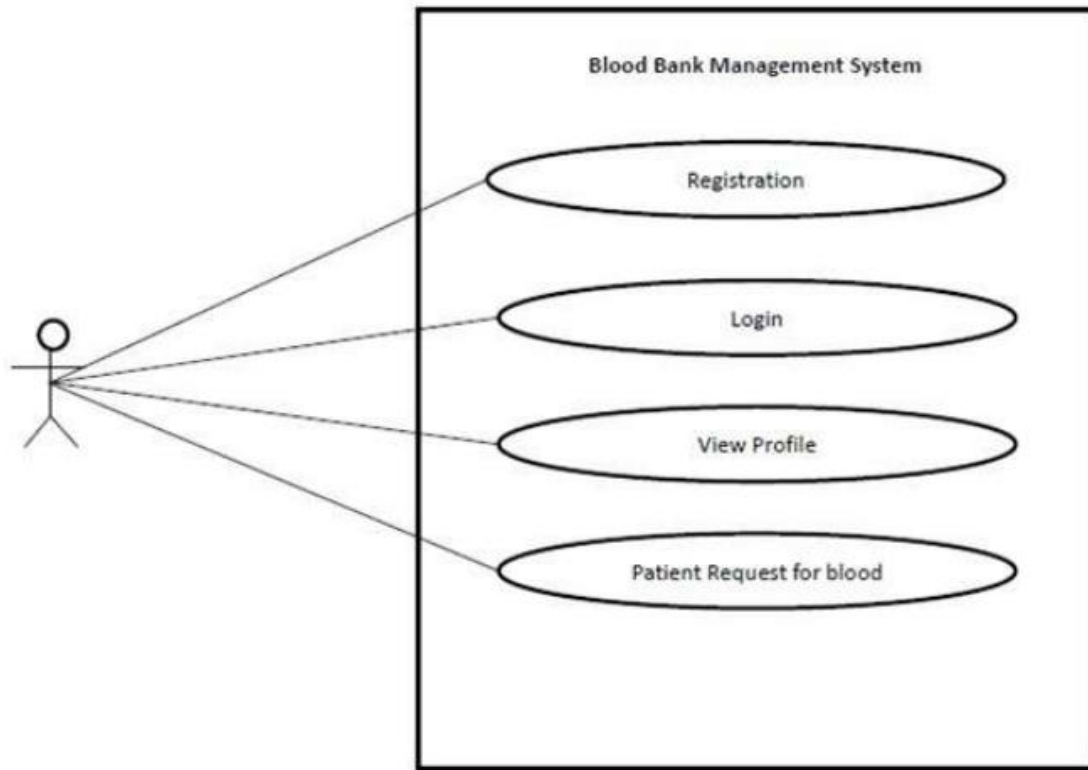- Registration
- Login
- View Profile
- Make new Blood Donation

Acceptor

4.2 Non-Functional requirements

4.2.1 Maintainability:

The management system for blood banks has to be highly maintainable.

4.2.2 Serviceability

The project needs to be programmed so that the developer can fix any problems with the Blood Bank Management System if they occur.

4.2.3 Availability

The Blood Bank Management System must be accessible around-the-clock without experiencing any bandwidth problems

4.2.4 Security

Proper user names and passwords must be used to safeguard the blood bank management system.

4.2.5 Recoverability

A reliable data backup system is required for the blood bank management system.

4.2.6 Interoperability

The Blood Bank Management System has to integrate with or utilise the components of another system.

4.5.7 Capacity

The Blood Bank Management System must meet all current and foreseeable storage needs. For rising volume demands, the Blood bank Management System must be scaled up.

5 PROJECT DESIGN

5.1 Data Flow Diagrams

A data flow diagram is a visual tool for describing and examining how data moves through a system. These serve as the main resource and serve as the foundation for the creation of the other components. The logical transition of data from input to output through processing can be explained without reference to the system's physical components. The logical data flow diagram refers to these. The real tools and methods used to transfer data between individuals, offices, and workstations are depicted in the physical data flow diagrams. A collection of data flow diagrams serve as the complete description of a system. DFD'S development takes place at various levels.

