

PLASMA DONOR APPLICATION

REPORT

SUBMITTED BY

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IBM PROJECT
PLASMA DONOR APPLICATION

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CHAPTER 1

INTRODUCTION

With rapid increase in the usage of social networks sites across the world, there is also a steady increase in plasma donation requests as being noticed in the number of posts on these sites such as Face book and twitter seeking plasma donors.

Finding plasma donor is a challenging issue in almost every country. There are some plasma donor finder applications in the market such as Blood app by Red Cross and Blood Donor Finder application by Neologix.

Plasma is the clear, straw-colored liquid portion of blood that remains after red blood cells, white blood cells, platelets and other cellular components are removed. It is the single largest component of human blood, comprising about 55 percent, and contains water, salts, enzymes, antibodies and other proteins. Composed of 90% water, plasma is a transporting medium for cells.

PROJECT OVERVIEW:

The necessity of blood has become a significant concern in the present context all over the world. Due to a shortage of blood, people couldn't save themselves or their friends and family members. A bag of blood can save a precious life. Statistics show that a tremendous amount of blood is needed yearly because of major operations, road accidents, blood disorders, including Anemia, Hemophilia, and acute viral infections like Dengue, etc. Approximately 85 million people require single or multiple blood transfusions for treatment.

PURPOSE:

The main goal of our project is to design a user-friendly web application that is like a scientific vehicle from which we can help reduce mortality or help those affected by COVID19 by donating plasma from patients who have recovered without approved antiretroviral therapy. Planning for a deadly COVID19 infection, plasma therapy is an experimental approach to treat those COVID-positive patients and help them recover faster. Therapy, which is considered reliable and safe. If a particular person has fully recovered from COVID19, they are eligible to donate their plasma.

CHAPTER 2

LITERATURE SURVEY

EXISTING SOLUTION:

There are a quite good number of software packages that exist for PLASMA DONOR APPLICATION system. But when I visited most plasma donor center system portal. I found that existing system is limited only to those particular plasma center.

Problem Found In Existing System

- At the present there is no software to keep any records in plasma center.
- It becomes difficult to provide any record immediately at times of emergency.
- 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.
- Difficult to manage and maintain the files.
- Chance of damage of files, if the data is stored in the files for duration of time.
- Time consuming is retrieving, storing and updating the data.
- It is difficult to keep track the record about the donor & receiver he has donated or received the plasma at the last time.

REFERENCES:

1.In year 2021, "A Systematic Review & Design of Web-Based Blood Management System".

AUTHORS: Gokul Dudani, Tanushree, Kajal Singh, Anushka Singh Chauhan.

Blood is a fluid that carries oxygen and is a connective tissue that carries other substances because of its volume. Now that we understand the importance of blood, we see that it not only carries oxygen to the tissues but also clears the air between them through the heart and blood vessels. The average volume of blood donation is 470ml per person, which is only 8% of the adult volume. When blood is needed in a hospital, it is usually not available in time, leading to inconsistencies. Both patients and sponsors are unaware that the donor is being hospitalized due to a lack of communication and other services.

A system like this is needed to close the communication gap between hospitals, blood banks, donors, and receptors. The main purpose of a web-based blood donation program is to ensure compliance with blood stock. In today's system, first and foremost the hand system, and when a person needs a blood type and that type is not available in that blood bank, it takes time to process blood from another blood bank, which may adversely affect the patient's health because time is critical in emergencies. Therefore, a web-based blood donation system is a good place to monitor whether a particular type of blood is available in a stack or not, as well as to provide a place where blood can be accessed.

2.In year 2021, "Web Based Online Blood Donation System".

AUTHORS: R. Kumar, R. Kumar and M. Tyagi.

This paper depicts a high level program to close the hole between blood givers and individuals needing blood. The online blood donation administration framework application is an approach to synchronize blood donation centers with emergency clinics with the assistance of the web. It is a web application where enlisted clinics can check the accessibility of the necessary blood and can send a blood solicitation to the closest blood donation center or comparable contributor as per the blood and can be controlled online through where fundamental. Blood donation center can likewise send a solicitation to another blood donation centers that isn't accessible.

Anybody willing to give blood can be found at the closest blood donation center utilizing the android bank the executive framework. Blood donation center can be followed

utilizing maps. The android application is simply accessible to benefactors to look for blood gifts and ask blood donation centers and clinics to search out blood donation center and close by givers.

3. In year 2020, “Towards an Efficient and Secure Blood Bank Management System”.

AUTHORS: P.A.J. Sandaruwan, U.D.L. Dolapihilla, D.W.N.R. Karunathilaka; W.A.D.T.L. Wijayaweera, W.H. Rankoth.

A blood bank plays an important role in a hospital as well as in a country, ensuring safe and timely blood transfusions. However, there are several challenges faced by blood banks around the world, specifically when securing the blood supply chain. Reducing the supply-demand imbalance, protecting the data privacy of donors as well as receivers, are some of them.

Therefore, there is a timely requirement for an effective and secure management system for the blood bank. We have proposed a management platform for the blood bank operations with the following modules: (1) forecast blood demand, (2) suggest blood donation campaign locations and (3) secure blood supply chain. The proposed platform has been implemented using techniques such as Long Short-Term Memory (LSTM), k-means clustering, Geographic Information Systems (GIS), and block chain. Our results show that using our proposed modules, we can minimize the imbalance between supply and demand of blood, find the most suitable donor in an emergency, and enhance the privacy of data.

