



ANDROID – BLOOD BANK APPLICATION

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Abstract— *Blood is a saver of all current lives in case of emergency needs. The responsibility of a blood bank is to take blood from various donors, to monitor the blood groups database and to send the requisite blood during the need to the hospital in case of emergencies. The difficulty is not the insufficient number of donors, but finding a reliable donor at the right time. We want to establish 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 the blood bank management system. Donor will be indicated to enter an individual's details; like name, phone number, and also the blood group. In the critical time of a blood requirement, you can quickly check for blood banks or hospitals matching an appropriate or related blood group and reach out to them through the App. Blood bank App gives list of blood banks in your area. A huge number of blood donors are attracted using an Android application. Practically, everyone carries a mobile phone with him; it ensures on-the-spot location tracking and communication. Only a registered person, with the 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 way to reach the desired location and he won't have to ask manually, consequently, time can be saved.*

Keywords: *Blood bank, Android, Blood transfusion, Database, Donors, Acceptors, Administrator, Geographic information System.*

I. INTRODUCTION

This app would play a prominent role in saving the lives of human beings and it will provide a means of communication between blood seekers, blood donors & blood banks. This will help the users in such a way that users can locate different volunteer blood donors and blood banks in their locality and then request for the blood in case of emergency. The users will be able to view information about different blood groups, the information of the registered users who need blood in case of emergency and the blood donors who wish to donate blood when required. All the personal information about blood donors will be kept at the backend database. The system is designed and developed keeping in view that it should be user-friendly, Searching should be simple, and it should have the high-grade and light display and user ease is given to the user. The Interface of the system is developed keeping in mind that it should be good looking, intriguing, at first sight, easy to understand and self-explanatory.

The scope of a system means that modules are being covered by the system. The scope clearly defines the limits of the proposed system. The functional areas of this application that lies under the scope of the proposed system are the management of the availability of donors & blood banks to the user or member at any time. The system determines the estimated locations of the donors and blood banks. The client can also go through from the guidelines section to view the useful precautions needed before and after blood transfusion. To be a member of the Android Blood Bank, the user has to fill the registration form and provide the necessary information. 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 essential information in no time and also helps in faster decision making.

II. METHODOLOGIES

ANDROID STUDIO-

Android Studio is the reliable integrated development environment (IDE) for Android app development, primarily based on IntelliJ IDEA. Android Studio is designed specifically for Android development. It is to be had for download on Windows, MAC OS X and Linux, and changed as Google's primary IDE for native Android application development. Android Studio offers flexible Gradle-based totally construct system, code templates to help you build common app functions, rich format editor with support for drag and drop subject matter editing, built-in assist for Google Cloud Platform, making it clean to integrate Google Cloud Messaging and App Engine and plenty more. Android Studio functions a new and progressed interface design perspective where you can view the interface you are working on and its associated components. Android Studio provides a number of user interface tools to assist you with creating layouts, imposing style themes, and building picture or text resources to your app.

ANDROID SQLITE-

SQLite is an open-source social database i.e. used to perform database operations on android gadgets, for example, setting away, controlling or improving relentless records from the database. It is implanted in android by using default. In this way, there's no compelling reason to play out any database setup or organization assignment. The android.Database.Sqlite.SQLiteOpenHelper class is used for database introduction and model management. For appearing any database operation, you need to offer the implementation of onCreate() and onUpgrade() methods of SQLiteOpenHelper magnificence.

III. SEQUENCE OF ACTIVITIES

All the activities and fragments are shown in the figure below. It demonstrates from which window to which window does the app follows. These are the real images taken from the app to understand the flow of work easily.

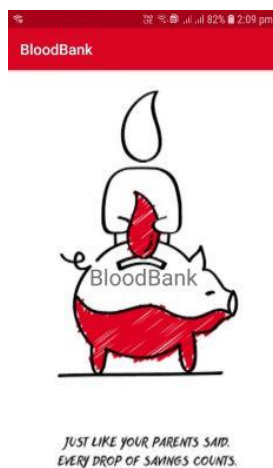


Fig 1: Front Page



Fig 2: Home Page

At first the login page opens where there are options to login if someone is a member or is someone is not a member, he can register to become a member. There is also a password recovery method for someone who has forgotten the password.

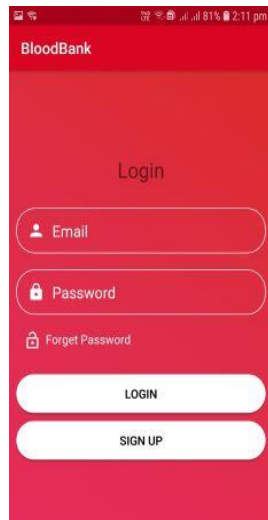


Fig 3: Login Page

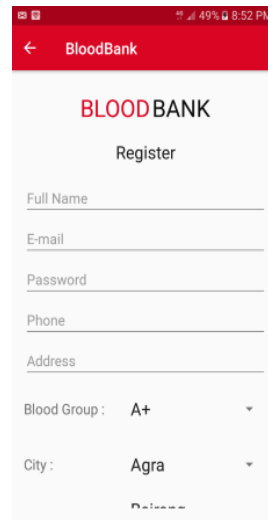


Fig 4: Registration Page

If a person wants to register as a new member, he has to press the register as new user. Then he needs to fill up a form with his personal data. These data are stored in the database of SQLite. Then in the next page of registration a person needs to select the blood group he has and the last day he donated blood.

