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Online Blood Donation Management System

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A B S T R A C T

The main idea of the project is to develop a web platform that directly connects blood donors and recipients without the need for blood banks. Recipients would fill out a form with their blood type and location and the platform would search for nearby donors who have registered their availability to donate blood. The donor would receive a message and if interested in donating would send an acknowledgement to the recipient. The platform to communicating between the donor and recipient. The platform also includes a search function that allows recipients to find nearby donors based on location.An Online Blood Donation Management System is a computerized system that allows for the management of blood donation. It allows for the efficient and effective management of blood donations. This system is internally connected with the donors and receivers. The system can be accessed by authorized receivers, donors and allows for the searching of nearby donors. This system can improve the speed and accuracy of the blood donation process and help ensure that the right blood is available to patients.

***Keywords*:** Management information System,donor, acceptors, administrator.

1. Introduction

The requirement for the blood is essential for treatments in Hospitals and other medical center especially during emergencies. To save the life there is a need of blood for every individual. The primary aim of a blood bank is to receive the blood from different donors, to screen the database of blood groups and to provide the adequate blood whenever required to the hospital during crises. The blood bank manager manages the information i.e. process the as increased complexity, global competition, economy, social constraints etc. The blood bank managers use the available information system to take appropriate judgments to tackle difficulties. There is a need for a proper and robust platform where donors and doctors can get connected for blood donation, so that every patient can get the required blood within time. The Blood Donation Management System aims to fulfil the gap between blood donors and doctors. When a blood donor gets an easy and suitable platform to register and donate blood, it becomes easier for many people who wish to donate blood but cannot find a proper platform for it due to their busy schedules. So by this thought we come up with an idea of creating a website called Online Blood Donation Management System Where Donors can easily donate their blood by registering through our website and saves the life of people.

2. Literature Review

It is important to find blood campaign locations in real-time. It also enhances the security of the blood supply chain by ensuring the confidentiality and integrity of data. Furthermore, we introduce the smart contract for block chain-based healthcare systems which is key for defining the pre-defined agreements among various involved stakeholders. As future work, we are planning to implement a module to find the best donors for specific bloodtransfusion requirements, especially in emergencies. We are planning to consider factors such as donor's age, the most recent time of blood donation and distance to hospital, etc. Also further for the human organ donation.

O. Umar,Lukman,E. Ismaila [2] The Prospect and Significance of Lifeline: An E-blood bank System,the main idea of this project is used to proposed an efficient and reliable android application for blood bank. When there is urgent need for blood, it may not be possible for people to communicate with the each and every hospital and blood bank. For that the application can fulfill their requirements in short time span so that it can overcome the death rate. Thus the proposed system can help everyone who is need of blood anytime and anywhere. This system not only used for the blood bank automation system but also used for organ donation system. This system is very helpful for the smart city and smart nation purpose.

Chetan Masram,ArshadMulani,Rasika[3] Online Blood bank Management System,the management of blood which is intended to increase efficiency in the collecting and procuring blood. Automating the process of blood management provides a better and quick response in emergency cases. A proper management system that solves the existing issues is the concerned sector will help restoring the value of life that is currently deteriorating because of blood non- availability. The website provides a very organized medium of communication between the blood blanks and hospitals. In conclusion online

blood management system is a simplified solution to the problems in the current blood flow process that tries to remove the hurdles in the path of having top notch as well as smooth transfer of blood.

3. Design and Development

An online blood donation management system should have a user interface accessible via web and/or mobile devices for donors and hospitals/blood banks. Donors should be able to register themselves online and provide their personal details including blood type, location, and medical history. Hospitals/blood banks should be able to submit blood requests online specifying the type and amount of blood required. A matching algorithm should find the most suitable donors based on availability, location, and blood type, and the system should notify donors who match the requirements.

Step 1: If User is registered then provide User Id (I) and password (P) else Create new account.

Step 2: The requester filling a form to send notification nearby donors for blood donation database.

Step 3: If there is request from user for blood this will be displaying in the database.

Step 4: Sending acknowledgement to requester.

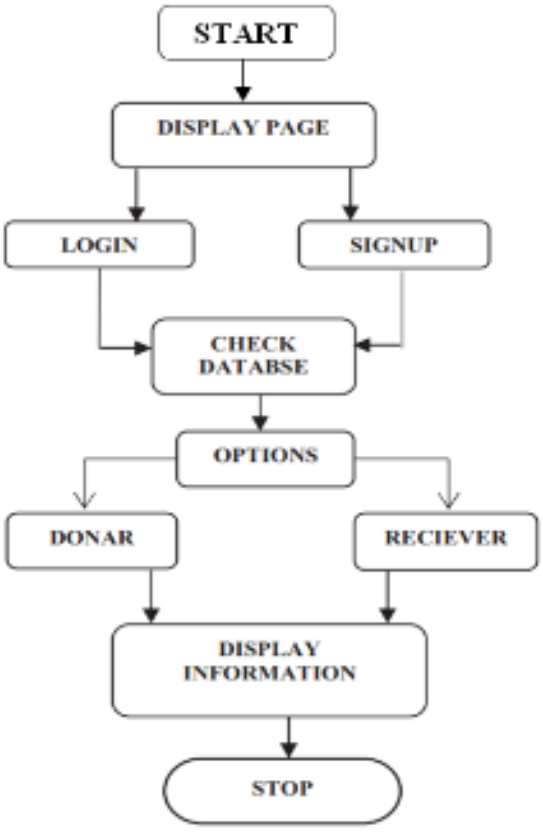
Step 5: By The requester accepting the acknowledgement.

