A GESTURE-BASED TOOL FOR STERILE BROWSING OF RADIOLOGY IMAGES

A PROJECT REPORT

Submitted by

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INDEX

PLASMA DONOR APPLICATION

1.INTRODUCTION:

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. Voluntary blood donors per 1,000 population of some countries are quite promising, such as Switzerland (113/1,000), Japan (70/1,000), while others have an unsatisfying result like India has 4/1,000,

and Bangladesh has 5/1000. Recently a life-threatening virus, COVID-19, spreading throughout the globe, which is more vulnerable for older people and those with pre-existing medical conditions. For them, plasma is needed to recover their illness. Our Purpose is to build a platform with clustering algorithms which will jointly help to provide the quickest solution to find blood or plasma donor. Closest blood or plasma donors of the same group in a particular area can be explored within less time and more efficiently with rapid increase in the usage of social networks sites across the world, there is also a steady increase in blood donation requests as being noticed in the number of posts on these sites such as Facebook and twitter seeking blood donors. Finding blood donor is a challenging issue in almost every country. There are some blood donor finder applications in the market such as Blood app by Red Cross and Blood Donor Finder application by Neologix. However, more reliable applications that meet the needs of users are prompted.Several software technologies including languages and framework are used to develop our blood-donor web application known as BLOODR application. These technologies comprise Ruby programming language (simply known as Ruby) along with JavaScript and PostgreSQL for database are used. Ruby on Rails (simply known as Rails) is an open source Web framework that makes it possible to quickly and easily create data-based web applications.

1.1 PROJECT OVERVIEW :

MEGH HOSPITAL - PLASMA DONOR APPLICATION :

our provide "PLASMA DONOR APPLICATION" for getting plasma to the patient .Not only hospital in facility that other hospital have this facility . Patient are can not find donor in the near side area . therefore in this application, the patient can find the donor through internet. The online mode to contain for easy to communicate the patient and donor. When the world situation time period for (covid19) or person health careless to make for some diagnose disease in other people. If patient has diagnosed with a novel disease (“CORONA VIRUS OR COVID – 19”). The patient will register their details through this internet application. It helps to the patient easy to apply in via the mobile and laptop or other device etc . The technology is a patient ot donor to easy find the application at user friendly. The register process is very simple method such as a username , date of birth ,phone number, age , blood group and nationality. The patient or donor are register of above the method of step involved for the patient or donor. The hospital or other organization to provide the advertisement of the donation of blood (“plasma”).the donor or person see the advertisement and if a person should donate their blood (“plasma”), the person could register through the application. A store the hospital details for the person and patient details in the web application. If a donor blood group and patient blood group is same . the patient can send request to the donor. If the donor accept the request they can contact each other and share their details ,support the donor will not accept the request the patient can search for another donor.

1.2 PURPOSE :

Differentiating individuals with early human immunodeficiency virus 1 (HIV-1) infection from those infected for longer periods is difficult but important for estimating HIV incidence and for purposes of clinical care and prevention. To develop and validate a serologic testing algorithm in which HIV-1–positive persons with reactive test results on a sensitive HIV-1 enzyme immunoassay (EIA) but nonreactive results on a less sensitive (LS) EIA are identified as having early infection.

Diagnostic test and testing strategy development, validation, and application. Specimens were tested with both a sensitive HIV-1 EIA (3A11 assay) and a less sensitive modification of the same EIA (3A11-LS assay).

2 LITERATURE SURVEY :

2.1 EXISITING PROBLEM :

2.1.1 TITLE : Payment, compensation and replacement – the ethics and motivation of blood and plasma donation

AUTHOR : A. Farrugia,J. Penrod,J. M. Bult

YEAR : 2010

The supply of blood and plasma to produce haemotherapies varies around the world, but all environments need donors to furnish the raw material. Many countries still lack adequate supply, and the question of what amounts of blood and plasma are required for optimal treatment is still unresolved. The issue of compensating donors has been a controversial and emotive one in blood transfusion for many decades. Donors are conventionally classified as paid, voluntary or replacement, and a level of stigma, based on safety and ethical considerations, has been attached to paid donation. This review points to evidence which renders many of these concerns redundant. Purist arguments against compensated donation have little basis in evidence and would lead to many of today's voluntary donors being designated as paid, because of the large range of incentives used to recruit and retain them. Misplaced application of 'Titmussian' volunteerism has precipitated its own safety and supply problems. Current systems of compensation and replacement are needed to maintain supplies of essential products and lead to safe products in

controlled environments. We propose that a plurality of routes towards donation is an appropriate paradigm in the heterogeneous landscape of blood and plasma product supply.

2.1.2 TITLE : Why Prohibiting Donor Compensation Can Prevent Plasma Donors from Giving Their Informed Consent to Donate

AUTHOR :James Stacey Taylor

YEAR : 2019

In recent years, there has been a considerable increase in the degree of philosophical attention devoted to the question of the morality of offering financial compensation in an attempt to increase the medical supply of human body parts and products, such as plasma. This paper will argue not only that donor compensation is ethically acceptable, but that plasma donors should not be prohibited from being offered compensation if they are to give their informed consent to donate. (While this paper will focus on the ethics of compensating plasma donors, its arguments are also applicable to the ethics of offering compensation for other body parts, such as kidneys.) Regulatory regimes that prohibit donor compensation thus unethically prevent the typical donor from being able to give her informed consent to donate.In the first quarter of 2020, the Covid-19 pandemic disrupted the globe, severely compromising economic, educational, and social activities as well as healthcare. Although the vaccination process has been ongoing steadily since the beginning of 2021 in the USA and several other countries across the world, we are a long way from fully vaccinating the entire world's population. Thirty-eight percent of the population in the USA, 40 percent of the population in Israel, and 32 percent of the population in UK are fully vaccinated, as of May 2021. However, for many countries this number is still in the 20s or even lower. For a complete list of countries and vaccination rates, please refer.

2.1.3 TITLE : SARS-CoV-2 antibody persistence in COVID-19 convalescent plasma donors: Dependency on assay format and applicability to serosurveillance

AUTOUR : Clara Di Germanio,Graham Simmons,Kathleen Kelly,Rachel Martinelli,Orsolya Darst,Mahzad Azimpouran,Mars Stone,Kelsey Hazegh,Eduard Grebe,Shuting Zhang,Peijun Ma,Marek Orzechowski,James E. Gomez,Jonathan Livny,Deborah T. Hung,Ralph Vassallo,Michael P. Busch,Larry J. Dumont

YEAR : 2021

Clara Di Germanio and Graham Simmons contributed equally to this study.

Abbreviations: ACE2, angiotensin-converting enzyme 2; Ag, antigen; AU, Arbitrary Units; CCP, COVID-19 convalescent plasma; CMIA, chemiluminescent microparticle immunoassay; CoV2G, Ortho VITROS Anti-SARS-CoV-2 IgG; CoV2T, Ortho VITROS Anti-SARS-CoV-2 Total; COVID-19, Coronavirus disease 2019; CTS, creative testing solutions; DIN, donation identification number; EBLUP, empirical best linear unbiased predictor; ELISA, enzyme-linked immunosorbent assay; EUA, emergency use authorization; FDA, United States Food and Drug Administration; ID50, Half-maximal inhibitory dilution; Ig, immunoglobulin; IgA, Immunoglobulin A; IgG, immunoglobulin G; IgM, immunoglobulin M; MASS-BD, US National Blood Donor Serosurveillance Study; NC, nucleocapsid protein; NT50, Half-maximal neutralization titer; PRNT, plaque reduction neutralization test; RBD, receptor binding domain of S1; RVPN, reporter viral particle neutralization; RLU, relative light units; S1, spike subunit; S/CO, signal-to-cutoff ratio; SARS-CoV-2, severe acute respiratory syndrome coronavirus 2; TMPRSS2, Transmembrane Serine Protease 2; VRI, Vitalant Research Institute; VSV, vesicular stomatitis virus; VISP, vaccine induced seropositivity.

Funding information: U.S. Biomedical Advanced Research and Development Authority, Grant/Award Number: various; Vitalant, Grant/Award Number: internal funding; Broad Institute; Abbott Diagnostics

2.1.4 TITLE : The role of identity in how whole-blood donors reflect on and construct their future as a plasma donor

AUTOUR : Rachel Thorpe

YEAR : 2019

In the context of decreased demand for whole blood and increased demand for plasma-derived products, donors in Australia are increasingly being asked to convert from whole-blood to plasmapheresis donations. Plasmapheresis is a different type of donation to whole blood as the process takes longer and can be engaged in more frequently. What is unknown is whether whole-blood donors view donating plasma as consistent with their donor identity and how they respond to the possibility of donating more frequently. To explore this, we undertook semistructured telephone interviews with 26 whole-blood donors who had recently made their first plasma donation. Findings indicated that whereas donating plasma was viewed as a bigger ask than donating whole blood, the former was viewed as consistent with their identity as a donor because both behaviours were seen to benefit others and self and were located within the same institutional context. Donating plasma was an opportunity for donors to enhance their self-concept as an altruistic giver. When contemplating their future donation behaviour, donors considered how their donor identity would fit alongside other salient roles. These findings have implications for how institutions can position their request of existing donors to give a different gift.

