RESEARCH ARTICLE

QUICK BLOOD DONATE (QBD)

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Abstract— In today's system, Blood supply is less while demand is more in this industry, so we are trying to increase the supply to meet the demand by providing a platform for everyone included in this supply chain. This application will work on real time data of location, so probability of getting correct donor is increased.

Keywords— Blood Storage, Donors, GPS/GSM Tracking, Google Cloud Messaging (GCM)

I. INTRODUCTION

In the hospital, most of the cases, when blood is required, that could not be provided on time causing unpleasant things. Though donor is available hospital is unaware of it, and donor too. So to resolve this communication between hospital, blood bank, donor, and accepter is important. So we come up with a system providing solution to this. In this system we will make sure that also in the worst case the blood will be made available to the patient. There will be three levels.

The central blood banks, the smaller blood banks and hospitals. The central blood bank will supply to the smaller banks and they will supply to the nearby hospitals as per requirement. There will be a web application.

City Peoples who wish to donate blood but not able to because of the busy day schedule they can efficiently donate blood from any place in the city with the help of webpage which our system is providing for local citizens. Webpage will help citizens to track ambulance from their current location and then they can donate blood by simply contacting the nearest ambulance.

II. PROPOSED IMPLEMENTATION OF THE SYSTEM

In today's time there general blood donation systems were present. Blood donation camps were arranged to fulfil the need of blood storage. Also [1] there are some websites present for donating blood were the phone numbers of the donors are present which are not reliable since they don't get often updated. At present there are no proper websites. [2] There is no proper care of person who donates blood to patients. That is the medical history about the donor is not available with the website. If a donor has or had any medical problem comes forward to donate blood to a patient then it may lead to threat.

Proposed system is to develop a web application for blood banks and hospitals for quick availability of blood, this will also involve donor and acceptor directly. Analysed the Blood Storage and further produce alarm and broadcast Blood requirement messages to local peoples and handle blood storage and donation process in systematic manner.
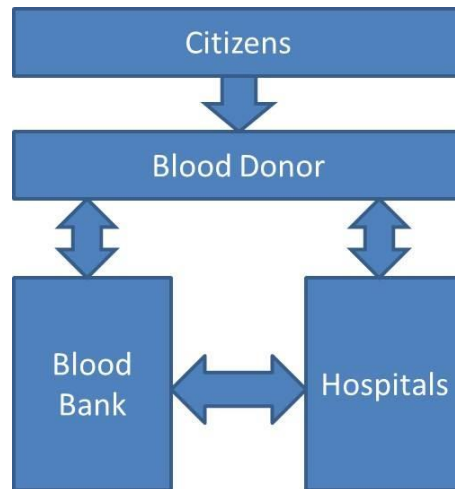

Fig 1. Proposed System for Blood bank and Hospitals.

- As above image shows that every single entity of the city, whether it is a blood bank or a hospital or citizens all are connected together for efficient and effective outcome.