The registration process is complete here. Next the person can send request for blood. To search donor, he needs to select the blood group he is searching, the location around which he will need blood and the distance from that location.

Next if he presses the button for search the best matched people according to data stored will be shown in a list. The person can view the profile pressing any donors name from the list. Then he can make direct call and message to donor if he is willing to do.

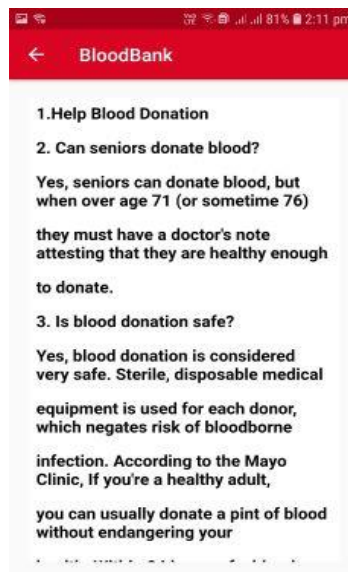


Fig 5: Help Page

You cannot donate if you have a cold, flu, sore throat, cold sore, stomach bug or any other infection. If you have recently had a tattoo or body piercing you cannot donate for 6 months from the date of the procedure. If the body piercing was performed by a registered health professional and any inflammation has settled completely, you can donate blood after 12 hours. If you have visited the dentist for a minor procedure you must wait 24 hours before donating; for major work wait a month.

IV. RESULT

The cause of the blood financial institution management system is to simplify and automate the process of attempting to find blood in case of emergency and hold the records of blood donors, recipients, blood donation applications and blood stocks in the financial institution.



Fig 6: Availabe Blood Groups

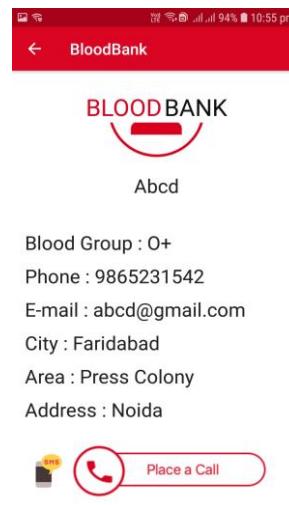


Fig 7: Donor Details

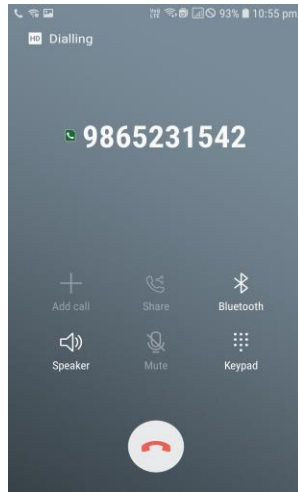


Fig 8: Direct Call to a donor

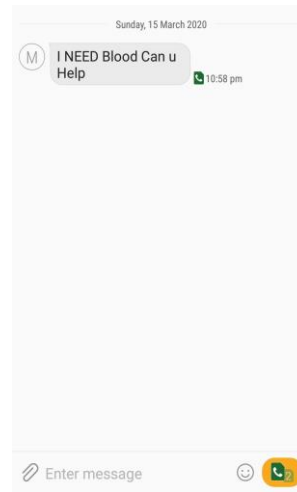


Fig 9: Message to the donor

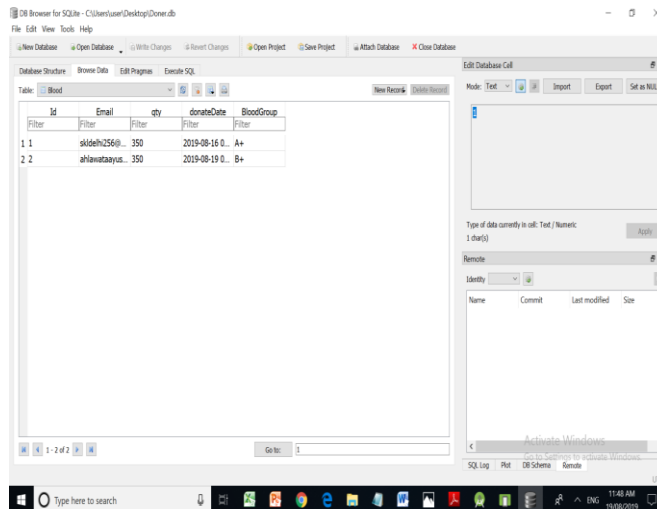


Fig 10 : Sqlite Database Records

V. CONCLUSION

We have proposed an efficient and dependable android blood bank utility. The service provided with the aid of the proposed machine is needed and precious to fitness sector where a high-quality of blood is taken into consideration for the safety of the patient. The donor gets himself registered via these improved machine. In case of emergency requirement the blood donor can area a request. The wireless internetmethod permits the flow of information to paintings extra rapidly and conveniently. The future work of the gadget is to broaden this application in iOS platform

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