Step 6: Check conditions for blood donation and other factors and previous history.

Step 7: If conditions are satisfied accept it.

Step 8: If Conditions are not satisfied then accepting the acknowledgement to other donors who are eligible.

Step 9: The requester receive the blood from donor and logout.



4. Module Description

Web services: Web services have been used to search out for the donor through website.

Mobile services: Mobile services used to send a SMS through website.

Database: Cloud is used for database. All the information has been used by websevices and mobile services. Proper updation of donor and accepter is needed.

User: Ultimate user in the framework of the system is the patient/ acceptor. Information of donor is accessed by patient/ acceptor whenever required/ needed.

Some of the sub modules in our user web application are:

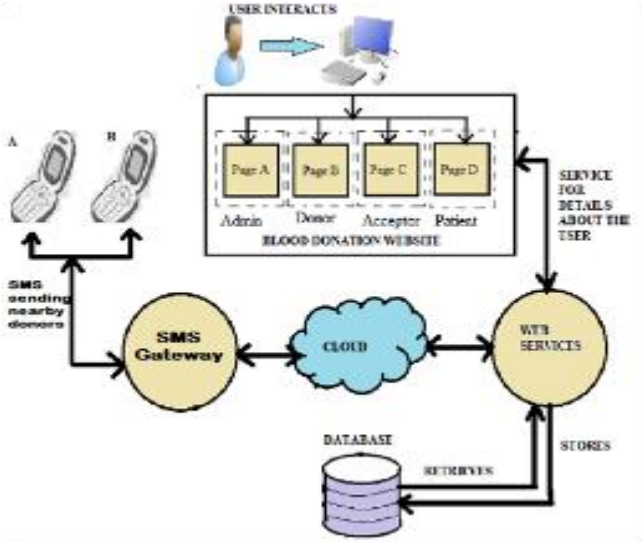
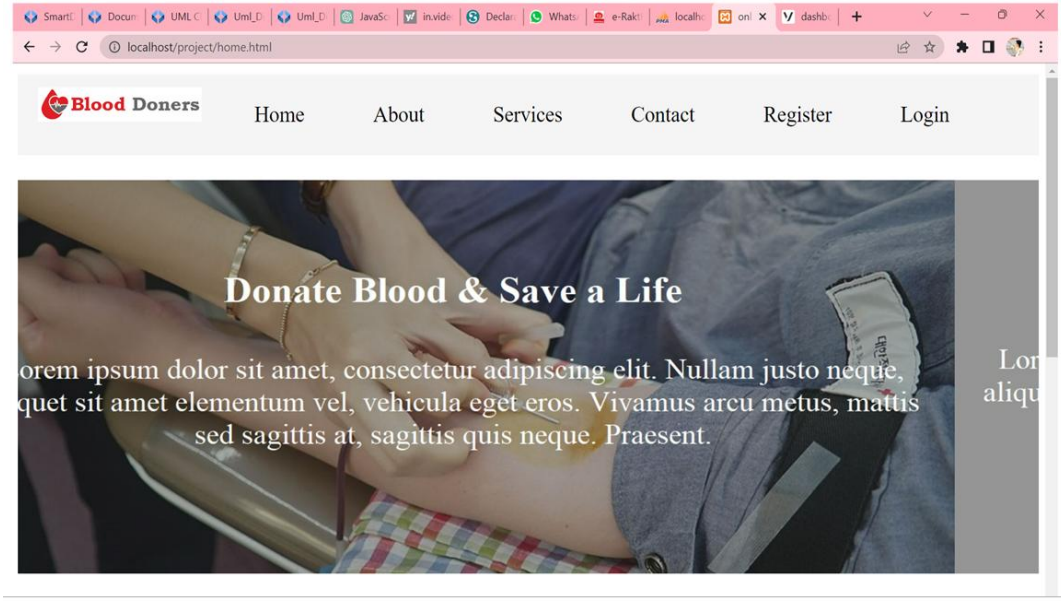