Level 0
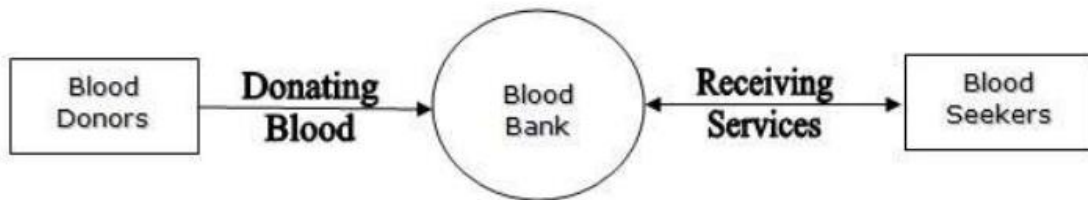
Level 1
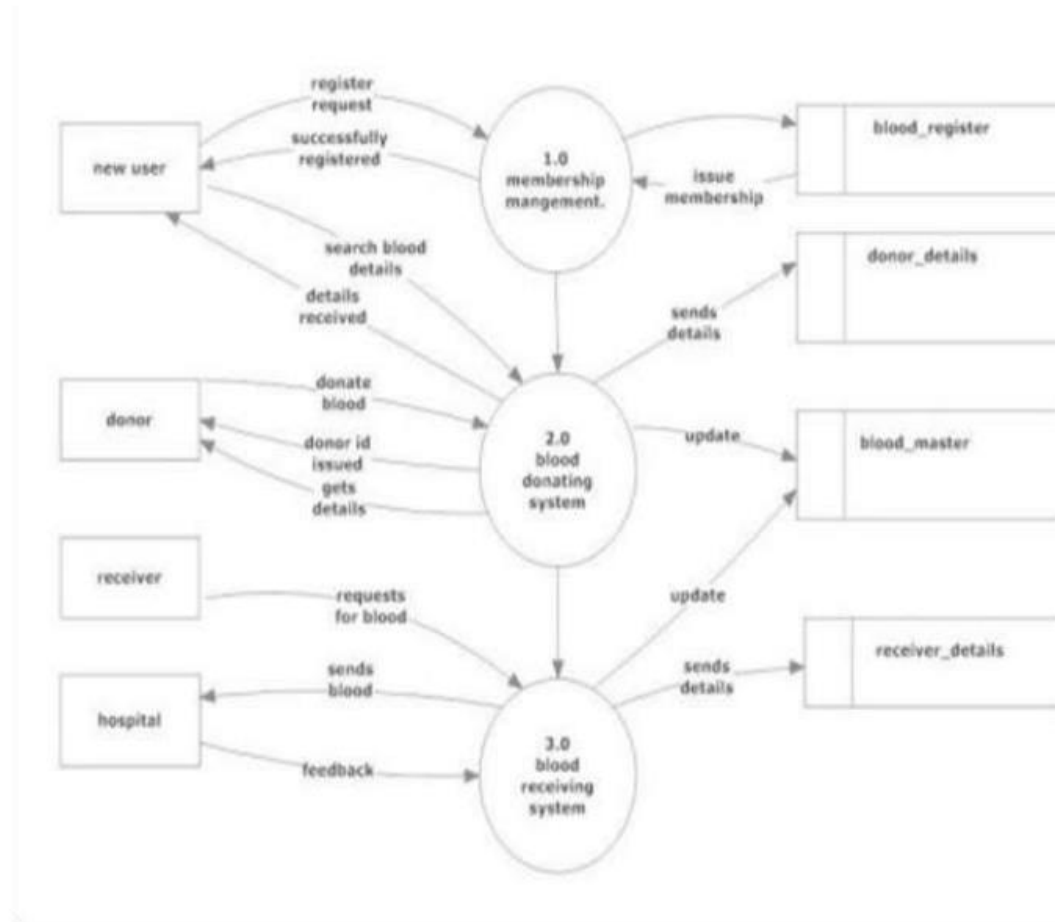
5.2 Solution & Technical Architecture

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

- Find the best tech solution to solve existing business problems.

- Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.

- Define features, development phases, and solution requirements.

- Provide specifications according to which the solution is defined, managed, and delivered.
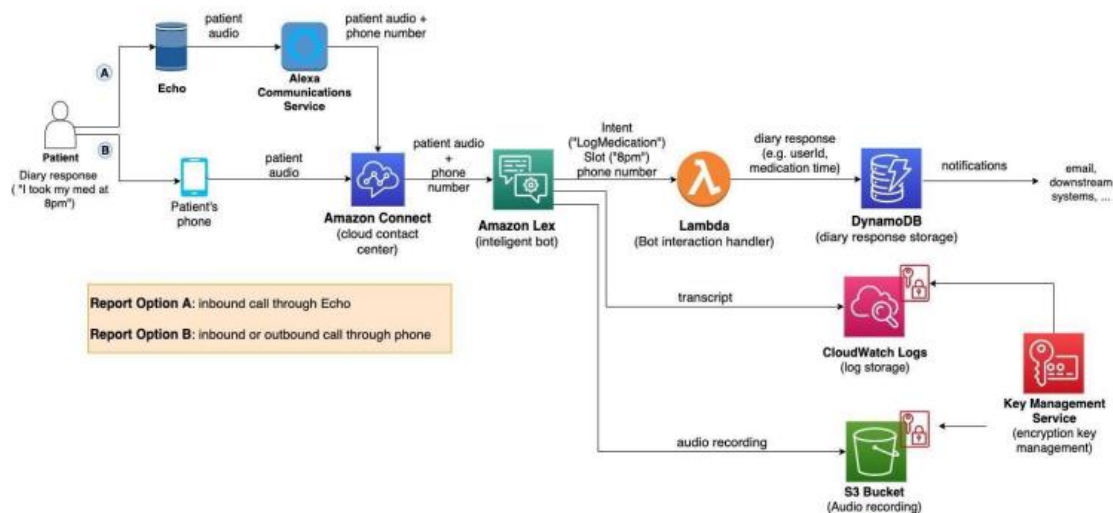
5.3 USER STORIES

The simplest way to do this was to ask donors what they expect from the app. Good relations with the client allowed us to reach the potential users, among whom we spread the information that we want to conduct workshops with blood donors on their needs regarding the potential app. The users' response surprised us positively, people came to the workshops and contributed many useful insights. As a result, we have defined what elements had to be the core of the app.

6 PROJECT PLANNING & 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, name and confirming my password.	2	High	SANJEEVKUMAR R
Sprint-1	Account Activation	USN-2	As a user, I will receive confirmation email once I have registered for the application	1	High	SANJEEVKUMAR R
Sprint-1	Login	USN-3	As a user, I can log into the application by entering email & password	2	High	SANJEEVKUMAR R
Sprint- 2	Dashboard	USN-4	As a user, I can add expenses and income	2	High	SANJEEVKUMAR R
Sprint- 4	Dashboard	USN-5	As a user, I can change my password through reset link from email	1	Low	RICHAR JOYAL G
Sprint- 2	Dashboard	USN-6	As a user, I can view my past expenses and income over a period of time and visualize them	2	High	SANJEEVKUMAR R
Sprint- 4	Notification	USN-7	As a user, when my monthly limit exceeds, I get a email notification	1	Low	RICHAR JOYAL G
Sprint- 4	Dashboard	USN-8	As a user, I can set a monthly expense limit	1	Low	ROHIT M
Sprint- 3	Forget password	USN-9	As a user, I can get a reset password link if I forget it through mail	2	High	RICHAR JOYAL G
Sprint- 3	Forget password	USN-10	As a user, I can change my password if I forget it	2	High	PRANESH T

