

# Blood Donor Tracker By using GPS.

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## ABSTRACT

The proposed system acts as an important role in saving life of human beings and which is also its main aim. The project Android Blood Bank system is developed so that users can view the information about registered blood donors and receiver such as name, address, and other such personal information along with their details of blood group and other medical information of donor and receiver. The proposed system also has a login page where in the user is required to register and only then can view the availability of blood and may also register to donate blood if he/she wishes to. This proposed system requires internet access continuously. Thus this application helps to select the right donor online instantly using medical details along with the blood group. The main aim of developing this application is to reduce the time to a great extent that is spent in searching for the right donor and the availability of blood required. Thus this application provides the required information in no time and also helps in quicker decision making. This project acts as an important role in saving life of human beings and which is also its main aim. The project Android Blood Bank system is developed so that users can view the information about registered blood donors such as name, address, and other such personal information along with their details of blood group and other medical information of donor. The project also has a login page where in the user is required to register and only then can view the availability of blood and may also register to donate blood if he/she wishes to.

**Keyword** - Android, Blood Bank, Donor, Blood Request.

## 1. Introduction

In today's rapid developing scientific world technology has become a very important aspect of life. Today's generation is more depended on advanced technology than any other aspect. [3] Today, most of the people use advance technologies in their daily life like Internet, Smartphone. So, the idea mentioned in this paper will make the process of blood bank less time consuming by gathering all information of donor and receiver. In these application there will modules for donor, Receiver, and blood bank. Donor and receiver has to register himself to use this improved system. For Receiver, no need to call in every blood bank to check the blood availability. In improved system only admin can check. Blood bank will send notification to donor regarding Donation camps or Emergency donation. The development of a Blood Donation System depends on android-based application. System has admin which acts as server to match donors and patient pair compatibly by using rule-based knowledge. All Clinic System should have patient or receiver and donor information control matcher system. Nowadays, computers are the most useful for all fields; they can also stand for information distributing, catching, matching, etc.[1] All users who are system's members can see donors' and patients' data and matching information. In this system, blood matcher can help donors' and patients' to get the best matcher. The establishment of android based matcher for blood donation system is to encourage blood donor society. Current knowledge applications mainly focus on the discovery, creation, preservation, sharing and direct use of information. Nowadays, a big part of people rely on available content in social media in their decisions (e.g. reviews and feedback on a topic or product). The possibility that any body can leave a review provides a golden opportunity for spammers to write spam reviews about products and services for different interests. Identifying these spammers and the spam content is a hot topic of research and although a considerable number of studies have been done recently toward this end, but so far the methodologies put forth still barely detect spam reviews, and none of them show the importance of each extracted feature type.

## 1.1 Motivation

In existing system is time consuming to provide requesters with the blood when in need. This may lead to cause of death due to delay in management of blood. The existing system does not provide information of donor and requester on one platform. This gives rise to the need of such system which is available to everyone and can be used for blood management. The proposed system is a way to handle blood management and provide requester with blood in emergency in shortest time possible.

## 1.2 LITERATURE SURVEY

In this paper, the system is proposed reduces the lot of Time required to collection of different blood group. Donor will register itself. When emergency requirement the blood donor can place a request. The blood bank can notify the donor when emergency occur. The blood bank collects the blood from different blood banks. The application also provides the information and notify the donor or user about different event's so that the user will get information about the organized donation camps. [1]. In this paper, users can view the information of nearby hospitals, blood banks. This project is developed by three view i.e. hospital, blood bank and patient/donor. They have provided security for authenticated user as new user have to register according to their type of view and existing user have to login. This application helps to select the nearby hospital online immediately by tracking its location using GPS. This paper also proving a alert system for severe accidents as using that function an ambulance will be sent to your destination without any wastage of time. This application reduces the time to a greater extent that is searching for the required blood through blood banks and hospitals. [2].

In this paper, author deals timely updates the information regarding the donors where the administrator accesses the entire information about blood bank management system. Donor will be encouraged to enter an individual's details, like name, phone number, and blood group. In the critical time of a blood requirement, you can quickly check for blood banks or hospitals matching a particular or related blood group and reach out to them through the App. Blood bank App provides list of blood banks and donor in your nearest area. A large number of blood donors are attracted using an Android application. Only a registered person, with enthusiasm to donate blood, will be able to access the service. In this application we are using the GPS technology that will be used to trace the way to the blood bank. The user will get the route to reach the desired location and he won't have to ask manually, therefore time can be saved. [3]. In this paper used built an efficient and reliable blood donor information and management system based on GIS integrated in android mobile application. The advantage of this system is it provide solution for the problems such as fake or wrong information of donors, misuse by third parties [5].