2.1.5 TITLE : A Multiclass, Multiproduct Covid-19 Convalescent Plasma Donor Equilibrium Model

AUTOUR : Anna Nagurney & Pritha Dutta

YEAR : 2021

In this paper, we develop a multiclass, multiproduct equilibrium model for convalescent plasma donations in the Covid-19 pandemic. The potential donors are situated at different locations and the donor population at each location can be separated into different classes based on their motivation and the product for which they provide donations at a collection site. The model captures the competition between nonprofit and for-profit organizations seeking convalescent plasma donations, which is a characteristic of this new market. A variational inequality formulation of the equilibrium conditions and qualitative properties of the model are provided. We also present a capacitated version of the model. Numerical examples of increasing complexity are presented and solved using the modified projection method. The results reveal multiclass, multiproduct donor behavior under different scenarios which can inform policy makers during this pandemic and beyond.

2.2 REFERENCES :

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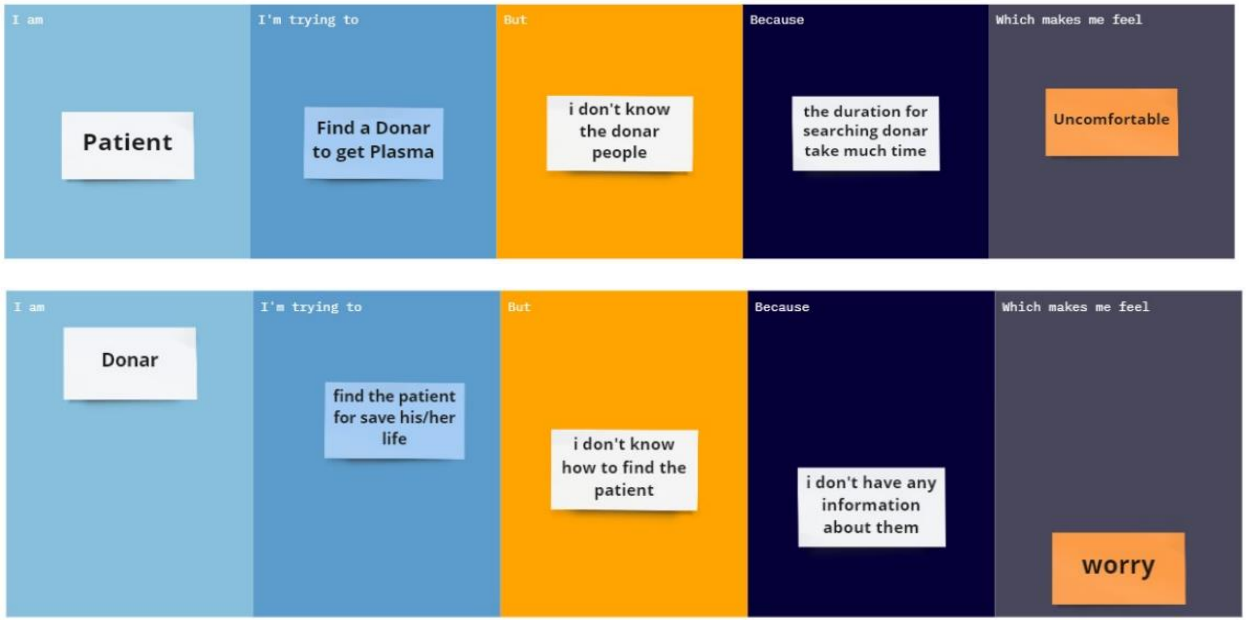
- Nagurney, A. and Dutta, P., 2021, September. A multiclass, multiproduct Covid-19 convalescent plasma donor equilibrium model. In *Operations Research Forum* (Vol. 2, No. 3, pp. 1-30). Springer International Publishing.

2.3 PROBLEM STATEMENT DEFINITION :

People who need blood are increasing day by day. People who have diseases like anemia or people who have gotten into accidents and run out of blood need constant supply of blood to sustain their life and there is not enough blood available for them. It is not that people do not want to donate blood, but because they have no idea where they can donate. It is important for the people who are excited to donate, but yet are very busy, to be sure where and when they can donate [4],and therefore We are designing a system which contains all the information regarding blood donation camps ongoing in a particular area so that people who want te blood will get information regarding these camps. to dona



IDEATION & PROPOSED SOLUTION :

3.1 EMPATHY MAP CANVAS :

The empathy map represents a principal user and helps teams better understand their motivations, concerns, and user experience. It can be conducted with a variety of different users in mind, anywhere from stakeholders, individual use cases, or entire teams of people.

The problem statement in the empathy map is a student had already tried to learn sign language but stopped. Sign language knowledge is required to communicate well with his friend. To rectify his problem, he searches for a solution from a different point of view. If he verifies that the solution does not affect his personal thing he moves with the solution or finds the solution which suits him.

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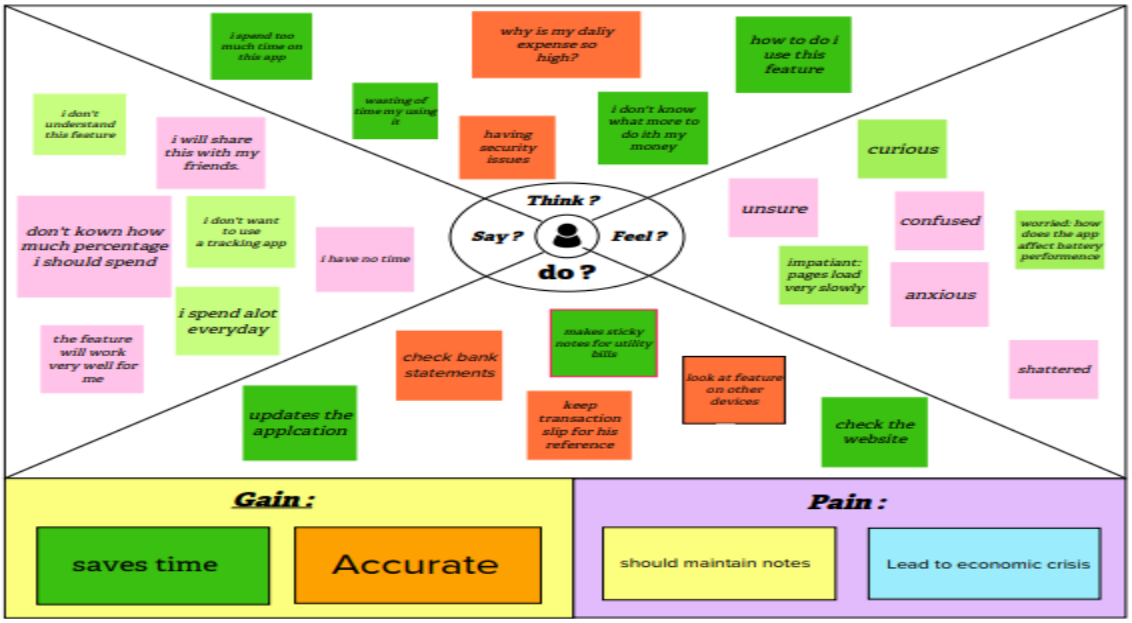
this article is a guide to empathy mapping and its uses.

EMPATHY MAP:

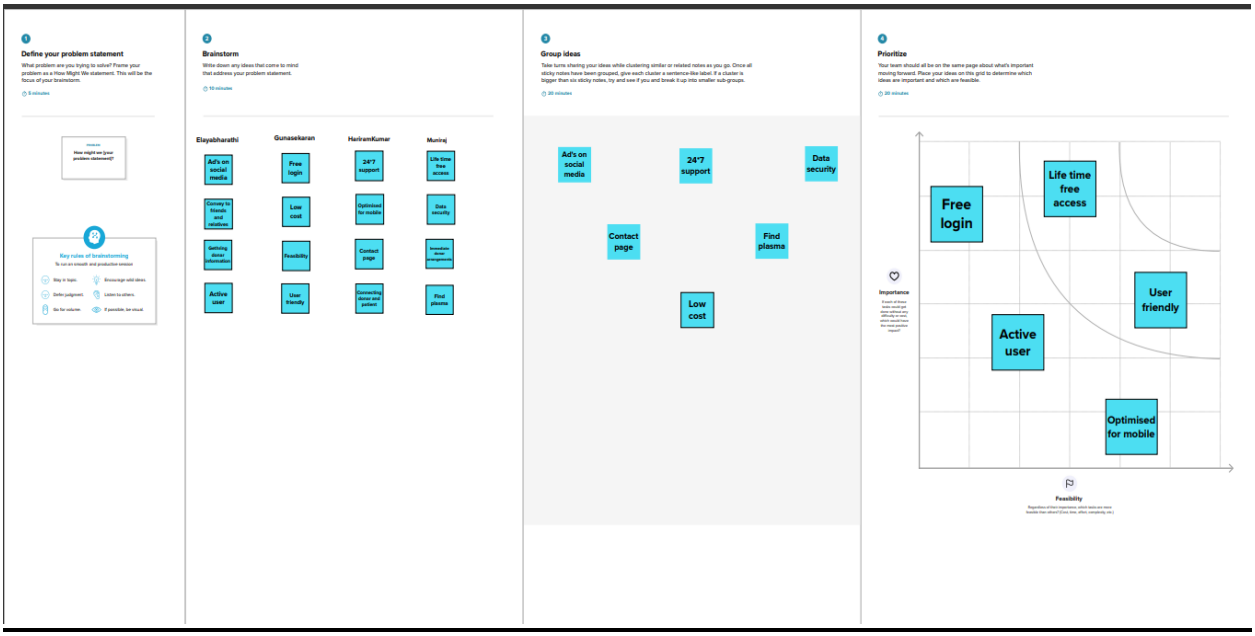
1) An empathy map is a collaborative visualization used to articulate what we kown about a particular type of user.
i) create a shared understanding of user needs,and
ii) aid in decision making



3.2 IDEATION & BRAINSTROMING :

Brainstorming is a situation where a group of people meet to generate new ideas and solutions around a specific domain of interest by removing inhibitions. People are able to think more freely, and they suggest as many spontaneous new ideas as possible. All the ideas are noted down without criticism and after the brainstorming session the ideas are evaluated.

