

Project Report

Plasma Donor Application

1. INTRODUCTION

a. Project Overview

In this project we are preparing a cloud application in which the customers can get the details of the donor which was stored in the cloud before. Our project was a done in a secured cloud-based project in which the details can't be taken by others who are not authorized.

b. Purpose

Here our application can show all the details of the donor and it makes easy to select the donor who is fit for our type. The main purpose for preparing this application was to make the donation process fast and clean

2. LITERATURE SURVEY

a. Existing problem

A patient in need of blood plasma was trying to contact a donor to help him with blood plasma, but he cannot find one easily as it takes long time and hardly possible. Because the donors are far away from him and they are not ready for him. This can make him feel disheartened and Anger.

b. References

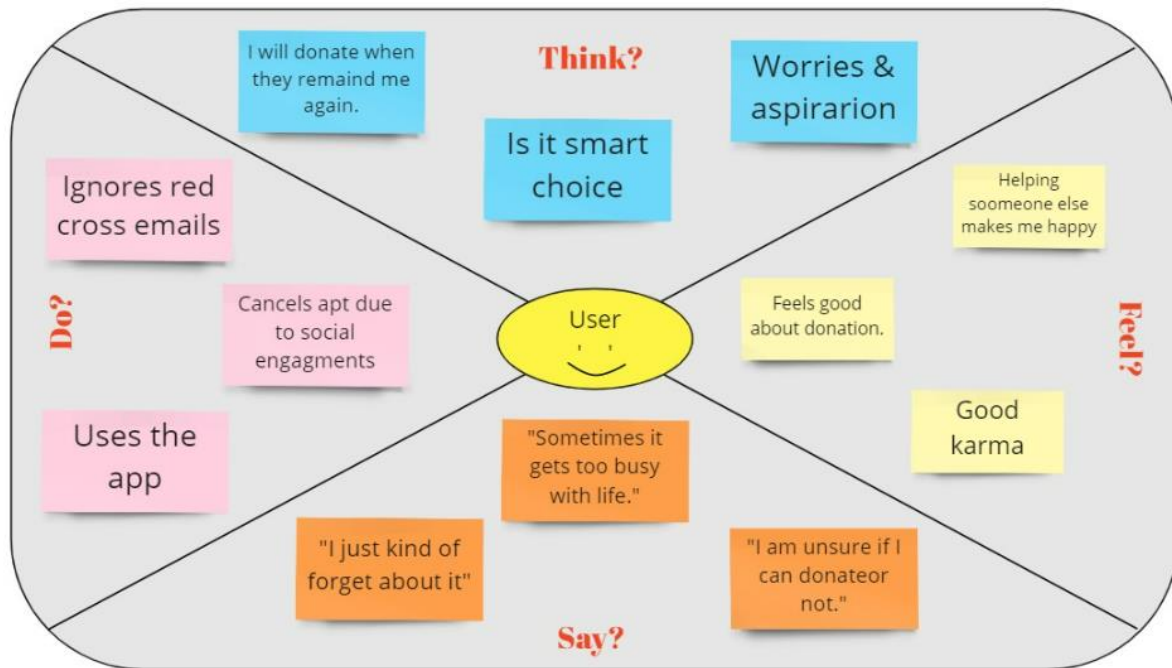
By collecting the data from google and asking hospital management help me in this reference.

c. Problem Statement Definition

A problem statement is a concise description of the problem or issues a project seeks to address. The problem statement identifies the current state, the desired future state and any gaps between the two. A problem statement is an important communication tool that can help ensure everyone working on a project knows what the problem they need to address is and why the project is important.

3. IDEATION & PROPOSED SOLUTION

a. Empathy Map Canvas



milo

b. Ideation & Brainstorming

1 PROBLEM STATEMENT

PROBLEM
How might we handle to create an application fully dedicated for Plasma Donation?

