SOFTWARE ENGINEERING PROJECT

ANDROID BLOOD BANK

Group-

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CONCEPT

Blood is a savior of all existing lives in case of emergency needs. The task of blood bank is to receive blood from various donors, to monitor the blood groups database and to send the required blood during the need to the hospital in case of emergencies. The problem is not insufficient number of donors, but finding a willing donor at the right time. We want to build a network of people who can help each other during an emergency.

This application timely updates the information regarding the donors where the administrator accesses the whole information about blood bank management system. Donor will be prompted to enter an individual's details, like name, phone number, and blood group. In the urgent 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 donors in your area. A large number of blood donors are attracted using an Android application. Since almost everyone carries a mobile phone with him, it ensures instant location tracking and communication. Only a registered person, with willingness 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.

USER IDENTIFICATION

In this software we have got four user .

- Donor : He will register himself in the system as a blood donor .

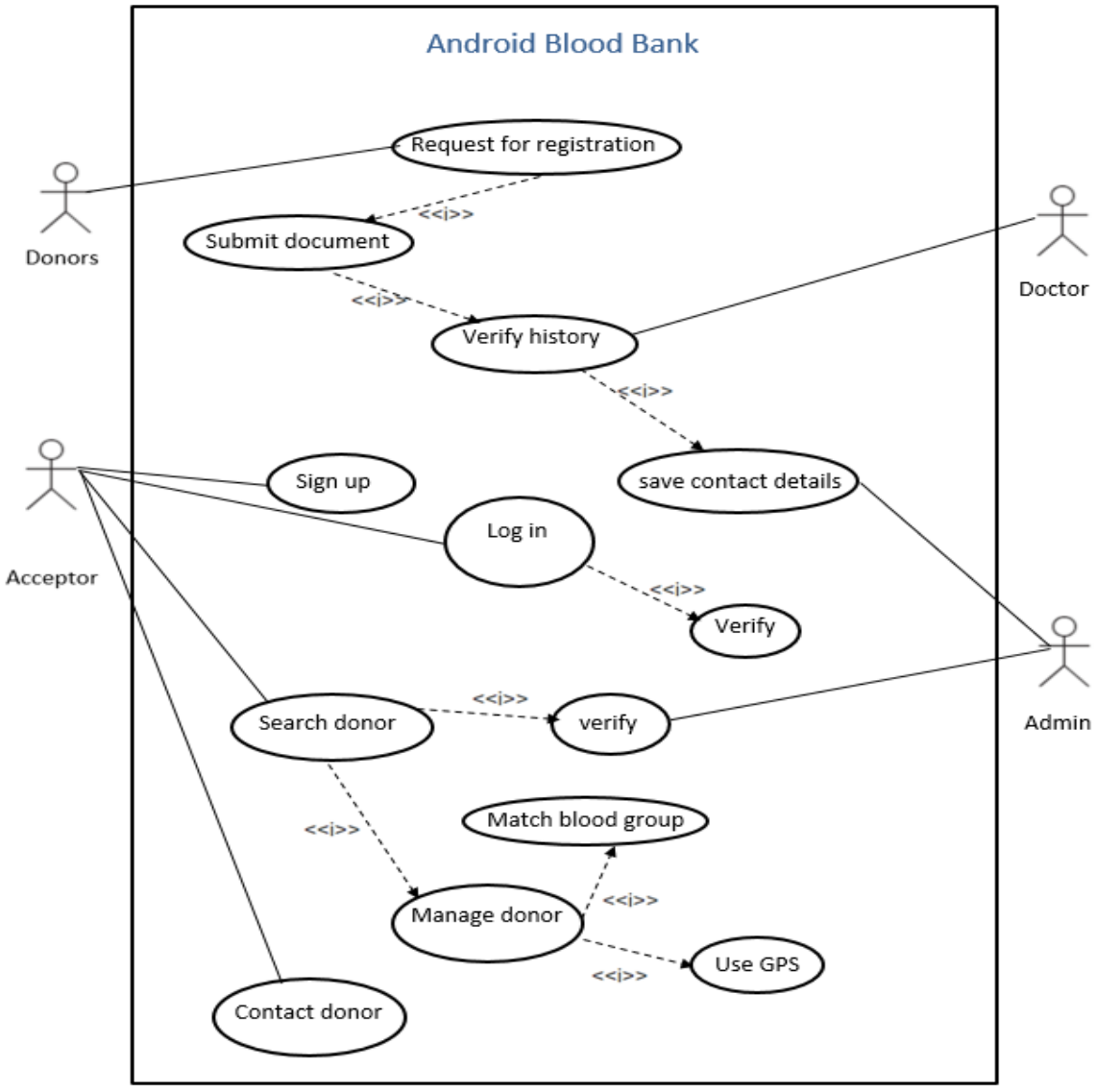
- Acceptor : He will access the system to find blood.