4. In year 2018, “Automated blood bank system using Raspberry PI”.

AUTHORS: Ashlesha C. Adsul, V. K. Bhosale, R. M. Autee .

“Raspberry pi based blood bank system” proposed to bring blood donors to the one place. The aim of this system is fulfil every blood request by using android application and raspberry pi. In the proposed system, data about the donors will be collected by using android application and raspberry pi by installing systems at places such as hospitals, blood banks etc. These data will be stored in the database. User/Patients needs to access application and needs to enter his requirements about the blood in the application the requirements are matched with the database and message will be to that particular blood donor through GSM modem.

PROBLEM STATEMENT DEFINITION :

Domain Name: Cloud Application Development.

Project Name: Plasma Donor Application.

Who does the problem affect?

Patients with severe liver disorders and numerous clotting deficiencies are given plasma.

What is the issue?

When a patient needs plasma, it can be challenging to get in contact with a donor within the patient's family and friends in a timely manner. It can also be challenging to get in contact with authorized donor centers.

What is the impact of the issue?

Due to a lack of awareness regarding plasma donation, there is a demand for plasma donors, making it challenging for the affected patients to locate donors. During the COVID-19 pandemic, the need for plasma increased and the donor rates decreased in order to provide an immunity boost for COVID-affected patients.

What would happen if we didn't solve the problem?

It takes a long time for a patient to discover the proper donor, and it also takes time for the spreading about the need for plasma donors to disseminate on social media to a larger audience. As a result, patients cannot locate the right donor within a given time frame.

What would happen when it is fixed?

Our application enables patients with severe liver illnesses, blood clotting issues, and covid to quickly and easily locate the correct donor within the allotted period.

Why is it important that we fix the problem?

The condition of the affected patient may suffer and perhaps result in death, if the appropriate plasma donor cannot be found within a certain amount of time.

CHAPTER 3

IDEATION AND PROPOSED SOLUTION


EMPATHY MAP CANVAS:



IDEATION AND BRAINSTORMING:

STEP 1: TEAM GATHERING, COLLABORATION AND SELECT THE PROBLEM STATEMENT:

Template



Brainstorm & Idea prioritization

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

[How to prepare](#)
[The facilitator](#)
[Examples of ideas](#)

[Share template feedback](#)

1

Before you collaborate

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

10 minutes

2

Team gathering

Define who should participate in the session and send an invite. It's a relevant information for the whole team

3

Set the pace

Think about the goals you like focusing on during the brainstorming session

4

Learn how to use the facilitation tools

Use the Facilitation tools prepared to run a happy and productive session

[Open article](#)

5

Define your problem statement

What problem are you trying to solve? Prioritize your problem. How might we statement. This will be the focus of your session

15 minutes

problem

How might we (your problem statement)?

Key rules of brainstorming

To run an smooth and productive session

- Stay on topic
- Encourage wild ideas
- Defer judgment
- Listen to others
- Be generous
- If possible, be visual



New ideas Inspiration?

Discover a fresh version of this template to brainstorm your next idea

[Open example](#)

STEP 2: BRAINSTORM, IDEA LISTING AND GROUPING:

2

Brainstorm

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

10 minutes

To: You can generate sticky notes and write the ones (bullet points) that you are thinking

CONSUMER

user experience	feedback	feedback
feedback	feedback	feedback
feedback	feedback	feedback
feedback	feedback	feedback
feedback	feedback	feedback
feedback	feedback	feedback
feedback	feedback	feedback
feedback	feedback	feedback
feedback	feedback	feedback
feedback	feedback	feedback

TECHNICAL

technical	technical	technical
technical	technical	technical
technical	technical	technical
technical	technical	technical
technical	technical	technical
technical	technical	technical
technical	technical	technical
technical	technical	technical
technical	technical	technical
technical	technical	technical

MARKETING

marketing	marketing	marketing
marketing	marketing	marketing
marketing	marketing	marketing
marketing	marketing	marketing
marketing	marketing	marketing
marketing	marketing	marketing
marketing	marketing	marketing
marketing	marketing	marketing
marketing	marketing	marketing
marketing	marketing	marketing

VISIONARY

visionary	visionary	visionary
visionary	visionary	visionary
visionary	visionary	visionary
visionary	visionary	visionary
visionary	visionary	visionary
visionary	visionary	visionary
visionary	visionary	visionary
visionary	visionary	visionary
visionary	visionary	visionary
visionary	visionary	visionary

3

Group Ideas

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

30 minutes

Technical Implementation

user-friendly application

low bandwidth of device

loading the application

location-based device matching

UI/UX section

importance of navigation

little section the user will

POC section for server

To keep donors engaged

collaborative process

donation review

Public exposure

donation camp

benefits of donation camp

Methods

user testimonials

verification of user profiles

device

To: Add some sticky notes to sticky notes made to see if the donor organizes and categorizes important ideas as they go along with you.

STEP 3: IDEA PRIORITIZATION:

4

Prioritize

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

3D view

Importance

Feasibility

Favorites

Importance of the idea, which is a measure of how much it matters to the user.

