PROJECT REPORT

PLASMA DONOR APPLICATION

TEAM ID- PNT2022TMID14901

Done by

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PROJECT REPORT

12. APPENDIX

Source code

Github & Project Demo Link

1. INTRODUCTION

1.1 Project Overview: -

There are more software technologies including languages and framework are used to develop our plasma-donor web application known as **"PLASMA DONOR APPLICATION".** These technologies including HTML, CSS along with PYTHON and IBM CLOUD for database are used. The python is computer programming language often used to create websites and software, automate task and conduct the data analysis. Python is a general-purpose language, meaning it can be used to create a variety of different programs and isn't specialized for any specific problem.

Plasma is the liquid portion of blood. About 55% of our blood is plasma, and the remaining 45% are red blood cells, white blood cells and platelets that are suspended in the plasma. Plasma is about 92% water. 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.

In a plasma-only donation, the liquid portion of the donor's blood is separated from the cells. Blood is drawn from one arm and sent through a high-tech machine that collects the plasma. The donor's red blood cells and platelets are then returned to the donor along with some saline. The process is safe and only takes a few minutes longer than donating whole blood.

Many of them need plasma if we donate plasma to others it will be useful for others and us also.

1.2 Purpose: -

In plasma donation we can donate plasma once at every 28 days. 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 register and login a application in that they can be a donor and also they view the donations. It is simple and easy to use the Application.

2. LITERATURE SURVEY

2.1Existing Problem:

In a past it is not that people want to donate plasma, but because they have no idea about what is the procedure for donating plasma and where to donate. And also Required more human efforts in maintaining the branch related information. Manually to keep the accounts is also tedious & risky job & to maintain those accounts in ledgers for a long period is also very difficult.

2.2 References: -

YEAR	TITLE	AUTHOR(s)	TECHNIQUE(s)	DRAWBACKS
2019	Determines of plasma Donation	Antoine Beurel, Florence Terrade, J.P Lebaudy, Burno Dranic	Web Application, Database	This is system is basically focused on the donor not for receivers.
2020	Developing a plasma donor application using Function-asa-service in AWS	Aishwarya R Gowri Jain University, Department of MCA, computer science	Serverless , aws, plasma theory, covid19, dynamoDB, cloud	Internet: It would require an internet connection for the working of the website. Handle multiple requests at the same time
2018	Optimization of Blood Donor Information and Management System	K. Yamini, M. E(CSC), SVCET, Thirupachur, India R. Devi, Asst. Professor, SVCET, Thirupachur, India	Only Web Application only donor database	The accuracy of the location displayed on the map was beyond the scope of this Project.

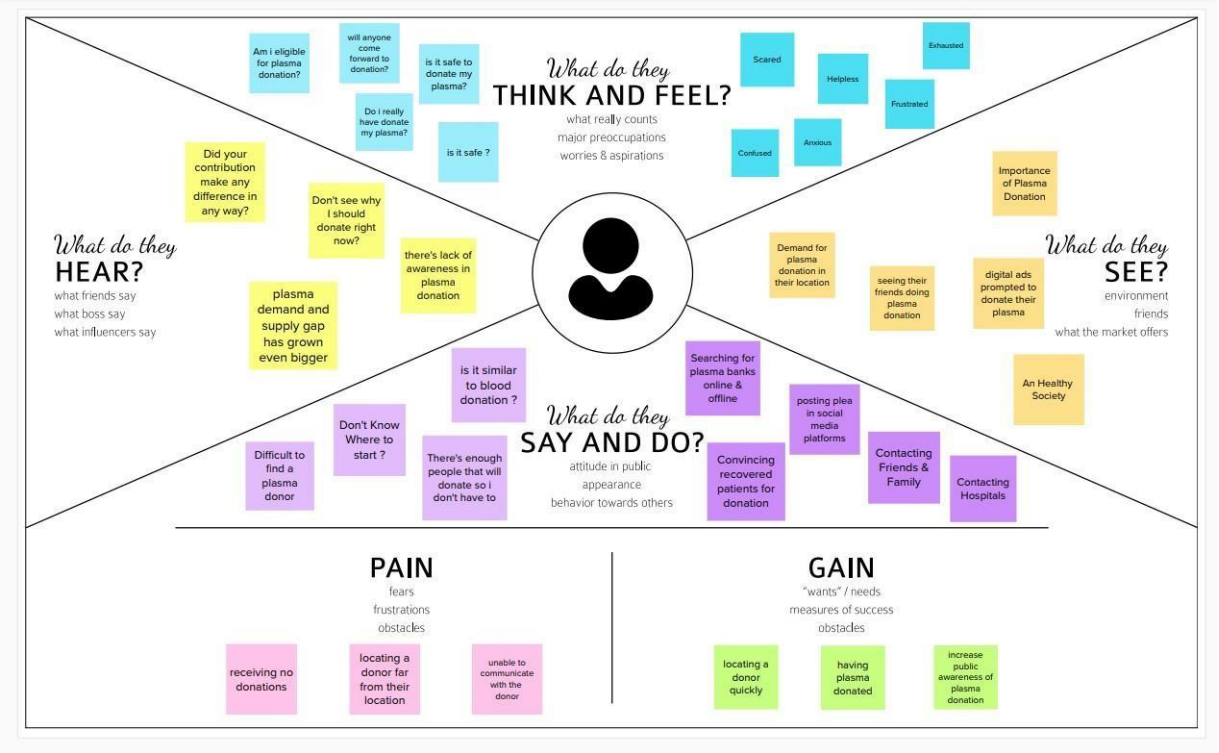
2021	A Study on Blood Bank Management	A. Clemen Teena, K Sankar ,S. Kannan	Website	No search filter available UI improvem ent in Login page
2021	A Research Paper on Blood Donation Management System	Devanjan K. Srivastava Utkarsh Tanwa M.G.Krishna Rao Priya Manohar	Application But Less Database Used	There is no proper centralized database for registered donors .Internet Connection is mandatory
2016	BDoor App-Blood Donation application using android studio	S .periyana, yagi, A. Maikan	Android Fultter UI, Firebase	The android mobile user will not be able to insert or view details if the server goes down.Thus, there is disadvantage of single point failure.
2019	D'WORL D: Blood Donation App UsingAndroid	A. Meiyappan, K. Loga Vignesh, R. Prasanna,T. Sakthivel	Android, Global Positioning System (GPS), Mobile Computing	The user must have an device with android operating system with an active internet connection to interact with this application.
2018	Implementation of blood donation using smartphone	Ms. Pradnya Jagtap1 ,Ms. Monika Mandale2 ,Ms. Prachi Mhaske3 ,Ms. Sonali Vidhate4 ,Mr. S. S. Patil5	Cloud Computing, GPS, Google Cloud Messaging, Clustering.	It is not Easy connecting donors and recipients makes less blood donation way more proficient.
2017	Instant plasma donor Recipient using Web Application	Kalpana Devi Guntoju, Sreeja Uppala	Web Application	The Application will be slow.

2.3 PROBLEM DEFINITION:

This system aims at connecting the donors & the patients by an online application. By using this application, the users can either raise a request for plasma donation or requirement. Similar to blood donors there also exist plasma donors where there exists problems like in case of emergency needs the most important life saver necessity is plasma , Plasma Banks are the main providers of plasma who receives blood from various donors, monitors the plasma groups database of emergencies and makes them available to the hospital whenever needed. The major problem faced by the main plasma providers and the need is the availability of donors at the right time. We hereby took a step forward to build a system to create a network of people who can help each other in need. We propose an application where the plasma banks can timely update the plasma Stock availability and donor and register themselves to the donor and we find user plasma availability nearby him/her. The urgent time of a plasma requirement, users can quickly check for plasma banks, hospitals or donors as per requirement matching a particular or related and reach out to them through the App.

3 IDEATION & PROPOSED SOLUTION

3.1. Empathy Map Canvas:-



3.2 Ideation & Brainstroming:-

Plasma is used for the treatment of serious health problems. This is why there are blood drives asking people to donate blood, plasma . Plasma is utilized to treat different irresistible sicknesses and it is one of the most established strategies known as plasma treatment. During Coronavirus emergency the necessity for plasma expanded radically as there were no immunization found to treat the contaminated 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 contributor data and telling about the ongoing givers would be some assistance as it can save time and assist the clients with finding the vital data about the contributors.

3.3 Proposed Solution:-

This proposed system aims at connecting the donors & the patients by an online application. By using this application, the users can either raise a request for plasma donation or requirements.

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

Application contains two roles:

♣ Admin

♣ User

User:

- If the user wants to donate or receive they have to register with their personal details.
- After successful registration of user.
- A successful registration email is send to the user.
- After successful registration user will be directed to home page.
- They will be asked to press whether they will be donor or receiver.
- If the user is donor then he/she will fill the donation interest form which includes their Name, blood group details, location, last time donated date , phone number, email id.
- After filling the donation form he/she will redirected to page in which he/she can download the ecertificate.
- If the user is receiver then he/she can see the list of donors available and they can raise their request and contact donor directly.

Admin:

- Admin can login using their credentials.
- Admin can edit the request.
- Admin can delete the request.
- Admin can add volunteers.

3.4 Problem Solution Fit:-

Uniqueness:-

A User Interface is simple for users to understand. We can use the application anywhere anytime. The user immediately need the plasma for their treatment but the plasma is not available in nearby hospitals, then user can use this application to raise request and directly contact the donor , request them to donate the plasma. Hospitals can also raise request donors for donation. Somebody wants to donate blood and plasma but they don’t know the way to donate then they use this application which will simple to use and it will save lives of many people. Today many of them have mobile phones they can install this application and use it to save the lives of people.

Social Impact / Customer Satisfaction:-

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

Business Model (Revenue Model):-

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

Scalability of the Solution :-

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

4. REQUIREMENT ANALYSIS

4.1. Functional Requirements:-

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Website
FR-2	User Confirmation	Confirmation via Email
FR-3	User Login	Login using Registered email Id
FR-4	Sent Request	If plasma is required, the receiver will contact the donor
FR-5	Contact Donor	Contact the donor directly if a phone number is given
FR-6	View donation camps	View the list of donation camps happening Nearby

4.2. Non- Functional Requirements:-

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The user interface of the plasma donorsystem must be well-designed and welcoming.

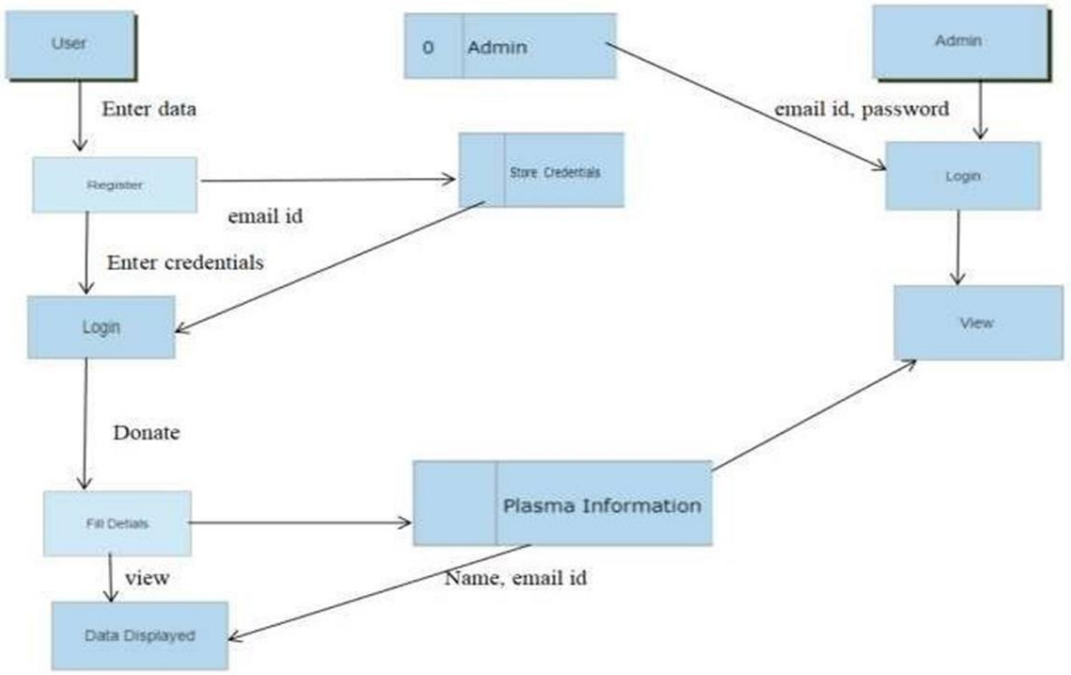
NFR-2	**Security**	Data storage is required by security systems, just like it is by many other applications. Databases are able to keep all the donor information that is viewed by applications. It must be secured with email Id and password.
NFR-3	**Reliability**	The system has the ability to work all the times without failures apart from network failure. A donor can have the faith on the system. The authorities will keeps the privacy of all donors in a proper manner
NFR-4	**Performance**	The Plasma donor System must perform well in different scenarios. The system is interactive and delays involved are less.
NFR-5	**Availability**	The system, including the onlinecomponents, should be available 24/7.
NFR-6	**Scalability**	The system offers the proper resources forissue solutions and is designed to protect sensitive information during all phases of operation.