In Brainstorming session our team members are trying to solve the problem [How might we attract users to the website]. The new ideas are shared after the team discussion. Each idea given by the individuals is noted. According to the importance, the ideas are grouped and clustered. Ideas are prioritized which are feasible.



3.3 PROPOSED SOLUTION :

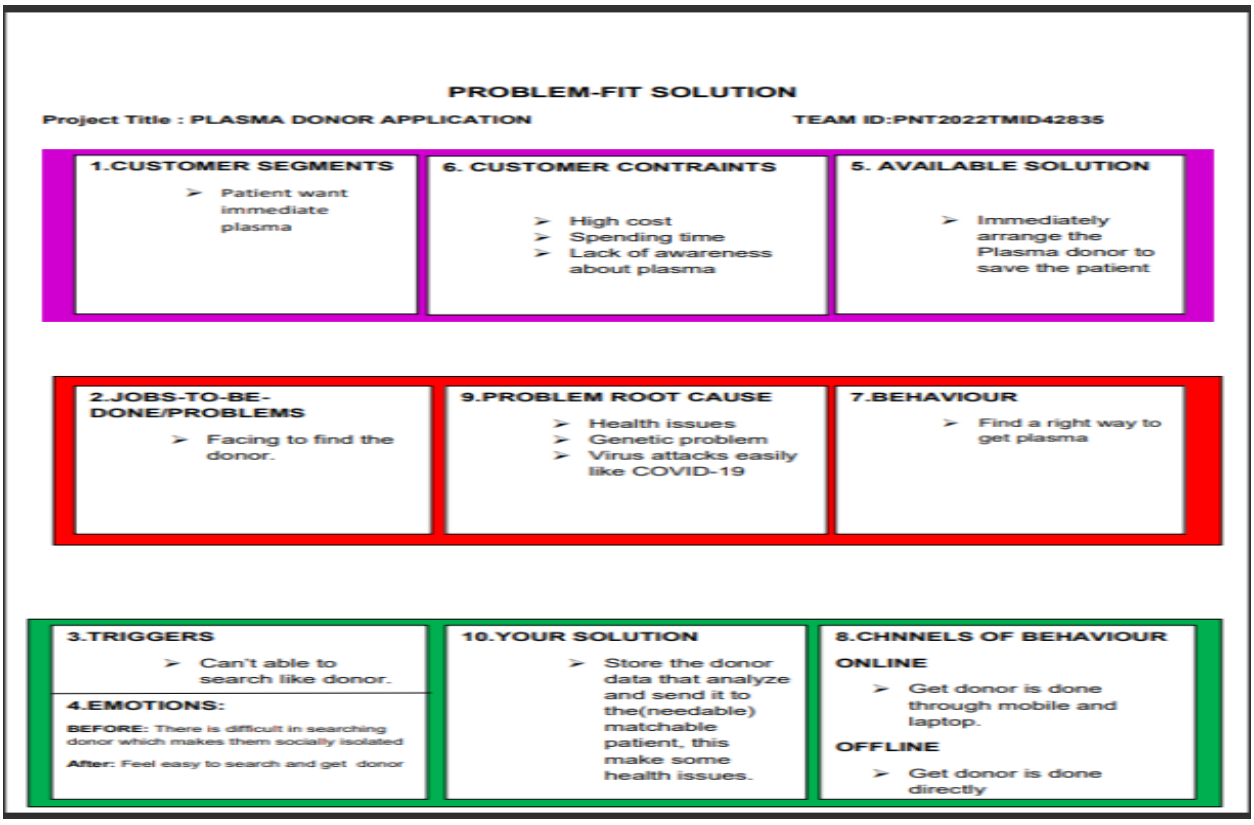
Proposed Solution means the technical solution to be provided by the Implementation team in response to the requirements and the objectives of the Project.

S.No.	Parameter	Description
1	Problem Statement (Problem to be solved)	Patient have a problem to directly (request) communicate with donar because of health issue.
2	Problem Statement / Problem to be solved	To overcome this problem, plasma doner application is the key to communication
3	Novelty / Uniqueness	The main feature of the project is to analyze and send donar details to patient through this application
4	Social Impact / Customer Satisfaction	This makes them feel comforatable and able to get donar directly.

5	Business Model (Revenue Model)	Can collaborate with the speciallyabled hospital,health care sectors and government.
6	Scalability of the Solution	Giving free access and a user friendly interface increases the scalability.

3.4 PROBLEM SOLUTION FIT :

Problem-Solution Fit - this occurs when you have evidence that customers care about certain jobs, pai ns, and gains. It helps to identify solutions with higher chances of solution adoption, reduce time spent on testing and get a better overview of the current situation.RE



4 REQUIMENT ANALYSIS

4.1 FUNCTION REQUIREMENTS :

Functional requirements may involve calculations, technical details, data manipulation and processing, and other specific functionality supposed to accomplish. Behavioral requirements describe all the cases where that uses the functional requirements, these are used in use cases.

4.2 NON-FUNCTION REQUIREMENTS :

Non-Functional Requirements are the constraints or the requirements imposed on the system. They specify the quality attribute of the software. Non-Functional. Requirements deal with issues like scalability, maintainability, performance, portability, security, reliability, and many more. Non-Functional Requirements address vital issues of quality for software systems.

PROJECT DESIGN

5.1 DATA FLOW DIAGRAMS

A data-flow diagram is a way of representing a flow of data through a process or a system (usually an information system). The DFD also provides information about the outputs and inputs of each entity and the process itself. A data-flow diagram has no control flow — there are no decision rules and no loops. Specific operations based on the data can be represented by a flowchart.

Project Design Phase-II
Solution Requirements (Functional & Non-functional)

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 Form
FR-2	User Confirmation	Confirmation via OTP
FR-3	User Login	User will login using the username/E-mail id and password
FR-4	Dashboard	User can get patient and donor registration page
FR-5	Patient Registration	User can register their details (Patient details)
FR-6	Donor Registration	User can register their details (Donor details)
FR-7	Notification	If registration finished the application send notification to patient or donor
FR-8	Chatbot	Chatbot assistance for user

Non-functional Requirements:

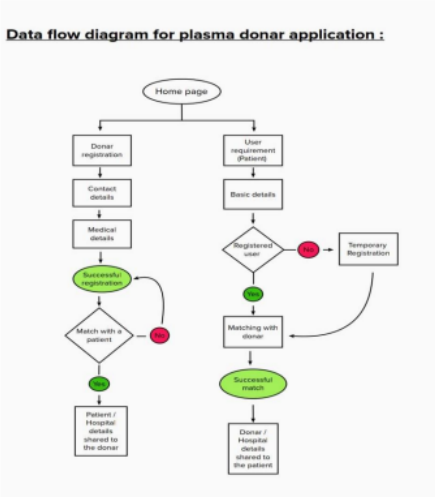
Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	This system have a user friendly interface
NFR-2	**Security**	This system must be secured with proper username and password
NFR-3	**Reliability**	This system is reliable because the user details are protected carefully
NFR-4	**Performance**	This system must perform well in different scenarios
NFR-5	**Availability**	This system must be available 24 hours a day with no bandwidth issues
NFR-6	**Scalability**	In future increase or decrease in usage of plasma

Project Design Phase-II
Data Flow Diagram &User Stories

Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored



USERS STORIES

User type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
user	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I entering the password and my email id	High	Sprint -1
user	Login	USN-2	As a user, I can log into the application by entering email & password	I receive the password and email	High	Sprint -1
User	Dashboard	USN-3	As a user, I can get donor as registered in application is displayed in dashboard	I registered in application is displayed in dashboard	High	Sprint -2
User		USN-4	As a user, I can search for donor	Yes ,I reach the donor	High	Sprint -2
User		USN-5	As a user, I can chat with the bot so that my questions are clarified	I cleared a clarified for the questions in question bot	High	Sprint -3
User		USN-6	As a user, I will receive notification to my email so that I'll be updated on finding donor	I can updated the donor for in my email	High	Sprint -4
user		USN-7	As a user, I can edit my blood group so that can I will find my donor accordingly	I can find donor in same blood group for the application	High	Sprint -4

5.2.2 TECHNICAL ARCHITECTURE

The process of defining a collection of hardware and software components and their interfaces to establish the framework for the development of a computer system.