6.2 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	05 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

7 CODING & SOLUTIONING

7.1 Admin Module

```
from flask import Flask, render_template, flash, redirect, request, url_for, session, logging

from flask_mysqldb import MySQL

from flask_mail import Mail, Message

from wtforms import Form, StringField, TextAreaField, PasswordField, validators, SelectField

from passlib.hash import sha256_crypt

import random

from functools import wraps

app = Flask(__name__)

app.secret_key=''

app.config['MYSQL_HOST']='localhost'

app.config['MYSQL_USER']='root'

app.config['MYSQL_PASSWORD']='password'

app.config['MYSQL_DB']='bloodbank'

app.config['MYSQL_CURSORCLASS']='DictCursor'
```

```python
app.config['MAIL_SERVER']='smtp.gmail.com'

app.config['MAIL_PORT'] = 465

app.config['MAIL_USERNAME'] = ''

app.config['MAIL_PASSWORD'] = ''

app.config['MAIL_USE_TLS'] = False

app.config['MAIL_USE_SSL'] = True

mysql =  MySQL(app)

mail = Mail(app)




@app.route('/')

def index():

   return render_template('home.html')

class RegisterForm(Form):

  name = StringField('Name', [validators.DataRequired(),validators.Length(min=1,max=25)])

  email = StringField('Email',[validators.DataRequired(),validators.Length(min=10,max=50)])
```

```python
    password = PasswordField('Password', [

        validators.DataRequired(),

        validators.EqualTo('confirm',message='Password do not match')

    ])

    confirm = PasswordField('Confirm Password')


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

def register():

    form = RegisterForm(request.form)

    if request.method  == 'POST' and form.validate():

        name = form.name.data

        email = form.email.data

        password = sha256_crypt.encrypt(str(form.password.data))

        e_id = name+str(random.randint(1111,9999))

        #Create cursor

        cur = mysql.connection.cursor()

        cur.execute("INSERT INTO RECEPTION(E_ID,NAME,EMAIL,PASSWORD) VALUES(%s, %s, %s,
%s)",(e_id, name, email, password))
```

```python
        #Commit to DB

        mysql.connection.commit()

        #close connection

        cur.close()

        flashing_message = "Success! You can log in with Employee ID " + str(e_id)

        flash( flashing_message,"success")


        return redirect(url_for('login'))


    return render_template('register.html',form = form)


#login page

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

def login():

    if request.method == 'POST':

        # Get Form Fields

        e_id = request.form["e_id"]
```

```python
password_candidate = request.form["password"]


# Create cursor

cur = mysql.connection.cursor()


# Get user by username

result = cur.execute("SELECT * FROM RECEPTION WHERE E_ID = %s", [e_id])


if result > 0:

    # Get stored hash

    data = cur.fetchone()

    password = data['PASSWORD']


    # Compare Passwords

    if sha256_crypt.verify(password_candidate, password):

        # Passed

        session['logged_in'] = True
```

```python
                session['e_id'] = e_id

                flash('You are now logged in', 'success')

                return redirect(url_for('dashboard'))

            else:

                error = 'Invalid login'

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

            # Close connection

            cur.close()

        else:

            error = 'Employee ID not found'

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


    return render_template('login.html')


# Check if user logged in

def is_logged_in(f):
```

```python
    @wraps(f)

    def wrap(*args, **kwargs):

        if 'logged_in' in session:

            return f(*args, **kwargs)

        else:

            flash('Unauthorized, Please login!', 'danger')

            return redirect(url_for('login'))

    return wrap



#Logout

@app.route('/logout')

@is_logged_in

def logout():

    session.clear()

    flash('You are now logged out', 'success')

    return redirect(url_for('index'))
```

```python
@app.route('/dashboard')

@is_logged_in

def dashboard():

    cur = mysql.connection.cursor()

    result = cur.execute("SELECT * FROM BLOODBANK")

    details = cur.fetchall()


    if result>0:

        return render_template('dashboard.html',details=details)

    else:

        msg = ' Blood Bank is Empty '

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

    #close connection

    cur.close()


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

@is_logged_in
```

```python
def donate():

    if request.method  == 'POST':

        # Get Form Fields

        dname = request.form["dname"]

        sex = request.form["sex"]

        age = request.form["age"]

        weight = request.form["weight"]

        address = request.form["address"]

