A Review Paper on Blood Bank Management System  
Rohit S. Remella¹, Shubham Tomer², Saurav Tomer³  
Department of Computer Science & Engineering  
ABES Institute of Technology, Uttar Pradesh, India  

Abstract:  
This paper presents the Blood Bank Management System. A Blood Bank Management System can be used in any clinic, hospital, labs or any emergency situation which requires blood units for survival. Our system can be used to find required amount of blood in emergency situations from either blood bank or even blood donors. Current system uses a grapevine communication for finding blood in cases of emergency, may it be by a donor or blood bank. The intentions of proposing such a system is to abolish the panic caused during an emergency due to unavailability of blood.

Keywords: Emergency; Blood Units; Donors; Blood Bank

1. INTRODUCTION

To create a system for connecting every blood bank or a donor in a chain so that this chain can be beneficial for patients who are in dire need of blood. The objective of developing such a system is to eliminate the situation of havoc and panic in cases of emergencies, so that the patient’s family can stay besides each other rather than rushing for arranging blood. The beauty of this system is that a user can both ask for blood or be a donor. The user can keep donating on regular basis and keep updating on the app for it to inform when is the next time the user is eligible for donation.

2. EXISTING SYSTEM

Hospitals and blood banks in India follow a very tough system for getting units of blood in emergency. The hospital will provide the blood if required amount of blood is available. Otherwise, the patient’s family has to search for blood in an unorganized manner. The existing application system is very complex and has high response time. The system doesn’t support quick updating of blood. Moreover, the existing system doesn’t join donors in a chain for emergency cases. These systems are not updated and hence a very unsuitable user experience.

3. PROPOSED SYSTEM

Our application is to developed so as to reduce the time to a great extent that is spent in searching for the right donor and the availability of blood required. Thus, this application provides the required information in minimal time and also helps in quicker decision making. We are helping families to stay besides their loved ones in the case of emergency rather than panicking to search blood units by providing a real-time database based application for connecting blood banks and donors.

3.1 Architecture of proposed System

The system consists of a client side and server side. The client side is divided into User side and Blood Bank side. These sides will use Mobile devices and Tablet Phones to access the system. Users can use this to find their eligibility for donation and to find blood units when required, whereas Blood banks can update the blood units they have to offer at the current point of time. The server consists of real-time database which will store information about users and blood banks.

3.2 System Flow

The proposed solution involves an android application, developed for individual users and blood banks which are connected over a network. Blood Banks and individual users, both have to register before using the functionalities of the system. Once registered, authentication process will be initiated and a confirmation email will be sent to registered email id. As soon as the verification is done, the user’s data will be permanently stored in the real-time database. The information stored on registration will be very crucial as it will be used in case of emergency. The contact detail will be available when a user will search for blood units. The application provides a direct calling feature when searched. Blood banks will be able to update blood units as soon as blood is given to other patients or received by other donors.

3.3 Android Application Development

Android is an open source operating system owned by Google specially designed for mobile phones and tablets. Android is based on Linux platform. The shortcomings of existing system is coped up by using android based application. The application is developed on Android Software Development Kit using Java for coding. The back end is supported by Firebase for connectivity and real-time database. Authentication process is also carried out by firebase api.

4. CONCLUSION

The project “Blood Bank Management System” aims to act as an important role in saving life of human beings and reduce the panic created in emergency situations. The project Android based Blood Bank Management system is developed such that users can view the information about registered blood donors and blood banks such as name, address, and phone number along...
with their details of blood group and other medical information. Not only does it connect users to different donors but also to blood banks.

**ACKNOWLEDGEMENT**

We would like to thank Director Dr. M.K.Jha, Head of Department, Dr. Rizwan Khan, our project mentor, Prof. Priyanka Gupta for the valuable advice and technical assistance.

**5. REFERENCE**


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