- Doctor : This actor plays an important role in this system . He will verify the donor before registration . Depending on his decision System will get new verified actor.

- Admin : This actor manages the software's basic and mandatory work .

USE CASE DIAGRAM

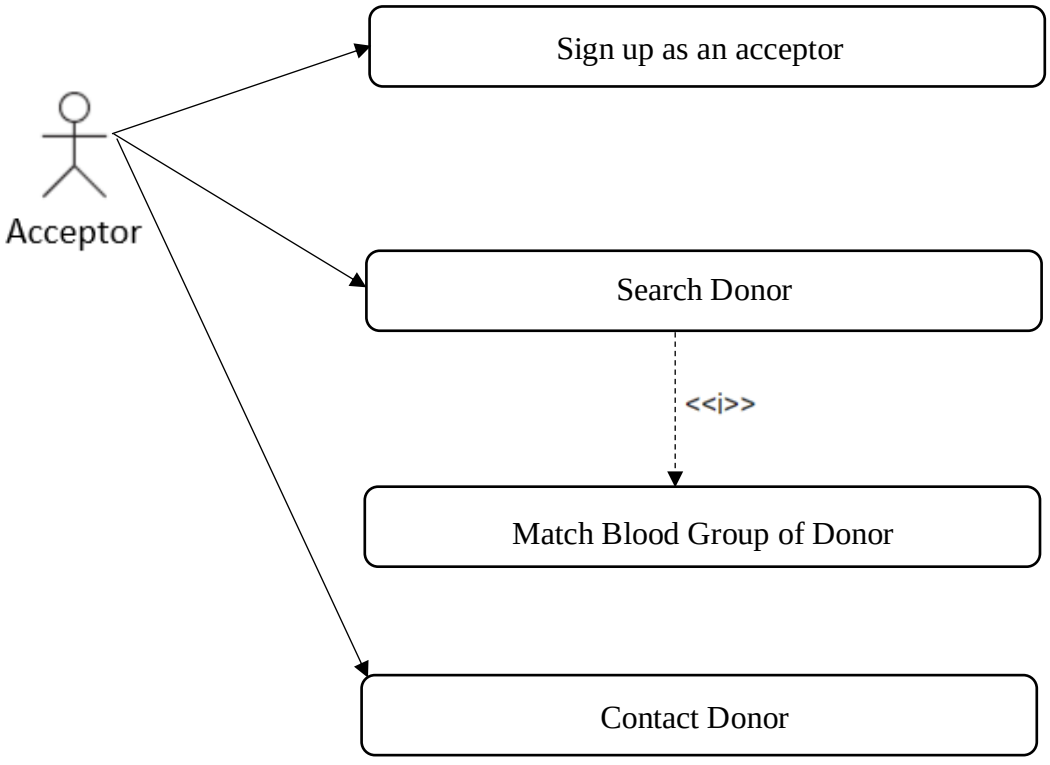
A **use case diagram** is a representation of a user's interaction with the system that shows the relationship between the user and the different use cases in which the user is involved. A use case diagram can identify the different types of users of a system and the different use cases and will often be accompanied by other types of diagrams as well.