Feasibility of the idea, which is a measure of how easy it is to implement.

Boxes on the grid:

- provide a virtual demand card for donor
- donation process does and don't
- make a donation appointment
- real-time details of donors
- verification of donor details
- physical evaluation of each before and after donation
- donor history of donation
- donors can modify their profile
- donor-based donor available
- donation awareness program
- some requests for the request plasma type
- hover to section for new user
- besting medical donor

Tip

Donors can use their current profile when they want to give on the grid. The donor can see the profile using the user profile icon on the top bar.

5

After you collaborate

You can export the mural as an image or pdf to share with members of your company who might find it helpful.

Quick add-ons

- Share the mural: Share a view link to the mural with stakeholders to keep them in the loop about the outcomes of the session.
- Export the mural: Export a copy of the mural as a PNG or PDF to share in emails, slides in slides, or save in your drive.

Keep moving forward

- Strategy blueprint:** Define the components of a new idea or strategy. [Open the template](#)
- Customer's journey map:** Understand customer needs, motivations, and obstacles for an experience. [Open the template](#)
- Strengths, weaknesses, opportunities & threats:** Identify strengths, weaknesses, opportunities, and threats (SWOT) to develop a plan. [Open the template](#)

[Share template feedback](#)

PROPOSED SOLUTION:

S No	Parameter	Description
1.	Problem Statement (Problem to be solved)	<p>During the COVID 19 crisis, the need for plasma increased, while the number of donors has decreased.</p> <p>To create an application for people who want to donate their plasma for the people who need it mostly in times of emergency.</p>
2.	Idea / Solution description	<p>Plasma donor is an application which will make things easier and efficient at crucial times and to solve our problem statement.</p> <p>The application will allow people to register in the portal to donate their plasma, and recipients who need it will be able to see their information so that they can receive the plasma.</p>
3.	Novelty / Uniqueness	<p>If there isn't enough plasma available when the user makes a request for plasma transmission, the user will be put on a hold back list right away.</p> <p>The waiting receiver on the hold back list will be informed via calling system later when plasma becomes available.</p>
4.	Social Impact/ Customer Satisfaction	<p>Anyone with a basic understanding of computer usage can utilise the application.</p> <p>The programme easily connects the plasma donor with the recipient of the donation as well as hospitals with available plasma.</p>
5.	Business Model (Revenue Model)	<p>The software is free to use and is under the healthcare category. It aids those seeking to provide plasma to those in need.</p> <p>The cost of creating the application is decreased overall because of the ability to store data in the cloud using IBM DB2.</p>
6.	Scalability of the Solution	<p>The application is useful for the people who need plasma for their health concerns. Since the app is going to store its data in cloud, it will continue to be efficient when a large number of people uses it.</p> <p>Also when the number of requests for plasma increases, the call notification system will work fine without any disruption.</p>

PROBLEM SOLUTION FIT:

1. CUSTOMER SEGMENT(S) <ul style="list-style-type: none"> • Donors • Patient • Hospitals 	6. CUSTOMER CONSTRAINTS <ul style="list-style-type: none"> • Regular Internet connection • Donor health condition • Unavailability of plasma 	5. AVAILABLE SOLUTIONS <p>The existing application used only collecting details of donors but it does not notify them at the right time.</p> <p>Our solution is building a website that notifies the donors at the right time.</p>
2. JOBS-TO-BE-DONE/PROBLEMS <ul style="list-style-type: none"> • Difficult to find donors at the right time / at the time of emergency. • Donors not aware of plasma requirements. 	9. PROBLEM ROOT CAUSE <ul style="list-style-type: none"> • 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 notified at the right. 	7. BEHAVIOUR <p>The customer comes forward to</p> <ul style="list-style-type: none"> • Attend plasma donation camps. • Donate plasma • The hospital management/ patient is able to find plasma donors at the right time.
3. TRIGGERS <p>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.</p>	10. YOUR SOLUTION <p>Creating website which will provide information about available donors and plasma. If not available, the customer will be notified when plasma is available.</p>	8. CHANNELS OF BEHAVIOUR <p>Online:</p> <p>Can use the website to find donors.</p> <p>Offline:</p> <p>Can use the record maintain by the hospital.</p>
4. EMOTIONS: BEFORE/AFTER <p>Before: Patient/ hospital find it hard to get a right resource to get plasma leaving them upset.</p> <p>After: The donors and customers have a feeling of satisfaction.</p>		

CHAPTER 4

REQUIREMENT ANALYSIS

FUNCTIONAL REQUIREMENT:

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. Registration through mobile/ laptop/ PC.
FR-2	User Confirmation	Confirmation via Email. Confirmation via OTP.
FR-3	User Login	Login using Registered email Id. Login using Mobile number.
FR-4	Plasma Request	The recipient will contact the donor if plasma is needed.
FR-5	Contacting the Donor	If a phone number is provided, they can call the donor directly.
FR-6	View donation camps	Check out the list of donation camps in your area.