5. PROJECT DESIGN

5.1 Data Flow Diagrams: -

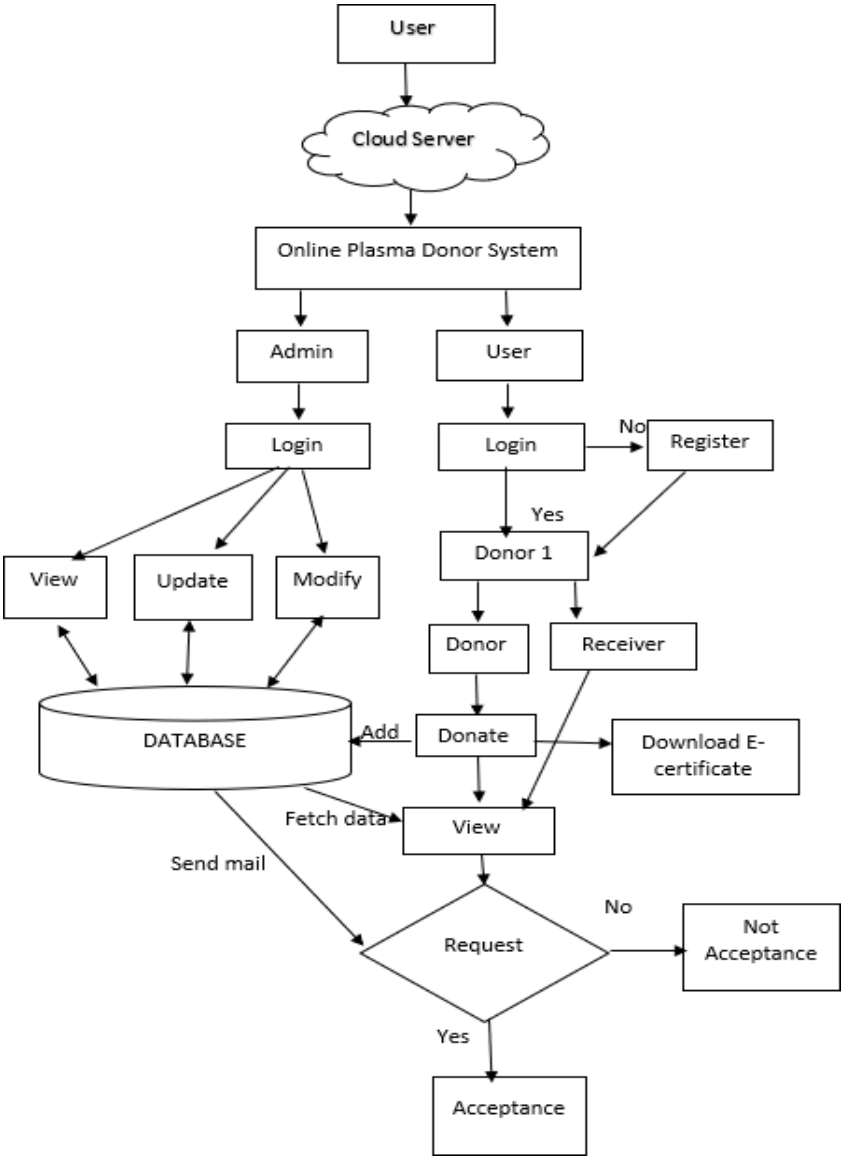
Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFDcan 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.

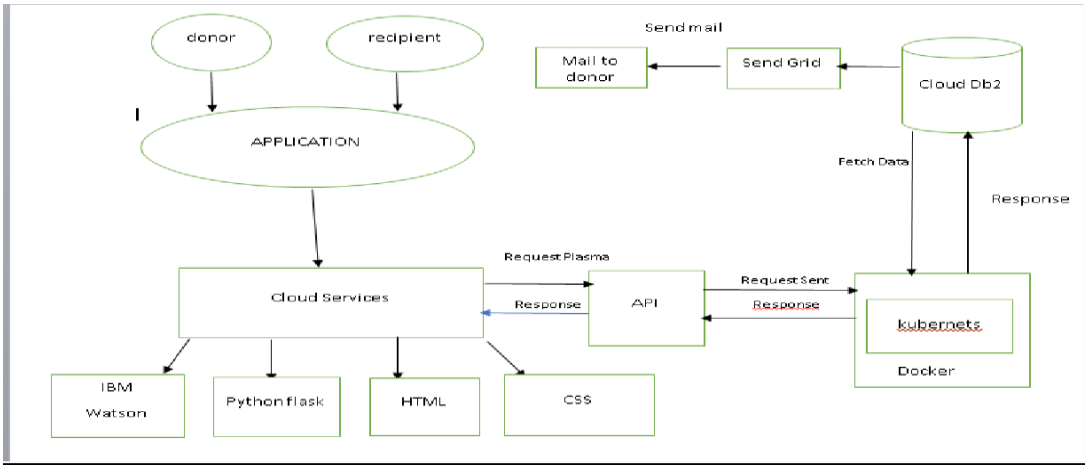


5.2 Solution & Technical Architecture: -

Solution Architecture: -



Technical Architecture:-



5.3 User Stories: -

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my email,password.	I can access my account dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmationemail once I have registered for the application	I canreceive successful message	High	Sprint-1
	Login	USN-3	As a user, I can log into the application by entering email &password	I can access into myProfile and view my dashboard	High	Sprint-1
	Dashboard	USN-4	As a user, I can login using my credentials and it will direct it to my dashboard	I can view and access what are the features are provided in dashboard	High	Sprint-1
Customer (Webuser)		USN-5	As a user, I can login using my credentials and it will direct itto my dashboard	I can view and access what are the features are provided in dashboard	High	Sprint -1
CustomerCare Executive	Query	USN-6	As a user had an any query about the given requirements	I can view a query and rectify the given query	Medium	Sprint-2

Administrator	Login	USN-7	As a admin ,have credentials using that they can login	They can view and modify the data in database	Medium	Sprint-2
	View	USN-8	As a admin I can view plasma information	View and modify	High	Sprint-1
	Modify	USN-9	As a admin I can modify the plasma information.	Modify only if there is a false information/	Medium	Sprint-1

6. PROJECT PLANNING AND SCHEDULING

6.1 Sprint Planning

Sprints are the backbone of any good Agile development team. And the better prepared you are before a sprint, the more likely you are to hit your goals. Spring planning helps to refocus attention, minimize surprises, and (hopefully) guarantee better code gets shipped. The main event during agile methodology is the sprint, the stage where ideas turn into innovation and valuable products come to life. On one hand, agile sprints can be highly effective and collaborative. At the same time, they can be chaotic and inefficient if they lack proper planning and guidance. And for this reason, making a sprint schedule is one of the most important things you can do to ensure that your efforts are successful.

Project Tracker:

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	6 Days	11 Nov 2022	16 Nov 2022	20	19 Nov 2022
Sprint-2	20	6 Days	11 Nov 2022	16 Nov 2022	20	19 Nov 2022
Sprint-3	20	6 Days	11 Nov 2022	16 Nov 2022	20	19 Nov 2022
Sprint-4	20	6 Days	11 Nov 2022	16 Nov 2022	20	19 Nov 2022

Velocity Sprint – 1 to 4:

Image We have a 10 day sprint duration, and the velocity of team is 20 (points per sprint). Let’s Calculate the team’s average velocity(AV) per iteration unit(Story Pointers per day).

AV = Sprint duration / velocity

= 20/10

= 2

Velocity:

AV = 20/6 =3.333…

Sprint 1(AV) = 3.34

Sprint 2(AV) = 3.34

Sprint 3(AV) = 3.34

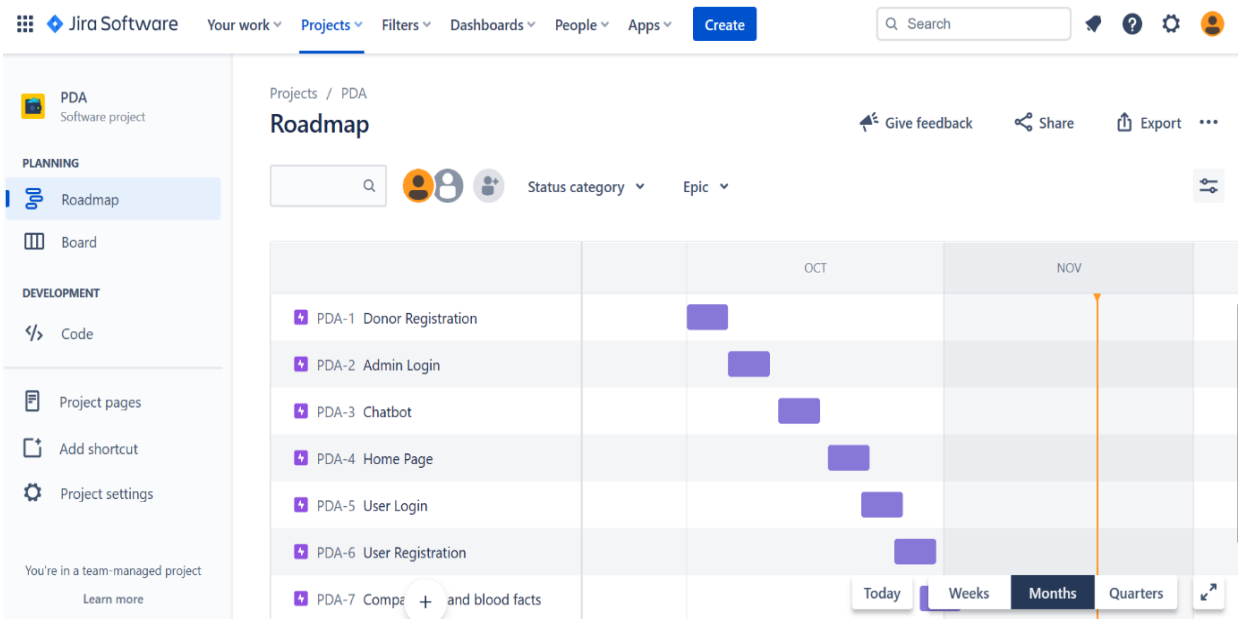
Sprint 4(AV) = 3.34

6.2 SPRINT DELIVERY SCHEDULE:

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Donor Registration	USN-1	As a user, I can register in the donor application by entering my name, phone_no, Email id, blood group ,aadhar no,address	9	High	Team Lead (Ilakkiya SJ)
Sprint-1	Admin Login	USN-2	As a admin, I can log into the application by entering email & password	9	High	Team Lead (Ilakkiya SJ)
Sprint-1	Chatbot	USN-3	As a user I can ask query in chatbot.	2	Medium	Team Member 1 (Madhumitha RS)
Sprint -1	Home Page	USN-4	As a user I can view the home page	9	Medium	Team Lead (Ilakkiya SJ)
Sprint -2	User Login	USN-5	As a user, I can login using my credentials	10	High	Team Lead (Ilakkiya SJ)
Sprint – 2	Registration	USN-6	As a user, I can register in the application	10	High	Team Lead, Team Member 1 (Ilakkiya SJ, Madhumitha RS)
Sprint-2	Compatibility and blood facts	USN-7	As a user, I can know about the blood facts and compatibility for donation	5	Medium	Team Member 3 (Hemapriya M)
Sprint-2	Eligibility	USN-8	As a user, I can know about the eligibility	4	Medium	Team Member 2 (Meena K)