Project Design Phase-II
Technology Stack (Architecture & Stack)

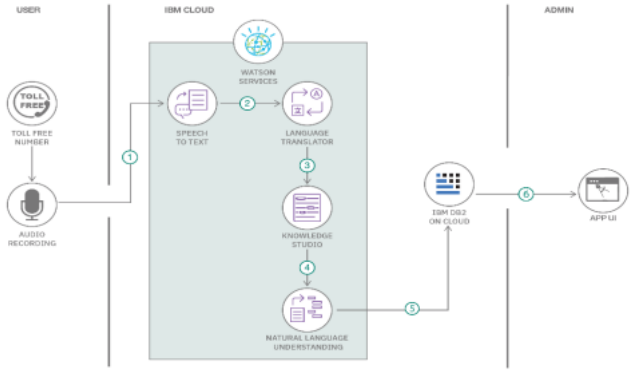


Table- 1 : Components & Technologies:

S. No	Component	Description	Technology
1.	User Interface	How user interacts with application	HTML, CSS, Java Script
2.	Application Logic-1	Logic for a process in the application	Java / Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4.	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	My SQL
6.	Cloud Database	Database Service on Cloud	IBM DB2
7.	File Storage	File storage requirements	IBM Block Storage
8.	External API-1	Purpose of External API used in the application	IBM Weather API
9.	Infrastructure (Server / Cloud)	Application Deployment on Local System/cloud	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S. No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Flask
2.	Security Implementations	List all the security / access controls implemented, use of firewalls	Encryption, IAM Controls, OWASP
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Kubernetes
4.	Availability	Justify the availability of application	IBM cloud

5.3 USER STORIES

A user story is the smallest unit of work in an agile framework. It’s an end goal, not a feature, expressed from the software user’s perspective. A user story is an informal, general EE

The purpose of a user story is to articulate how a piece of work will deliver a particular value back to the customer. Note that "customers" don't have to be external end users in the traditional sense, they can also be internal customers or colleagues within your organization who depend on your team.

USERS STORIES

User type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
user	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I entering the password and my email id	High	Sprint -1
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User	Dashboard	USN-3	As a user, I can get donor as registered in application is displayed in dashboard	I registered in application is displayed in dashboard	High	Sprint -2
User		USN-4	As a user, I can search for donor	Yes ,I reach the donor	High	Sprint -2
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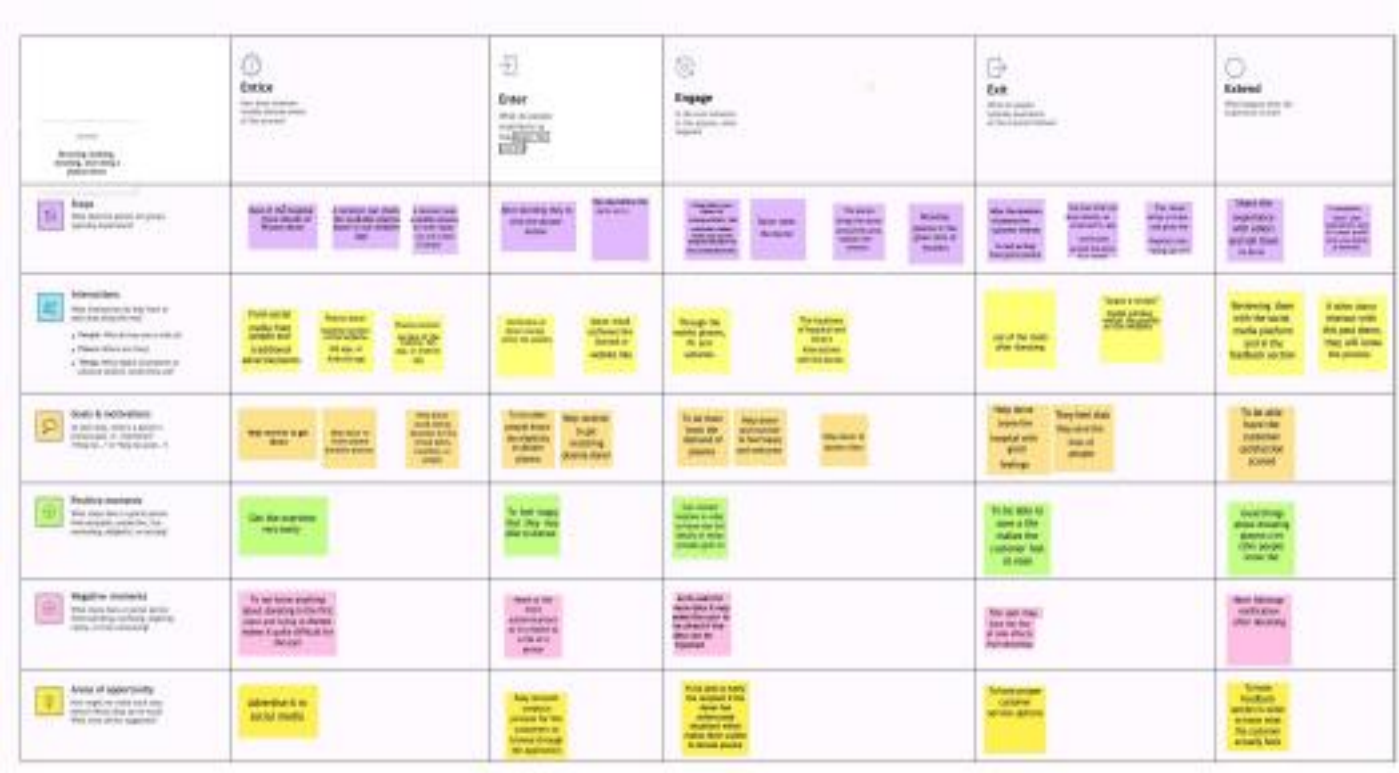
user		USN-7	As a user, I can edit my blood group so that can I will find my donor accordingly	I can find donor in same blood group for the application	High	Sprint -4

5.4 CUSTOMER JOURNEY :

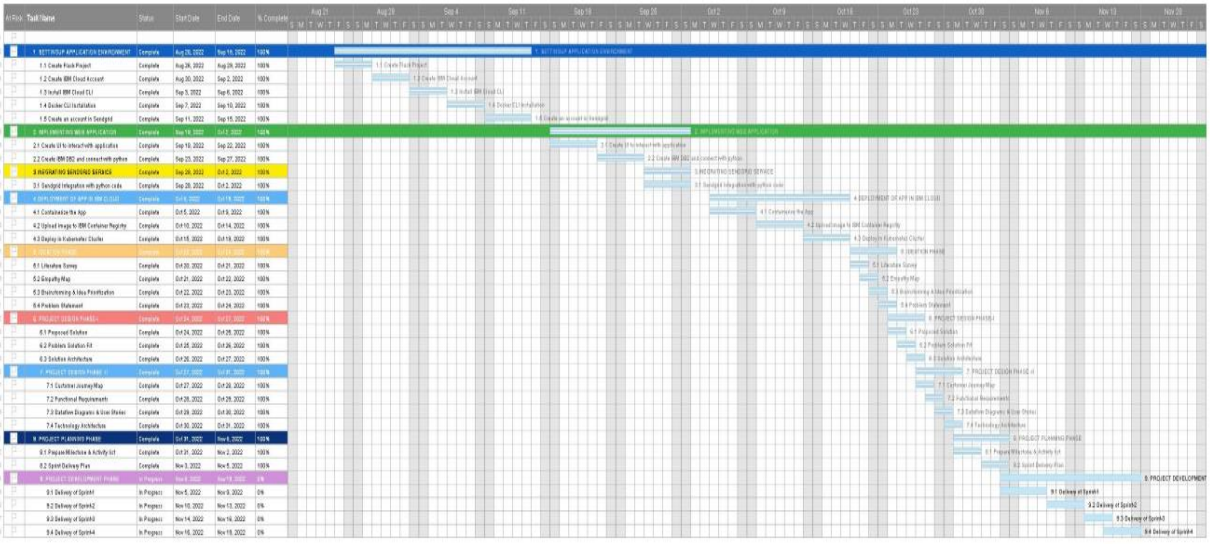
An International Aid Organization commissioned Phase 5 to conduct research into the experience journey of their major donors. The client assumptions were that major donors might want, need and deserve an experience different from other donors and that there might be differences among major donors. They were also concerned about the large number of touchpoints directed at this audience and wanted to ensure the quality and consistency of the experience at all touchpoints.



6 . PROJECT PLANNING & SCHEDULING :

6.1 SPRINT PLANNING & ESTIMATION:

Sprint planning is an event in scrum that kicks off the sprint. The purpose of sprint planning is to define what can be delivered in the sprint and how that work will be achieved. Sprint planning is done in collaboration with the whole scrum team.