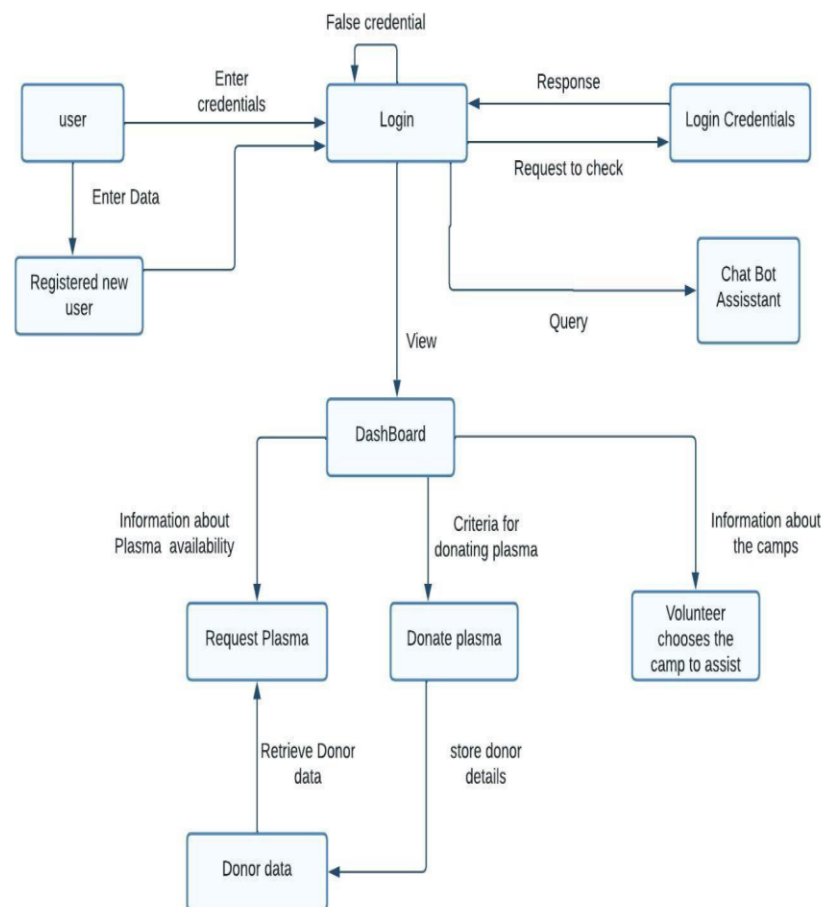
NON-FUNCTIONAL REQUIREMENTS:

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

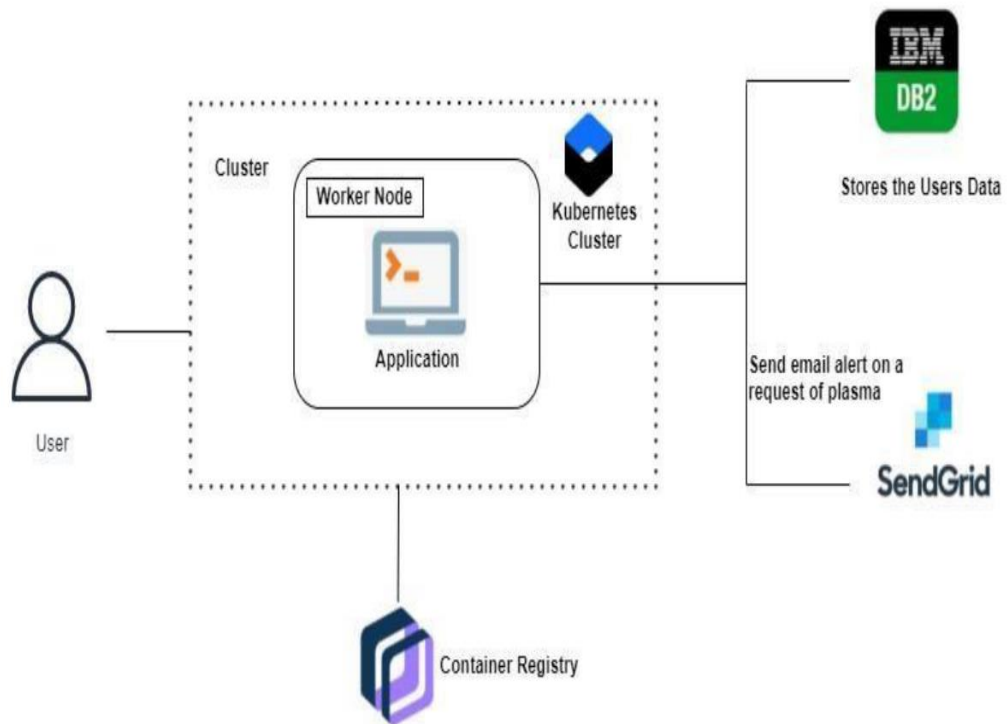
FR No.	Non-Functional Requirement	Description
NFR-1	Usability	The plasma donor system's user interface needs to be user-friendly and well-designed.
NFR-2	Security	Applications can access all the donor data that databases can store. An email ID and password are required to secure it.
NFR-3	Reliability	The system should be made in such a way that it is reliable in its operations and for securing the sensitive details.
NFR-4	Performance	We know that donating blood saves lives, therefore we wanted to give users what they need to donate blood. 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 online and offline components should be available for 24/7.
NFR-6	Scalability	The application has the ability to handle growing numbers of users and load without compromising on performance and causing disruptions to user experience.