2 BRAINSTORM

We want:

- Using hospital/clinic organization to improve the service.
- Chatbot service can be included to clear doubts about plasma donation.
- Features like history of the donations made, finding donor's location using GPS.
- Only donors from the age of 18 having a valid ID can register in the application.
- Rapid contacting features can be added when there is an immediate need of plasma.
- By using location detecting features, one can be able to find accurate location of the donor.
- Organizing various activities to promote the application's interest among the people.
- Details such as gender, D.O.B, age, contact details are collected and stored in database.
- Verifications are to be made at registration stage in order to make the donation.
- To ensure and verify whether the donor is free from any other cautionary diseases.
- The exact date of the plasma extraction must be mentioned in his profile.
- The user during the initial stage of registration should give whether it is his first time or a repeat or already donated person.

We need:

- Only donors from the age of 18 having a valid ID can register in the application.
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3 GROUP IDEAS

APP INTERFACE

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REGISTRATION STAGES

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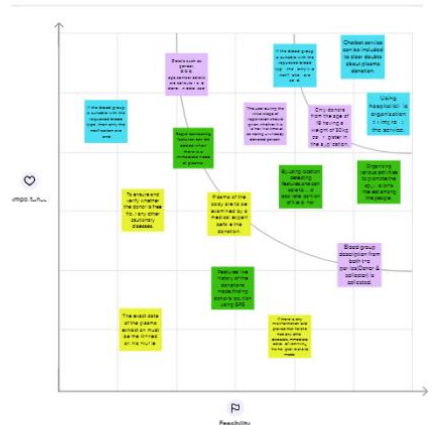
FEATURES

- Features like history of the donations made, finding donor's location using GPS.
- Rapid contacting features can be added when there is an immediate need of plasma.
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- Organizing various activities to promote the application's interest among the people.

SAFETY MEASURES

- Plasma of the body are to be examined by a medical expert before the donation.
- To ensure and verify whether the donor is free from any other cautionary diseases.
- The exact date of the plasma extraction must be mentioned in his profile.
- The user during the initial stage of registration should give whether it is his first time or a repeat or already donated person.

4 PRIORITIZE



S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	The problem is to make the donors and to tell how can he make donations.
2.	Idea / Solution description	The solution is to create an app that stores the data of the donors and that app makes a platform where donor patient and hospital management can contact each other, which makes the process easy.
3.	Novelty / Uniqueness	Our application is not only for hospital management it can also be used by patients and donors thought they can't access every data about patients.
4.	Social Impact / Customer Satisfaction	We made this application to make the customer satisfied by reducing there making his/her process and time taken by them.
5.	Business Model (Revenue Model)	Our application generates revenue from hospital management users, and By advertisements.
6.	Scalability of the Solution	The data which will be uploaded by the donor or hospital will be less in size by compressing it.so, the server can handle so much data of lakhs of users so the scalability won't be a problem.

d. Problem Solution fit

Define CS, fit into CC	1. CUSTOMER SEGMENT(S) Patients , Public & Private Hospital Management.	6. CUSTOMER CONSTRAINTS The customer constraints for using web application:- > Network usage. > Electronic device (Mobile, Laptop, Desktop) > Power utilization. > Time will be spent longer if there is no data available..	5. AVAILABLE SOLUTIONS The issue is determining where they should go to give. Our application will Reduce these issues by informing them of the exact place where they may and should donate plasma. PROS: It will make the procedure simple and quick. CONS: Availability is usually variable. It is difficult to discover donors when there are none available.	Explore AS, differentiate

Focus on J&P, map into BE, understand RC	2. JOBS-TO-BE-DONE / PROBLEMS Plasma is provided to plasma seekers, and the availability of plasma is known through this application, including how long it will take to arrive and what type it will be. This Jobs are done through this application.	9. PROBLEM ROOT CAUSE This problem is raised because lack of plasma donors during COVID19 crisis. During the COVID 19 crisis, the requirement of plasma became a high priority and the donor count has become low.	7. BEHAVIOUR The user should open the application and sign up for the application. After signing up for the application, the user should see the availability of donors in the application if he/she needs plasma. If the user needs to donate, the user must go through another type of procedure, which includes the same procedure as the plasma seeker.	Focus on J&P, map into BE, understand RC