6.2 SPRINT DELIVERY SCHEDULING :

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. If you're looking to schedule your next sprint, you've come to the right place. Keep reading to learn everything you need to know about sprint scheduling, including some tips to drive the be

Project Planning Phase

Product Backlog, Sprint Schedule, and Estimation

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	3	High	4
Sprint-1		USN-2	As a user, I will receive confirmation email once I have registered for the application	3	Medium	4
Sprint-1	Login	USN-3	As a user, I can log into the application by entering email & password	3	High	4
Sprint-1	Dashboard	USN-4	As a user, I can get donor as registered in application is displayed in dashboard	3	High	4
Sprint-1		USN-5	As a user, I can search for donor	3	High	4
Sprint-1		USN-6	As a user, I can chat with the bot so that my questions are clarified	3	High	4
Sprint-1		USN-7	As a user, I will receive notification to my email so that I'll be updated on finding donor	3	High	4
Sprint-1		USN-8	As a user, I can edit my blood group so that can I will find my donor accordingly	3	High	4

Project Tracker, Velocity & Burn Down Chart

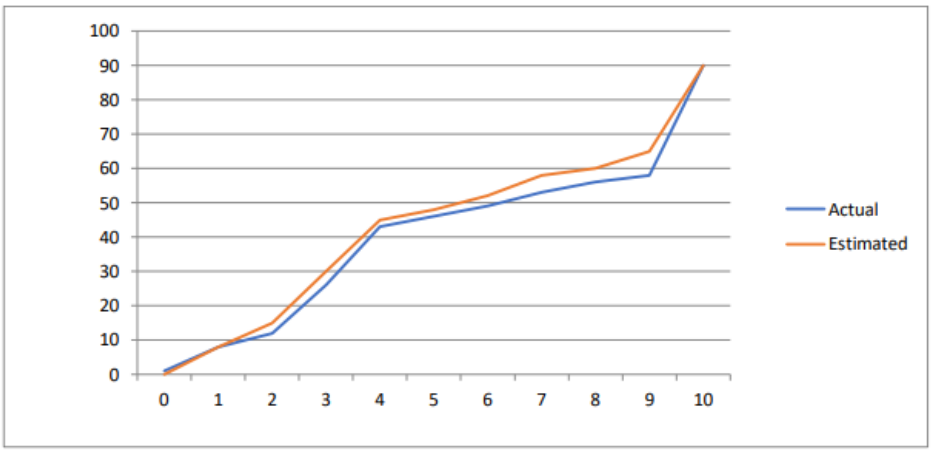
Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
20	5 Days	05 Nov 2022	09 Nov 2022	20	09 Nov 2022
20	4 Days	10 Nov 2022	13 Nov 2022	20	13 Nov 2022
20	3 Days	14 Nov 2022	16 Nov 2022	20	16 Nov 2022
20	4 Days	16 Nov 2022	19 Nov 2022	20	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)

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

6.3 REPORTS FROM JIRA

Burndown Chart:

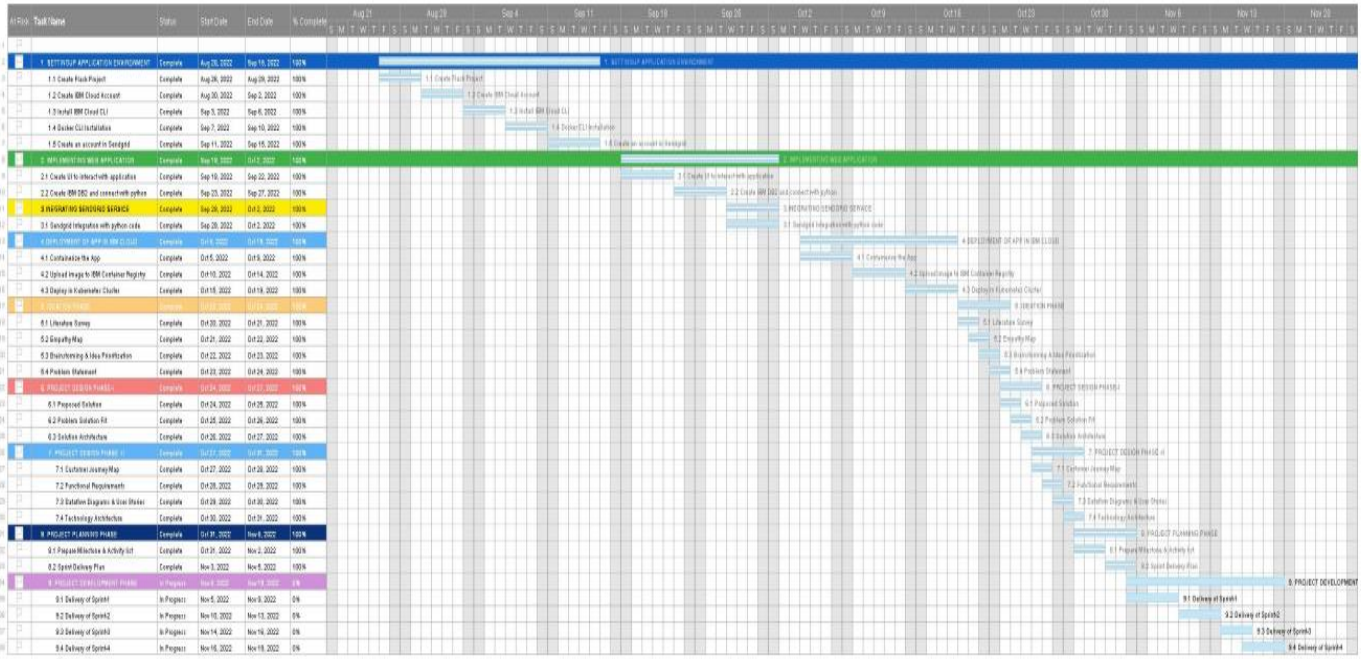


X-axis=Task

Y-axis=No of Day's

6.4 PREPARE MILESTONE & ACTIVITY LIST :

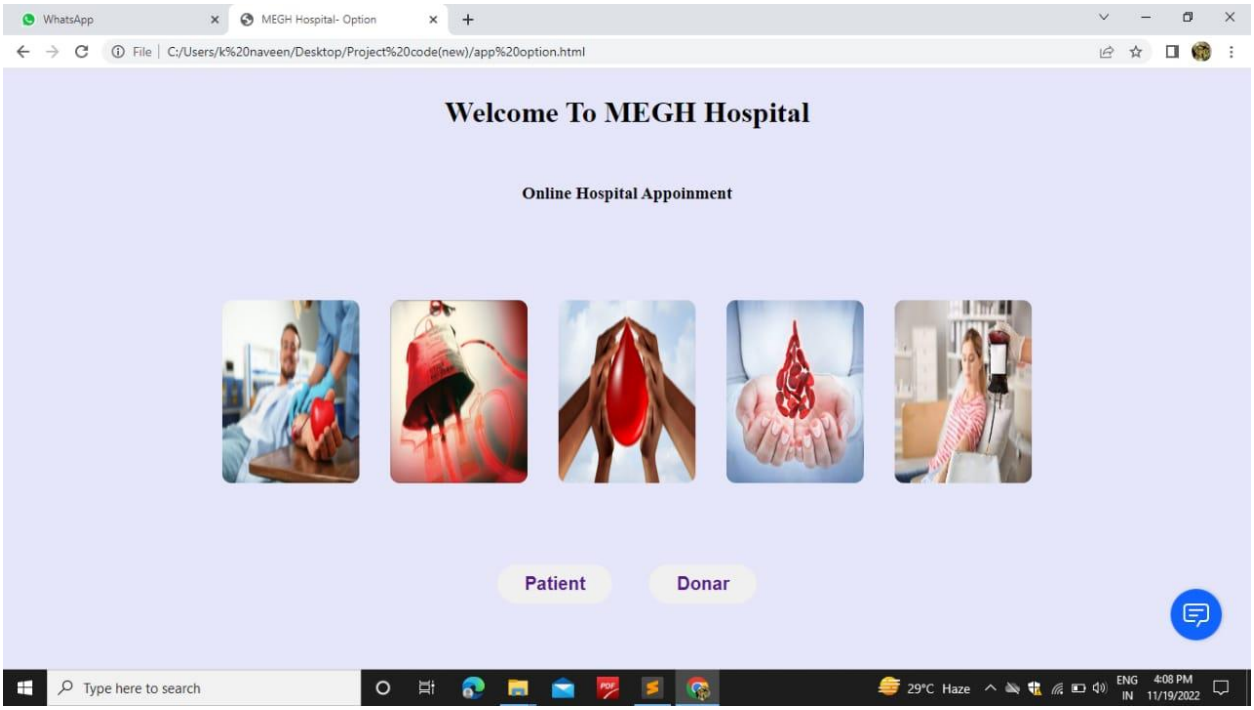
Project plans are maps that chart the course of your projects. As you plan your project, you'll begin to map out the tasks, dependencies, task owners, and more. But don't forget a very important component of any project plan: milestones. ***A milestone is a marker in a project that signifies a change or stage in development.*** *Milestones are powerful components in project management because they show key events and map forward movement in your project plan. Milestones act as signposts through the course of your project, helping ensure you stay on track. Without project milestone tracking, you're just monitoring tasks and not necessarily following the right path in your project.*



7 . CODING & SOLUTIONING :