CHAPTER 5
PROJECT DESIGN
DATA FLOW DIAGRAMS

DATA FLOW DIAGRAM:



SOLUTION AND TECHNICAL ARCHITECTURE:



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, and confirming my password.	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Sprint-1
		USN-3	As a user, I can register for the application through Gmail	I can receive confirmation notifications through Gmail	Medium	Sprint-1
	Login	USN-4	As a user, I can log into the application by entering email & password	I can access into my User profile and view details in dashboard.	High	Sprint-1
	Dashboard	USN-5	As a user, I can send the proper requests to donate and obtain plasma.	I can receive appropriate notifications through email	High	Sprint-1
Customer (Web user)	Login	USN-6	As a user, I can register and log into the application by entering email & password to view the profile	I can access into my user profile and view details in dashboard.	High	Sprint-1
	Dashboard	USN-7	As a user, I can send the proper requests to donate and obtain plasma.	I can receive appropriate notifications through email.	High	Sprint-1
Customer Care Executive	Application	USN-8	As a customer care executive, I can try to address user's concerns and questions	I can view and address their concerns and questions.	Medium	Sprint-2
Administrator	Application	USN-9	As an administrator I can help with user-facing aspects of a website, like its appearance, navigation and use of media.	I can change the appearance and navigation in a user friendly manner	Medium	Sprint-3
		USN-10	As an administrator, I can involve working with the technical side of websites.	I can help with such as troubleshooting issues, setting up web hosts, ensuring users have access and programming servers.	Medium	Sprint-1
User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Chatbot	Dashboard	USN-11	In addition the Customer care executive, chatbot can try to address user's concerns and questions	I can reply to all the queries related to our application	Medium	Sprint-3

CHAPTER 6

PROJECT DESIGN AND SCHEDULING

SPRINT PLANNING & ESTIMATION:

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Registration	USN-1	A user can register for the application by entering their email, password, and confirming the password.	3	High	Aravindh Abishek Ajeyan Gokul
Sprint-1	Email verification	USN-2	A user will receive confirmation email once they have registered for the application.	3	High	Aravindh Abishek Ajeyan Gokul
Sprint-1		USN-3	A user can register for the application through Google	2	Medium	Aravindh Abishek Ajeyan Gokul
Sprint-1	Login	USN-4	A user can log into the application by entering email & password	2	High	Aravindh Abishek Ajeyan Gokul
Sprint-1	Donor Profile	USN-5	A user is able to register themselves as verified plasma donor.	3	High	Aravindh Abishek Ajeyan Gokul
Sprint-2	Virtual Certificate	USN-6	A user will get a virtual donor certificate after a verified successful plasma donation.	2	Medium	Aravindh Abishek Ajeyan Gokul

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-2	Plasma Request	USN-7	A verified clinic is able to make a plasma request in the application	3	High	Aravindh Abishek Ajeyan Gokul
Sprint-2	Verification of Donor's details	USN-8	We the administrators will verify the details provided by the donors so only the genuine donors are able to use the application	2	Medium	Aravindh Abishek Ajeyan Gokul
Sprint-3	Accept the donation request	USN-9	A user and a registered donor will get a notification to accept the plasma request for their specific blood type.	3	High	Aravindh Abishek Ajeyan Gokul
Sprint-3	Communication Channel	USN-10	A patient is able to communicate with the donor personally within the application.	3	Medium	Aravindh Abishek Ajeyan Gokul
Sprint-3		USN-11	A user and a registered donor is able to share their location with the recipient after accepting their plasma request.	3	Medium	Aravindh Abishek Ajeyan Gokul
Sprint-3	Administrator	USN-12	An admin will store the registered donor's details after verification into the database.	3	High	Aravindh Abishek Ajeyan Gokul
Sprint-4	Support	USN-13	A user is able to ask basic question related to plasma donation with the help of chat-bots	2	Medium	Aravindh Abishek Ajeyan Gokul

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-4		USN-14	A user can find the answers for the frequently asked question about the plasma donation in the FAQ section	3	High	Aravith, Abishek Ajeyan Gokul
Sprint-4	About	USN-15	A new user can read about plasma and plasma donation in dedicated about section.	2	Medium	Aravith Abishek Ajeyan Gokul
Sprint-4	Administrator	USN-16	An admin will approve all the plasma transaction in the application after proper verification	3	High	Aravith Abishek Ajeyan Gokul
Sprint-4		USN-17	An admin, I will update the plasma availability and donors count periodically	3	Medium	Aravith Abishek Ajeyan Gokul

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

Velocity:

Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

$$AV = \frac{\text{sprint duration}}{\text{velocity}} = \frac{20}{10} = 2$$

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)	Average Velocity (AV) = Sprint duration / velocity
Sprint-1	18	6 Days	24 Oct 2022	29 Oct 2022	18	29 Oct 2022	3
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	05 Nov 2022	3.33
Sprint-3	18	6 Days	07 Nov 2022	12 Nov 2022	18	12 Nov 2022	3
Sprint-4	18	6 Days	14 Nov 2022	19 Nov 2022	18	19 Nov 2022	3

Total number of days = sprint 1 + sprint 2 + sprint 3 + sprint 4 = 6 + 6 + 6 + 6 = 24

