Blood Donation and Life Saver-Blood Donation App

Abstract—

“ In our project we propose a new and efficient way to overcome such outline. Firstly we will search for the availability of blood in blood bank and nearby hospitals. If the blood is not available then we will search for nearby blood donors. Then the donor will be ask to enter an individual's details like name, phone number, age, weight, date of birth, blood group, address etc. At the emergency time of blood needed we can check for blood donor nearby by using GPS. Once the app user enters the blood group which he/she needed it will automatically show the donor nearby and send an alert message to the donor. In case if the first donor is not available it will automatically search the next donor which is present in queue. If the donor accept the request then an one time password (OTP) will be send to the donor to verify. Blood donation app provider list of donor in your city/area. Once the donor donate the blood it will automatically remove the donor detail for next three months.

I. Introduction

Firstly we will search for availability of blood in blood bank and hospitals.

If the blood is not available then we will search for nearby blood donors. Then the donor will be ask to enter an individual's details like name, phone number, age, weight, date of birth, blood group, address etc.

At the emergency time of blood needed we can check for blood donors nearby by using GPS. Once the app user enter the blood group which he/she needed it will automatically show the donor nearby and send an alert message to the donor.

In case if the first donor is not available it will automatically search the next donor which is present in queue. If the donor accepts the request then an one time password (OTP) will be send to the donor to verify.

Blood donation app provider list of donors in your city/area. Once the donor donates the blood it will automatically remove the donor detail for next three months.

II. Literature Survey

Title 1: ”Blood Bank Information System Using Android Application”

- JOURNAL: - 2017 Recent Development in Control, Automation and Power Engineering

In this paper we have seen the overall working and the flow of the blood donation system. There were many points which was needed to be explored more, some of the issue’s this journal talks about is related to the security and the authorization of the user and donor. So by keeping that in mind we referred the paper and highlighted the main points and also the vulnerabilities that

the current application is facing through security.

In the existing application there is no proper care about the people who donate blood to patients in case, if the donor have or had medical problem and come towards to donate blood to the patient then it may lead to threat.

Also the user interface is complex for the lame person to use and understand in one go, therefore it is necessary to make a user friendly application.

Title 2:”Blood Donation And Life-Saver Blood Donation Application”

- JOURNAL: - 2016 International Conference on Control, Instrumentation, Communication and Computational Technologies (ICCICCT)

In this paper we observed that some of the issues was related to the existing application in which we saw some flaws also. So by making the user friendly application there was some aspects that need to be worked upon.

In case of emergency, the doctors or hospital workers ask patients relatives for blood. If the blood group is not matching the relatives ask in their limited circle.

Some of the main points which the paper emphasized are as follows:-

1. The blood is not available in time.
2. No live tracking of donor.
3. No proper platform available for blood donation.

Existing System

In existing, there is no proper care about the people who donate blood to patients. In case if the donor has or had any medical problem and comes toward to donate blood to the patient then it may lead to threat. Hence the medical history of donor should be updated.

Medical histories would be like:

- *A person who have anaemia should not donate blood.
- *Donor who having diseases that are transmissible through blood are not request to donate blood.
- *People who are unweighted for height from their height should not donate blood.
- *pregnant women or recent childbirth women should not donate blood.

Thus the above following reason are not updated in existing system. This type of information are not provided in existing system this may lead to dead in person. The donor and patient’s body condition will not match at all the time .here it contain two aspects of volunteer’s location the distance between the user location and volunteers.

Proposed System

The proposed method is to create a android application in which the blood donor are available easily at required time. The donors who are all register in this application are show while searching for blood donation. The donors who are all nearby locations are tracked by the GIS. The purpose of this application is to donate blood while in case of emergency. The application also provide various information about donating blood and who are all willing to donate blood can register through this application.

System Functionalities

Blood donation application update information about the blood donation camp.

The system provides authorized features so that the private and confidential data are only view by the authorized user.

The system will keep record of every donor, in order to keep track of blood stock.

By this the communication of various devices has improved, hence people can communicate anytime from anywhere through mobile.The purpose of this application is to develop blood donation services/camps and keep records of blood donors which is easy to distribute blood throughout the country. The system contains a mobile phone with android os

The advanced system is used to store information about the blood. Blood donation applications mainly contain admin, donor, patient, database and application.

Types Of Blood:

Although all blood is made of the same basic elements, not all blood is alike. In fact, there are eight different common blood types, which are determined by the presence or absence of certain antigens Since some antigens can trigger a patient's immune system to attack the transfused blood. The donor blood type must be determined before the transfusion of blood.

TYPE

YOU CAN GIVE

BLOOD TO

A+

A+, AB

O+

O+ , A+, B+ , AB+

B+

B+ , AB+

AB+

AB+

A-

A+ , A- , AB+ , AB-

O-

EVERYONE

B-

B +, B -, AB+ , AB-

AB-

AB +, AB-

TABLE 1: TYPES OF BLOOD GROUPS

- Group O can donate red blood cells to anybody. It is the universal donor.
- Group A can donate red blood cells to A’s and AB’s.

Proposed System Architecture :

Modules

· Admin:

The admin provide each member an user id and a password in which he/she can identify uniquely. Changing passwords, maintaining donor private details, updating are given to the administrator. The update operation is done by admin in which it will regularly check the expiry date of blood and request the donor who donate the blood to replace it.

· Patient:

In case of emergency they can request for blood in which it gives information about the patient condition. As per the health condition of the patient the blood is given.

before and after donating the blood. The details given by the donor are regularly check by the admin in which the correct information is present or not. The application maintains the record of user, blood camp, blood transfusion and so on. This the proposed system can help who are all need blood anywhere and anytime. The information which are given to the user are correct because the details are enter only by the blood donor who are willing to donate blood.

· Donor:

Each donor is given a id and password through which they can identify uniquely. There are various option given to donor such as finding blood group,logout , blood donation camp detail.The database is used to store information about the blood donor , patient information and so on.

· Application:

This application is use to search blood donor during the time of emergency . The accepted donor are track by GIS . The GIS is used in mobile application where it is use to map the donor. The proposed system tells about the working of the system where it start with opening the application in mobile .sign in or login option is given to the user. If the user has already register then the admin provide the information of the user which is already stored in a database. If the user is not registered then he/she is ask to sign to entering the details about them. In proposed system there is an one time password in which it is generated during donor accept for donating blood .The advantage of OTP is, now a days childrens are using mobile by mistake they can press the request button for this case the one time password is created. The admin of this application can view the details of all donor, patient. The admin should regularly modify about the donor.

V. Conclusion

In this paper, we have proposed a reliable information system based on GIS and OTP in android mobile. The main concept of this proposed system is to valuable to health care. By using this application, the existing problem such as misuse of details and wrong information provided to the third party is replaced

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