

FIND MY DONAR - APPLICATION TO SAVE A LIFE

ROOBAN.M^{1a}, VASANTHA VADIVEL.S^{1b}, NITHIN SAI REDDY .V^{1c}, DINESH .V M G^{1d}

¹B.Tech IT, PANIMALAR ENGINEERING COLLEGE

^a roobanmathi@gmail.com , ^b vasanth0902@gmail.com ,

^c Nithinsaireddy.v@gmail.com , ^d vmgdinesh@gmail.com.

Abstract :- In today's world where technology advancements has revolutionized the way of living ,still it comes up with the cost of poor lifestyle of the people. And when we talk about treating these illness the BLOOD is one of the most important one. In our project we are trying to overcome this problem in an effective way by creating an interface to connect these donors to receivers. The User will be asked to enter details like name, phone number, age, weight, date of birth, blood group, address etc. Under some situations the need of Blood is very rare. The available Blood donor around us is searched using GPS. In these situations the app users will provide the blood group and the some details needed by the app and the nearby blood donors are notified. After donating blood the donor will be removed for upcoming three months.

Keywords - Blood, Donor, GPS.

1. INTRODUCTION

During medical emergency situations the blood is almost a mandatory Component for treating the patients. But till now blood cannot be created artificially. We still need donors who donates their blood for immediate or future needs. Till now the blood bank is the one which manages to provide the hospital with the blood needs by collecting blood from donors and storing it and then supplying it to hospitals in case of emergency. This method is not effective because in our country the regular blood donors are very less and it is usually very difficult to get an acceptable donor during emergencies. Today mobile based application have become our part of our life with the revolution of mobile computing .our app is developed for easily identifying potential donors in nearby area at any time. Those who have registered in this app, their position along with their blood group will be shown using GPS. It will also show donors within range of 10 km.

2. LITERATURE SURVEY

In "Android blood bank "by prof. Snigdha et.al proposed an application for blood donor. In that application the donor can find the exact path by using GPS (Global Positioning System). The detail of blood donors will be saved .private dataand confidential data will only viewed by the administrator.

In "MBB: A Life Saving Application "by Narendra Gupta et.al has proposed a method to create a website with android application. In that application they has proposed, the donor are tracked by Geographic Information System (GIS).The purpose of their website is used to update their current system where data can only viewed by authorized user. They contain two device type:1)An android phone with android os, 2) A computer for website and database which is used to store the information about the donor.

In " An Android Application for volunteer Blood Donors " by sultan Turhan proposed an application for volunteer blood donor , main aim of this application is to notify

regularly the donor location to Rh++.Rh++ is a smart information system which aim to control the blood donation and blood supply chain.

3. EXISTING SYSTEM

In existing the donors are not cared about their health issues instead, whoever is willing to donate blood are welcomed. Also the information about the donors are maintained. Which are easily viewed to the others such that it may lead to the misuse of the data. The security of the donor details are very important. And there is no proper system to filter the donor that the user needed. If anyone needs a blood immediately only authorized users are allowed to use the application. In case if the donor has or had any medical problem and come towards to donate blood to the patient then it may lead to threat. Hence medical history of donor should be updated by the donors frequently.

Under the below situations the donors are not allowed to donate blood, they are:

- 1 .Pregnant women are requested not to donate blood.
2. People with Acute fever should not donate blood.
3. Recent alcoholic, drug intake persons are strictly requested to avoid donate blood.
4. People with ear or body piercing and tattooing are also not allowed to donate blood.
5. Recent Surgery for the donors are also asked not to donate blood.

Donors with the following conditions are not allowed to donate blood anytime:

1. Cancer affected people are restricted not to donate blood.
2. Persons with Cardiac disease are prohibited not to donate blood.
3. Sever lung disease patients do not donate blood.
4. Anemia affected persons should not donate blood.
5. Deadly diseases like Hepatitis B and C, HIV infection, AIDS or Sexually Transmitted Diseases (STD) are strictly banned not to Donate blood.
6. Unexplained weight loss of more than 5 kg over 6 months should not donate blood.
7. Chronic alcoholism and Corona affected persons are not allowed to donate blood

Thus the above following reason are not available in existing

4. PROPOSED SYSTEM

The proposed method is to develop an android application in which the blood donor are identified easily at required time. The donors registered in the application will be shown while searching for blood. Nearby donor with ability to donate blood will be shown with the help of GIS.