III. WORKING

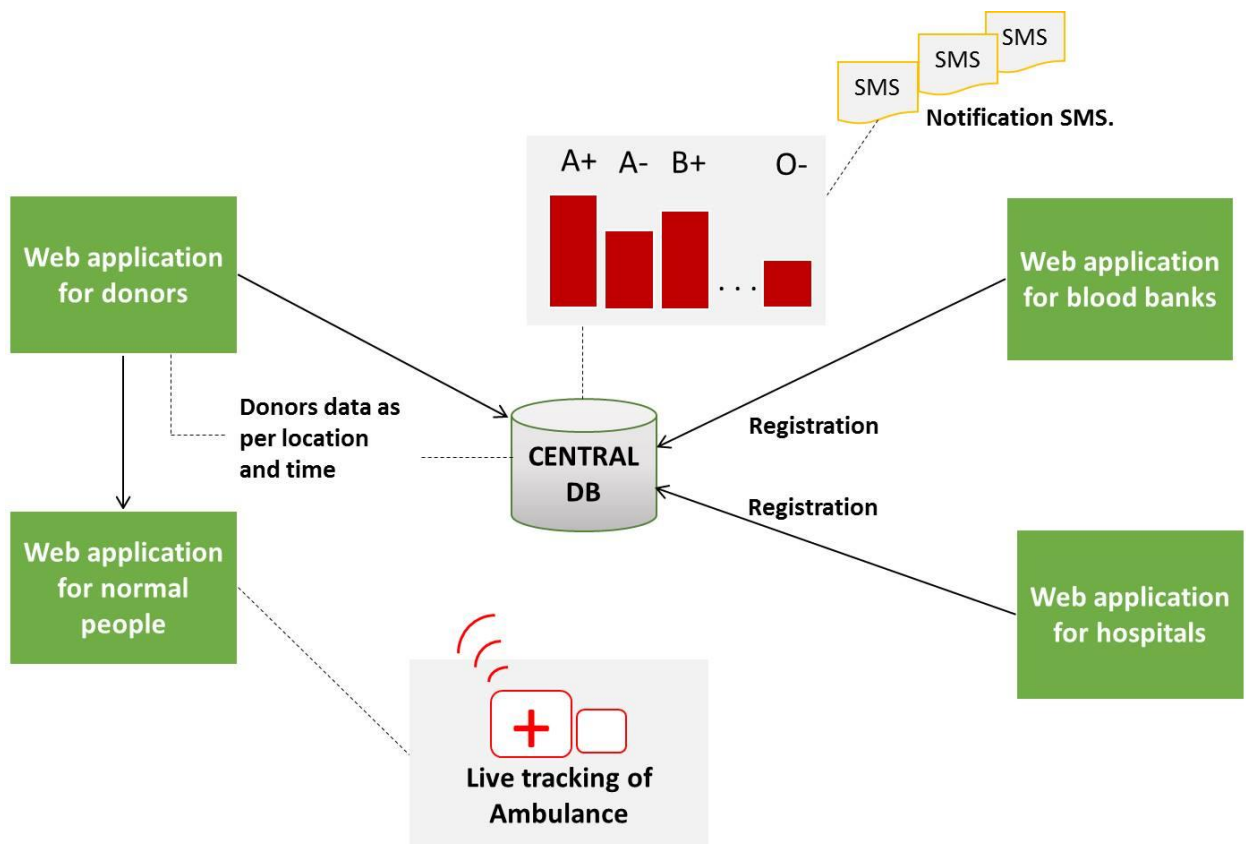
Fig. 2 Working of Quick Blood Donate

The Quick Blood Donate (QBD) works as follows:

1) **Central DB-** Central Database holds the following data : Details of every blood bank and hospital, Blood storage count, Donors information, and Citizens contact details.

2) **Web Application Blood Bank/Hospitals-** Hold all blood bank/hospitals details.
   - Blood Storage count.
   - Produces alarm when storage reaches to 30%.
   - Broadcast Messages to local peoples for blood requirement.

3) **Web Application For Donors-** [3]The web application has a system database where it consists of the information regarding existing and new donors and acceptors. The main problem is related with the information about knowing the details of donors in the city.
   - Proposed System solve this by Provide a user name and id for unique authentication to every new donor as a proof of blood donation. It is a kind of a digital certificate which holds every medical detail of donor.

4) **Web Page for Citizens-** It contains GPS/GSM tracking of ambulance and its details. So that, user just have to add its current location and proceed then it'll show the live tracking of nearest ambulance and also provide its details so user can contact it and donate blood form that location.

IV. APPLICATIONS

QBD has wide range of applications, in those some of the applications are as follows:

i. To provide a constant blood supply.
ii. To maintain all details of blood banks and hospitals of city.
iii. To increase blood storage by finding maximum donors.
iv. Digital certification will help users for safe and ease access to their medical details.
v. Live tracking of ambulance.

V. ADVANTAGES

i. Never Ending Blood Storage.
ii. Blood donation from any location.
iii. Efficient system because of interconnected system approach.
iv. Digital Certification for donor.
v. Quick supply of blood.

VI. CONCLUSIONS

This system trying to increase the supply of blood to meet the demand by providing a platform for everyone included in this supply chain. This application will work on real time data of location, so probability of getting correct donor is increased.

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