        demail = request.form["demail"]



        #create a cursor

        cur = mysql.connection.cursor()



        #Inserting values into tables

        cur.execute("INSERT INTO DONOR(DNAME,SEX,AGE,WEIGHT,ADDRESS,DEMAIL) VALUES(%s,
%s, %s, %s, %s, %s)",(dname , sex, age, weight, address, demail))

        #Commit to DB

        mysql.connection.commit()
```

```python
    #close connection

    cur.close()

    flash('Success! Donor details Added.','success')

    return redirect(url_for('donorlogs'))



  return render_template('donate.html')



@app.route('/donorlogs')

@is_logged_in

def donorlogs():

  cur = mysql.connection.cursor()

  result = cur.execute("SELECT * FROM DONOR")

  logs = cur.fetchall()



  if result>0:

    return render_template('donorlogs.html',logs=logs)

  else:
```

```python
        msg = ' No logs found '

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

    #close connection

    cur.close()




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

@is_logged_in

def bloodform():

    if request.method  == 'POST':

        # Get Form Fields

        d_id = request.form["d_id"]

        blood_group = request.form["blood_group"]

        packets = request.form["packets"]


        #create a cursor

        cur = mysql.connection.cursor()
```

```python
    #Inserting values into tables

    cur.execute("INSERT INTO BLOOD(D_ID,B_GROUP,PACKETS) VALUES(%s, %s, %s)",(d_id ,
blood_group, packets))

    cur.execute("SELECT * FROM BLOODBANK WHERE B_GROUP = %s",(blood_group,))

    data = cur.fetchone()

    if data is None:

        cur.execute("INSERT INTO BLOODBANK(B_GROUP,TOTAL_PACKETS) VALUES(%s,
%s)",(blood_group, packets))

    else:

        cur.execute("UPDATE BLOODBANK SET TOTAL_PACKETS = TOTAL_PACKETS + %s WHERE
B_GROUP = %s",(packets,blood_group))

    #Commit to DB

    mysql.connection.commit()

    #close connection

    cur.close()

    flash('Success! Donor Blood details Added.','success')

    return redirect(url_for('dashboard'))
```

```python
    return render_template('bloodform.html')


@app.route('/notifications/')

@is_logged_in

def notifications():

  cur = mysql.connection.cursor()

  result = cur.execute("SELECT * FROM NOTIFICATIONS")

  requests = cur.fetchall()


  if result>0:

    return render_template('notification.html',requests=requests)

  else:

    msg = ' No requests found '

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

  #close connection
```

```python
    cur.close()


@app.route('/notifications/accept/<int:id>')

@is_logged_in

def accept(id):

    cur = mysql.connection.cursor()

    cur.execute("SELECT * FROM NOTIFICATIONS WHERE N_ID = %s",(id,))


    data = cur.fetchone()


    cur.execute("SELECT * FROM BLOODBANK WHERE B_GROUP = %s AND TOTAL_PACKETS >=
%s",(data['NB_GROUP'], data['N_PACKETS']))


    if cur.fetchone() is not None:

        cur.execute("UPDATE BLOODBANK SET TOTAL_PACKETS = TOTAL_PACKETS-%s WHERE
B_GROUP = %s",(data['N_PACKETS'],data['NB_GROUP']))

        cur.execute("DELETE FROM NOTIFICATIONS WHERE N_ID = %s",(id,))

        mysql.connection.commit()
```

```python
        cur.close()

        msg = Message(

            'Request Accepted',

            sender ='',

            recipients = [data['EMAIL']]

            )

        msg.body = "Your request for blood group {} is accepted. Please visit the blood bank to collect
the blood.".format(data['NB_GROUP'])

        mail.send(msg)

        flash('Blood Request Accepted','success')

        return redirect(url_for('notifications'))

    else:

        cur.execute("DELETE FROM NOTIFICATIONS WHERE N_ID = %s",(id,))

        mysql.connection.commit()

        cur.close()

        msg = Message(

            'Request Rejected',

            sender ='',
```

```python
        recipients = [data['EMAIL']]

        )

    msg.body = "Your request for blood group {} is rejected due to
unavailability".format(data['NB_GROUP'])

    flash('Blood Request Rejected','danger')

    return redirect(url_for('notifications'))


@app.route('/notifications/decline/<int:id>')

@is_logged_in

def decline(id):

  cur = mysql.connection.cursor()

  cur.execute("SELECT * FROM NOTIFICATIONS WHERE N_ID = %s",(id,))

  data = cur.fetchone()

  cur.execute("DELETE FROM NOTIFICATIONS WHERE N_ID = %s",(id,))

  mysql.connection.commit()

  cur.close()

  msg = Message(

        'Request Rejected',
```

```python
        sender ='',

        recipients = [data['EMAIL']]

        )

    msg.body = "Your request for blood group {} is rejected due to
unavailability".format(data['NB_GROUP'])

    print(msg)

    mail.send(msg)

    flash('Blood Request Rejected','danger')

    return redirect(url_for('notifications'))



if __name__ == '__main__':

    app.run(debug=True)
```