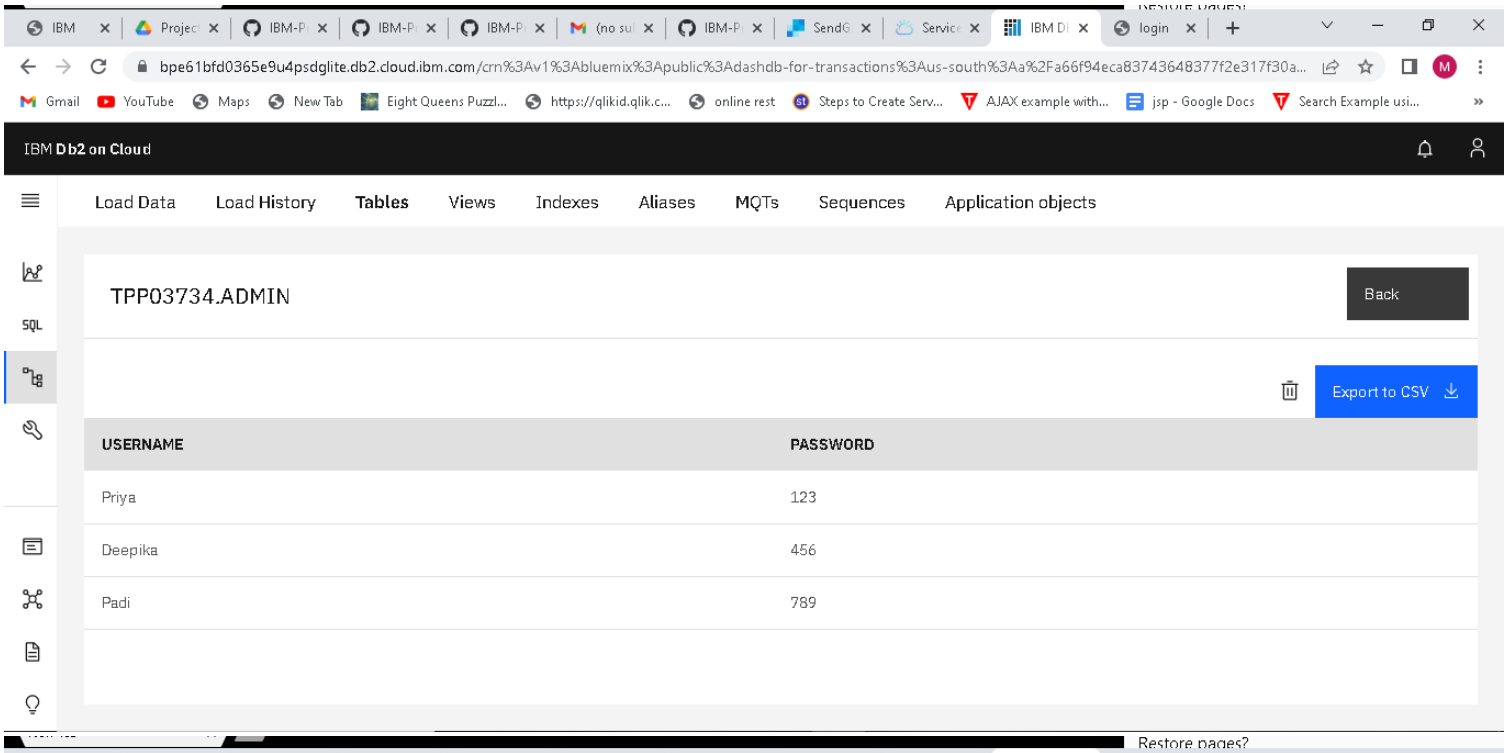
Sprint-3	View Donor List	USN-9	As a user, I can view all the donor list and contact them directly	9	High	Team Lead (Ilakkiya SJ)
Sprint-3	About us	USN-10	As a User, I can view the about us page which contains all contact information	5	Medium	Team Member 2 (Meena K)
Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-3	Modify data	USN-11	As a admin, I can modify the User data.	9	High	Team Lead (Ilakkiya SJ)
Sprint-3	Send mail	USN-12	As a user, I can send mail to donors using sendgrid.	5	High	Team Lead Team Member1 Team Member3 (Ilakkiya SJ Madhumitha RS, Hemapriya M)
Sprint-4	Delete data	USN-13	As a admin I can delete the record.	9	Medium	Team Lead (Ilakkiya SJ)
Sprint-4	Logout	USN-14	As a admin I can logout from the application.			Team Lead (Ilakkiya SJ)
Sprint -4	Send Query	USN-15	As a user I can ask my query through email.	9	Medium	Team Member 2 (Meena K)
Sprint-4	Download data	USN-16	As a admin I can download the user data	9	High	Team Lead (Ilakkiya)

