A Survey on Blood Bank Management System

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Abstract: Despite increasing requirements for blood, only about 5\% of the Indian population donates blood. In this website we propose a new and efficient way to overcome such scenarios with our project. These records contain the information like Donor Name, Blood Group, Email Address, etc. After that your contact details will appear in alphabetical order on the screen; the urgent time of a blood requirement, you can quickly check for contacts matching a particular or related blood group and reach out to them through the Blood Bank Website. Blood Bank Management System provides list of donors in your city/area. Use this app in case of emergency. Since almost everyone carries a mobile phone with him/her, it ensures instant location tracking and communication. The location-based app, operational on android platform, will help users easily find donors of matching blood groups in their location and access their mobile numbers for instant help.

I. INTRODUCTION

In today’s everyday life, we come across many emergency situations such as accidents which cause bleeding and blood loss. Such issues create an immediate, critical need for blood supply of specific blood type as per the requirements of one in need. In addition to emergency requirements, advances in medicine have increased the need for blood in many on-going treatments and elective surgeries. The Online Blood Bank management System is to create an e-Information about the donor and organization that are related to donating the blood. The website and the android application links all the blood banks in order to know about the required quantity resulting in the ease of access for customers. The aim of website and app is to build a solution to the ever-growing requirement of blood supply due to accidents and various health problems, the system is developed for accessing the information about various blood banks and hospitals in order to know about their blood stock of various blood groups. The main objective is to automate the complete operations of the blood bank. The Blood bank needs to maintain thousands of records. It would also ease the task of searching for blood of the required blood group and would instantly get the required type through this website. This is a web-based database application system that is to be used by the blood banks or blood centres as a mean to advertise the nation wide blood donation events to the public and at the same time allow the public to make online reservation and request for the blood. For internal works and activities as well as for interaction with public, internet is used. This system also has the ability to keep track of the donor’s information and the blood stock in the blood bank. The technology used for front end is JSP, Bootstrap, Java and for back end MySQL is used.

It includes four modules: Admin, Blood Bank, Donor and Recipient module respectively. The Admin has the access to every movement that would be going on in the website. He will have the overall control over the system. The Admin has all possible permissions required to upgrade and update the system. The Blood Bank will first have to register into the system. After registration the Blood Bank will be required to login. After logging in, the default values of the blood stock will be zero therefore The Blood Bank will have to update the stocks depending on their availability. Once the stocks are updated the Blood Bank will be ready for the use. The Donor can access the information about the blood of the particular blood group which he needs to donate. The donor will have to register first. After registration the system would inform the donor about the nearby blood banks according to his/her location. The Recipient will first have to select the blood group. The system will automatically generate a table containing list of blood banks and their details along with the availability of blood of required blood group.
II. LITERATURE SURVEY

“Blood Bank Management Information System in India” by Vikas Kulshreshtha and Dr. Sharad Maheshwari [1] introduces the review of main features, merits and demerits provided by the existing Web-based Information System for Blood Banks. This study describes the comparison of various existing system and provide some more idea for improving the existing system.

“Benefits of Management Information System in Blood Bank” by Vikas Kulshreshtha and Dr. Sharad Maheshwari[2] describes about the benefits of management information system in blood bank. The paper is basically focused on the blood bank management information system. It discusses about the beneficiaries of the blood bank management information system.

“Android Blood Bank” by Prof. Snigdha, Pratiksha Lokhande, Siddhi Kasar and Pranita More[3] describes about the android application which timely updates the information regarding donors where the admin accesses the whole information about blood bank management system. The app provides list of blood banks depending upon the user’s location.

In “The Optimization of Blood Donor Information and Management System by Technopedia” by P. Priya and V. Saranya [4], they have proposed an efficient and reliable blood donor information and management system based on GIS integrated in android mobile application. The service provided by the proposed system is needed and valuable to health sector where a quality of the blood is considered for the safety of the patient through a systematic process by the blood management system.

“A Study on Blood Bank Management System” by A. Clemen Teena, K. Sankar and S. Kannan[5] is an information management system which helps to manage the records of donors and patients at a blood bank. The system will allow the authorized blood bank officer to login using a secret password and easily manage the records of the blood donors and the patients in need of blood.

In “MBB: A Life Saving Application” by Narendra Gupta, Ramakant Gawande and Nikhil Thengadi [6], they have proposed the system that will link all donors. The system will help control a blood transfusion service and create a database to hold data on stocks of blood in each area as data on donors in each city. Furthermore, people will be able to see which patients need blood supplies via the application. They will be able to register as donors and thus receive request from their local clients who needs blood to donate blood in cases of need.

<table>
<thead>
<tr>
<th>SR. NO.</th>
<th>AUTHOR NAME</th>
<th>PROPOSED WORK</th>
<th>ADVANTAGE &amp; DISADVANTAGE</th>
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| 1.     | “Blood Bank Management Information System in India” by Vikas Kulshreshtha and Dr. Sharad Maheshwari | It shows the comparison of various existing systems and introduces some new ideas for improving existing techniques | - It helps to find the differences and evaluate the errors and help to improve it.  
- The new ideas are not applicable to all the existing systems. |
| 2.     | “Benefits of Management Information System in Blood Bank” by Vikas Kulshreshtha and Dr. Sharad Maheshwari | It shows all the advantages and benefits of the management information system in blood bank. | - It only focuses on the advantages with respect to donors, receivers and blood bank.  
- Disadvantages are not mentioned. |
| 3.     | “Android Blood Bank” by Prof. Snigdha, Pratiksha Lokhande, Siddhi Kasar and Pranita More | An android app which provides every information regarding blood in blood banks to a user depending on it’s location. | - This is an Android Application  
- Requires internet connectivity in cell phones |
- **Built an efficient and reliable blood donor information and management system based on GIS integrated in android mobile application**
- • A solution for the problems such as fake or wrong information of donors, misuse by third parties
- • An android application

### 5. “A Study on Blood Bank Management System” by A. Clemen Teena, K. Sankar and S. Kannan
- **An information management system which helps to manage the records of donors and patients at a blood bank**
- • Provides all process management tool elements: modeling, analysis, and simulation

- **The system will help control a blood transfusion service and create a database to hold data on stocks of blood in each area as data on donors in each city**
- • People will be able to see which patients need blood supplies via the application

## III. 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 it’s location. The website also tells us about the blood stocks as it is regularly updated by the respective blood banks. The overall basic information which is required for the donor is made available in the website hence making it easy for the user to operate.

## REFERENCES
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3. “Android Blood Bank” by Prof. Snigdha1, Varsha Anabhavane2, Pratiksha lokhane3, Siddhi Kasar4, Pranita More5 Lecturer, Information Technology, Atharva College of Engineering, Mumbai, India 1 Student, Information Technology, Atharva College of Engineering, Mumbai, India 1,2,3,4,5
4. The Optimization of Blood Donor Information and Management System by Technopedia P. Priya1, V. Saranya2, S. Shabana3, Kavitha Subramanis4 Department of Computer Science and Engineering, Panimalar Engineering College, Chennai, India 1, 2, 3, 4
5. “A Study on Blood Bank Management System” by A. Clemen Teena, K. Sankar and S. Kannan, Department of MCA, Bharath University, Selaiyur, Chennai-73, Tamil Nadu, India
6. “MBB: A Life Saving Application” by Narendra Gupta1, Ramakanth Gawande2 and Nikhil Thengadi3 1, 2, 3 Final Year, CSE Dept., JDIET, Yavatmal, India