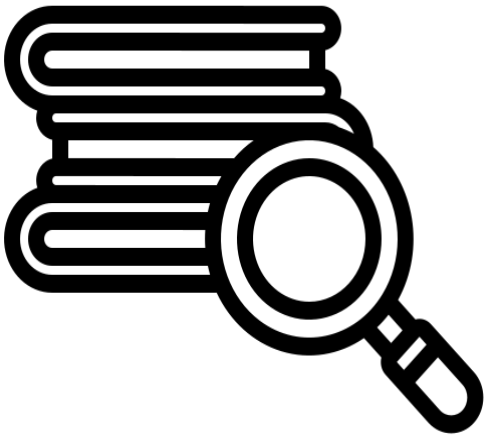
LITERATURE SURVEY



PLASMA DONOR APPLICATION

- Plasma is the liquid portion of blood. About 55% of our blood is plasma, and the remaining 45% are red blood cells, white blood cells and platelets that are suspended in the plasma.

- Plasma is about 92% water. It also contains 7% vital proteins such as albumin, gamma globulin and anti-hemophilic factor, and 1% mineral salts, sugars, fats, hormones and vitamins.

- In a plasma-only donation, the liquid portion of the donor's blood is separated from the cells. Blood is drawn from one arm and sent through a high-tech machine that collects the plasma. The donor's red blood cells and platelets are then returned to the donor along with some saline.

- The process is safe and only takes a few minutes longer than donating whole blood.

- Donated plasma is frozen within 24 hours of being donated to preserve its valuable clotting factors. It can be stored for up to one year and thawed for transfusion to a patient when needed. Red Cross donations are often used directly for hospital patient transfusions, rather than pharmaceutical uses.

- 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.
- The user interacts with the application. Registers by giving the details as a donor. The database will have all the details and if a user posts a request then the concerned blood group donors will get notified about it.

Blood Bank Mobile Application :

M. Fathima, A. Valarmathi , Department of computer applications, Anna University, BIT campus, Tiruchirappalli, Tamil Nadu, India

The proposed system (blood bank management system) 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.

P. C. P. C. A. V. I. M. Yan – "Building a chatbot with serverless computing" IBM Watson research center, 2016: Author conducted a survey of existing serverless platform in this paper from source projects, industry, academia, use cases, and key characteristics and has described the challenges and the open problems associated with it. Authors work presented a hands-on experience of serverless technologies using different services from different cloud provides such as Amazon, Google, IBM, Microsoft Azure.

Catassi, C. A., Petersen, E. L - "The Blood Inventory Control System Helping Blood Bank Management Through Computerized Inventory Control", Transfusion, Vol. 7, No. 60, 196: In this article, Catassi and Petersen described computerized blood bank inventory. The purpose is to control the distribution of blood bank and hospital. It is possible to monitor daily blood status.

Sultan Turhan, "An Android Application for Volunteer Blood Donors", Computer Science & Information Technology-CSCP, pp. 23-30, 2015: The smartphone application is being developed to allow searching for voluntary donor nearby, followed by communication between donor especially on the emergency situations.

Aishwarya, R Gowri "Developing a Plasma donor application using Function-as-a service in AWS": In this project plasma donor application is being developed by using AWS services. The services used are AWS Lambda, API gateway, DynamoDB, AWS Elastic Compute Cloud with the help of these AWS services, it eliminates the need of configuring the servers and reduces the infrastructural costs associated with it and helps to achieve serverless computing.

Rishab Chakrabarti, Prof. S. M. Chitalkar - "Lifesaver E-Blood Donation App Using Cloud", 2020: Reduction in the errors of blood bank using most eligible donor method. Direct Communication Between donor and the person in need of blood During the Emergency situation. However, this paper has the drawback that the user-provided information is still unconfirmed.

Z. Al-Ali - "Android Based Health Application in Cloud Computing for Blood Bank", 2018: Accessibility and availability are the criteria on which an application is designed for its success in the IT market. The drawback of this is that it necessitates precise and readily available patient records.

“AN ANDROID APPLICATION FOR VOLUNTEER BLOOD DONORS” - Sultan Turhan - Department of Computer Engineering. Galatasaray University, İstanbul, Turkey : A smart phone application is developed to facilitate the identification of the nearest available blood donor volunteer and the communication with him/her in the emergency situations where the blood can't be supplied through the blood banks' stocks .