Identify strong TR & EM	3. TRIGGERS User can engage through this type of triggers 1. Your one donation can give 3 people another chance of life. 2. Earning Badge for highest Plasma Donation.	10. YOUR SOLUTION Because of the COVID 19 issue, the need for plasma has increased recently. As a result of this scenario, the Plasma Donor Application will assist in saving people's lives by providing plasma at the appropriate time.	8. CHANNELS of BEHAVIOUR 8.1 ONLINE The user should open the application and sign up for the application. After signing up for the application, the user should see the availability of donors in the application if he/she needs plasma. If the user needs to donate, the user must go through another type of procedure, which includes the same procedure as the plasma seeker. 8.2 OFFLINE After approving the donor's request, Hospital Management should visit with the donor to collect plasma. Either Donor Could meet Hospital Management to deliver plasma.
	4. EMOTIONS: BEFORE / AFTER Hospital Management were having difficulty receiving plasma of their type prior to the application, and there won't be many of them who don't know how to donate their plasma by these patients in need who were emotionally afraid about their situation. But now with our application, those who do not know how to donate their plasma will find it easier to do so, and it will be very helpful for the patient to get the type of plasma that they require. This thing makes it easy and makes Hospital Management happy.		

4. REQUIREMENT ANALYSIS

a. Functional requirement

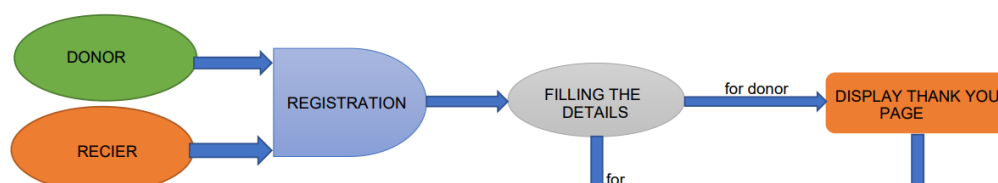
FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through website (or) application.
FR-2	User Confirmation	Confirmation via Email by sending verification code to mail.
FR-3	User Login	Login through registered email id.
FR-4	Send Request	Plasma donor will receive a notification whenever the receiver requests.
FR-5	Contact Donor	If it is emergency hospital management can contact the donor directly.

