

PLASMA DONOR APPLICATION

PROBLEM STATEMENTS:

Plasma is commonly given to trauma, burn and shock patients, as well as people with severe liver disease or multiple clotting factor deficiencies. It helps boost the patient's blood volume, which can prevent shock, and helps with blood clotting.

With the number of people affected by COVID-19 infection, the demand for the plasma of recovered patients has also gone up tremendously. The antibodies, which are present in our body, can help someone fight the infection and emerge victorious.

Our Plan:

We plan to make a User-friendly application for users who are in need for plasma or who wish to donate plasma to anyone who are in need.

However, areas of concern, including privacy and confidentiality, should be considered during design and development. Age was identified as a contributing factor that might decrease the likelihood of app usage among donors. The donation center staff focused on the educational features of the app and emphasized the importance of the app providing statistics and sending notifications and reminders to donors.

ABSTRACT:

This system is used if anyone needs a Plasma Donor. This system comprises of Admin and User where both can request for a Plasma.

In this system there is something called an active user, which means the user is an Active member of the App and any sort of infection or disease he/she has recovered from.

Both parties can Accept or Reject the request.

The person who wants to donate his/her plasma needs to register in our application providing required information which are name, age, blood group, phone number, and location, etc.

Patients who need plasma can also fill the form to request the plasma. Patients can directly call the donor by taking his/her contact number from the application.

User can also search based on location they are living in using their phone's network to let them find and connect with people for plasma requirements.

Also saves plasma donation history, to increase the possibility of saving lives.

Literature Survey

Paper 1

Authors: Rehab S.Ali, Tamer F.Hafez , Ali Badawey Ali, Nadia , Abd-alsabour

Year : 2020

Title: A Web Application to Manage All Blood Donation and Transfusion Process

Methodology: This paper aims to help people fulfill needs for a safe and reliable blood group by searching for and locating a specific blood group.

Advantage: Blood Bank system helps blood banks and donors save lives of the patients through a controlled system which manages all blood donation and transfusion processes.

Disadvantage: It is difficult to connect with people with who has the on demand blood group.

Paper 2

Authors: Mohammed Anis Oukebdane , Samir Ghouali , Karima Ghazali , Mohammed Feham

Year : 2020

Title: E-Blood Bank Application for Donors and Life Savers

Methodology: Web application that is connected to a centralized database, to collect and organize data from all blood banks and blood donation campaigns.

Advantage: This application contains the updated database which has all category blood groups of people all over the world.

Disadvantage: Database should be updated periodically.

Paper 3

Authors: Ms. Pradnya Jagtap ,Ms. Monika Mandale ,Ms. Prachi Mhaske ,Ms. Sonali Vidhate ,Mr. S. S. Patil

Year : 2020

Title: Implementation of blood bank donation application

Methodology: Blood Donation System is an android based system that is designed to store, process, retrieve and analyse information concerned with the administrative and inventory

Advantage: Easy connecting donors and recipients makes blood donation way more proficient.

Paper 4

Authors: Abhijet Gaikwad, Nilofar Mulla, Tejashri Wagaj, Raviraj Ingale, Prof. Brijendra Gupta, Prof. Kamal Reddy

Year : 2020

Title: Smart Blood Finder

Methodology: The general idea of the study is to develop a Smart Blood Finder Application is to manage the records of the donors and the people who need blood

Advantage.: Develop a computer system that will link all donor

Disadvantage: It does not allow integration with blood donor management system

S.No	Author	Title of the Paper	Methodology	Pros (Advantage)	Cons (Disadvantage)
1.	Rehab S.Ali, Tamer F.Hafez , Ali Badawey Ali, Nadia , Abd-Alsabour (2020) (IEEE paper 1)	A Web Application to Manage All Blood Donation and Transfusion Process	This paper aims to help people fulfill needs for a safe and reliable blood group by searching for and locating a specific blood group.	Blood Bank system helps blood banks and donors save lives of the patients through a controlled system which manages all blood donation and transfusion processes	It is difficult to connect with people with who has the on demand blood group.
2.	Mohammed Anis Oukebdane , Samir Ghouali , Karima Ghazali , Mohammed Feham (2020) (IEEE paper 2)	E-Blood Bank Application for Donors and Life Savers	Web application that is connected to a centralized database, to collect and organize data from all blood banks and blood donation campaigns.	This application contains the updated database which has all category blood groups of people all over the world.by chatbots in banks.	Database should be updated periodically. performance of banks.

