

Factor Responsible for Poor Blood Management System

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Abstract: *Blood donation and transfusion has been an ever-serious issue and the shortage of blood throughout the world has caused many people to lose their life. An automated system is required to manage the centers and to showcase the information to the interested parties. We have developed a website that singlehandedly solves all these issues related to blood donation and reception.*

Keywords: Blood Donation, transfusion, centralized system, Emergency; Blood Units; Donors; Blood Bank.

I. INTRODUCTION

Perform tasks using large numbers of the same method as their Engineers frameworks work. DevOps defined by employees who perform tasks using large numbers of the same process as their framework developers are working, so DevOps is a product development platform that opens a gap

A human blood transfusion is a procedure of supplying a human body with adequate blood when needed as in cases of illness, accidents, diseases, surgery, etcetera. In the process, the blood obtained from the bodies of other voluntary healthy individuals is used to be supplied to the people who need it. The process generally takes around 60-180 minutes, varying on the amount of blood needed. In most of the countries of the world, the demand for blood is much more than the supply they are able to get. For India in 2016, the Ministry of Health and Family Welfare reported a donation of 10.9 million units against the requirement of 12 million units [1]. Much of this shortfall is due to the lack of an active Voluntary, Non-Renumerated Blood Donation system in the country as well as an inefficient blood collection system. The lockdowns related to COVID-19 resulted in increasing blood shortages across the country. Various other reasons for such deficit were identified such as lack of social awareness, and public misconception related to blood donations. WHO recommends that all exercises involving blood collection, testing, handling, storage, and dispersion be facilitated at the national level through compelling organizations and coordinated blood supply chains. The national blood framework ought to be administered by national blood policy, and administrative system to spread the uniform execution of benchmarks and consistency in the quality and security of blood and blood items.

The main benefit of the web based system is to maintain the record and simplicity for the person for checking the availability of blood. Manual process is a very time consuming process so by using web based system we can improve the clarity as well as simplicity of the. As you go into this paper, you will be introduced to a new solution that we offer after a careful study of relevant researches and documents

The primary goal of this project is to create a hassle-free experience for the donors and receivers in the blood donation process. Since the website also collects data of users consensually, who wish to donate blood in the future, a database of voluntary potential donors is created and can be used for emergency purposes thus saving lives. This makes it an unreliable system. Computerized blood bank management system (BBMS) had been developed in previous years but are highly inadequate. The existing BBMS's are mere storage systems that are mostly unusable by the hospital workers. They focus more on storage rather than coordinating management and operational activities and therefore are still yet to be accepted by the establishments.

II AIMS AND OBJECTIVES

The aim of this research is to find a possible solution to the problems that are currently faced by blood banks and blood donation centres. The objectives of this research is to:

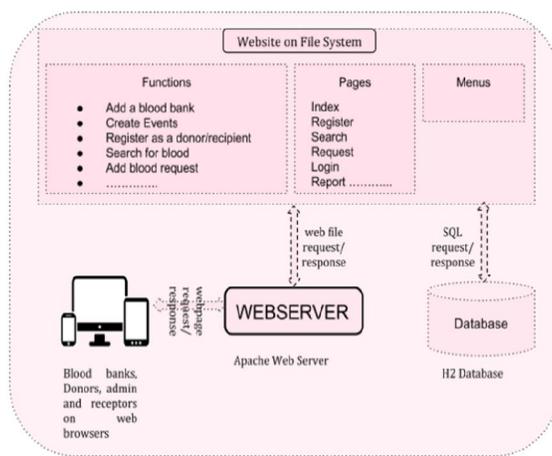
- Develop a feasible solution to handle management activities in blood banks
- Create an effective means of communication between donors, hospitals, donors and recipients.
- Device means of coordinating the activities of blood banks and blood donation centres

III. PROPOSED PROJECT

The main purpose of this project is to connect various ends of the blood donation process and automate it. While easing the efforts taken for the blood searching/donating process the website is also expected to make the process faster, easier, and reliable than normal traditional methods. The website provides a very easy user interface with various features that are need of the hour. Some of which include locating blood banks near your location, sharing the obtained location with a dedicated share button, providing you with directions to the desired blood bank with an integrated google map button, a direct hyperlink to the contact details of that particular blood bank, availability along with the number of units of every blood group. Real-time updating of units of blood available in the selected blood bank is one of the most prime features.