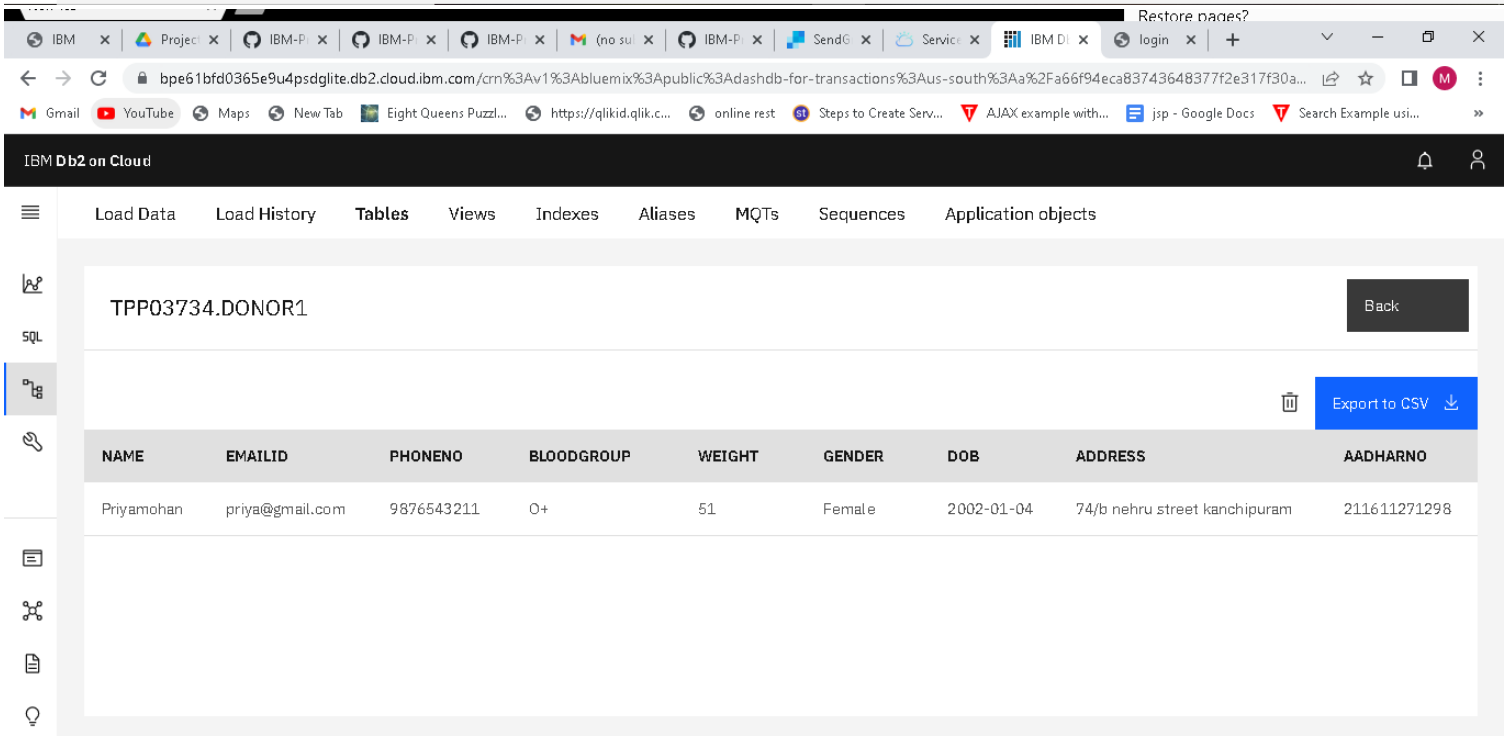
6.3 REPORT FROM JIRA

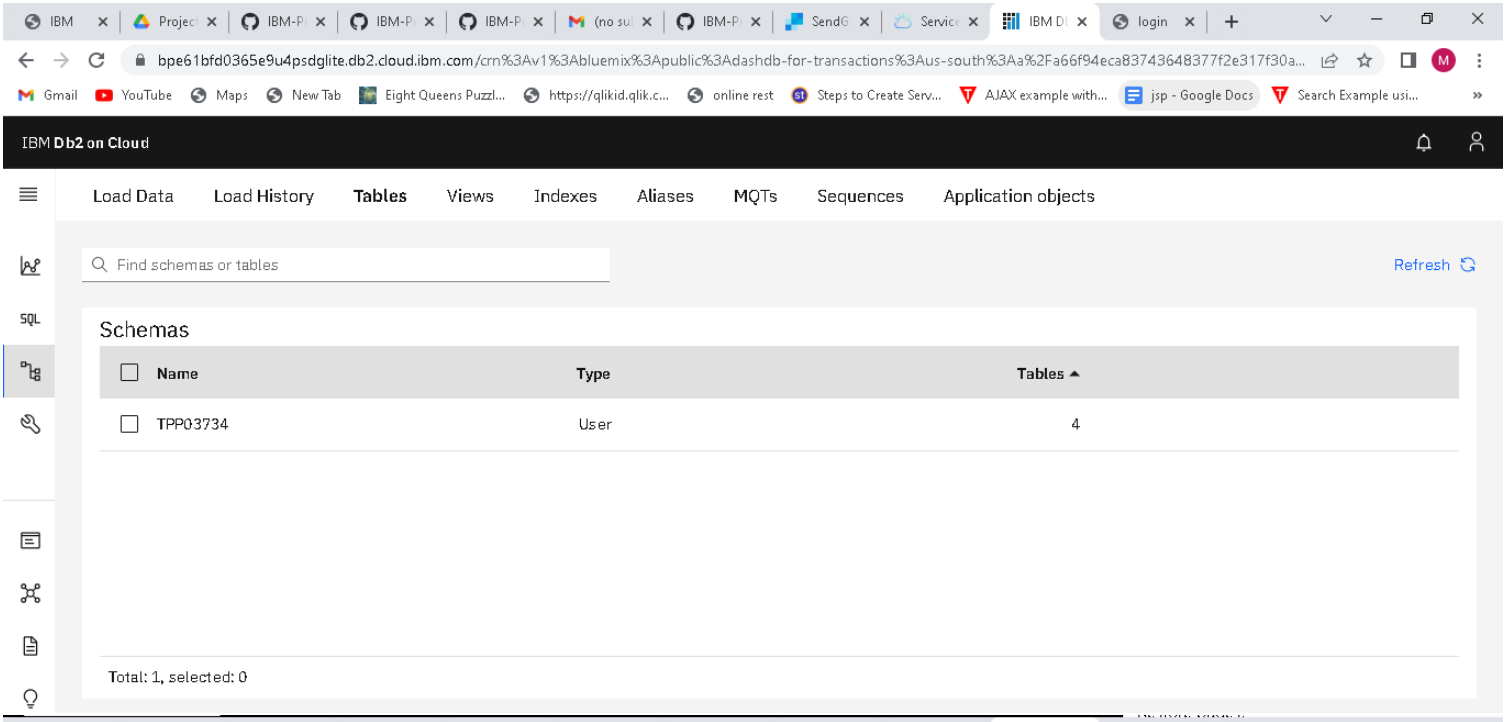


7. CODING AND SOLUIONING

7.1 Database Schema:



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Load Data
Load History
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Find schemas or tables
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Type
Tables
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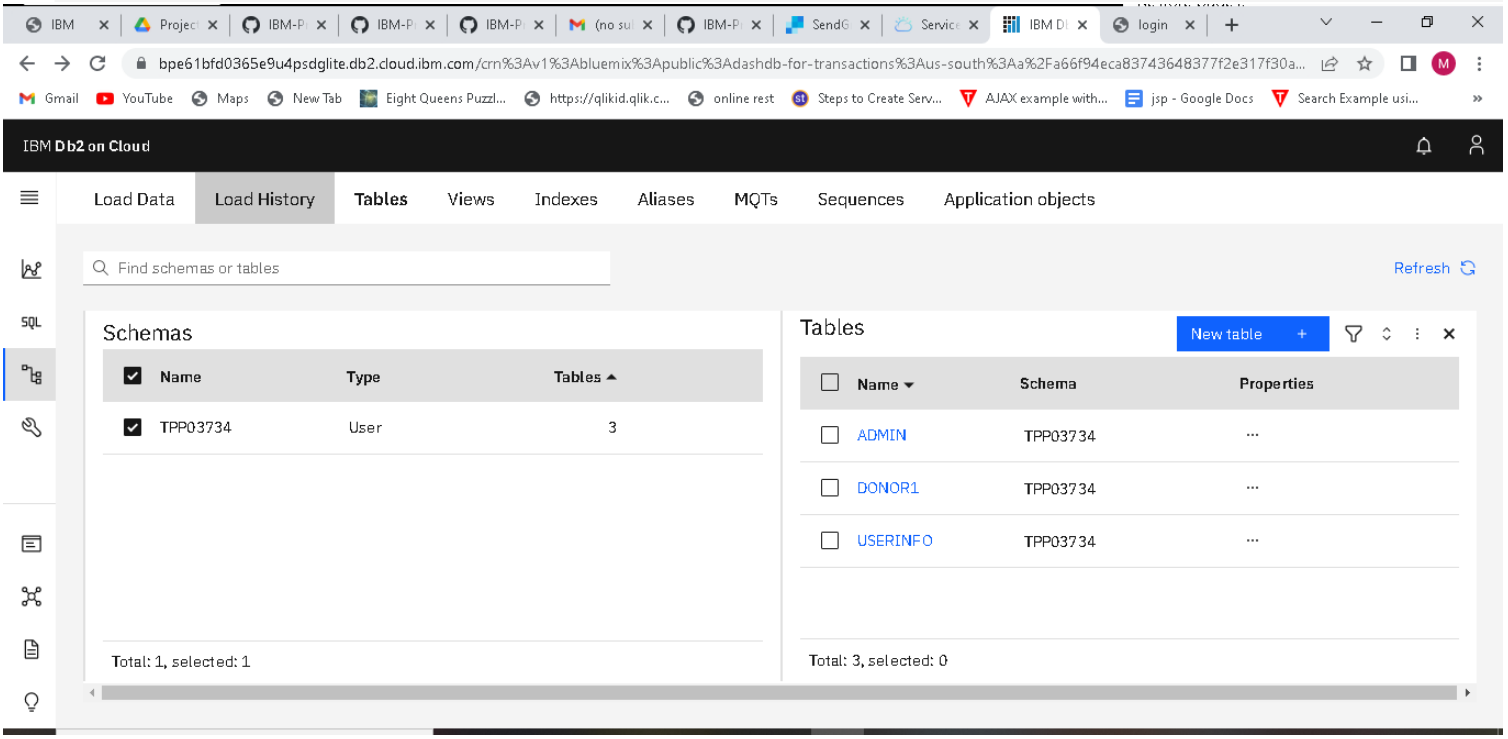
User
4
Total: 1, selected: 0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3
Total: 1, selected: 1
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USERINFO
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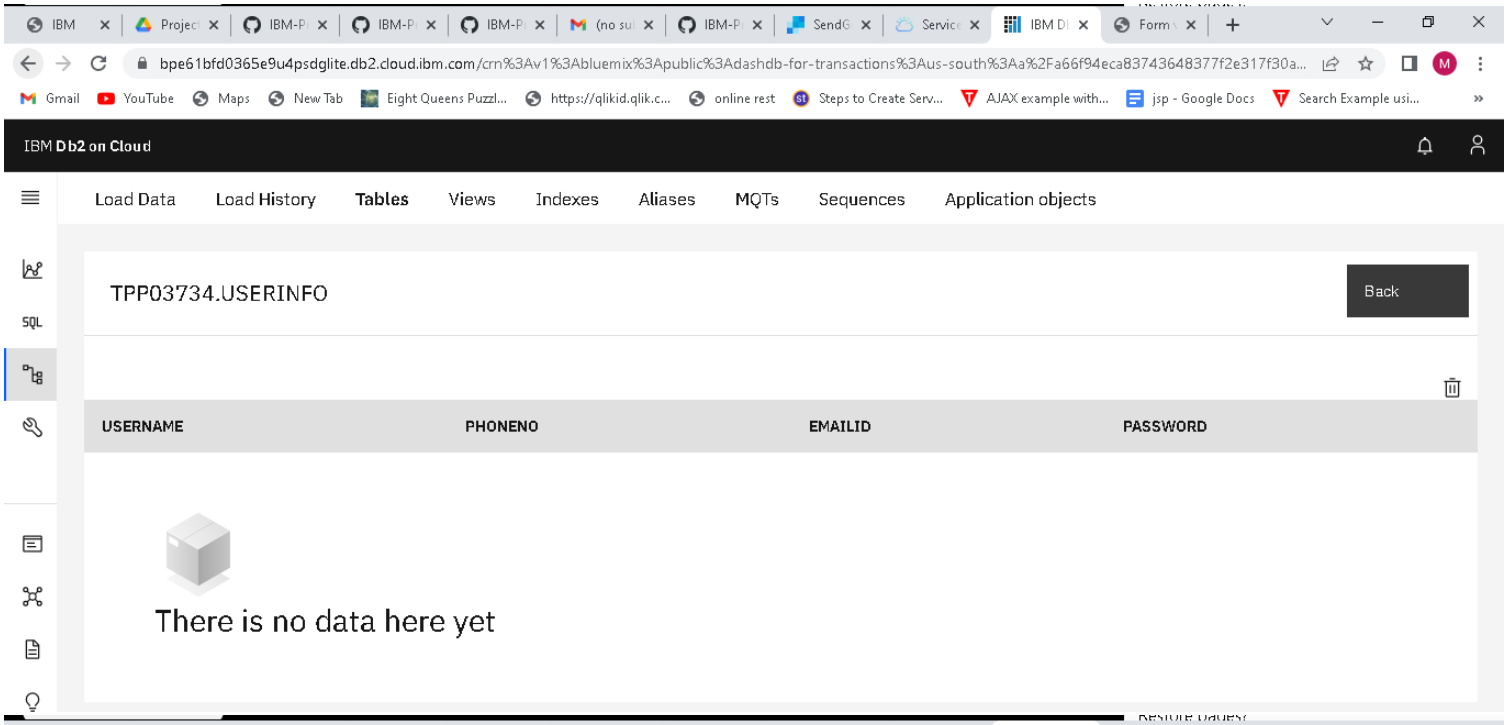
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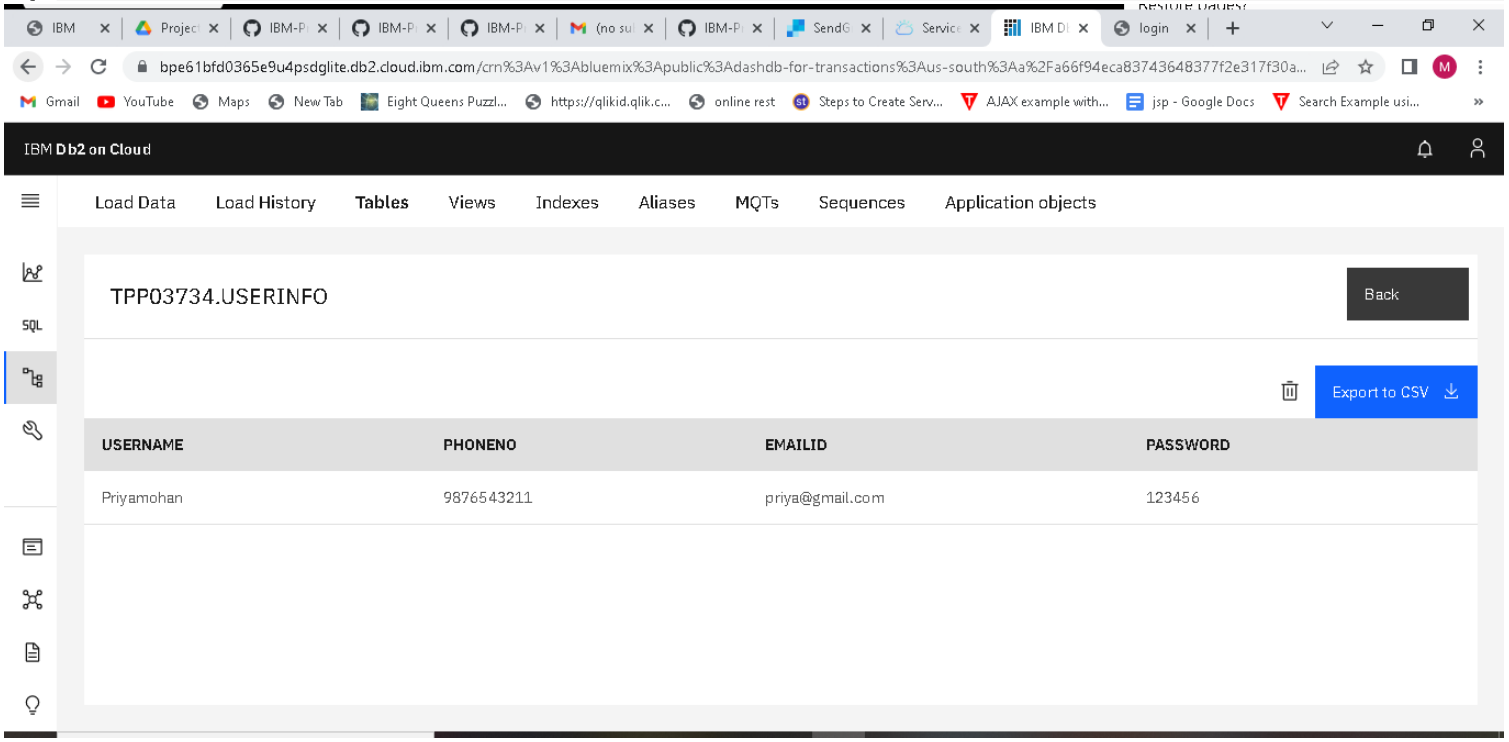
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Export to CSV
USERNAME
PHONENO
EMAILID
PASSWORD
Priyamohan
9876543211
priya@gmail.com
123456

8. TESTING:

8.1 TEST CASE

Authentication Module

• Sign Up New user or donor can create an account to use in the blood/plasma donor application and create a password for account verification and create an identity.

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

• Account Verification If donor changes their password or if they forget the password then we have to verify their account using mail verification.

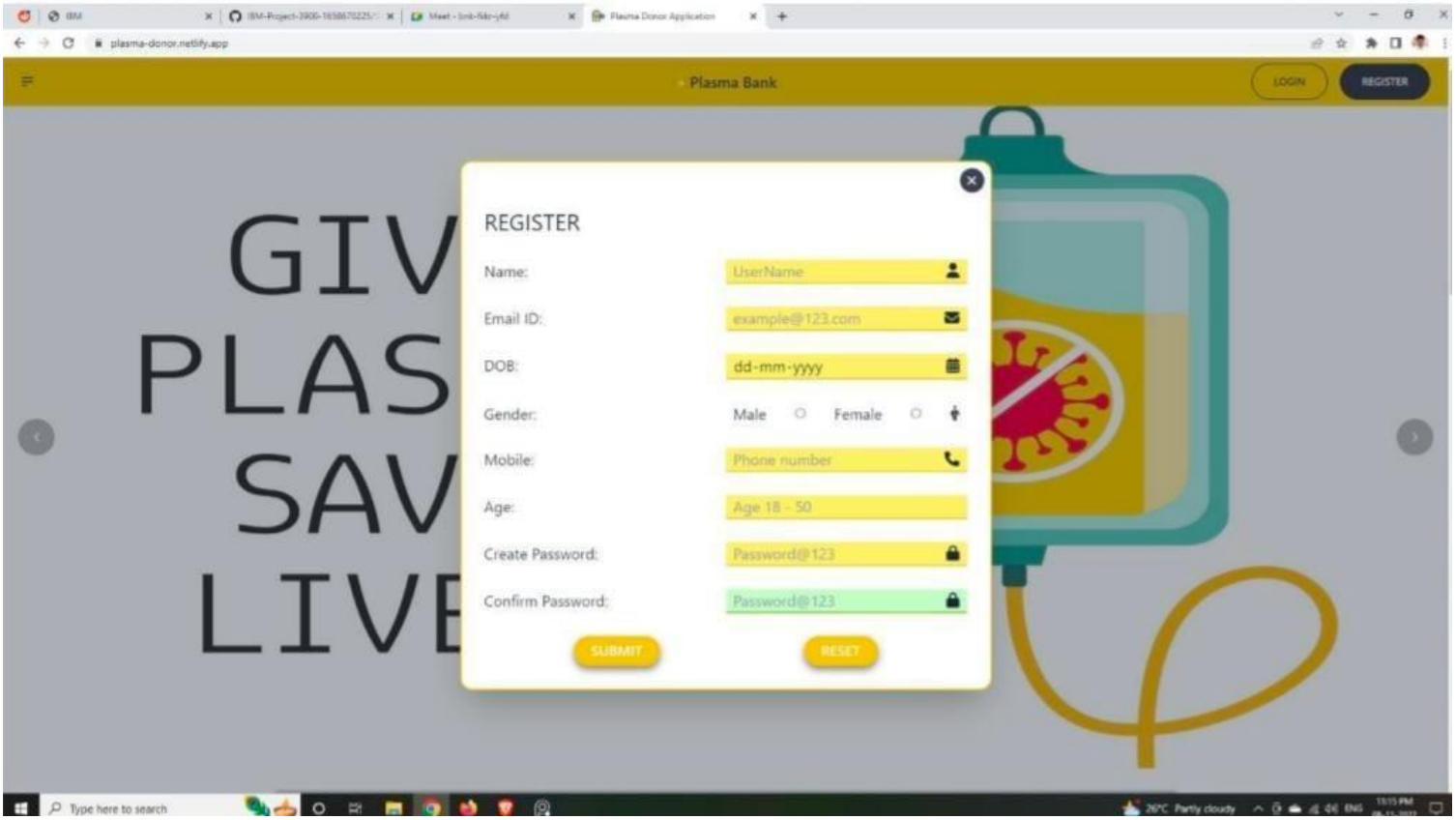
8.2 Service Provider Module

• Add New Donor User can be able to register to add donor details.