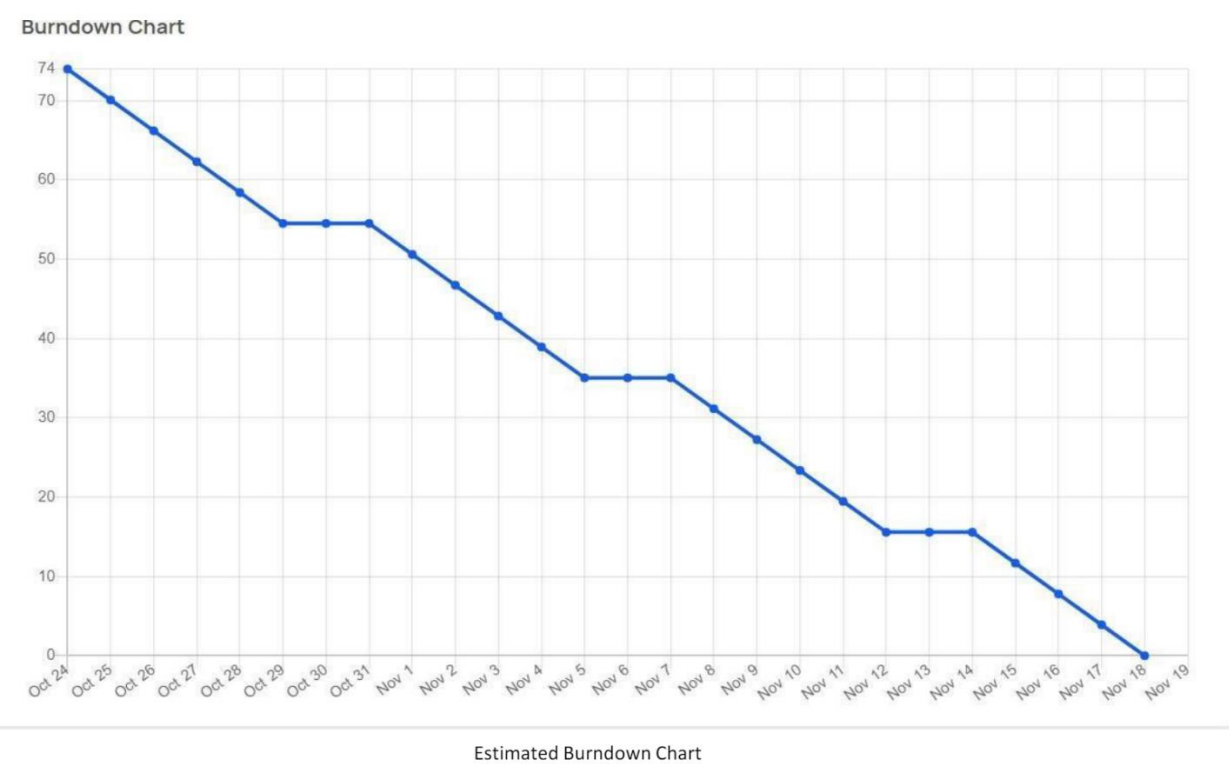
Total number of story points = 18 + 20 + 18 + 18 = 74

Average velocity per sprint = 74 / 24

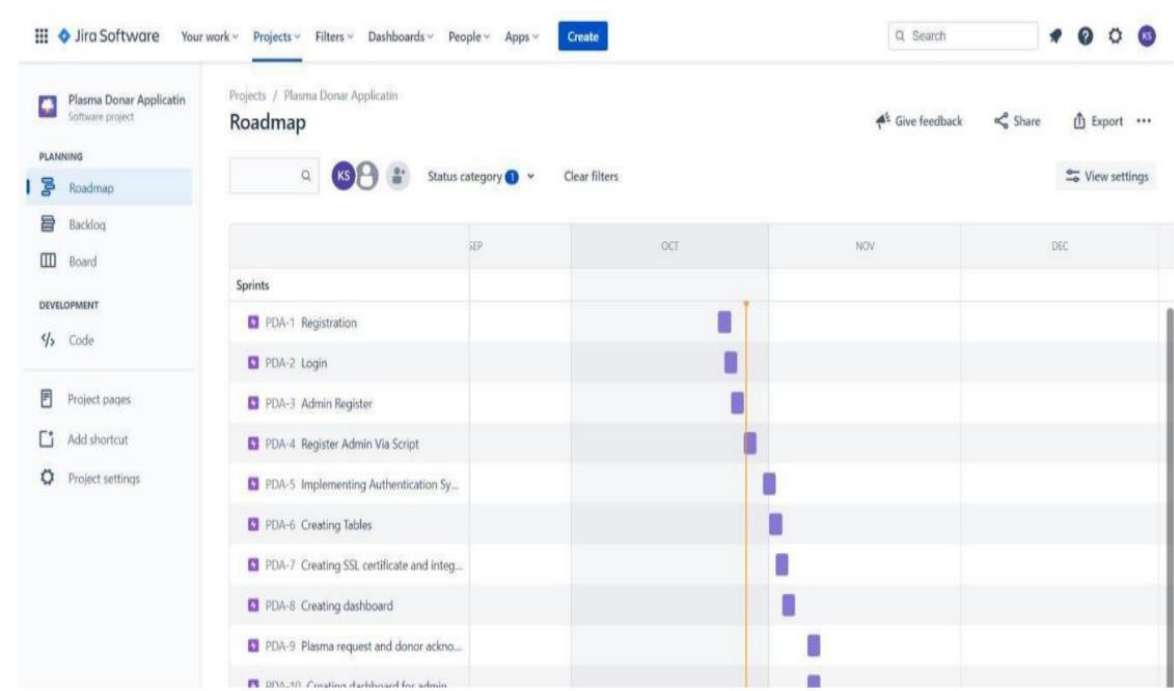
≈ 3.083333

= 3

BURNDOWN CHART:



REPORTS FROM JIRA:



CHAPTER 7

CODING AND SOLUTIONING

FEATURE 1:

LOGIN:

```
<!DOCTYPE html>

<html >

<!--From https://codepen.io/frytyler/pen/EGdtg-->

<head>

  <meta charset="UTF-8">

  <title>IBM Donor App</title>

  <link      href='https://fonts.googleapis.com/css?family=Pacifico'      rel='stylesheet'
type='text/css'>

  <link      href='https://fonts.googleapis.com/css?family=Arimo'        rel='stylesheet'
type='text/css'>

  <link      href='https://fonts.googleapis.com/css?family=Hind:300'      rel='stylesheet'
type='text/css'>

  <link      href='https://fonts.googleapis.com/css?family=Open+Sans+Condensed:300'
rel='stylesheet' type='text/css'>

  <link rel="stylesheet" href="{{ url_for('static', filename='style.css') }}">

<style>

.login{
top: 20%;
}

</style>

</head>

<body>

<div class="header">

<div>Plasma Donor App</div>

  <ul>
```

```

        <li><a href="/registration">Register</a></li>
        <li><a class="active" href="/login">Home</a></li>
    </ul>
</div>
<div class="login" >
    <div>
        </div>
    </div>

    <!-- Main Input For Receiving Query to our ML -->
    <form action="{{ url_for('loginpage')}}" method="post">
        <input type="text" name="username" placeholder="Enter UserName"
        required="required" style="color:black" />
        <input type="password" name="password" placeholder="Enter Password"
        required="required" style="color:black" />
        <button type="submit" class="btn btn-primary btn-block btn-large">Login</button>
    </form>
<br><br>
<div style="color:black">
    {{ msg }}</div>
</div>
</body>
</html>

```

FEATURE 2:

REGISTER:

```

<!DOCTYPE html>
<html >
<!--From https://codepen.io/frytyler/pen/EGdtg-->
<head>
    <meta charset="UTF-8">
    <title>IBM Plasma Donor App</title>

```

```

        <link      href='https://fonts.googleapis.com/css?family=Pacifico'      rel='stylesheet'
type='text/css'>

        <link      href='https://fonts.googleapis.com/css?family=Arimo'      rel='stylesheet'
type='text/css'>

        <link      href='https://fonts.googleapis.com/css?family=Hind:300'      rel='stylesheet'
type='text/css'>

        <link      href='https://fonts.googleapis.com/css?family=Open+Sans+Condensed:300'
rel='stylesheet' type='text/css'>

        <link rel="stylesheet" href="{{ url_for('static', filename='style.css') }}">

<style>
.login{
top: 20%;
}
</style>
</head>
<body>
<div class="header">
<div>Plasma Donor App</div>

        <ul>

                <li><a class="active" href="/login">Home</a></li>

        </ul>

</div>

<div class="login">

        <!-- Main Input For Receiving Query to our ML -->

        <form action="{{ {{ url_for('register') }}"method="post">

                <input      type="text"      name="username"      placeholder="Enter      Your      Name"
required="required" style="color:black"/>

                <input type="email" name="email" placeholder="Enter Email" required="required"
style="color:black"/>

                <input type="text" name="phone" placeholder="Enter 10-digit mobile number"
required="required" style="color:black"/>

```



```

        <input type="city" name="city" placeholder="Enter Your City Name"
required="required" style="color:black"/>
        <select name="infect">
        <option value="select" selected>Select COVID infection status</option>
        <option value="infected">Infected</option>
        <option value="uninfected">Uninfected</option>
        </select>
<select name="blood">
        <option value="select" selected>Choose your blood group</option>
        <option value="O Positive">O Positive</option>
        <option value="A Positive">A Positive</option>
        <option value="B Positive">B Positive</option>
        <option value="AB Positive">AB Positive</option>
        <option value="O Negative">O Negative</option>
        <option value="A Negative">A Negative</option>
        <option value="B Negative">B Negative</option>
        <option value="AB Negative">AB Negative</option>
        </select>
        <input type="password" name="password" placeholder="Enter Password"
required="required" style="color:black"/>
        <button type="submit" class="btn btn-primary btn-block btn-large">Register</button>
    </form>
    <br><br>
<div style="color:black">
    {{ msg }}</div>
</div>
</body>
</html>