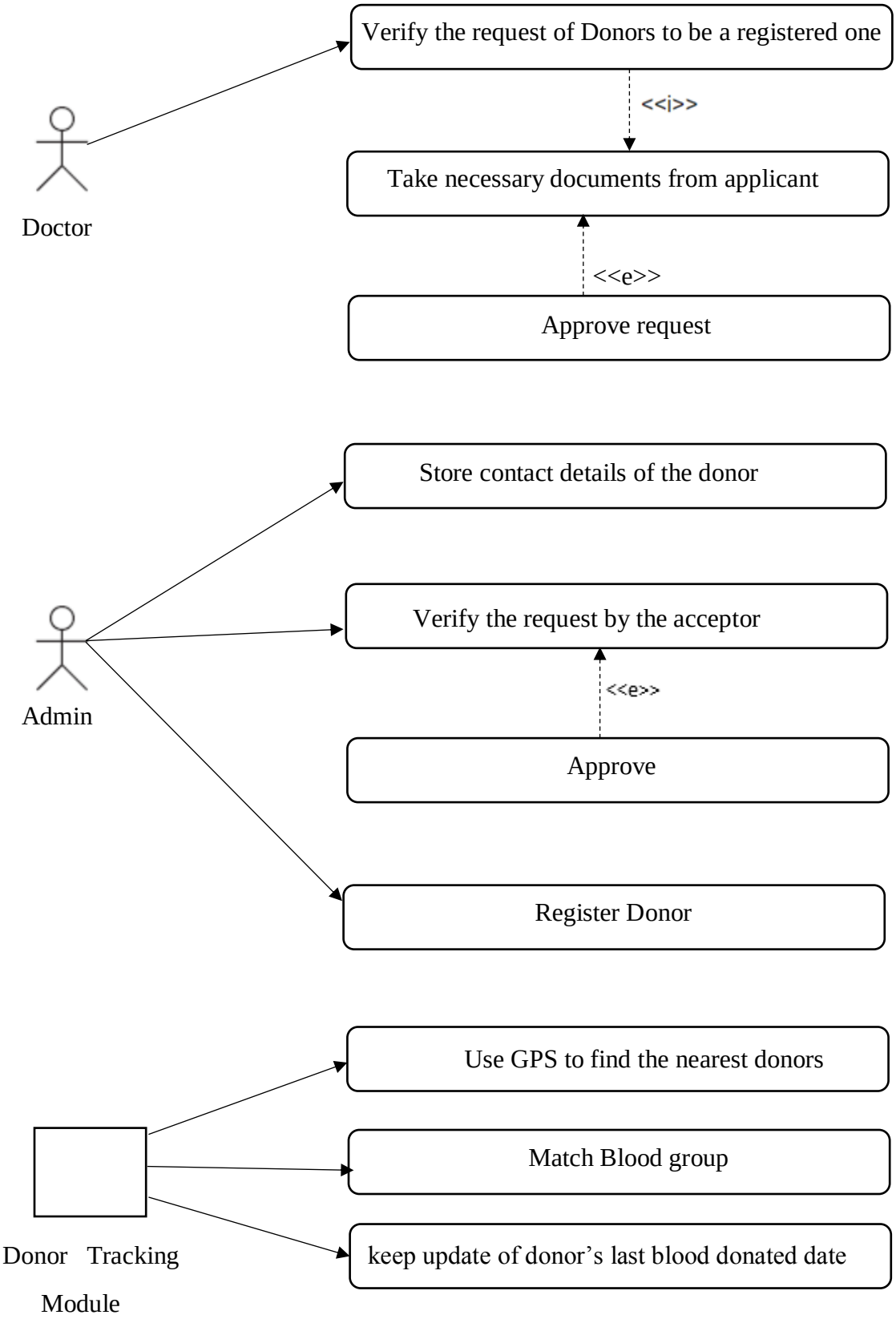


MODULES

There will be 5 modules in our system. The Donor module, Acceptor module, Doctor module, Admin module and Application Tracking module.

Given below are the use cases of the modules:




Verify the request of Donors to be a registered one
<<i>>
Take necessary documents from applicant
Doctor
<<e>>
Approve request
Store contact details of the donor
Verify the request by the acceptor
Admin
<<e>>
Approve
Register Donor
Use GPS to find the nearest donors
Match Blood group
keep update of donor's last blood donated date
Donor Tracking
Module

REQUIREMENTS ANALYSIS

Functional requirements

- Donor has to be registered first.
  - He has to give proper documents including all medical history
  - Doctor will check it properly and verify as a donor
  - Admin will register him as a donor and save his contact details for emergency donation .
- Acceptor has to signup first if he/she wants to search blood here providing his details
- Acceptor has to login and system will automatically verify
- Acceptor can search for donor . But admin has to verify his request to prevent the sale of blood at higher prices .
- Admin will search nearby donor of searched blood group using GPS which is highly appreciated.
- Acceptor will contact with donor then directly and manage to get desired blood.
- Acceptor should receive message updates when their request for blood is submitted, received, accepted or denied
- The applicant should receive message updates when their application is submitted, received, accepted or denied
- The users should be able to access the system at any time.

  NOTE :
  - App is only accessible by certified acceptor ,doctor , donor and system only
  - Will be searched by blood type
  - Advanced search feature will be used

Non-functional requirements

- Performance
- Availability
- Flexibility
- Reliability
- Reusability
- Maintainability
- Friendliness

CONCLUSION

The system can bring relief to many people. Since it is an android-based system it can be updated very easily. Though there are a lots of verification step , we think it will be a great android based blood bank to get desired or requested blood more easily .This application will manage blood full free of cost .We believe that people serve people . And most important , BLOOD IS NOT A PRODUCT OF BISUNESS .