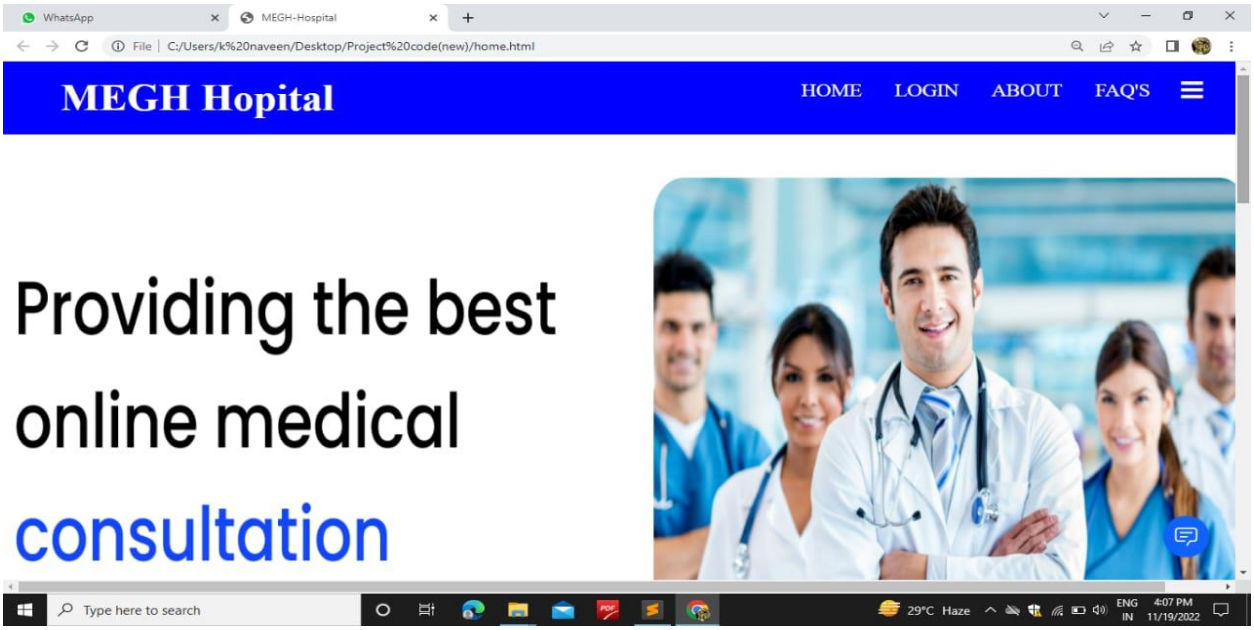
7.1 FEATURE 1:

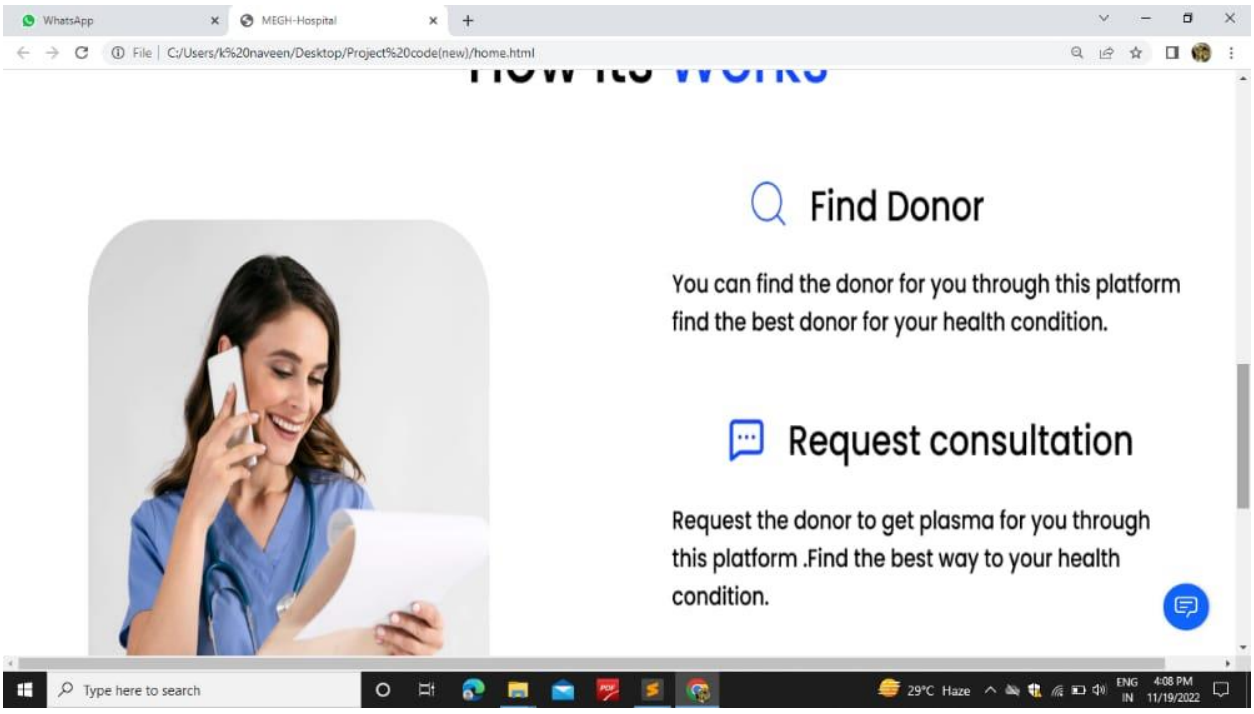
- ***Tish app is user friendly***

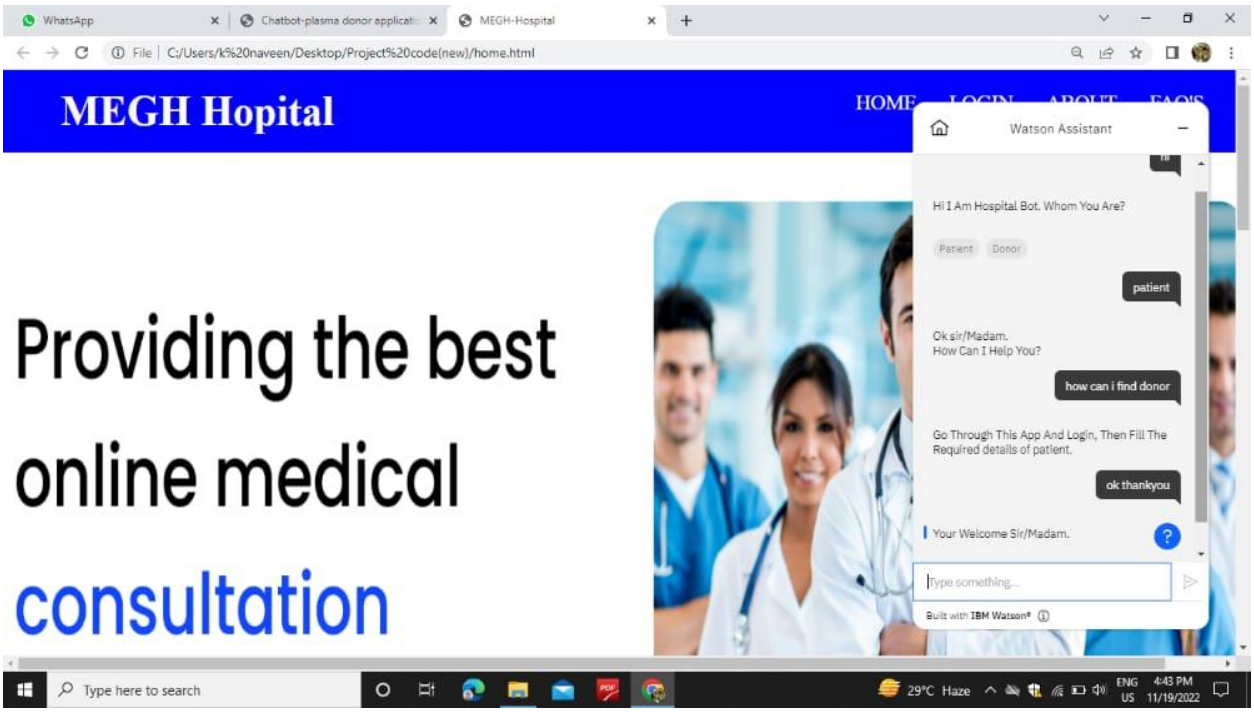


7.2 FEATURE 2 :

- ***Using chat bot helps to identify facility***


WhatsApp
MEGH-Hospital
File | C:/Users/k%20naveen/Desktop/Project%20code(new)/home.html
MEGH Hopital
HOME
LOGIN
ABOUT
FAQ'S
Providing the best
online medical
consultation
Type here to search
29°C Haze
ENG
IN
4:07 PM
11/19/2022