## 2. Problem Statement

The current system that is using by the blood bank is manual system. With the manual system, there problem in managing donor's details, blood component stock details and blood request detail.

### 2.1 Goals And Objective

The Online blood bank has this objective,

- 1) To provide Better Blood Management .
- 2) To overcome problem of lack of Blood.
- 3) To provide GPS System for Tracking Location.
- 4) To provide Donor previous Blood donate Certificate uploading Facility.
- 5) GPS is used Searching Location User Find Out Nearest Location Quickly by using GPS.

### 2.2 Existing System

The enrollment of blood donor when compared with other countries is very less in overall blood donating percentage annually. [4] Besides this enrollment, the viewing of donor and the management system is not well maintained. The details of the information of donors are given for the usage of the users for contacting them when in need of blood in case of any emergency. The problem which currently exists in the medical field is that blood is needed immediately for an injured person or for any major operation, it is not easily available even though blood banks are present. [3] There are some websites present for donating blood where 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. The existing application does not provide a feature of GPS, so in case if the user is new to a particular city it causes a problem to search the nearby blood banks. The main advantage of the improved system is that it provides a global positioning system which helps to identify the nearby blood banks in case of emergency.

### 2.3 Proposed System

The proposed system provides an easier way for the ones who are in need of blood. The user, which may be donor or the receiver, can register with the system. The user can use the login to request the availability check of the blood in nearby vicinities. He can also check the updates regarding the Blood donation camp that is to be held. The receiver or requester is notified about the nearest blood donor or blood bank to the location of the registered user. The data regarding user and Blood bank is maintained using a database.

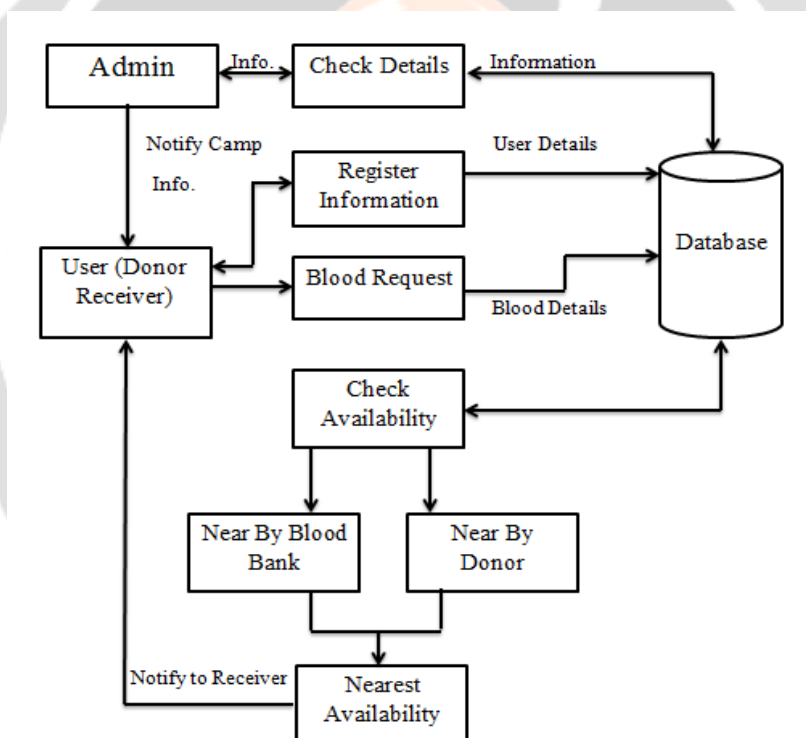


Fig1. System Architecture

### 2.4 Application

1. E-business Sector
2. Hospital

3. Medical Area
4. Blood Bank
5. End User

## 2.4 GPS

GPS is the Global Position System used to track Location and Time information in All Weather on the earth. The GPS was Developed in 1973, fully Working in 1994. Originally 24 satellites, currently 31 satellites in working. A GPS Receiver requires line of sight access to at least 3 satellites for a 3D (latitude/longitude/altitude) fix.

GPS is satellite Navigation Tracking location information on earth, GPS is easy way to find person location and time anywhere when that required.it is efficient way to provide fast information that we required. And show map and route of word.