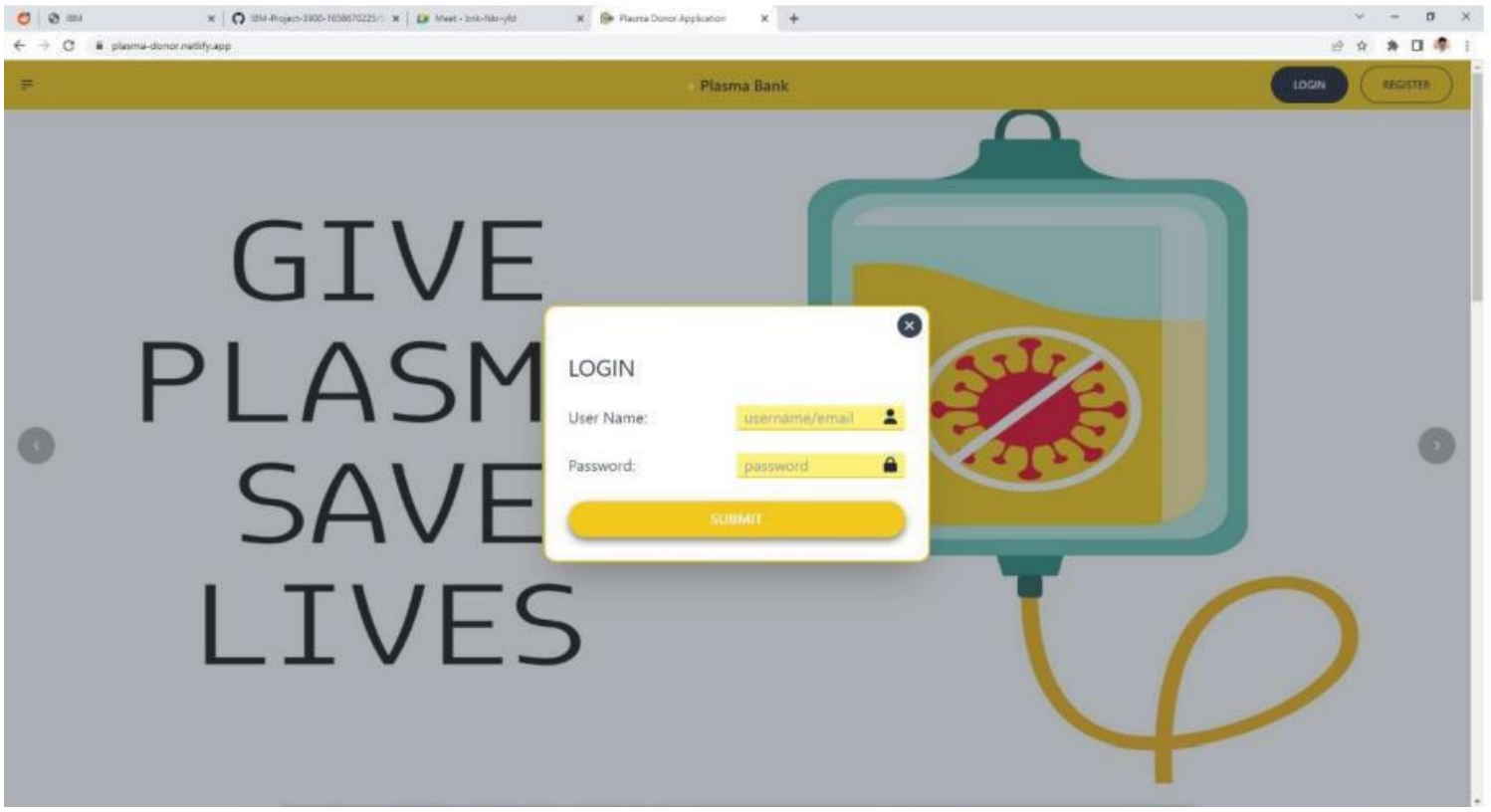
• List All Donor User can be able to view all Donor who all use our Plasma Donor Application.

• Edit Customer Plan Details User can be able to edit the existing Donor details as the Donor wish.

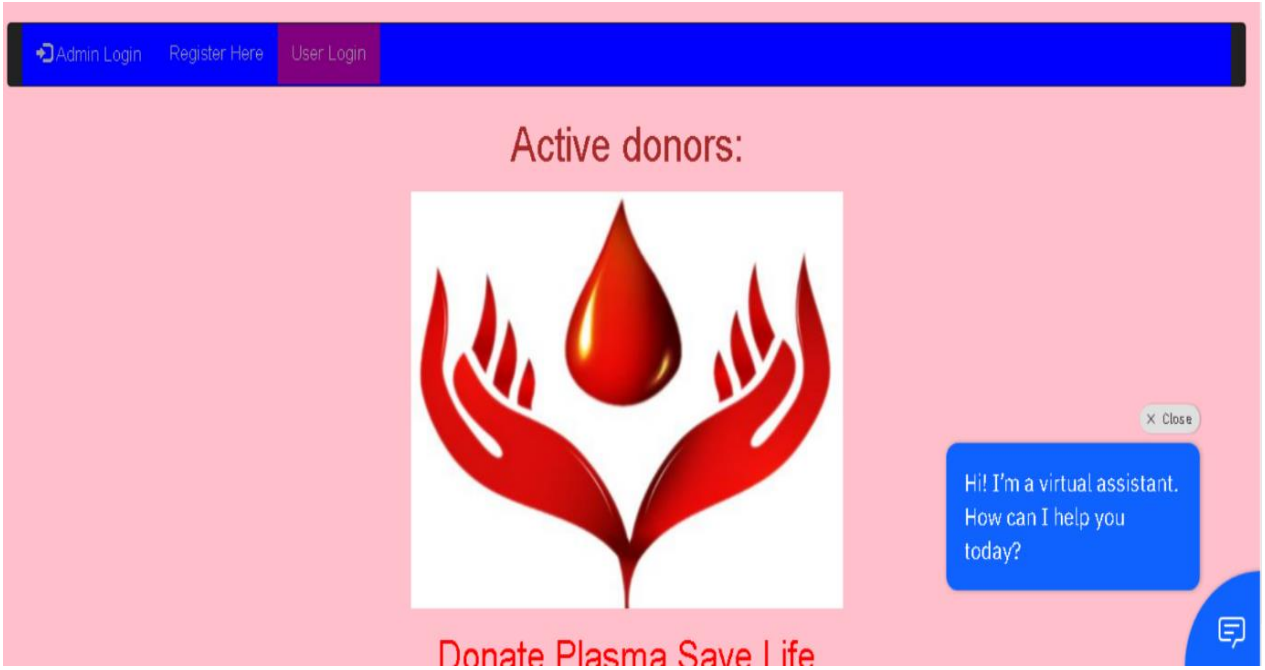
Screen Layouts:



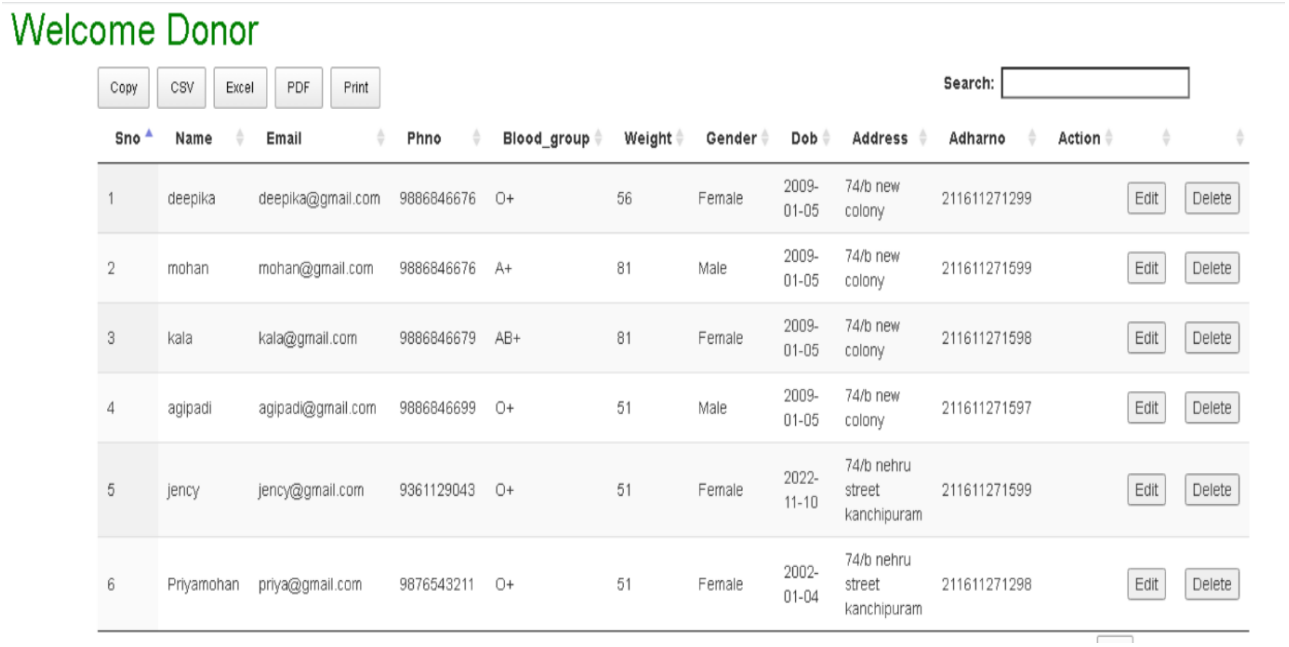
Login Page


plasma-donor.netlify.app
Plasma Bank
LOGIN
REGISTER
GIVE
PLASM
SAVE
LIVES
LOGIN
User Name:
username/email
Password:
password
SUBMIT