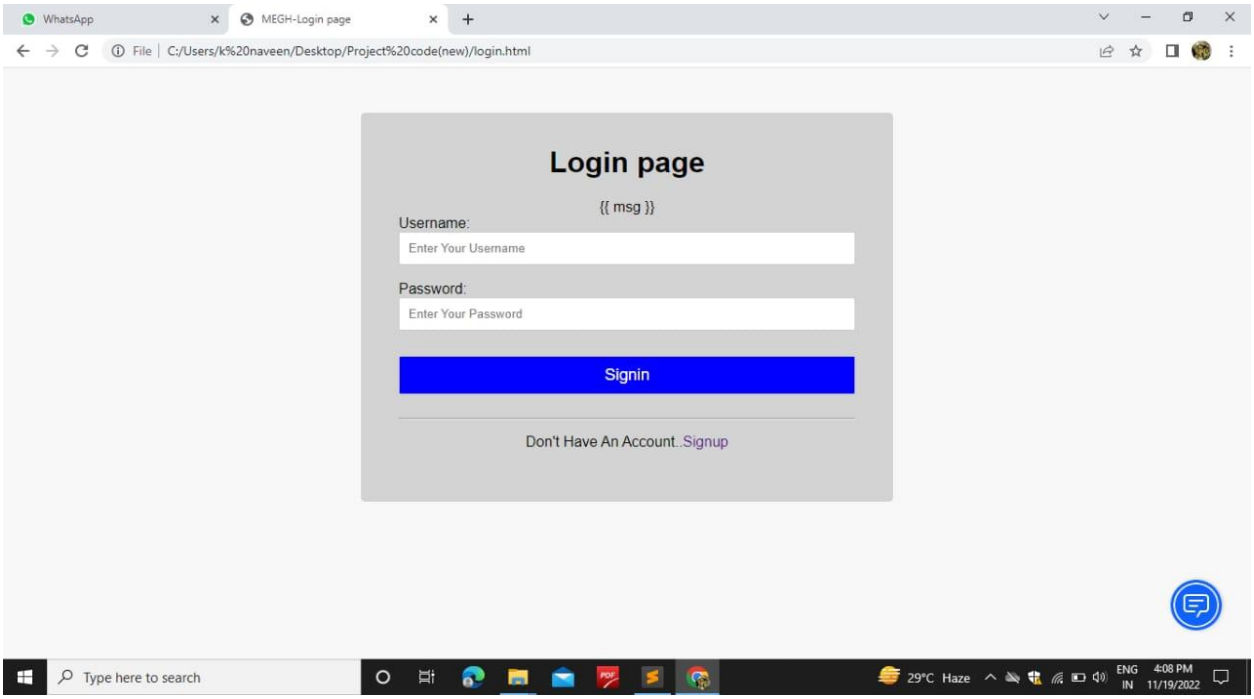

WhatsApp
MEGH-Hospital
File | C:/Users/k%20naveen/Desktop/Project%20code(new)/home.html
Find Donor
You can find the donor for you through this platform
find the best donor for your health condition.
Request consultation
Request the donor to get plasma for you through
this platform .Find the best way to your health
condition.
Type here to search
29°C Haze
ENG
IN
4:08 PM
11/19/2022



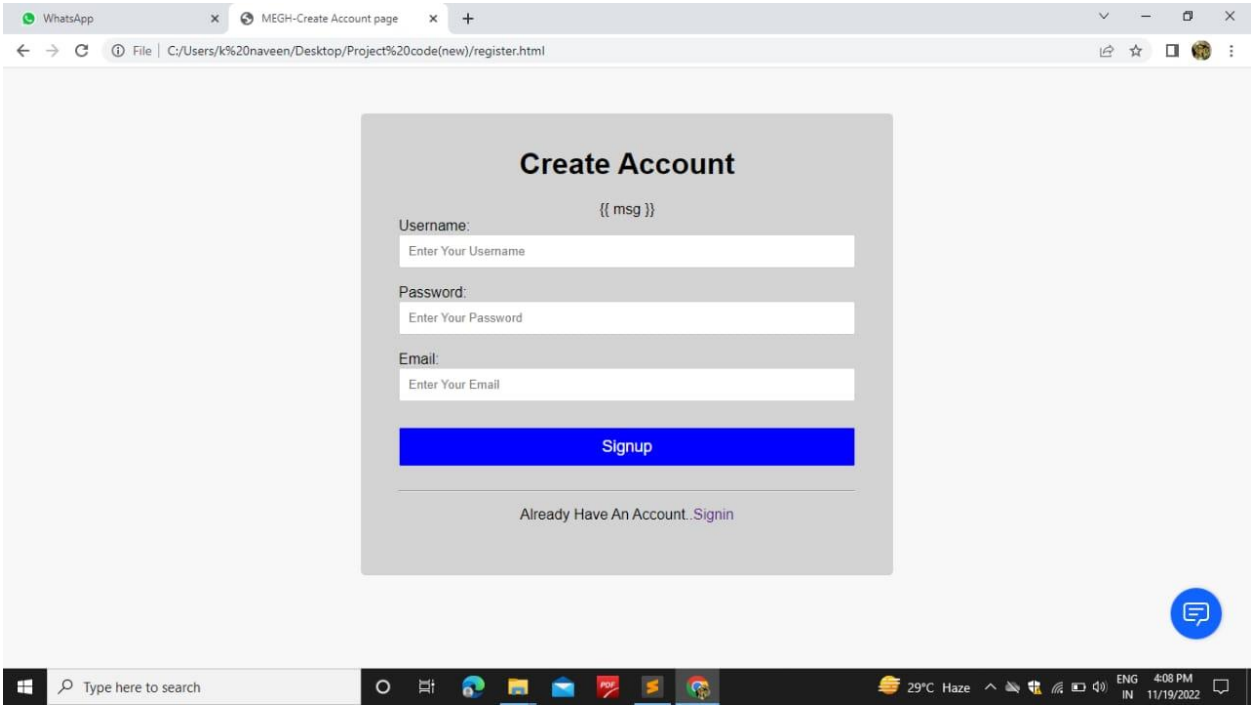
9. RESULTS :

9.1 PERFORMANCE METRICS :

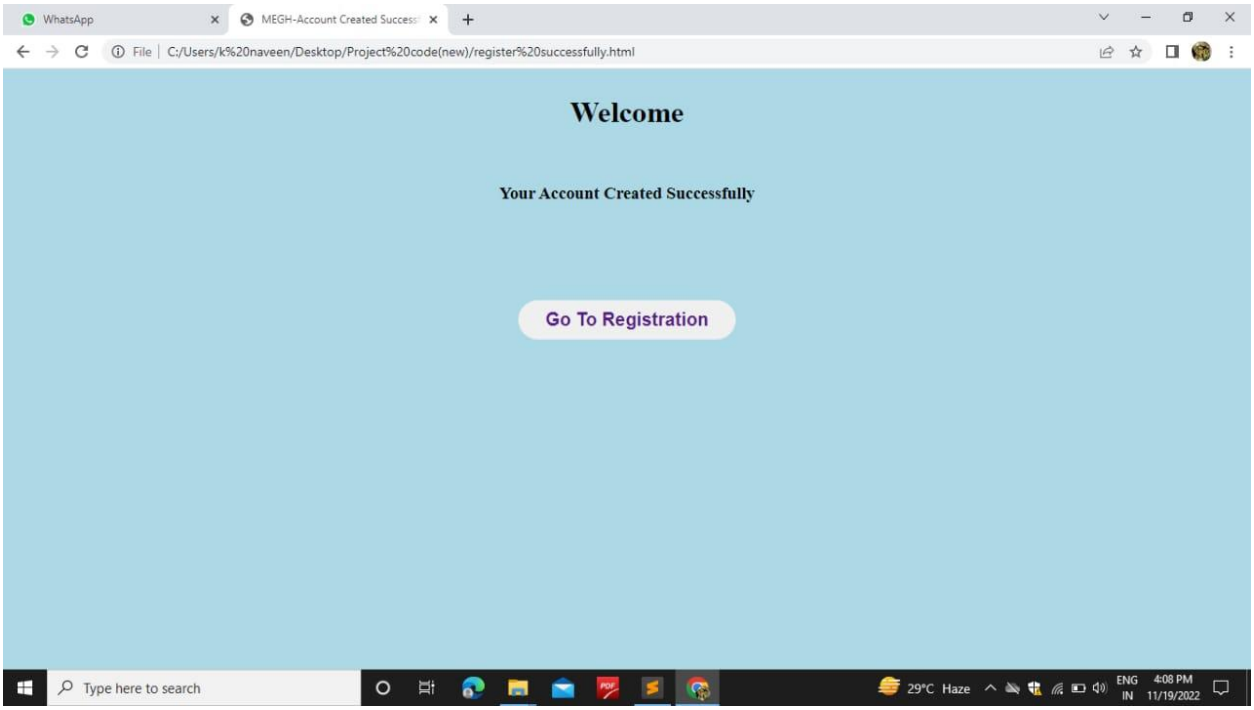
LOGIN PAGE :