```

DASHBOARD:

```
<!DOCTYPE html>

<html lang="en">

<head>

  <title>IBM Plasma Donar App</title>

  <meta charset="utf-8">

  <meta name="viewport" content="width=device-width, initial-scale=1">

  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">

  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>

  <script
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.16.0/umd/popper.min.js"></script>

  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"></script>

  <link rel="stylesheet" href="{ { url_for('static', filename='style.css') } }">

</head>

<style>

    .big{

    top:70;

    background-color:white;

    margin-top:80px;

    margin-left:550px;

    margin-right:550px;

    height:200px;

    border-radius: 25px;

    border: 3px solid #4a77d4;

    box-shadow: 6px 8px 4px grey;

    text-align:center;

    }

    .row{

    height:150px;

    }
```

```

.col{
    margin:10px;
    margin-left:50px;
    margin-right:50px;
    border-radius: 25px;
    border: 1px solid #4a77d4;
    box-shadow: 0px 8px 4px grey;
    text-align:center;
}
.ext{
margin-top:25px;
line-height:40px;
}
.ext1{
margin-top:40px;
line-height:50px;
font-size:25px;
color:#f95450;
}

```

```
</style>
```

```
<body>
```

```
<div class="container-fluid">
```

```
<div class="header">
```

```
<div><b>Plasma Donar App</b></div>
```

```
<ul>
```

```
<li><a href="/requester">Request</a></li>
```

```
<li><a class="active" href="/logout">Logout</a></li>
```

```
</ul>
```

```
</div>
```

```

<br>
<div class="big">
  <div class="box">
<div class="ext1"><font size="20px">{{b['1']}}</font><br><b>Donors</b></div>
  </div>
</div>
<br>
<div class="row">
  <div class="col" >
    <div class="ext">{{b['2']}}<br><b>O Positive</b></div>
  </div>
  <div class="col" >
    <div class="ext">{{b['3']}}<br><b>A Positive</b></div>
  </div>
  <div class="col" >
    <div class="ext">{{b['4']}}<br><b>B Positive</b></div>
  </div>
  <div class="col" >
    <div class="ext">{{b['5']}}<br><b>AB Positive</b></div>
  </div>
</div>
<br>
<div class="row">
  <div class="col" >
    <div class="ext">{{b['6']}}<br><b>O Negative</b></div>
  </div>
  <div class="col" >
    <div class="ext">{{b['7']}}<br><b>A Negative</b></div>
  </div>
  <div class="col" >

```

```
<div class="ext">{{b['8']}}<br><b>B Negative</b></div>
</div>
<div class="col" >
    <div class="ext">{{b['9']}}<br><b>AB Negative</b></div>
    </div>
</div>
<div style="height:200px"></div>
</div>
</body>
</html>
```

CHAPTER 8

TESTING

TEST CASE:

Test cases are a set of actions performed on a system to determine if it satisfies software requirements and functions correctly as it claimed to perform.

USER ACCEPTANCE TESTING:

1.PURPOSE OF THE DOCUMENT:

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

2.DEFECT ANALYSIS:

This report shows the number of resolved or closed bugs at eachseverity level, and how they were resolved.

Resolution	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
By Design	10	4	2	8	15
Duplicate	1	0	3	0	4
External	2	3	0	1	6
Fixed	9	2	4	11	20
Not Reproduced	0	0	1	0	1
Skipped	0	0	1	1	2
Won't Fix	0	5	0	1	8
Totals	22	14	11	22	51

3.TEST CASE ANALYSIS:

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

Section	Total Cases	Not Tested	Fail	Pass
Print Engine	9	0	0	9
Client Application	10	0	0	10
Security	1	0	0	1
Outsource Shipping	0	0	0	0
Exception Reporting	9	0	0	9
Final Report Output	9	0	0	9
Version Control	1	0	0	1

CHAPTER 9

RESULT

PERFORMANCE METRICS:

- **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 maintaining 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** - interaction with the software Such as Net Promoter Score (NPS), Customer Effort Score (CES) and Customer Satisfaction Score (CSAT).

CHAPTER 10

ADVANTAGES AND DISADVANTAGES

ADVANTAGES:

- Easy connecting donors and recipients makes blood donation way more proficient.
- Prime motive of the app is to solve the perpetual shortfall of blood donors.
- It connects blood donors and recipients through a single and scalable platform.
- Effortless access: Users on this platform will be able to use the app with just One-click.
- Easy registrations through the mobile app will help getting quick access from both ends.

DISADVANTAGES:

- **Internet:** It would require an internet connection for the working of the Website.
- **Auto-Verification:** It cannot automatically verify the genuine users.

CHAPTER 11

CONCLUSION

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 immune globulin 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.

The efficient way of finding plasma donor for the infected people is implemented using the plasma donor website that is hosted on AWS platform. To ensure the smooth functioning of the website operations.

I have hosted the website in AWS platform to make sure the operations are running successfully AWS lambda function is used and to deploy the application AWS EC2 service is used.

CHAPTER 12

FUTURE SCOPE

The sole purpose of this project is to develop a computer system that will link all donors, control a blood transfusion service and create a database to hold data on stocks of blood in each area. Furthermore, people will be able to see which patients need blood supplies via the android application.

One important future scope is availability of location-based blood bank details and extraction of location-based donor's detail, which is very helpful to the acceptant people.

To be able to deposit donated blood into inventory when donations are made. To be able to create, update, delete, and retrieve request records from hospitals to manage hospital requests for blood. To be able to create, update, delete, and query hospital's records in order to manage hospital information.

CHAPTER 13

APPENDIX

SOURCE CODE:

GITHUB LINK :

<https://github.com/IBM-EPBL/IBM-Project-38479-1660381364>