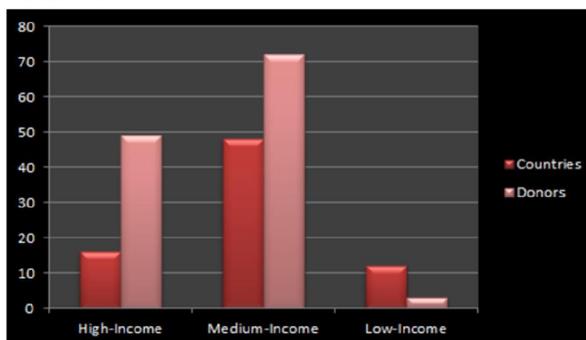
3.1 Architecture of proposed

System sting time for people to visit the hospitals during coved times and register themselves for blood donation. Records for hospitals and recipients are effortlessly available at all times. It is not always feasible for donors to be available at all times or lift the calls during emergency times. Our system allows the donor to know the emergency by sending a web notification to the recipient. If there are no donors available at the emergency hour at the nearest area, the patient/hospital can send the urgency through a group that consists of all the same blood type donors from the same city. This enables the hospitals to get in contact with the donors who don't live in the same area but are ready to donate. Provides security to data through authorization



3.2 Limitations of Previous Systems

In the previous systems searching for donors in a given area was a constraint. Availability of blood in major cities was not a huge problem as it was agricultural and village areas. Data connection isn't economically viable to poor citizens. It is not always easy for hospitals and patients to contact the registered donors during emergency situations as the donors might not be in a situation to lift the call. There is no proper centralized database for registered donors.



IV. RESEARCH METHODOLOGIES

4.1 Blood bank Web Application

This Module Consist of detail information of how application works. The blood bank management system is the web-based online application with SMS as well as Email alert function various sharing options via social media applications and Blood bank locator that implemented using HTML CSS PHP JavaScript and SQL for database..

4.2 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.

4.3 Details of Blood

The various constituents of blood are represented as follows:

- Plasma - The medium in which the blood cells are transported around the body
- Red blood corpuscles- It carries oxygen.
- Platelets- Which facilitates blood clotting and also the need for blood transfusion
- White blood.

V. CONCLUSION

The project “Factor Affecting poor 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 Research Article with their details of blood group and other medical information. Not only does it connect users to different donors but also to blood bank

REFERENCES

- [1]. International Journal of Advanced Research in Computer and Communication Engineering Vol. 5, Issue 4, April 2019.
- [2]. “LIFE DONORS: SAVING LIVES BY USING CURRENT ERA SMART TECHNOLOGIES” By College of Computer Sciences and Information Technology, King Faisal University, Saudi Arabia- Journal of Information & Communication Technology Vol. 9, No. 2, (Fall 2020) 55-76.
- [3]. A Geo-Location based Mobile Service that Dynamically Locates and Notifies the nearest Blood Donors for Blood Donation during Medical Emergencies Institute of Technology, Nirma University, Ahmedabad-Volume 88– No.3, February 2020.
- [4]. Remote access to PC using Android phone” Shubham Bidya, Nikhil Sonawane, NandkishorShegokar, Prashank Bhosale, Prof. Anisaara Nadaph, Dept. of Computer Engineering KJEEI’s Trinity College of Engineering, Pune, India-IJIRCCE(An ISO 3297: 2007 Certified Organization)Vol. 2, Issue 4, April2010
- [5]. Blood Donation Management System By Institute of Information Technology, Jahangirnagar University, Dhaka, Bangladesh Department of Computer Science and Engineering, Jahangirnagar University, Dhaka, Bangladesh- Volume-4, Issue6, pp-123-136, 2021
- [6]. OTP Encryption Techniques in Mobiles for Authentication and Transaction Security Department of Computer Science, Quaid E. Millath Government College,2021