Fig 1: Flow chart Diagram of First-view

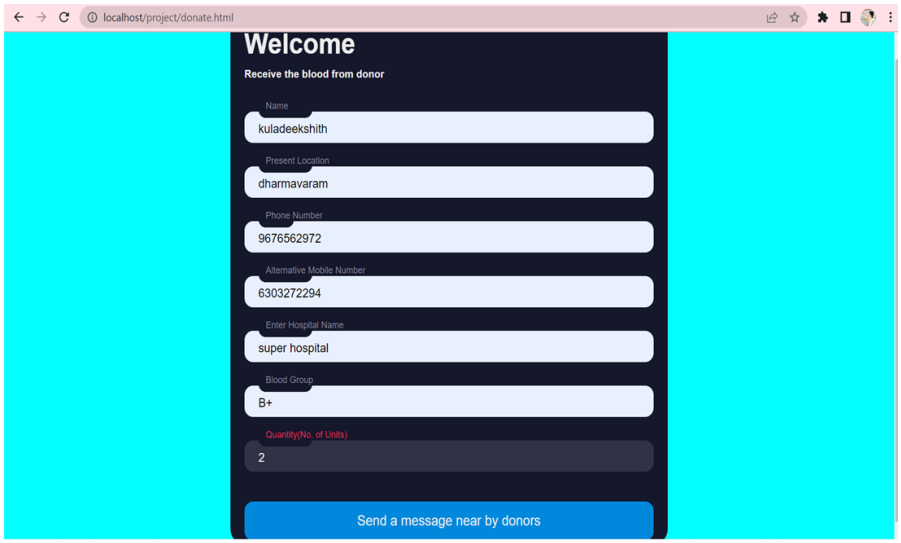
5. User Interface

The result of implementing an online blood donation management system with the described functionalities would be a more efficient and effective way of managing blood donations. The system would allow for easier coordination between donors and requesters resulting in quicker access to blood for those in need. Additionally the system's reports and analytics functionality would allow hospitals to monitor trends and inventory levels and make informed decisions on blood donation campaigns and other initiatives. Overall the implementation of this system would help save more lives by improving the accessibility and quality of blood donations.

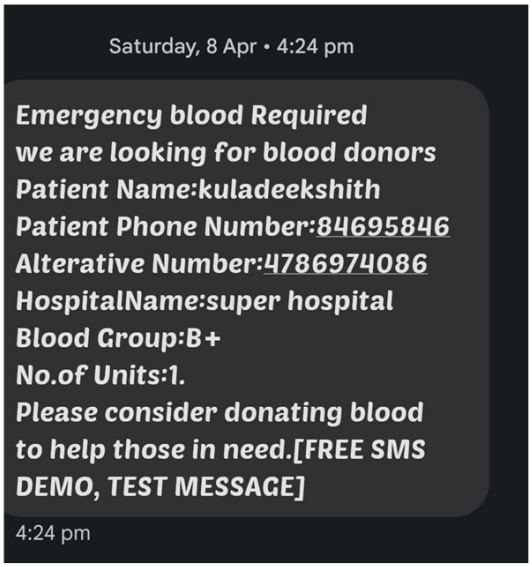
2(a). Home page



2(b). Donors sms alerts sending page



2(c). Acceptor receive the SMS



6. Conclusion

The project proposed is reliable an online blood donation management system can further enhance its effectiveness in improving the blood supply chain. The system can automatically send SMS notifications to potential donors in the vicinity of a blood drive or in need of a specific blood type. This feature can increase the number of blood donations and ensure that the blood supply is readily available when needed. Furthermore, it can help bridge the gap between blood banks and potential donors, making it easier for individuals to contribute to the healthcare system and ultimately save lives. Overall, incorporating SMS notifications to nearby locations in an online blood donation management system can enhance the efficiency and effectiveness of the blood donation process, benefiting both patients and healthcare providers.

Lakshmi Prasanna, who served as guide throughout the development process, providing valuable guidance and support.

The development team, Consisting C.KulaDeekshith(Lead, Front-end developer), C.Yamini (Backend developer),C.Tejaswini(Database maintaining),A.Sravani(CSS Designing) and C.Harish and CH.Girish(beta Testers).

References

1. Object Oriented Systems Analysis and Design, Pearson Higher Ed USA. Lions Blood Bank & Research Foundation. (2012). Retrieved from http://www.lionsbloodbank.net/ Blood Bank India. (2012). Retrieved from http://www.bloodbankindia.net.

2. "Blood Bank Management System" by K.S.R College of Engineering, India (2013) - This research paper discusses the development and implementation of an online blood bank management system, and its impact on the efficiency and effectiveness of blood donation and distribution.

3. "Development of a Web-Based Blood Bank Management System" by the Journal of Medical Systems (2016) - This research paper presents the design and development of a web-based blood bank management system, and its potential to improve the efficiency and effectiveness of blood donation and distribution.

4. Online Blood bank Management System Chetan Masram1, Arshad Mulani, Rasika Bhitale, JidneshKoli Department of Biotechnology Engineering, MGM College Of Engineering and Technology, Kamothe. International Research Journal of Engineering and Technology (IRJET).

5. A Secure Cloud Computing Based Framework for the Blood bank. Mr. Shreyas Anil Chaudhari Department of Information Technology, A. P. Shah Institute of Technology, Thane, India, shreyaschaudhari19@gmail.com Ms. Shrutika Subhash Walekar Department of Information Technology, A. P. Shah Institute of Technology, Thane, India, shrutikawalekar96@gmail.com 2018 IEEE Bombay Section Signature Conference (IBSSC).