

BLOOD POINT

Digvijay Singh¹, Divya Prakash Singh², Astbhuja Datt Mishra³,
Dheeraj Sharma⁴, Mrs. Zainab Kamal Khan⁵

¹B. Tech 4thYear, Dept. of Computer Science and Engineering, ITM Gorakhpur, UP, India.

²B. Tech 4thYear, Dept. of Computer Science and Engineering, ITM Gorakhpur, UP, India.

³B. Tech 4thYear, Dept. of Computer Science and Engineering, ITM Gorakhpur, UP, India.

⁴B. Tech 4thYear, Dept. of Computer Science and Engineering, ITM Gorakhpur, UP, India.

⁵Assistant Professor, Dept. of Computer Science and engineering, ITM Gorakhpur, UP, India.

ABSTRACT

In many cases when a critical patient needs blood; often routes with their family, friends, and community. This procedure is considered time consuming and may lead to patient health risks. While information and technology are available and communication users are available, people find it difficult to find a blood donor. Therefore, the Android 'Blood Point' app is designed to overcome obstacles in a critical patient, its caregiver and provider. This application allows users to check donor details and communicate in the event of an emergency. Interested blood donors can download the application and fill out important information. By downloading this program, any ordinary person who wants blood can request a blood donor online. By downloading this program, any ordinary person who wants blood can request a blood donor online. The forefront of app development using Java language and the Firebase site in the background is Android Studio. Blood Point has the same capabilities as texting, email, and direct communication (telephone). This software can be upgraded with additional features such as in-app chat, blood search and donor finder using Google Maps, as well as a user interface that allows potential donors to view donation activities.

Keyword: - AndroidStudio, Firebase, Java.

1. INTRODUCTION

Blood is an essential element of human life and in many emergencies, it is the blood that is most needed compared to other human tissues. In many cases, when blood is needed during an emergency, people who are looking for blood donors often pass it on to their family, friends, and community. It is often recognized that hospitals or blood banks and clinics face challenges in providing complementary blood to an emergency patient. The process of finding a blood donor in the current situation is considered time consuming and leads to a health risk for a critical patient. Even on social media, reaching out to as many people as possible and the right person to donate blood is impossible. Health organizations in India have been trying to administer blood transfusions wherever necessary and to organize blood collection campaigns and other procedures such as administering, approving blood transfusions, and reviewing donor details. Despite adequate storage facilities, it is still a challenge to obtain blood from the same donor. In that case, there is a solution to the problem of insufficient blood bank shares which is the use of a smartphone application. The Android "Blood Point" app, specially developed to search for blood donors as their desired location and blood type; create an instant channel and apply immediately. In this application, the user will be able to contact the donor in real time and receive the donation after confirming his or her blood type and required details. Alternatively, hospitals can use this app to search for blood donors and contact blood donors in nearby or nearby locations based on their location. Registered donors will receive a notification, phone call or email about the required blood at a specific clinic where they can donate blood. This app provides blood seekers with the function of requesting, calling, sending a

message and email to a blood donor quickly and providing a convenient operation to the donor in the event of any changes to be made at all times.

2. LITERATURE REVIEW

Blood transfusions are an important part of health care. It helps save life rates every year for each routine and emergency. In addition, it dramatically improves the expectation and excellent health of patients with a number of critical and ongoing conditions. A blood transfusion helps to donate blood voluntarily. Over the next five to 10 years, blood transfusions are essential to coping with adult depression. In addition, in the case of surgery or treatment, medical personnel request that the affected person's loved ones donate blood or that the family needs to be compelled to know about a donor who has a blood type compatibility with the affected person. This emergency raises many difficult situations trying to find sponsors. The new strategies must meet the needs of the community. Android Smartphone blood donation app is a complete android-based blood donation tool that stores the information of blood donor volunteers. In emergencies, the request can convey a message to all eligible donors to donate, as well as records from the blood center and clinic. Use cloud hosting infrastructure to store app data anywhere and anytime. And it is a voluntary blood donation as a requesting applicant which is the highest quality of what we have submitted. The applicant can forward a message to registered users with an urgent blood tag required, and the message will be forwarded to all voluntary blood donors. When a volunteer confirms a blood donation, he or she is recognized as a donor. Our software supports the collection of blood donations and ensures careful management of emergencies. The software system enables the applicant to deliver a certain message within the database of the donated blood and updates the recipient who is inclined to donate the requested blood at the same time. We also create application provider profiles to evaluate our applications, update them to help improve timely access to statistics and faster response to emergencies.

The demand for blood in India is estimated at 12 million. Blood donation of 1% of the population can meet the demand for Indian blood. "Statistics show that there are 234 million major surgeries in India, 63 million trauma surgeries, 31 million cancer-related procedures and 10 million pregnancy-related complications requiring blood transfusions" (TOI, 2014). The percentage of voluntary blood donors in India is 80.5%. India has a share of 6.82million. (NACO, 2016). Blood cell can be helpful in finding a stable supply of blood and blood products. The discovery of such blood cells can help to respond better and faster. It can be used to reach donors who have difficulty accessing a suitable blood donation center and have time constraints.