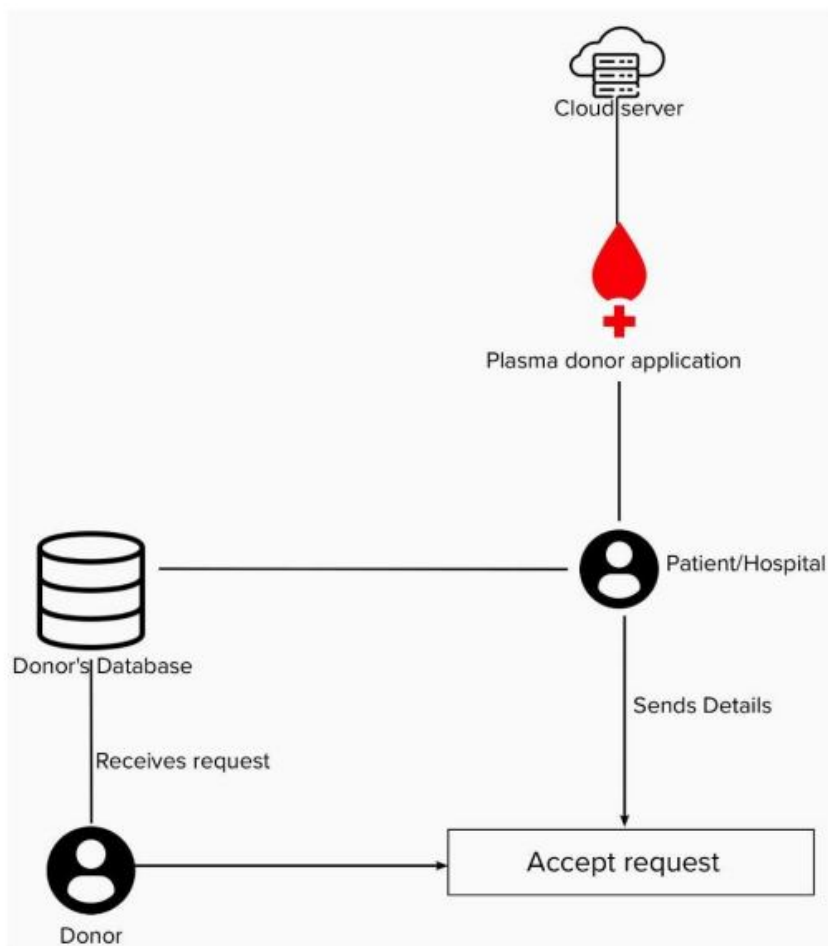
3.	Ms. Pradnya Jagtap ,Ms. Monika Mandale ,Ms. Prachi Mhaske ,Ms. Sonali Vidhate ,Mr. S. S. Patil (Paper 1)	Implementation of blood bank donation application	Blood Donation System is an android based system that is designed to store, process, retrieve and analyse information concerned with the administrative and inventory	Easy connecting donors and recipients makes blood donation way more proficient.	-----
4.	Abhijet Gaikwad, Nilofar Mulla,Tejashri Wagaj,Raviraj Ingale,Prof.Brijendra Gupta,Prof.Kamal Reddy (Paper 2)	Smart Blood Finder	The general idea of the study is to develop a Smart Blood Finder Application is to manage the records of the donors and the people who need blood	Develop a computer system that will link all donor .	It does not allow integration with blood donor management system

Solution Architecture

Solution Architecture:

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

- Find the best tech solution to solve existing business problems.
- Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.
- Define features, development phases, and solution requirements.
- Provide specifications according to which the solution is defined, managed, and delivered.
- **Solution Architecture Diagram:**



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 Registration through Mail
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Certification	After the donor donates plasma, we will give them a certificate of appreciation and authentication
FR-4	Statistical Data	The availability of plasma is given in the page as an availability status, which will be helpful for the users.
FR-5	User Requesting Plasma	Users can request to donate plasma by filling out the request form on the page. Once the request is submitted, they will get an email verification.
FR-6	Reporting Requirements	Users can use the search bar to look up information about where our camps are being held and other topics.

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 should be modern and user friendly to all age group.
NFR-2	Security	It should be secured with 2FA authentication and other basic methods such as username and passwords.
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	Users should have a proper Internet Connection.
NFR-5	Availability	As it is a health system it should be deployed and accessible 24x7.
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.

OUTPUT:

Login

Register

DashboardMy RequestRequest FormLogout

Name:

Blood Group:

Location:

Hospital Name:

Submit



Dashboard My Request Request Form [Logout](#)

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