b. Non-Functional requirements

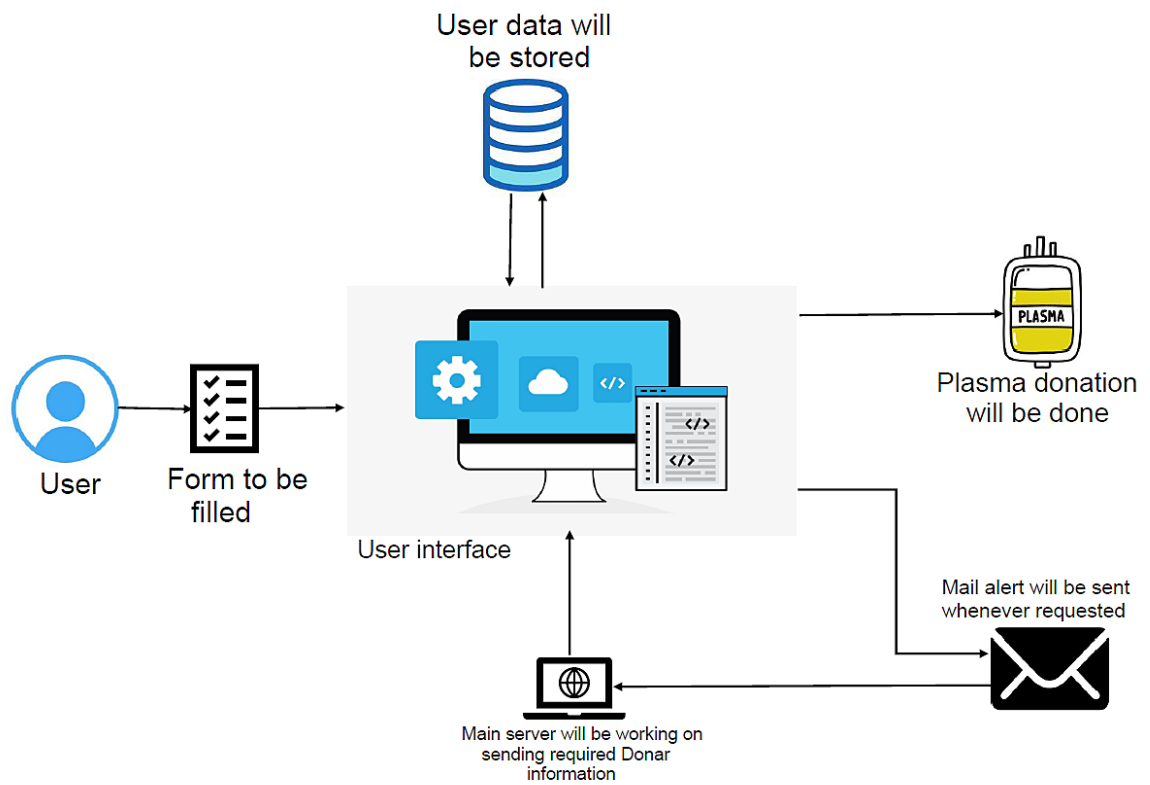
NFR No.	Non-Functional Requirement	Description
NFR-1	Usability	It will be easy to use and it will be quick to make a request.
NFR-2	Security	The users/donor details are stored in the cloud and it is encrypted with the user email id and password
NFR-3	Reliability	The system has the ability to work all the times without failure apart from network failure. The contact list of the donor are provided
NFR-4	Performance	The plasma donor application works well in every emergency situation. The easy interactive with the user and less interrupts
NFR-5	Availability	The plasma Application is an online web application and its monitor's 24/7.
NFR-6	Scalability	The application can store so much data in the cloud And it will be encrypted.