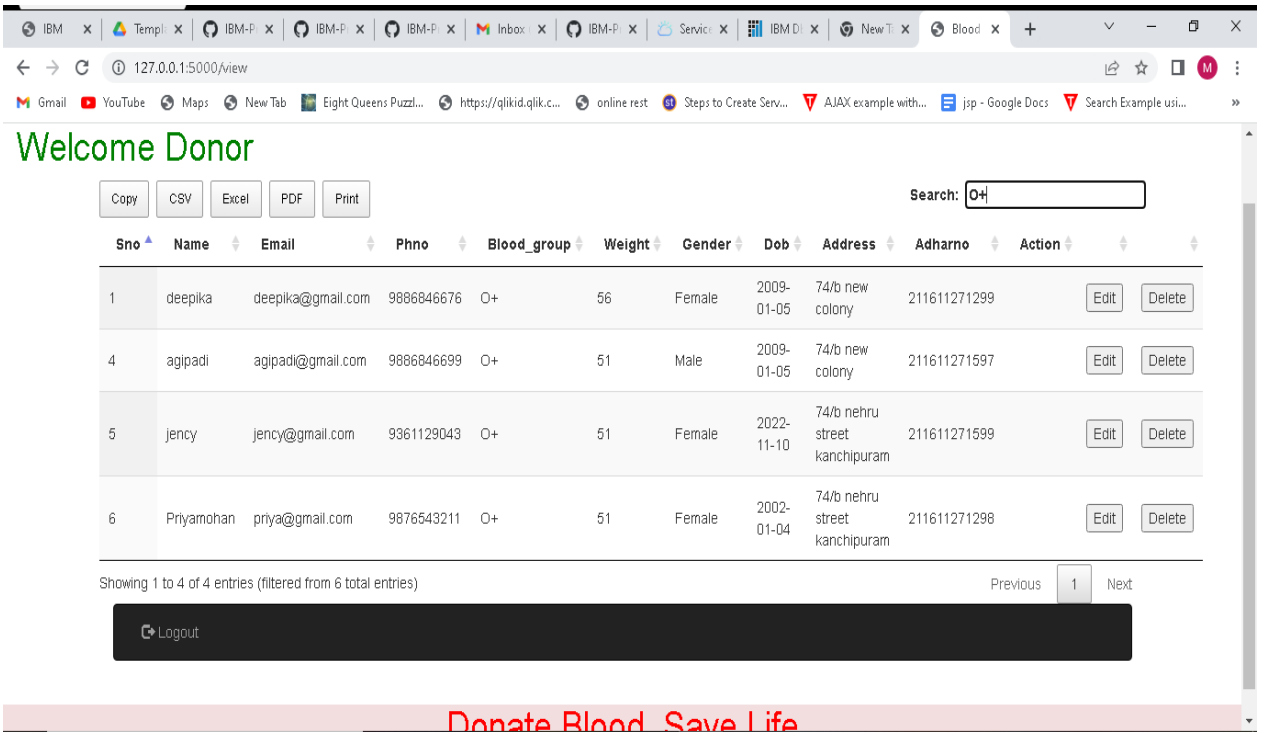
Home page



Request page



Sno	Name	Email	Phno	Blood_group	Weight	Gender	Dob	Address	Adharno	Action	
1	deepika	deepika@gmail.com	9886846676	O+	56	Female	2009-01-05	74/b new colony	211611271299	Edit	Delete
2	mohan	mohan@gmail.com	9886846676	A+	81	Male	2009-01-05	74/b new colony	211611271599	Edit	Delete
3	kala	kala@gmail.com	9886846679	AB+	81	Female	2009-01-05	74/b new colony	211611271598	Edit	Delete
4	agipadi	agipadi@gmail.com	9886846699	O+	51	Male	2009-01-05	74/b new colony	211611271597	Edit	Delete
5	jency	jency@gmail.com	9361129043	O+	51	Female	2022-11-10	74/b nehru street kanchipuram	211611271599	Edit	Delete
6	Priyamohan	priya@gmail.com	9876543211	O+	51	Female	2002-01-04	74/b nehru street kanchipuram	211611271298	Edit	Delete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Welcome Donor
Copy
CSV
Excel
PDF
Print
Search: O+
Sno
Name
Email
Phno
Blood_group
Weight
Gender
Dob
Address
Adharno
Action
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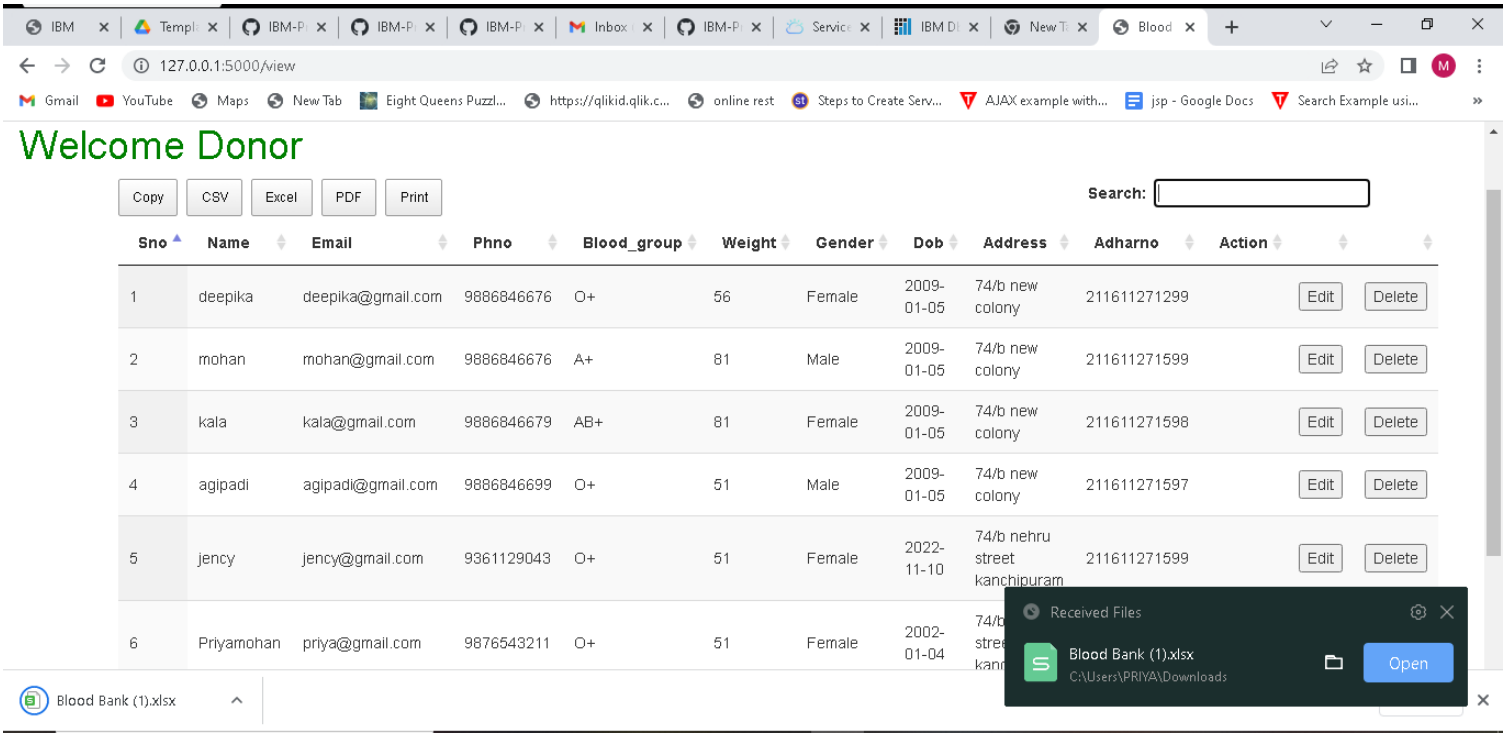
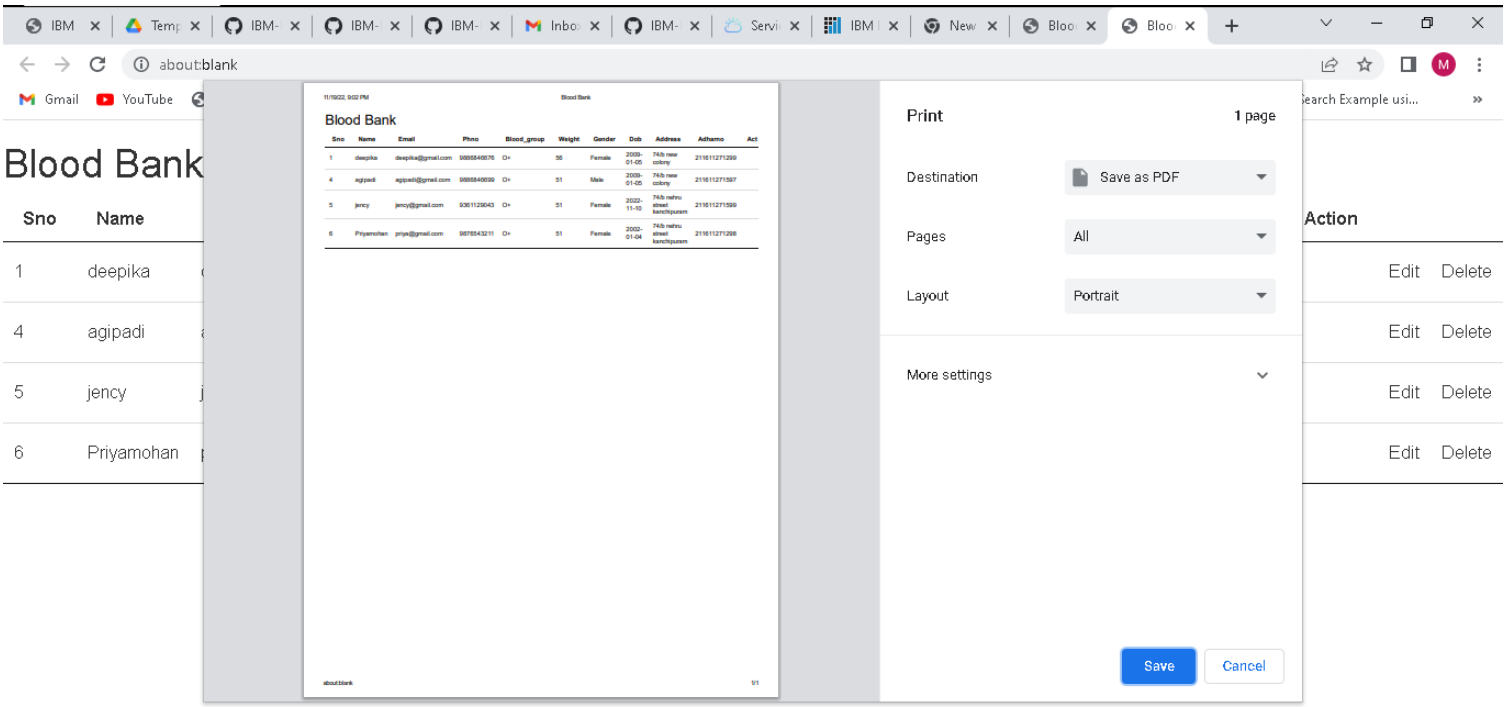
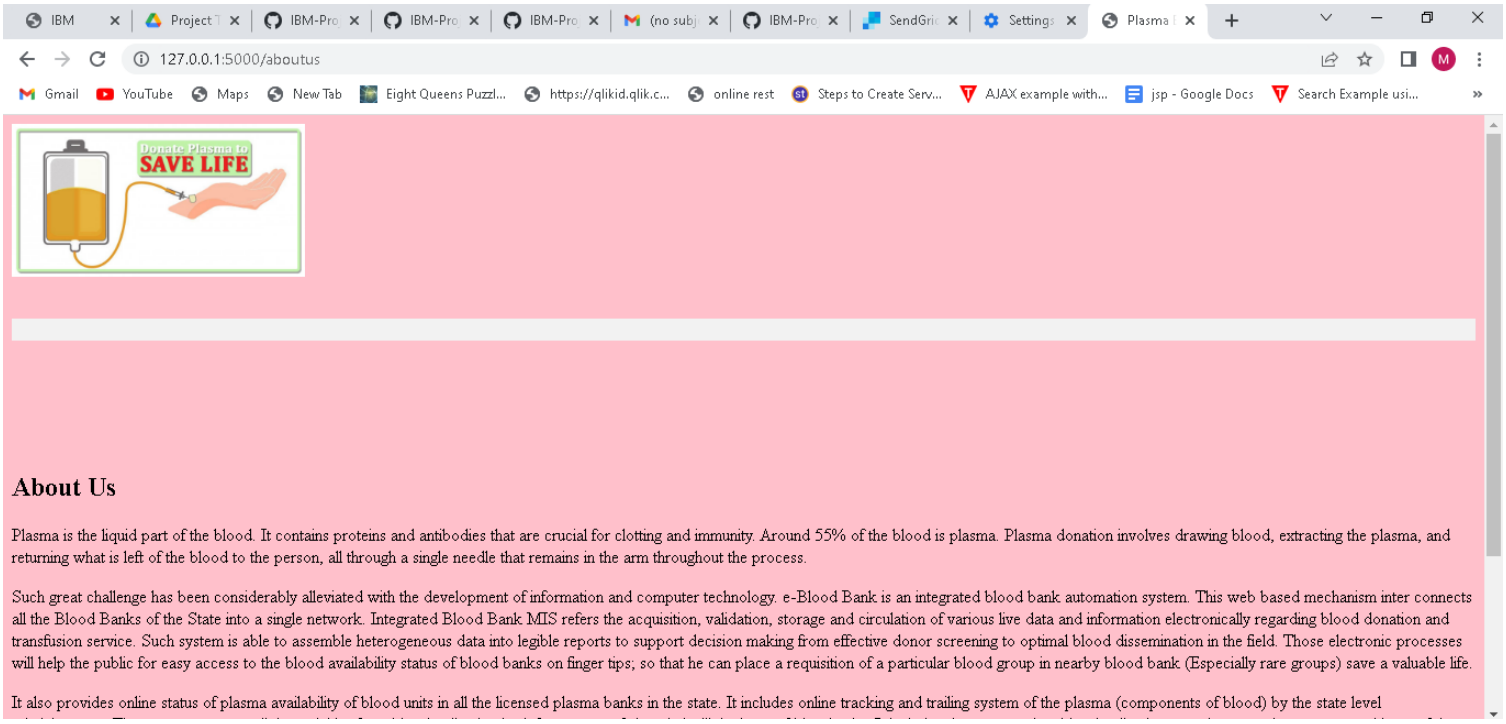
4 agipadi agipadi@gmail.com 9886846699 O+ 51 Male 2009-01-05 74/b new colony 211611271597 Edit Delete
5 jency jency@gmail.com 9361129043 O+ 51 Female 2022-11-10 74/b nehru street kanchipuram 211611271599 Edit Delete
6 Priyamohan priya@gmail.com 9876543211 O+ 51 Female 2002-01-04 74/b nehru street kanchipuram 211611271298 Edit Delete
Showing 1 to 4 of 4 entries (filtered from 6 total entries)
Previous
1
Next
Logout
Donate Blood, Save Life