The seeker will have a list of options and allow the hospital to choose from it based on what the patient wants. The app notifies other nearby users of a request for a personal request or donor request when registering an application. The website was built using firebase to store the history of the donor and recipient.

3. PROBLEM STATEMENT

We have seen a previous survey that there was a recent blood shortage in the emergency. As a result of manual labour, public awareness was limited regarding blood donations or transfusions. There are two types of procedures in the existing system which are the blood donor system and the blood donation system performed by the hospital in both ways the director is responsible for managing, updating or deleting the inventory of blood bank inventory. Administrators of nearby banks or organization have the authority to make changes to records only as the Android app is only available within them making it difficult for donors or those wishing to make changes to personal information within the system.

In India many people lose their health due to anaemia, unable to get blood early. Relatives and friends of the victims started looking for a donor to help, but there was no guarantee of donor status and health status. , and there are many people who are willing to help and to give of themselves in order to save their lives. There are a number of programs that have been put in place to improve the blood donation process. However, this is not always the case. We suggest using the latest technology and tools to find a system that closes the space and provides a structured solution.

4. EXISTING SYSTEM

The existing system of blood bank and organ storage system contains a lot of manual labor due to its time consuming and hardcopy maintenance. The biggest problem with the old organ and blood banking system was that it did not follow the actual needs of the users. Tracking and maintaining the site became more difficult as the data was stored in person.

It takes lot of time. Maintaining a large amount of blood or organs as well as daily activities without any computer also poses a challenge. In an existing system, it has a lot of potential for storage loss. The user or donor or contact must contact the organization, whenever there are any changes or updates to their profile..

5. PROPOSED MODEL

This Android app helps to bridge the gap between the seeker and the provider. An application that supports current and easy-to-use technology. It consumes less time and gives faster results as compared to the previous system. Easily download the latest updates and alerts. This system makes overall project management much easier and more flexible. This application was created with the help of Java and a website firebase. The operation of the system will mainly involve the following characters.

1. The seeker / patient.
2. Provider / Ordinary People.

6. FUTURE SCOPE

Some of the future scopes that can be done to this system are:

1. To provide a stronger platform for the users to look at the closest blood donors, hospitals, and blood banks anywhere as well as anytime so that they can connect there easily.
2. Providing the system with GPS, which is able to help blood seekers to seek out hospitals, blood donors, and blood banks nearer to the placement from where the request for the blood is generated to avoid wasting their time.

7. CONCLUSION

The proposed app provides an Android-based app that is very useful for Emergency Services i.e., during Blood Donation, Installation, etc. this method offers the strongest thanks to contacting blood donors. The program offers a strong appreciation for contacting blood banks. It is also good for keeping records such as stock, blood requirements, etc. It is easy to keep records on the Website of a registered Provider. It also provides us with information about the latest technology used in developing an android-based system.

8. REFERENCE

[1] Vikas Kulshreshtha and Sharad Maheshwari, "Benefits of a Blood Bank Management Information System", International Journal of Engineering and Science, Vol. 1, Issue 12, PP 05-07, 2012.

[2] Hayes, Helen and Onkar Sharma, "Ten years of experience with a typical first-year computer science program, information systems and information technology topics". College Computer Science Journal, Vol. 18, No. 3 pages 217-227, 2003.

- [3] Polack, Jennifer, "Planning for CIS Education Within the CS Framework". College Computer Science Journal, Vol. 25, No. 2, pages 100-106, 2009.
- [4] J. Scott Armstrong, "The Value of Systematic Planning for Wise Decisions: Response". Strategic Management Journal, Vol. 7, pages 183-185, 1986.
- [5] Sayali Dhond, PradnyaRandhavan, Bhagyashali Munde, Rajnandini Patil, and Vikas Patil, "Android Based Health Application in Cloud Computing For Blood Bank", International Engineering Research Journal (IERJ) Volume 1 Issue, 2015.
- [6] T.HildaJenipha and R.Backyalakshmi, "Android Blood Donor Life Saving Application in Cloud Computing", American Journal of Engineering Research (AJER), Volume 03, Issue 02, pp. 105-108, 2014.
- [7] P. Priya, V. Saranya, S. Shabana and Kavitha Subramani,
- [8] "Improving Blood Donation and Technopedia Management System," International Journal of New Scientific Research, Engineering and Technology, Volume 3, Special Issue 1, 2014.
- [9]. Mondal PK, Prodhan UK, Al Mamun MS, et al. Separation of white blood cells using fuzzy C means a separation algorithm.
- [10]. Ottenberg R. Transfusion in the new millennium In: Rossi's Principles of Transfusion Medicine. 4th ed. Hoboken: Blackwell Publishing; 2019.
- [11]. Catassi CA, Peterson EL. Blood inventory control system-assists blood bank management through computerized inventory control.