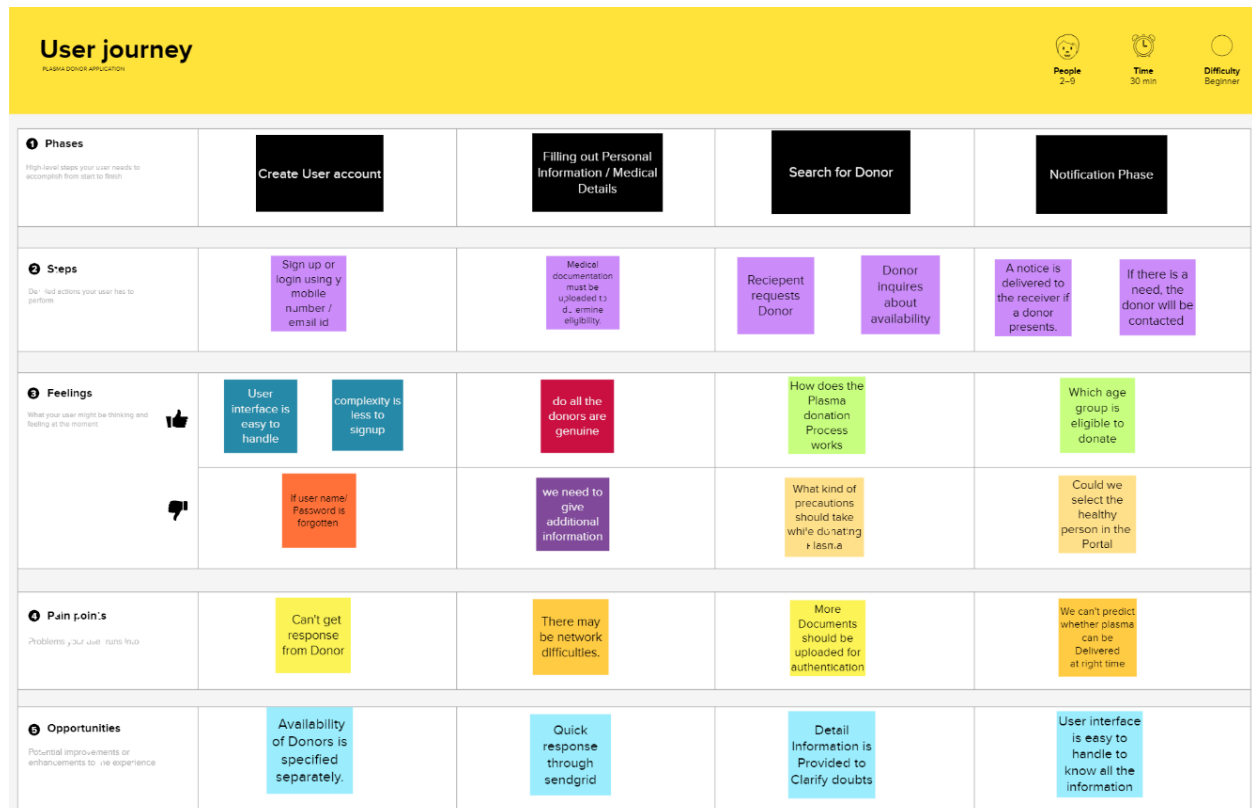
5. PROJECT DESIGN

a. Data Flow Diagrams



b. Solution & Technical Architecture



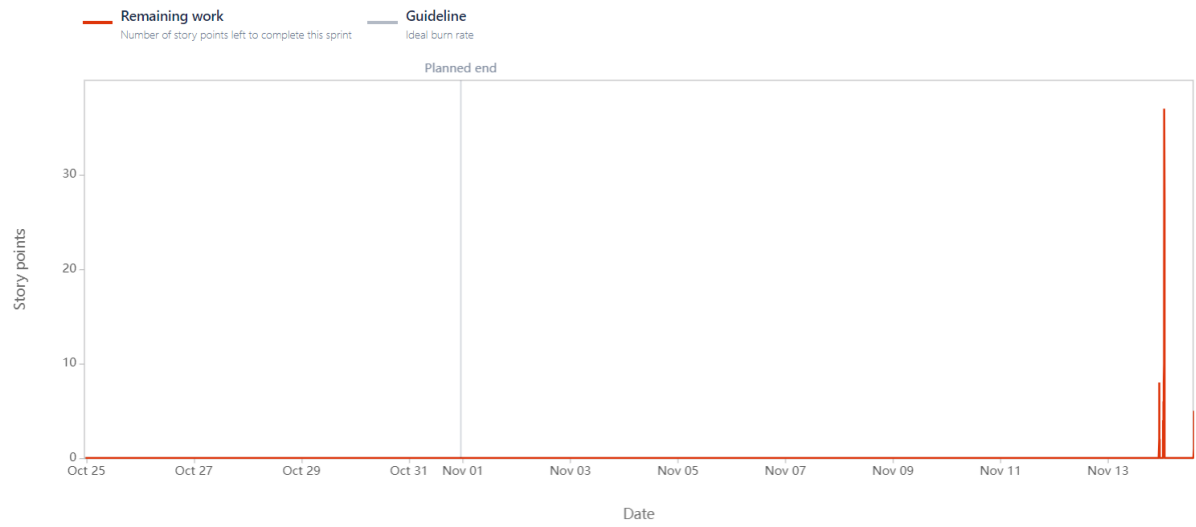


6. PROJECT PLANNING & SCHEDULING

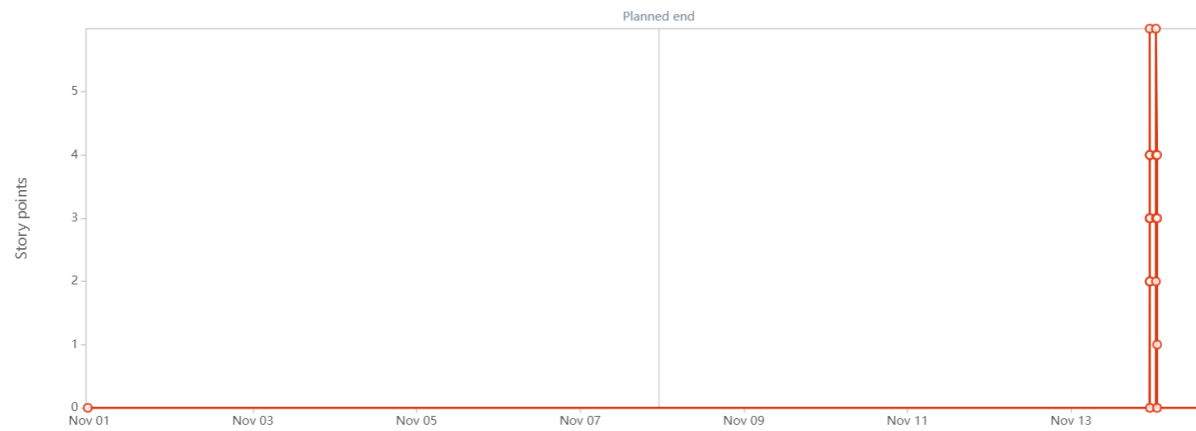
a. Sprint Planning & Estimation

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Simulation creation	USN-1	Connect with python code	2	High	Yaswanth.V.P Kunaal Shaik S.Nadeem Basha Sai Kiran.M
Sprint-2	Software	USN-2	Creating an IBM Watson in Cloud platform	2	High	Yaswanth.V.P Kunaal Shaik S.Nadeem Basha Sai Kiran.M
Sprint-3	MIT App Inventor	USN-3	Develop an Plasma donor application	2	High	Yaswanth.V.P Kunaal Shaik S.Nadeem Basha Sai Kiran.M
Sprint-4	Dashboard	USN-4	Design the Modules and test	2	High	Yaswanth.V.P
Sprint-5	Web UI	USN-5	To make the user to interact with software.	2	High	Yaswanth.V.P Kunaal Shaik S.Nadeem Basha Sai Kiran.M