7.2 User Module

```python
@app.route('/contact', methods=['GET','POST'])

def contact():

    if request.method == 'POST':
```

```python
bgroup = request.form["bgroup"]

bpackets = request.form["bpackets"]

fname = request.form["fname"]

adress = request.form["adress"]

email = request.form["email"]


#create a cursor

cur = mysql.connection.cursor()


#Inserting values into tables

cur.execute("INSERT INTO CONTACT(B_GROUP,C_PACKETS,F_NAME,ADRESS,
EMAIL) VALUES(%s, %s, %s, %s, %s)",(bgroup, bpackets, fname, adress, email))

cur.execute("INSERT INTO
NOTIFICATIONS(NB_GROUP,N_PACKETS,NF_NAME,NADRESS, EMAIL) VALUES(%s,
%s, %s, %s, %s)",(bgroup, bpackets, fname, adress, email))

#Commit to DB

mysql.connection.commit()
```

```python
        #close connection

        cur.close()

        flash('Your request is successfully sent to the Blood Bank','success')

        return redirect(url_for('index'))



    return render_template('contact.html')
```
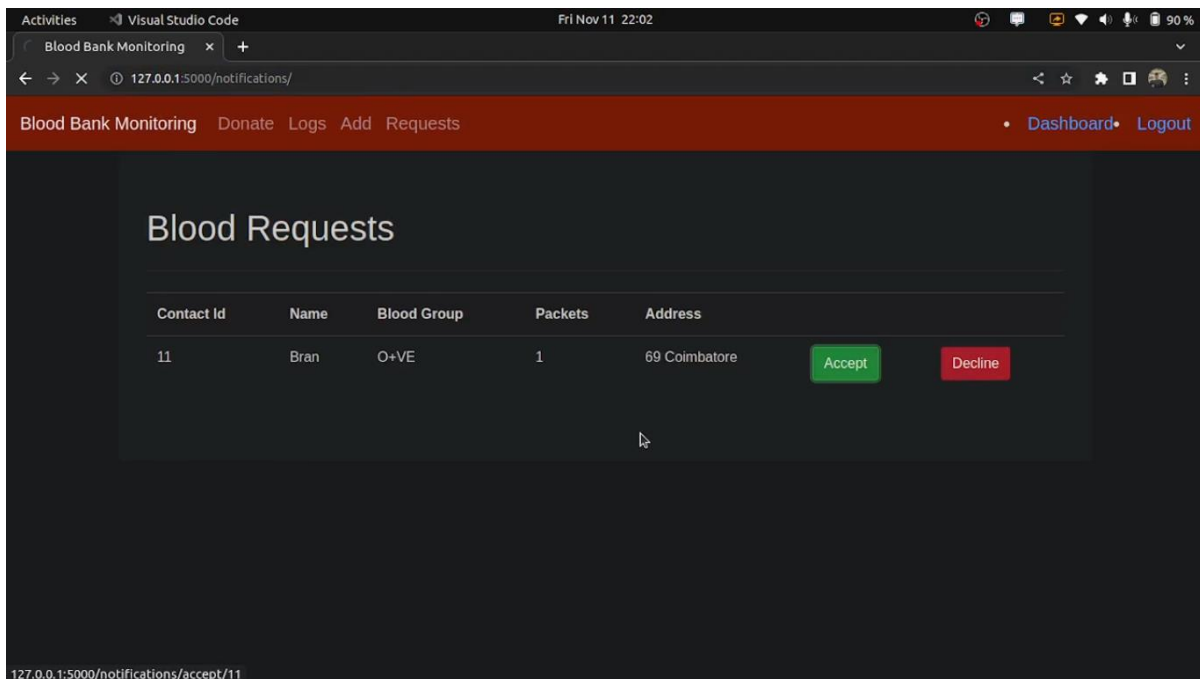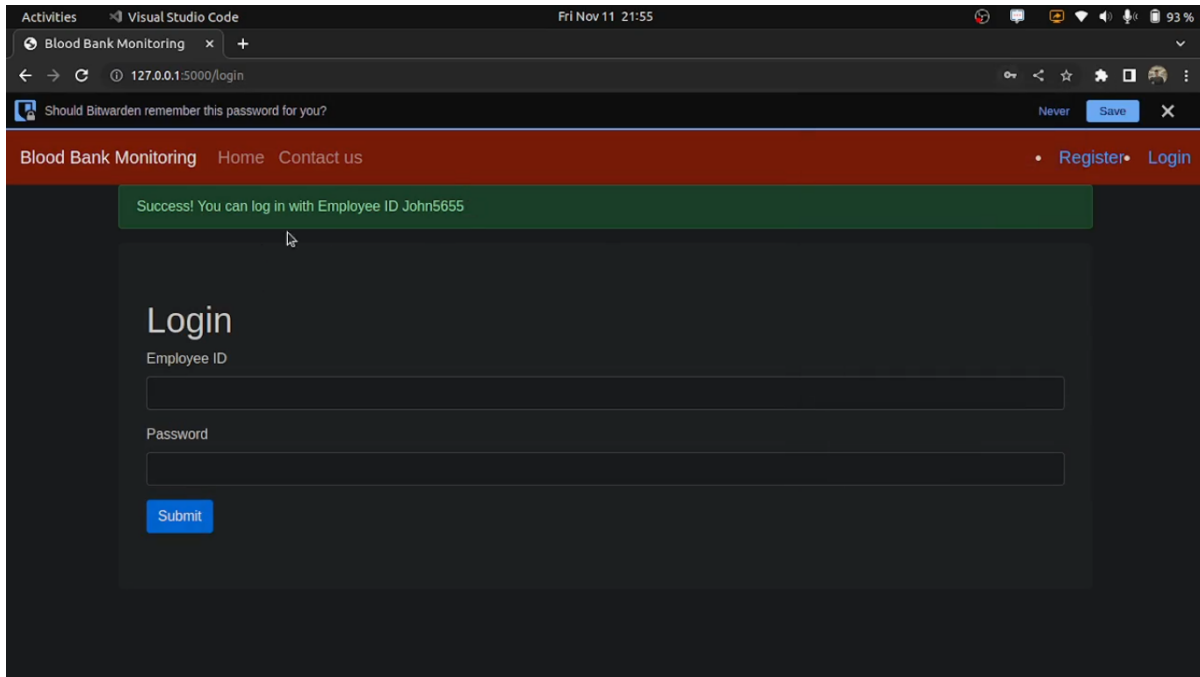
8 TESTING