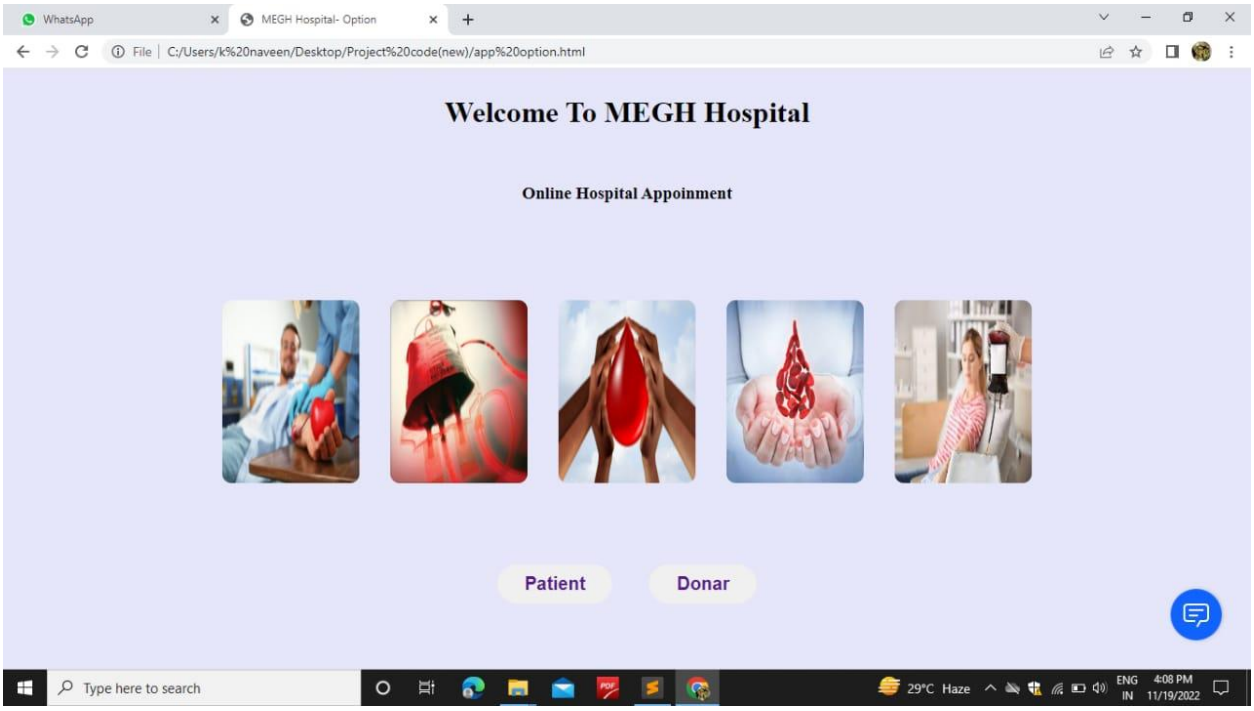
REGITER PAGE



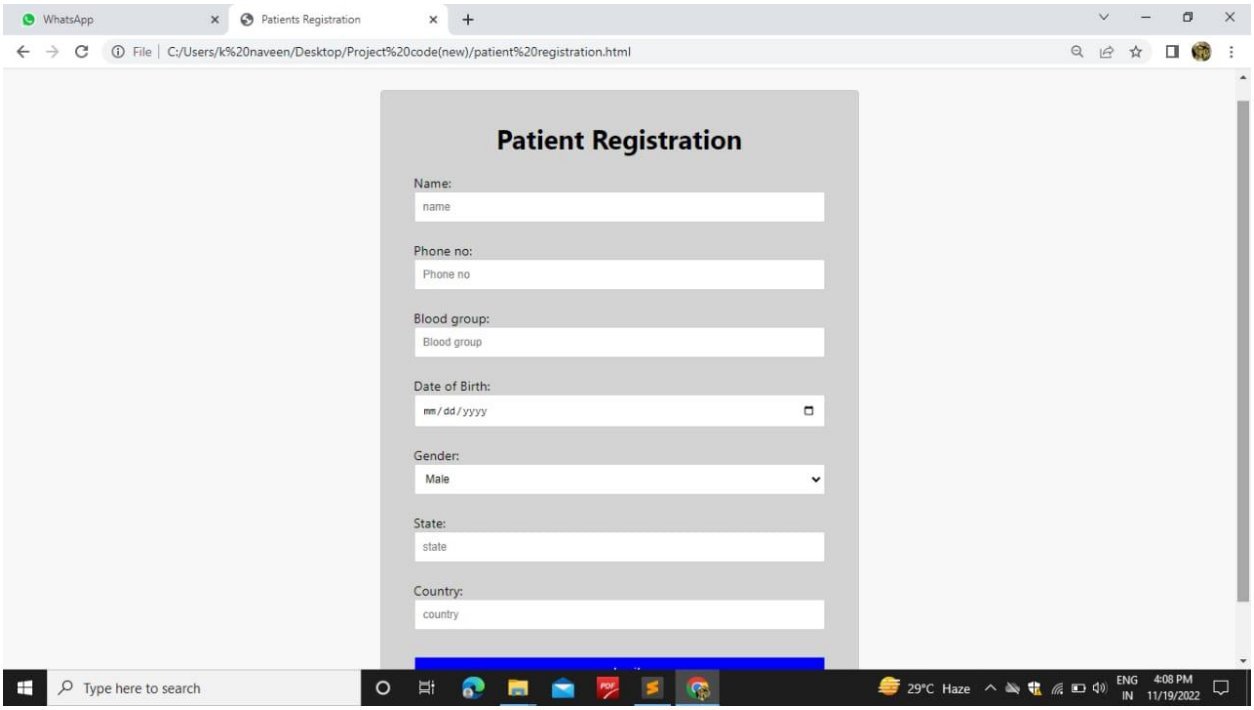
WELCOME PAGE :



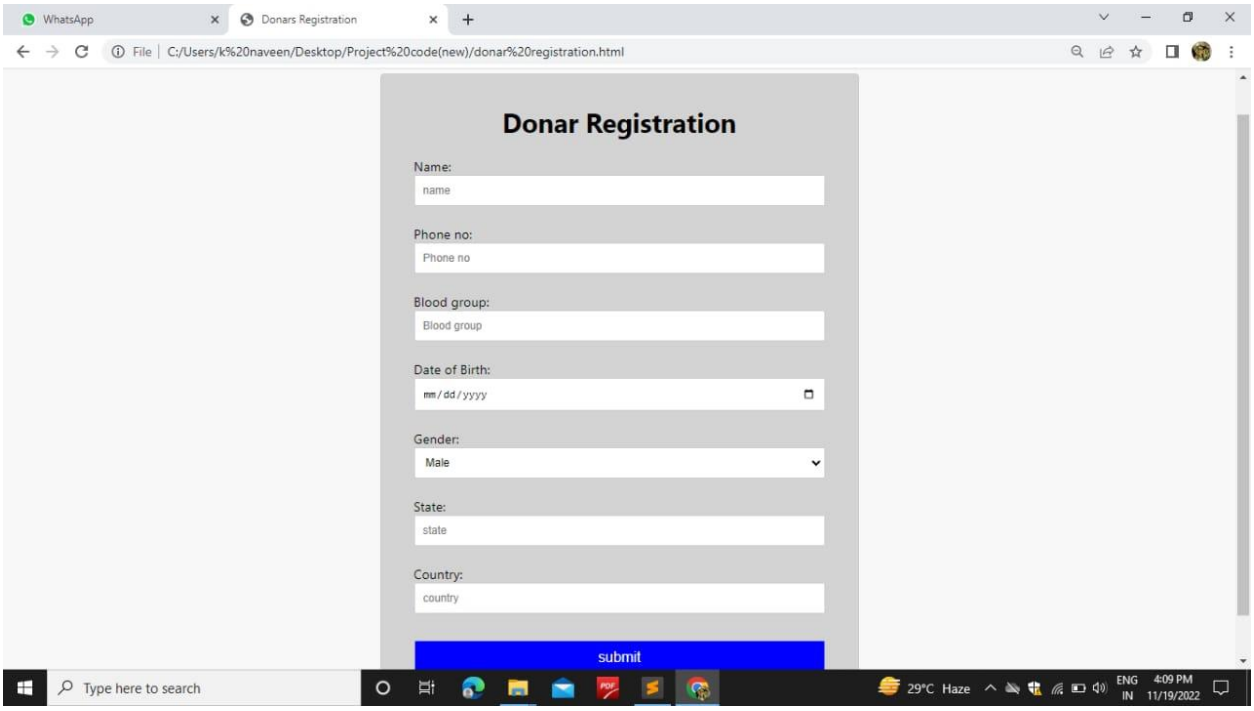
OPTION PAGE :



PATIENTS REGISTRATION :



DONOR REGISTRATION :



10. ADVANTAGES & DISADVANTAGE :

10.1 ADVANTAGES :

- have internal or external bleeding due to an injury
- have sickle cell disease or another illness that affects the blood
- are undergoing cancer treatment
- are undergoing surgery, such as cardiovascular or orthopedic surgery
- have an inherited blood disorder
- are undergoing a transplant
- need treatments involving plasma or other blood product

10.2 DISADVANTAGES :

- screening donors for existing health conditions
- using new needles for each donation
- having professional staff on hand
- providing monitoring and refreshments to ensure a safe recovery

11. CONCLUSION :

In recent days, it is noticed the increase in blood request posts on social media such as Facebook, Twitter, and Instagram. Interestingly there are many people across the world interested in donating blood when there is a need, but those donors don't have an access to know about the blood donation requests in their local area. This is because that there is no platform to connect local blood donors with patients. BLOODR solves the problem and creates a communication channel through authorized clinics whenever a patient needs blood donation. It is a useful tool to find compatible blood donors who can receive blood request posts in their local area. Clinics can use this web application to maintain the blood donation activity. Collected data through this application can be used to analyse donations to requests rates in a local area to increase the awareness of people by conducting donations camps.

12. FUTURE SCOPE :

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

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

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