127.0.0.1:5000/view
Welcome Donor
Copy
CSV
Excel
PDF
Print
Search:
Sno
Name
Email
Phno
Blood_group
Weight
Gender
Dob
Address
Adharno
Action
1 deepika deepika@gmail.com 9886846676 O+ 56 Female 2009-01-05 74/b new colony 211611271299 Edit Delete
2 mohan mohan@gmail.com 9886846676 A+ 81 Male 2009-01-05 74/b new colony 211611271599 Edit Delete
3 kala kala@gmail.com 9886846679 AB+ 81 Female 2009-01-05 74/b new colony 211611271598 Edit Delete
4 agipadi agipadi@gmail.com 9886846699 O+ 51 Male 2009-01-05 74/b new colony 211611271597 Edit Delete
5 jency jency@gmail.com 9361129043 O+ 51 Female 2022-11-10 74/b nehru street kanchipuram 211611271599 Edit Delete
6 Priyamohan priya@gmail.com 9876543211 O+ 51 Female 2002-01-04 Edit Delete
Received Files
Blood Bank (1).xlsx
C:\Users\PRIYA\Downloads
Open
Blood Bank (1).xlsx


about:blank
Blood Bank
Sno
Name
Action
1
deepika
Edit
Delete
4
agipadi
Edit
Delete
5
jency
Edit
Delete
6
Priyamohan
Edit
Delete
Print
1 page
Destination
Save as PDF
Pages
All
Layout
Portrait
More settings
Save
Cancel


127.0.0.1:5000/aboutus
Donate Plasma to
SAVE LIFE
About Us
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. Plasma donation involves drawing blood, extracting the plasma, and returning what is left of the blood to the person, all through a single needle that remains in the arm throughout the process.
Such great challenge has been considerably alleviated with the development of information and computer technology. e-Blood Bank is an integrated blood bank automation system. This web based mechanism inter connects all the Blood Banks of the State into a single network. Integrated Blood Bank MIS refers the acquisition, validation, storage and circulation of various live data and information electronically regarding blood donation and transfusion service. Such system is able to assemble heterogeneous data into legible reports to support decision making from effective donor screening to optimal blood dissemination in the field. Those electronic processes will help the public for easy access to the blood availability status of blood banks on finger tips; so that he can place a requisition of a particular blood group in nearby blood bank (Especially rare groups) save a valuable life.
It also provides online status of plasma availability of blood units in all the licensed plasma banks in the state. It includes online tracking and trailing system of the plasma (components of blood) by the state level

127.0.0.1:5000/viewselected

S ID	Name	Email	Phone_no	Blood_group	Weight	Gender	Dob	Address	Adharno	Action
1	deepika	deepika@gmail.com	9886846676	O+	56	Female	2009-01-05	74/b new colony	211611271299	Send sms
2	agipadi	agipadi@gmail.com	9886846699	O+	51	Male	2009-01-05	74/b new colony	211611271597	Send sms
3	Priyamohan	priya@gmail.com	9876543211	O+	51	Female	2002-01-04	74/b nehru street kanchipuram	211611271298	Send sms

Donate Plasma Save Life

127.0.0.1:5000/compat

A Drop of water makes ocean.
A Unit of Blood SAVES LIFE.

Red Blood cell compatibility Table

Recipient blood type	Donor red blood cells must be:
O-	O-
O+	O- O+
A-	O- A-
A+	O- O+ A- A+
B-	O- B-
B+	O- O+ B- B+
AB-	O- A- B- AB-
AB+	O- O+ A- A+ B- B+ AB- AB+

Plasma compatibility Table

Recipient blood type	Donor plasma must be:

IBM | IBM-Project-19159-1659693897/ | Plasma Bank

127.0.0.1:5000/loginurl

127.0.0.1:5000 says

Login Successfully

OK

9. RESULTS

9.1 Performance Metrices

• **Formal code metrics** - Such as Lines of Code (LOC), code complexity, Instruction Path Length, etc. In modern development environments, these are considered less useful.

• **Developer productivity metrics**—Such as active days, assignment scope, efficiency and code churn. These metrics can help you understand how much time and work developers are investing in a software project.

• **Agile process metrics**—Such as lead time, cycle time and velocity. They measure the progress of a dev team in producing working, shipping-quality software features.

• **Operational metrics**—Such as Mean Time Between Failures (MTBF) and Mean Time to Recover (MTTR). This checks how software is running in production and how effective operations staff are at Mainta ining it.

• **Test metrics**—Such as code coverage, percent of automated tests, and defects in production. This measures how comprehensively a system is tested, which should be correlated with software quality.

• **Customer satisfaction**—Such as Net Promoter Score (NPS), Customer Effort Score (CES) and Customer Satisfaction Score (CSAT). The ultimate measurement of how customers experience the software and their interaction with the software vendor.

10. ADVANTAGES & DISADVANTAGES

Advantages:

- It is a user-friendly web application to help people who are affected by COVID19 by donating plasma from patients who have recovered and help them recover faster.

- The traditional methods of finding plasma,sometimes may not be available in this case the donor can use this website 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

- It is a useful website to find compatible plasma donors who can receive plasma request posts in their local area. Clinics can use this web application to maintain the plasma donation activity.

- It is reliable and safe application and keep track of total plasma donations.

Disadvantages:

- Absence and lack of integration between plasma centers

- The app user will not be able to insert or view details if the server goes down.

11.CONCLUSION

Today the world has become a global platform where every thing is online.There are so many web based solutions provided in the market for the comfort of the people.But without blood human being is non living, by providing the web solution of plasma management information system is just one more step in order to serve the mankind. Plasma donor application provides a reliable platform to connect local plasma donors with patients. This app creates a communication channel through authenticated clinics whenever a patient needs plasma donation. It is a useful tool to find compatible plasma donors who can receive plasma request posts in their local area. Clinics can use this web application to maintain the plasma donation activity.Plasma donation is the one way to lead a person a healthy life.This is because during the plasma donation our body will be replaced with new blood cell which have a better protein, from this website the plasma donors can get an awareness of importance of plasma donation and the plasma donation will increase.It presents a high-end system to bridge the gap between the plasma donors and the people in need for plasma.

Plasma donor application aims to act as an important role in saving life of human beings and reduce the panic created in emergency situations. It proposes a plasma donation application which can be used by laboratories, clinics, hospitals, or anyone who is in need of. It is developed such that users can view the information about registered plasma donors and plasma banks such as name, address, and phone number along with their details of blood group and other medical information. Not only does it connect users to different donors but also to plasma banks.This system is developed in order to enhance the management, performance and the quality of services for the management of plasma banks.

12 . FUTURE SCOPE:

Plasma donation application is a software application to build in such a way that it should suits for all type of plasma banks in future. One important future scope is availability of location-based plasma bank details and extraction of location-based donor's detail, which is very helpful to the acceptant people.The scope of the plasma donation application are the management of the availability of donors, hospitals, blood banks to the user or member at any time.This application can be installed in ambulances in order to save time. This work proposes a plasma donation application which we believe will bring remarkable change.Plasma donation application is a software application to build in such a way that it should suits for all type of plasma banks in future.

One important future scope is availability of location-based plasma bank details and extraction of location-based donor's detail, which is very helpful to the acceptant people.The scope of the plasma donation application are the management of the availability of donors, hospitals, blood banks to the user or member at any time.This application can be installed in ambulances in order to save time

12. APPENDIX:

Source Code:

Header.svelte

```
<script>
import ImageCarousel from
'../components/ImageCarousel.svelte'
import Modal from '../components/Modal.svelte'
import Navbar from '../components/Navbar.svelte'
import Login from './Login.svelte'
import Registration from './Registration.svelte'
</script>
<Navbar />
<Modal>
<Login slot="login" />
<Registration />
</Modal>
<ImageCarousel />
```

Registration.svelte

```
<script>
import TextInput from '../components/TextInput.svelte'
// import { isEmpty } from '../helpers/validation.js'
// import { isValidEmail } from
'../helpers/validation.js'
// import { isValidAge } from '../helpers/validation.js'
// import { isValidPassword } from
'../helpers/validation.js'
// import { isValidConfirmPassword } from
'../helpers/validation.js'
let userName = ''
let userEmail = ''
let userDob = ''
let userGender
let phoneNumber = ''
let userAge = ''
let userPassword = ''
let userConfirmPassword = ''
$: validUserName = !isEmpty(userName)
$: validUserEmail = isValidEmail(userEmail)
$: validUserDob = !isEmpty(userDob)
$: validPhoneNumber = !isEmpty(phoneNumber)
$: validUserAge = isValidAge(userAge)
$: validUserPassword = isValidPassword(userPassword)
$: validUserConfirmPassword =
isValidConfirmPassword(userConfirmPassword)
function isEmpty(val) {
return val.trim().length === 0
}
function isValidEmail(val) {
return new RegExp(
"[a-z0-9!#$%&'*+/=?^_`{|}~-]+(?:.[a-z0-
9!#$%&'*+/=?^_`{|}~-]+)*@(?:[
a z0-9](?:[a-z0-9-]*[a-z0-9])?.)+[a-z0-9](?:[a-z0-9-]*[a-
z0-9])?"
).test(val)
}
function isValidPassword(val) {
return new RegExp(
'^(?=.*[a-z])(?=.*[A-Z])(?=.*[0-
9])(?=.*[!@#$%^&*])(?=.{8,})'
).test(val)
}
function isValidConfirmPassword(val) {
if (val === userPassword) {
return true
```

```
} else {
return false
}
}
function isValidAge(val) {
if (val < 18) {
// validUserAge = "Age is below 18,Not Eligible"
return false
} else if (val > 50) {
// validUserAge = "Age is above 50,Not Eligible"
return false
}
return true
}
</script>
<form action="|" class="container relative
modal-box" on:submit|preventDefault>
<h1 class="mb-4 mr-auto mt-16 text-3xl uppercase md:mt-0
md:mb-8"> Register
</h1>
<label
for="register-modal"
class="absolute btn btn-sm btn-circle right-2
top-2" >✕
</label>
<TextInput
type="text"
label="Name:"
id="name"
name="username"
placeholder="UserName"
inputIcon="fa-solid fa-user"
valid={validUserName}
validityMessage="Please Fill in Your Name"
value={userName}
on:input={(event) => {
userName = event.target.value
}}
/>
<TextInput
type="email"
label="Email ID:"
id="email"
name="email"
placeholder="example@123.com"
inputIcon="fa-solid fa-envelope"
```

```
valid={valid User Email}
validityMessage="Please Fill in Your Email
ID" value={userEmail}
on:input={(event) => {
userEmail = event.target.value
}}
/>
<TextInput
type="date"
label="DOB:"
id="dateOfBirth"
name="dob"
inputIcon="fa-solid
fa-calendar-days"
valid={validUserDob}
validityMessage="DOB is required"
value={userDob}
on:input={(event) => {
userDob = event.target.value
}}
/>
<TextInput
contentType="radioType"
type="radio"
label="Gender:"
id="gender"
name="gender"
inputIcon="fa-solid
fa-person-half-dress" valid={true}
validityMessage="Gender is
required" value={userGender}
on:change={(event) => {
userGender = event.target.value
}}
/>
<TextInput
type="number"
label="Mobile:"
id="mobile no"
name="mobile"
maxlength="10"
placeholder="Phone number"
input Icon="fa-solid fa-phone"
valid={validPhoneNumber}
validityMessage="Please Fill in Your Mobile
number" value={phoneNumber}
```

```
on:input={(event) => {
phoneNumber = event.target.value
}}
/>
<TextInput
contentType="ageType"
type="number"
label="Age:"
id="age"
name="age"
placeholder="Age 18 - 50"
inputIcon="null"
valid={validUserAge}
validityMessage="Please Fill in Your
Age" value={userAge}
on:input={(event) => {
userAge = event.target.value
}}
/>
<TextInput
type="password"
label="Create Password:"
id="createPassword"
name="password"
placeholder="Password@123"
input Icon="fa-solid fa-lock"
valid={validUserPassword}
validityMessage="Use a strong password"
value={userPassword}
on:input={(event) => {
userPassword = event.target.value
}}
/>
<TextInput
type="password"
label="Confirm Password:"
id="confirmPassword"
name="confirmPassword"
placeholder="Password@123"
inputIcon="fa-solid fa-lock"
valid={validUserConfirmPassword}
validityMessage="Password do not
match" value={userConfirmPassword}
on:input={(event) => {
userConfirmPassword =
event.target.value }}
```

```
/>
<div class="buttons">
<button
type="submit">Submit</button> <button
type="reset">Reset</button> </div>
</form>
<style>
.container {
display: flex;
flex-direction: column;
align-items: center;
justify-content: center;
width: 90%;
max-width: 700px;
padding: 3em 1.5em 1.5em;
font-size: 1.25rem;
border-radius: 1rem;
border: 2px solid
var(--clr-primary-400); }
.buttons {
display: flex;
justify-content: space-between;
width: 75%;
max-width: 400px;
}
.buttons * {
padding: 0.3em 1.2em;
color: var(--clr-primary);
font-size: 1.175rem;
font-weight: 600;
background-color: var(--clr-primary-400);
border-radius: 100vmax;
text-transform: uppercase;
box-shadow: 0 5px 10px rgba(0, 0, 0, 0.5);
}
@media (max-width: 50em) {
.modal-box {
max-height: max-content;
padding: 1em;
top: 2em;
}
.modal-box h1 {
margin: 0 auto 0.5em 0;
}
.buttons {
width: 100%;
```

```
}
}
</style>
```