8.1 Test Cases

8.1 Test Cases

// 8.2 User Acceptance Testing LIKE THIS

Success! Donor details Added.

Donors List

Donor ID	Donor Name	Sex	Age	Weight	Address	Email	Date & Time
1	Richard	male	21	47	Manapparai	richard777@gmail.com	2022-11-05 14:04:12
2	Sanjeev	Male	21	56	Triupur	sanjeevkumar10021102@gmail.com	2022-11-05 14:45:16
3	Richard	male	21	47	Manapparai	richard777@gmail.com	2022-11-05 15:06:23
4	Max	Male	25	56	Chennai, Tamil Nadu	richardjoel835@gmail.com	2022-11-11 21:56:17

9 RESULTS

A trustworthy platform is provided by the plasma donor application to link patients with nearby blood donors. When a patient needs blood donation, a communication channel is established through verified clinics through the plasma donor application. Finding appropriate blood donors who can respond to blood request posters in their neighbourhood using this tool is helpful. This online application may be used by clinics to continue the blood donation programme. It is detailed how the plasma donar application will change in the future.

10 ADVANTAGES & DISADVANTAGES

10.1 ADVANTAGES

10.1.1 Maintain a Healthy Diet

Donating plasma on a regular basis might help you develop better dietary habits. In order to ensure that their donations go well, donors are constantly urged to consume nourishing meals that are rich in iron, protein, and vitamin C as well as to drink plenty of water. Veins become more dilated when the body is properly hydrated, improving blood flow during the visit. Given that plasma is mostly water, it also enables your body to replenish lost fluids more quickly, which is essential.

10.1.2 Reduce Cholesterol Levels

Donating plasma has other benefits than increasing dietary awareness. Additionally, it could benefit your physical health. Regular plasma donation may help improve health by increasing good cholesterol and lowering bad cholesterol, especially in women. According to a study, the collection procedure might be able to lower your overall cholesterol levels if you have high levels of total cholesterol.

10.1.3 Lower Blood Pressure

Regular plasma donation may reduce cholesterol levels and have some lasting effects on vital signs like blood pressure. In people with high baseline blood pressure, a 2015 study found that blood pressure may drop after plasma donation.

10.2 DISADVANTAGE

10.2.1 Physical weakness

It's possible that you may feel physically weak after giving blood, especially in the arm where the needle was inserted. For this reason, the nurses will urge you to refrain from strenuous exercise or heavy lifting for five hours following a blood donation.

10.2.2 Pain

Blood donation is a painful procedure. When the needle is placed into your arm, you can feel discomfort. While the blood is being drawn, you shouldn't suffer any pain, although you could feel some discomfort where the needle is placed into your arm. After your donation, you can have pain where the needle was inserted, particularly if your arm is bruised. You might wish to take an acetaminophen-containing painkiller if you feel sore following your donation.

11 CONCLUSION

We provide screenshots for the plasma donor application for requester, donor, and administrator user types. The application's many features are outlined, and their usage requirements are examined. A clinic management service offered by this application can be used to contact nearby blood donors if a patient needs blood there. Only registered donors whose blood type matches the requested blood type will be notified of blood requests.

12 FUTURE SCOPE

In future we have decided choose the hospitals, college who are ready for camp for donating blood and user can choose the center nearby them and confirm the center and it is user friendly

13 APPENDIX

SOURCE CODE

https://drive.google.com/file/d/1kVzZZUnMsxh_2_s8WBMr6d5rGwNe10Xh/view?usp=share_l

ink

GITHUB LINK

https://github.com/IBM-EPBL/IBM-Project-12101-1659370653

PROJECT DEMO LINK

https://vimeo.com/772788229