4.1 System Functionalities:

1. The requester is identified with their phone number, and a government authorized card, a OTP is sent to the requester, such that they can request for the blood
2. The donors willing to donate can register in this application so that whenever there is need for the blood they can donate.
3. The donors should update their name, age, phone number, address, blood group, disease they have etc...
4. The system provide authorized features so that the private and confidential data are only view by the authorized user.
5. Once the requester requests, the message should contain blood group, reason for blood needed, address of the requester, etc...
6. For the authorized users donor details such as address, location, phone number, photo, medical records etc., will be shown while searching.
7. This system records the details when a receiver visited a donor profile for security reasons. These recorded details will be erased after two months.
8. In this application the type of blood that receiver can be received will be filtered automatically and shown to the user.
9. Emergency alert will be provide to the authorized users. Which will alert all the users nearby 10 km with the message of receiver details.
10. This application updates the blood camp details in the nearby locations.

The role of this application is to develop blood donation services/camp and keep a safe record of blood donor which is easy to distribute blood throughout country. The advanced system is used to store the data of the donors and the receivers.

4.2 Types of Bloods:

Although all blood is created of a similar basic parts, not all blood is alike. In fact, there are eight totally different common blood sorts, that are determined by the presence or absence bound antigens. Since some antigens will trigger a patient's system to attack the transfused blood. The donor people should be determined before the transfusion of blood.

system, and this may lead to dead in person.

TYPE	YOU CAN GIVE BLOOD TO	YOU CAN RECEIVE FROM
A ⁺	A ⁺ , AB	A ⁺ , A ⁻ , O ⁺ , O ⁻
O ⁺	O ⁺ , A ⁺ , B ⁺ , AB ⁺	O ⁺ , O ⁻
B ⁺	B ⁺ , AB ⁺	B ⁺ , B ⁻ , O ⁺ , O ⁻
AB ⁺	AB ⁺	EVERYONE
A ⁻	A ⁺ , A ⁻ , AB ⁺ , AB ⁻	A ⁻ , O ⁻
O ⁻	EVERYONE	O ⁻
B ⁻	B ⁺ , B ⁻ , AB ⁺ , AB ⁻	B ⁻ , O ⁻
AB ⁻	AB ⁺ , AB ⁻	AB ⁻ , A ⁻ , B ⁻ , O ⁻

Fig 1: Table for blood groups

4.3 Proposed System Flow:

START:-When the application is opened user will be asked to login or register.

EMERGENCY:-If it is emergency, the user can enter the emergency section in which he/she will be asked to enter the blood group and some details such as Name, Phone number, selfie (photo) which is mandatory to find the donors OTP will be sent to the requestor to verify.

Note: - Only some basic details of the donor will be visible to the unauthorized users.

LOGIN/REGISTER:-If the user has existing account he/she can login directly. If the user is like to register he/she will be asked to enter some details such as Name, Phone number, photo, Government authorized ID card, blood group, gender, age etc., these details are mandatory and when the user registered he/she will be verified by OTP.

MAIN PAGE:-After registration the user will enter into the main page of the application in which two sections will be provided

- 1) Donate blood
- 2) Need blood

DONATE BLOOD:-If the user want to donate blood nearby blood banks will showed to the user and if any blood camps are hosted it'll be updated.

NEED BLOOD:-

1. If the user need blood then he/she will be asked to enter the blood group and set the location in ON

1a. by the algorithm first nearby eligible donor will be shown and intimated by SMS and the donor will get notification from app if the mobile is connected to the

internet and the details of the donor will be given to requestor so that they may also call the donor and ask for

whether he/she is interested.

1b. if the first donor is not interested or not responded then the next nearby eligible donor will be shown.(If the user need all donors around 10 km they can check in map and select the donor according to their wish).

2. If there is no eligible donors nearby 10 Km then the emergency alert will be activated which intimate all the users will get a message about the requestor and their details

At last if the donor from our app donated the blood an appreciation message will be sent to him/her and their name from the donor list will be removed for 4 months.

