



Smart Blood management application On Android

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Abstract

The objective of this application is to developing an online Blood donation Information. The Blood Donation Agent is to create an e-formation about the donor and organization that are related to donating the blood. This System is used for maintain whole information about donors, receivers, camps. The purpose of this study was to develop a blood management information system to assist in the management of blood donor records and ease/or control the distribution of blood in various parts of the country basing on the hospital demands. Without quick and timely access to donor records, creating market strategies for blood donation, lobbying and sensitization of blood donors becomes very difficult. It enables monitoring of the results and performance of the blood donation activity such that relevant and measurable objectives of the organization can be checked. It provides to management timely, confidential and secure medical reports that facilitates planning and decision making and hence improved medical service delivery.

I. INTRODUCTION

Blood donors is an important means of promoting healthy lifestyles and makes an important contribution to individual and community health. blood bank is a place where blood bag that is collected from blood donation events is stored in one place. The term blood bank refers to a division of a hospital laboratory where the storage of blood product occurs and where proper testing is performed to reduce the risk of transfusion related events. In Blood management system application, it is important that our request must satisfy for the blood group.

The main aim of this project is to save lives of people by providing blood. Our project Online Blood Bank system using Android is developed so that users can view the information of nearby hospitals, blood banks and volunteer donors. This project is developed by four perspectives i.e. hospital, blood bank, volunteer donors and patient. This application we are developing helps to select the nearby hospitals, blood banks, donors online instantly by tracing its location using GPS. Thus this application provides the required information in less time and also helps in quicker decision making.

The main purpose of this project is to interconnect all the hospitals, blood banks and donors into a single network, and store various data and information of blood and health of each individual.

II. LITURATURE SURVEY/BACKGROUND

Hospitals and blood banks in India follow Avery tough system for getting units of blood in emergency. The hospital will provide the blood if required amount of the 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 unsubtle user experience.

In most of the existing system, the blood management system exhibited is lot of unproductive and inefficiency that had impact fetched taken by system. there system has based on paper card, websites to collect blood data ,keep details from blood donors ,and broadcast results to blood donors, had deficiency that needed IT based solutions. The system was characterized by delays and sometimes failure to access historical records; errors were witnessed in entry and manual analysis of results, secrecy of records lacked because unauthorized persons could easily access the records.

Installed in the traffic control cabinet situated at the traffic locations. Switches the System from normal mode to intelligent mode and vice versa as per the logic. Handles the contingent cases .Receives the sensor recordings and saves in local database

III. METHODOLOGY

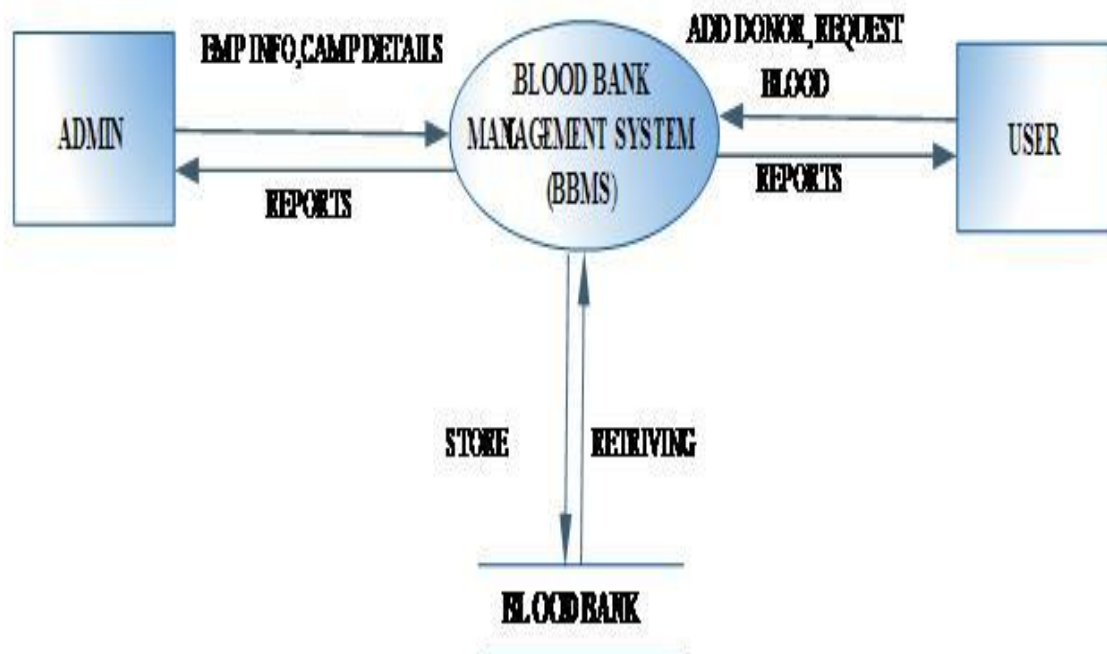


Fig. system Architecture



Modules

Module 1: Android Application

1. This module consists of the process of how blood donation process is done in this system. The blood donor can find out the nearest blood banks available according to his/her current location based on the GPS feature used in this system.
2. The blood donor will then have to register themselves on the application for validation purpose and further donating the blood to a particular blood bank. These blood donors can later also be contacted based on the availability status they have updated on the system for further contact in case of requirement of blood of their blood group.

Module 2: Hospital Web Application-

1. This module consists of the process of how recipients are going to request for the required amount of blood from the blood bank.
2. The recipient has to make use of unique hospital id which is registered in the hospital's database .Only those requests made through a valid hospital id will be considered as valid requests.
- 3.While requesting for the required amount of blood , the 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.

Module 3. Blood Bank Web Application-

1. This module consists of the process of how the requests from recipients for the required blood are served. The Blood Bank first checks whether the request is a valid one. After validation it checks the hospital's database to ensure that the required amount of blood is not available in that hospital and after the request is served.
- 2.The blood bank module also consists of requesting the blood when urgently needed from other banks and from the registered donors who have kept their status as available for further contact.\newline

IV. Algorithm

- step1: when user can download application main part of the project module1 (login) and module2 (signup) those two option will be displayed on first page.
- step2: when user chose login option. needed to enter user id and password. there information checked will be in database. new user can select signup option registration form will open after filling from user id and password will be created. and it store the information on database.
- step3: after that two option will be displayed One is Donor and Second Recover.



step4: clicking on donor fill all details about your health (Age, blood group, any others health issue, bad habit like smoking) otherwise clicking on receiver show list with in detail of the donor .and neared blood bank or hospital availability of the blood in details.

step5: in that app after choosing blood bank or hospital it show map in details like source to destination.

step6: in case of emergency they call, notify and massage the donor as per the donor wish.

step7: at the end logout your account or application.

V. CONCLUSION

The blood bank information system was developed out of a need to make finding blood supplies or a willing donor on time and using lesser time in searching for either of the two. This system should be made available to everyone because it will help the search of blood supplies doing emergency case faster, in doing so help to avoid health complication and also avoid possible deaths. Due to delays of search of blood.

The proposed system provides an Android based application which is extremely useful at Emergency Services i.e. at the time of Blood Donation, insertion, etc. this method provides a more robust thanks to communicate with blood Donors. The system provides a more robust thanks to communicate with blood banks. It's also ready to maintain reports like stock, blood requirements, etc. It's easy to keep up the records through a database of the registered Donor's. It also provides us knowledge about the most recent technology utilized in developing android based applications.

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