## 3. Mathematical Model

**D= { D1, D2, D3,D4,D5,D6}**

- D1 = Log in Donor Section
- D2 = Find Donate Nearest Camp Location
- D3 = Registration Donation camp
- D4 = Donate Blood
- D5 = Retrieve Blood Donate Certificate
- D6 = Upload certificate OR Logout

**R= { R1,R2,R3,R4,R5}**

- R1 = Log in Recipient Section
- R2 = Search Required Blood group
- R3 = Nearest Blood bank available or not of searched blood group
- R4 = Track available blood group of blood bank
- R5 = Registration required blood group of available blood bank
- R6 = Visit blood bank and retrieve blood
- R7 = Logout

**C= { C1, C2, C3,C4,C5}**

- C1 = Login camp information
- C2 = Find all Camp Information
- C3 = Click on Nearest Camp Information
- C4 = Provide offline Notification all application user
- C5 = Logout

**B= {C, D, R }**

**B= Overall Login section is Successfully**

3.1 Use Case Diagram, Sequence Diagram

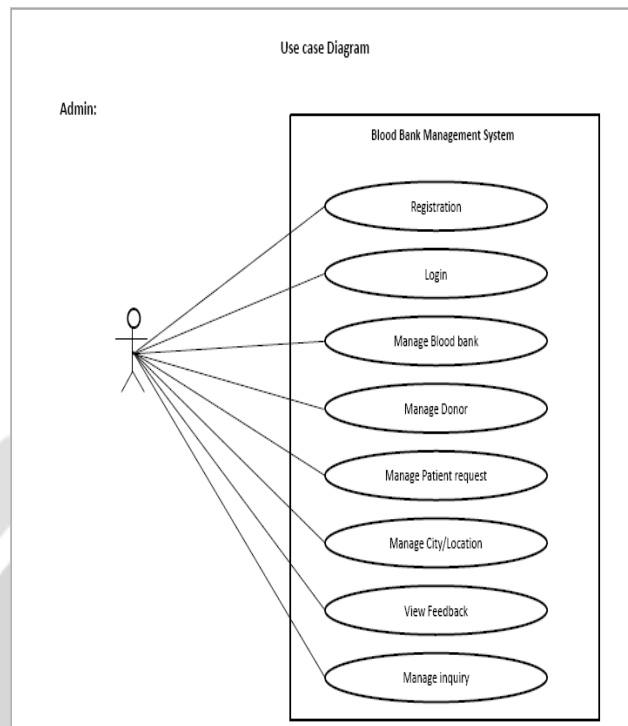


Fig -2: Use Case Diagram

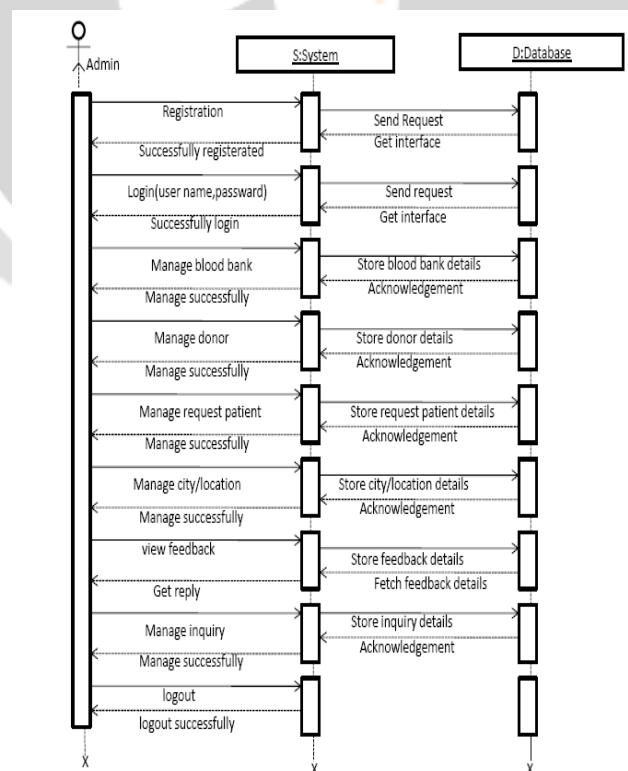


Fig -3: Sequence Diagram

#### 4. CONCLUSIONS

The goal was to achieve the system which will reduce the time required for collection of donor information. Our proposed system provides easier way for the one who are in need of blood. Proposed system focused on provide the blood as immediately as possible by checking the nearest blood bank and nearest donor .Also the donor donate the blood when such donor need the blood the discount is given to such donor.

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