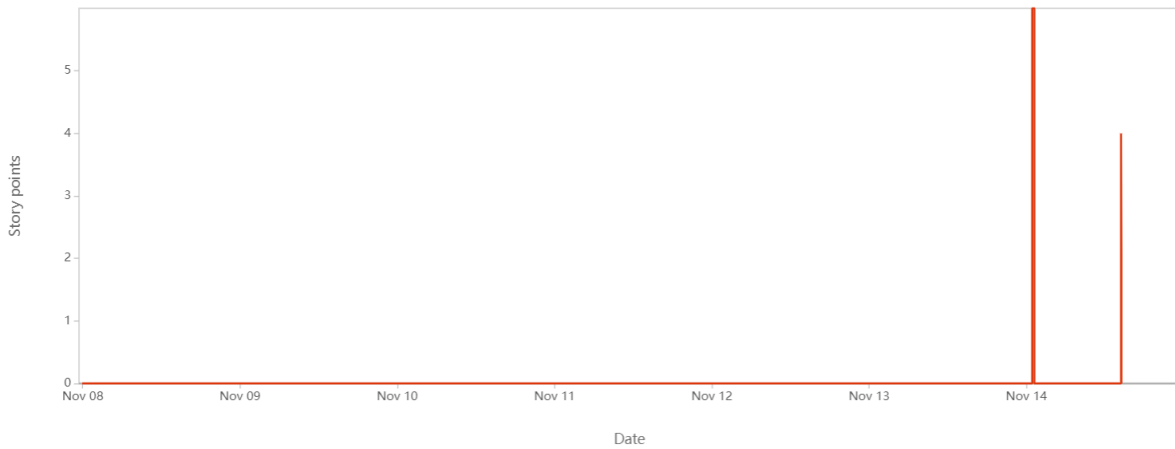
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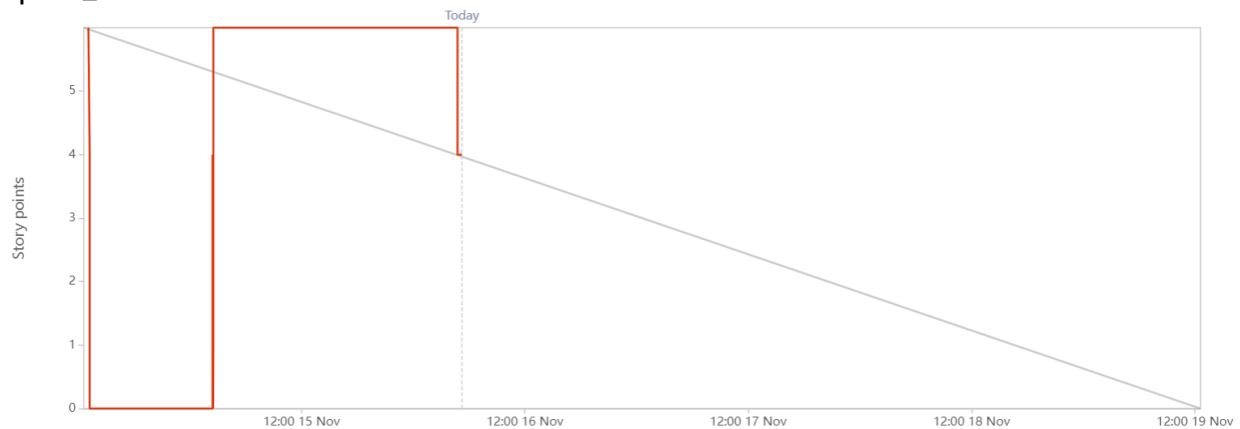
sprint_2:



sprint_3:



sprint_4:



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

a. Feature 1

We were added a good-looking UI and the process of making the signup and login process is easy to be done and easy understandable. Quick response will be given to the user.

b. Feature 2

There is a quick chat bot which will clarify the queries user has just be typing the question we have. It can be used at any time.

TESTING

c. Test Cases

All the test codes are running without any error and there are no bugs and the IBM cloud is storing the data in order.

d. User Acceptance Testing

Our project is also tested by other testers it worked perfectly.

8. RESULTS

a. Performance Metrics

The final result's of the cloud application has successfully done and It is ready to do work but for now it can is just a working model which can be used to demonstrate that how will our project work this model will show exact same thing with small data.

9. ADVANTAGES & DISADVANTAGES

Advantages:

- Our product is useful for quick finding the donor.
- The user can make the process easy and understandable.
- Added to this the chat bot will be so helpful.

Disadvantages:

- If the donor is far from the location and the if donor is not willing to come that far then it might be disappointment.
- Our app can't show the exact location of the donor.
- Even though it can do anything our app isn't free.

10. CONCLUSION

The main reason for this application is to make the donation process easy and to make the donors to come forward encouraging them to donate.

11. FUTURE SCOPE

If there is any pandemic occurred in the future this application is useful for the doctors to make a quick call for the donors. As the application is goes older there will be that much data will be going to be added so there will be so much data which makes the process even better.

12. APPENDIX

GitHub link:

<https://github.com/IBM-EPBL/IBM-Project-2298-1658469398>

Project Demo Link:

<https://github.com/IBM-EPBL/IBM-Project-2298-1658469398/tree/main/Project%20demo%20video>

