

Blood Bank Management

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Abstract: This is new Application for health that offers healthcare services by utilizing the mobile devices and communication technologies. In health care services, blood donation is a complex process and consumes time to find some donor who has the compatibility of blood group with the patient. We developed android based blood donation application to establish a connection between the requester and donor at anytime and anywhere. The objective of this application is to provide the information about the requested blood and number of available donors around those localities. It assists the requester to broadcast the message across the maintained volunteer blood donor network by our application and update the requester at the same time who is willing to donate the requested blood. To evaluate our application, we created requester-donor profiles and analyzed that it will help to improve the timely access of the information and rapid response in emergency situation.

I. Introduction: A Genuine person from the Administrator side will collect information about the blood donor like contact and address details for registration. After filtering the invalid data, the Blood donor will be uploaded in Online Blood Bank System site for general users. Before uploading their details, the Administrator will give unique username and password to each donor. The Administrator can also add new donor who registered through site and allows him to create his own account. The administrator searches various donors details based on normal or map based search. The administrator can view the account information and can also view the suggestion (feedbacks) given by different users of this site. The administrator can view total report of the site. Every donor will have their own e-mail address and password with which they will login to this site.



Figure 1. The Proposed Architecture

After they logged on, he can search for other donors, view his own profile, and send message to other donors in the system. He can change and retrieve his password. General users are those who are new users in this site. They can view general information about the Blood Donation System details. They can give their suggestion about this site. They can register themselves and become a donor for the Online Blood Bank system. If a general user is registered as donor, he will be given user name and password with which he can maintain his own account. General user can act as recipient to blood if he requests for blood, he can search required donor based on location using Google Map and blood group. We have used Visual Studio 2010 for doing the implementation of Blood Donation Management System. We have used Microsoft SQL Server 2008 as database server. We use mobile with SMS facility, mobile which support such application.

II. Literature survey: Despite being a country with a population of 1.2 billion, India faces a blood shortage of 3 million units. The problem can be addressed if an additional two percent of Indians donated blood, health experts say. According to a 2012 World Health Organization (WHO) report, only nine million units are collected annually, while the need is for 12 million units. The shelf-life of donated blood is 35 to 42 days. There is a constant need to replenish stocks in our blood banks. The problem could be addressed if only two percent more Indians donated blood," Anju Verma, chief medical officer, Rotary Blood Bank, told us. Reports also suggest that only one percent of eligible donors do so every day." Healthy donors are between the age of 18 to 65 years. So they should come out and donate blood," added Verma. Statistics show that there are 234 million major operations in India, 63 million trauma-induced surgeries, 31 million cancer-related procedures and 10 million.

III. Proposed System: There are lots of communication gap among patients (accepting blood), donors (who donate bold), blood banks and hospitals in our country. Medical facility is not available equally in every part of the country. If someone needs blood, first of all he searches it within his family members, then nearest hospitals and blood banks. If they cannot manage blood in these ways, it is really hard for them to contact other people to collect blood in a short time. That is the problem we want to solve through our application, Blood Donation Management System in which electronic information about the donors and organizations related to donating the blood is created. Through this application, any person interested in donating blood can register as donar.

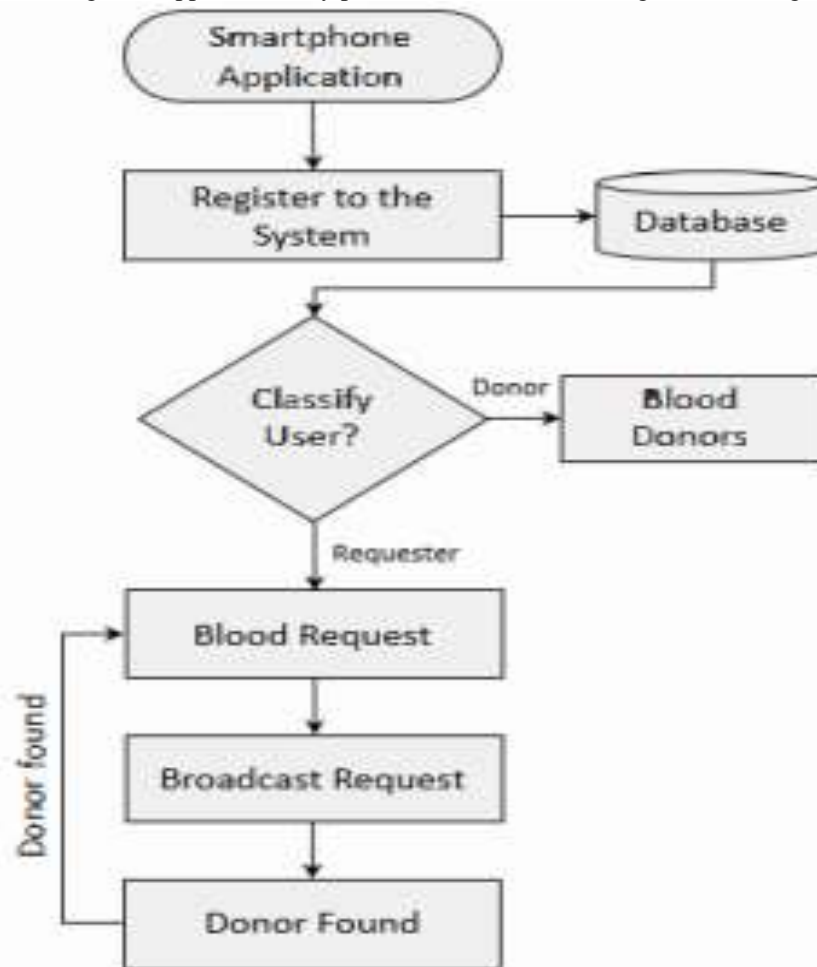


Figure2. System Block Diagram

IV. Acknowledgement: The Blood Donation Management System is a 24×7 system which is essential for different kinds of people like blood donation system personnel, doctors, donors, recipients and other general users. Here any person who has undergone blood test can be registered in any authorized blood bank as donor. That person can get facilities like information about blood donation system, donors and recipients. This paper facilitates services like direct access to the site to get donor's information if there is an emergency.

V. Conclusion: The website eases the access to the blood of different blood groups required by the particular person in need. The user can know about the nearby blood banks depending on its location. The website also tells us about the blood stocks as it is regularly updated by the respective blood banks.

VI. References: <http://www.bloodbankindia.net/>

http://en.wikipedia.org/wiki/Blood_bank

<http://www.bharatbloodbank.com/>