Login.svelte

```
<script>
import TextInput from '../components/TextInput.svelte'
let userName = ''
let userPassword = ''
$: validUserName = !isEmpty(userName)
$: validUserPassword = !isEmpty(userPassword)
function isEmpty(val) {
return val.trim().length === 0
}
</script>
<form action="|" class="container relative modal-box"
on:submit|preventDefault>
<h1 class="mb-4 mr-auto text-3xl uppercase md:mb-
8">Login</h1> <label
for="login-modal" class="absolute btn btn-sm btn-circle
right-2 top 2"
>✕
</label>
<TextInput
type="text"
label="User Name:"
id="username"
name="username"
placeholder="username/email"
inputIcon="fa-solid fa-user"
valid={validUserName}
value={userName}
on:input={(event) => {
userName = event.target.value
}}
/>
<TextInput
type="password"
label="Password:"
id="password"
name="password"
placeholder="password"
inputIcon="fa-solid fa-lock"
valid={validUserPassword}
value={userPassword}
on:input={(event) => {
userPassword = event.target.value
```

```
}}
/>
<button
type="submit">Submit</button> </form>
<style>
.container {
display: flex;
flex-direction: column;
align-items: center;
justify-content: center;
width: 90%;
max-width: 500px;
padding: 3em 1.5em 1.5em;
font-size: 1.25rem;
border-radius: 1rem;
border: 2px solid
var(--clr-primary-400); }
button {
width: 100%;
padding: 0.5em 1em;
color: var(--clr-primary);
font-size: 1.175rem;
font-weight: 600;
background-color:
var(--clr-primary-400); border-radius:
100vmax;
text-transform: uppercase;
box-shadow: 0 5px 10px rgba(0, 0, 0,
0.5); }
</style>
```

FAQ.svelte

```
<section
id="faq
section"
class="card">
<div
tabindex="0"
class="collapse collapse-plus border border-base-300 bg-
base-100
rounded-box"
>
<div class="collapse-title text-xl font-medium">Who can
donate?</div>
<div class="collapse-content">
<p>
```

Generally, plasma donors must be 18 years of age and weigh at least 110 pounds (50kg). All individuals must pass two separate medical examinations, a medical history screening and testing for transmissible viruses, before their donated plasma can be used to manufacture plasma protein therapies.

<div
tabindex="0"
class="collapse collapse-plus border border-base-300 bg-base-100 rounded-box"
>

Is donating plasma safe?

Yes. Plasma donation in IQPP certified collection centers is performed in a highly controlled, sterile environment by professionally trained medical staff. All plasma collection equipment is sterilized and any equipment that comes into contact with you is used only once to eliminate the possibility of transmitting viral infections.

<div
tabindex="0"
class="collapse collapse-plus border border-base-300 bg-base-100 rounded-box"
>

What type of medical screening and testing is done?

You must have a pre-donation physical which includes answering medical
history questions, tests for viruses such as HIV and Hepatitis and
evaluating your protein and hemoglobin levels.

<div
tabindex="0"
class="collapse collapse-plus border border-base-300 bg-base-100 rounded-box"
>

How do you get my plasma?

Donating plasma is similar to giving blood. A needle is placed into a
vein in your arm. Plasma is collected through a process call
plasmapheresis and is conducted in cycles that may take up to an hour.
Whole blood is drawn. The plasma is separated from the red
blood cells
and other cellular components. These are returned to your body with
sterile saline solution to help the body replace the plasma removed from
the whole blood.

<div
tabindex="0"
class="collapse collapse-plus border border-base-300 bg-base-100 rounded-box"
>
Does it hurt?

Most people compare the feeling of the needle to a mild

```
bee sting. You
will also be required to submit to a finger stick test
each
time you
donate so the collection center medical staff can
evaluate
your protein
and hemoglobin levels.
</p>
</div>
</div>
</section>
<style>
.card {
display: flex;
justify-content: center;
align-items: center;
gap: 1.5em;
width: 90%;
max-width: 1200px;
padding: 1.5em;
margin: 2em 0;
background-color: var(--clr-white);
box-shadow: 0 0 5px var(--clr-accent);
}
</style>
```

Aboutus.svelte

```
<script>
let ImgURL = './assets/images/plasma_sample.png'
</script>
<section id="about-us-section" class="card">
<div class="card description">
<h1 class="card title">About Us</h1>
<div class="card content">
Lorem ipsum dolor sit amet consectetur adipisicing elit.
Provident numquam
repellendus repudiandae beatae ratione recusandae est
odio
inventore magni
harum alias nemo esse explicabo architecto libero, omnis
voluptate itaque
atque.
</div>
</div>
<div class="card images">
<img src={ImgURL} alt="" />
```

```
</div>
</section>
<style>
.card {
display: flex;
justify-content: center;
align-items: center;
gap: 1.5em;
width: 90%;
max-width: 1200px;
padding: 1.5em;
margin: 2em 0;
background-color: var(--clr-white);
box-shadow: 0 0 5px var(--clr-accent);
}
.card title {
font-size: clamp(1rem, 10vw, 2rem);
}
.card images {
border-radius: var(--rounded-box, 1rem);
overflow: hidden;
}
@media (min-width: 50em) {
.card {
flex-direction: row;
}
.card content {
font-size: clamp(0.8rem, 5vw, 1.2rem);
}
}
</style>
```

Gallery.svelte

```
<script>
import { galleryImages } from '../helpers/imagePaths.js'
let imgs = galleryImages
</script>
<section id="gallery card" class="gallery card">
<h1 class="gallery title">Gallery</h1>
<div class="gallery images">
<img class="gallery image" src={imgs[0]} alt="" />
<img class="gallery image" src={imgs[1]} alt="" />
<img class="gallery image" src={imgs[2]} alt="" />
</div>
</section>
<style>
.gallery card {
```

```
display: flex;
flex-direction: column;
justify-content: center;
align-items: center;
gap: 1.5em;
width: 90%;
max-width: 1200px;
padding: 1.5em;
margin: 2em 0;
background-color: var(--clr-white);
box-shadow: 0 0 5px var(--clr-accent);
border-radius: var(--rounded-box, 1rem);
}
.gallery title {
font-size: clamp(1rem, 10vw, 2rem);
}
.gallery image {
width: 100%;
aspect-ratio: 1/1;
margin-bottom: 2em;
border-radius: 1rem;
object-fit: cover;
object-position: center;
}
.gallery image:last-child {
margin-bottom: 0;
}
@media (min-width: 50em) {
.gallery images {
display: grid;
grid-template-columns: repeat(3, 1fr);
gap: 2em;
}
.gallery image {
margin-bottom: 0;
}
}
</style>
```

Footer.svelte

```
<footer
class="p
10
rounded
footer
footer
center
```

```
bg-base
200 text
base
content">
<div class="grid grid-flow-col gap-4">
<a class="link link-hover" href="#home-section">Home</a>
<a class="link link-hover" href="#about-us-section">About
us</a>
<a class="link link-hover" href="/">Contact</a>
</div>
<div>
<div class="grid grid-flow-col gap-4 place-items-center">
<a href="/">
<svg
xmlns="http://www.w3.org/2000/svg"
width="24"
height="24"
viewBox="0 0 24 24"
class="fill-current"
><path
d="M24 4.557c-.883.392-1.832.656-2.828.775 1.017-.609
1.798-
1.574 2.165-2.724-.951.564-2.005.974-3.127 1.195-.897-
.957-2.178-1.555-
3.594-1.555-3.179 0-5.515 2.966-4.797 6.045-4.091-.205-
7.719-2.165-10.148-
5.144-1.29 2.213-.669 5.108 1.523
6.574-.806-.026-1.566-.247-2.229-.616-.054 2.281 1.581
4.415 3.949
4.89-.693.188-1.452.232-2.224.084.626 1.956 2.444 3.379
4.6 3.419-2.07
1.623-4.678 2.348-7.29 2.04 2.179 1.397 4.768 2.212 7.548
2.212 9.142 0
14.307-7.721 13.995-14.646.962-.695 1.797-1.562 2.457-
2.549z"
/>
</svg>
</a>
<a href="https://www.youtube.com/watch?v=08Pb-UZPLiU"
target="_blank"> <svg
xmlns="http://www.w3.org/2000/svg"
width="24"
height="24"
viewBox="0 0 24 24"
class="fill-current"
><path
```

```
d="M19.615 3.184c-3.604-.246-11.631-.245-15.23
0-3.897.266-4.356 2.62-4.385 8.816.029 6.185.484 8.549
4.385 8.816 3.6.245
11.626.246 15.23 0 3.897-.266 4.356-2.62
4.385-8.816-.029-6.185-.484-8.549-4.385-8.816zm-10.615
12.816v-8l8 3.993-8
4.007z"
/>
</svg>
</a>
<a href="/">
<svg
xmlns="http://www.w3.org/2000/svg"
width="24"
height="24"
viewBox="0 0 24 24"
class="fill-current"
><path
d="M9
8h-3v4h3v12h5v-12h3.642l.358-4h-4v-1.667c0-.955.192-1.333
1.115-1.333h2.885v-5h-3.808c-3.596 0-5.192 1.583-5.192
4.615v3.385z" />
</svg>
</a>
<a
href="https://github.com/IBM-EPBL/IBM-Project-3900-
1658670225
" target="_blank"
class="w-6 aspect-square"
>
<i class="text-2xl fa-brands fa-github" />
</a>
</div>
</div>
<div>
<p>Copyright © 2022 - All right reserved by ABBG
Industries
Ltd</p> </div>
</footer>
<style>
.footer {
color: var(--clr-primary);
background-color: var(--clr-accent);
border-radius: 0;
}
```

```
</style>
```

GITHUB LINK

https://github.com/IBM-EPBL/IBM-Project-33853-1660227917