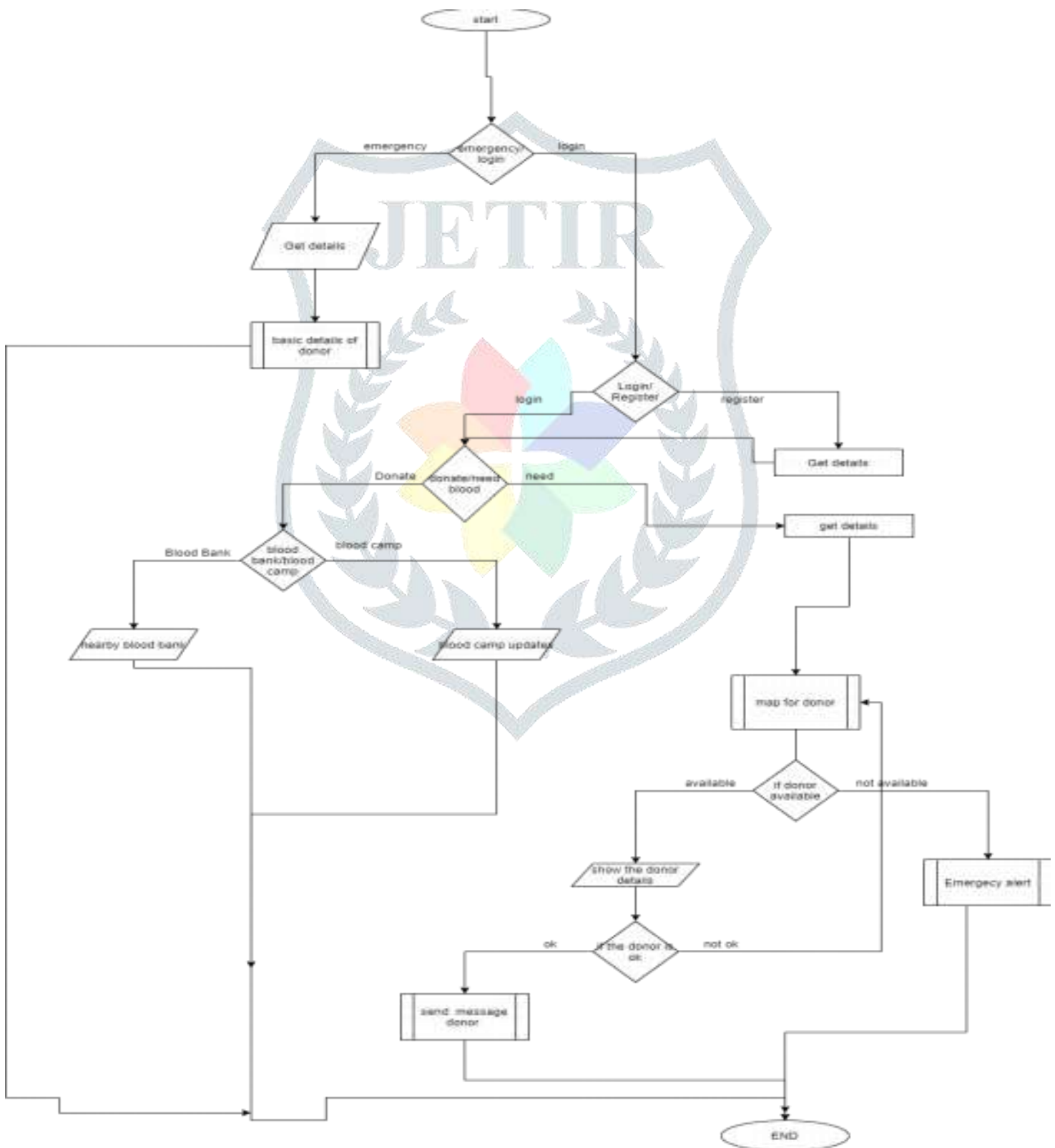


Fig 2: Proposed system flowchart

CONCLUSION:

In this paper, we have proposed an efficient way to donate blood using GIS and OTP in android mobile. By using this application existing problem such as ignorance of blood donation and misuse of user data by any third party is prevented.

REFERENCES:

.2015.51103,pp:23-30

[1] Prof. Snigdha et.al, “ Android Blood Bank “,International Journal of Advanced Research in Computer and Communication Engineering , vol 4 , Issue-11,November 2015 , pp:86-88 , ISSN(online) 2278-1021,ISSN(print):2319 5940.

[2] Narendra Gupta et.al, “MBB: A Life Saving Application “, International Journal for Research in Emerging Science and Technology, vol 2. Issue-1, March-2015, pp: 326330, ISSN: 2349- 7610.

[3] Sultan Turban , “An Android Application Volunteer Blood Donors “ , ICBB-2015 , DOI:10.5121/cist

