

LITERATURE SURVEY FOR PLASMA DONOR APPLICATION.

INTRODUCTION:

A plasma donation occurs when a person voluntarily has blood drawn and used for transactions and made into pharmaceutical medications by a process called fractionation (separation of whole-blood components). Donation may be of whole blood, or of specific components directly.

During the COVID 19 crisis, the requirement of plasma became a high priority and the donor count has become low. Saving the donor information and helping the needy by notifying the current donors list, would be a helping hand. In regard to the problem faced, an application is to be built which would take the donor details, store them and inform them upon a request.

Plasma donor management system is a web-based system that can assist the information of blood bag during its handling in the blood bank. With this system, the user of this system can key in the result of blood test that has been conducted to each of the blood bag received by the blood bank.

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. During the COVID 19 crisis, the requirement of plasma

became a high priority and the donor count has become low. Saving the donor information and helping the needy by notifying the current donors list, would be a helping hand. In regard to the problem faced, an application is to be built which would take the donor details, store them and inform them upon a request.

Plasma Donor Application is an android application that enables individuals who want to donate the blood to help the needy. It also enables blood donation camp organizers to record and store data for people who communicate with donors and it also provides centralized database.

USECASE:

FOR USER

Actor(s)	Blood donor, Blood Seeker, Hospitals, Blood bank.
Purpose	For user registration.
Pre-Conditions	User selected the registration form to fill.
Post-Conditions	Information is valid. Saved in database. Invalid Information, Error message displayed.
Success Scenarios	All provided information is valid.

FOR SEARCHING DONORS

Actor(s)	Blood donor, Blood Seeker, Hospitals, Blood bank.
Purpose	For search donors.
Pre-Conditions	A user has selected donors page.
Post-Conditions	If internet connection is available, Donor found successfully. If not available backup screen will be displayed.
Success Scenarios	Donors found successfully.

EXISTING SOLUTIONS:

The key objectives of our work are:

- To build a platform between blood donor and receiver.
- To implement a hybrid approach of K-Means and Agglomerative clustering algorithm.
- To find the nearest blood donor in a specific region in the shortest possible time.
- To increase the number of voluntary unpaid blood

donations significantly.

PROPOSED SOLUTION:

The proposed system (Plasma Donor Application) is designed to help the Blood Bank administrator to meet the demand of Blood by sending and/or serving the request for Blood as and when required. The proposed system gives the procedural approach of how to bridge the gap between Recipient, Donor, and Blood Banks. This Application will provide a common ground for all the three parties (i.e. Recipient, Donor, and Blood Banks).

Recipient can check the availability of blood of all blood groups in all the registered blood banks available in the system so that request is not sent to a blood bank which is deficient of the required blood . Customized and easy to access interface.

CONCLUSION:

Blood is the most essential thing to save a life. By donating blood, we can save many lives. It is also important to remember that any one of us may need blood at some point in our lives, making blood donation is an essential duty of our citizenry. In today's world where people are busy with their lifestyle and those who are eager to donate blood but are not able to, can plan to donate blood by sitting at home just by one click with our application. This application will make

revolutionary changes to the medical system as people will be able to donate blood and serve mankind.