

Saviour

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Abstract- Saviour is an application where we provide a bridge between blood donor and blood receiver. 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. User will be prompted to enter an individual's details, like name, mobile number, email address, blood group. In the urgent time of the blood requirement, you can quickly check for blood donor matching a particular or related blood group and reach out to them through the App. Since almost everyone carries a mobile phone with him/her, it ensures instant location tracking and communication. Only a registered person, with willingness to donate blood, will be able to access the service.

Keywords- Android, Design with Android Studio(Android-X), Blood Group, Backendless (for database), Blood Donors, Blood Receivers

I. INTRODUCTION

Saviour is an application where we provide a bridge between blood donor and blood receiver. This application is useful in emergency situations like accidents, natural disasters, etc. This application is also tied up with hospitals so that we can help people who are suffering from diseases like HIV, blood cancer, major operations, major Thalassemia, etc. This application also provides events like blood donation camp for people who want to donate blood for good cause (social activity).

The main aim of this project is to save lives of people by providing blood. Our project Saviour using Android is developed so that users can view the information of nearby blood donor. We have provided security for authenticated user a new user have to register according to their type of perspective and existing user have to login.

This project requires internet connection. This application we are developing helps to select the nearby blood donor by tracing its location using GPS. This application reduces the time to a greater extent that is searching for the required blood through blood banks. Thus this application provides the required information in less time and also helps in quicker decision making.

The main purpose of this project is to interconnect all the blood donors and blood receivers into a single network, validation, stores various data in database where the individuals information cannot be accessed by a third party. It is suitable for any kind of person. Application provides the list of blood donor with unique identifier in nearby area.

II. LITERATURE REVIEW

In "The Optimization of Blood Donor Information and Management System by Technopedia" by P. Priya and V. Saranya [1] have proposed an efficient and reliable blood donor information and management system based on GIS integrated in android mobile application. The service provided by the proposed system is needed and valuable to health sector where a quality of the blood is considered for the safety of the patient through a systematic process by the blood management system. This system will be the solution for the problems such as wrong information of donors, misuse by third parties and updating the donated blood by the donor which replaces the older systems. The proposed system is a web based android application helps us to reduce the human mistakes which are done in the existing system. The wireless internet technique enables the flow of data to work more rapidly and conveniently. This is integrated framework which has a cloud-based application on mobile devices. The future work for the system is to extend this application to process through SMS services. By this the contact is hidden from other members. Some other text or number will be generated on behalf of the original phone number or email. This can be done without using the internet service where the acceptor sends blood request to donor by web but whereas the donor receiving the request is just a simple SMS in mobile. By this there will be secure BTS where strangers can not misuse the details of donors and where strangers can become helping hand for life at emergency situation. In "MBB: A Life Saving Application" by Narendra Gupta, Ramakant Gawande and Nikhil thegadi [2] have proposed the system that will link all donors. The system will help control a blood transfusion service and create a database to hold data on stocks of blood in each area as data on donors in each city. Furthermore, people will be able to see which patients need blood supplies via the application. They will be able to register as donors and thus receive request from their local clients who needs blood to donate blood in cases of

need. In "an android application for volunteer blood donors" by Sultan Turhan [3] a smart phone's application for the volunteer blood donor to increase the willingness and accessibility with the purpose of providing a continuous blood supply is presented. This application helps health care centers to provide the blood as quick as possible when their stocks are insufficient. The application sends periodically actual location information of available donors to main system and the blood requests to the donors. In this way, it provides an uninterrupted communication between the health care centers and volunteer donors. The distance of the volunteer donors to the healthcare center is an important criterion in the determination of the donors. Therefore an optimization is also realized on this process. In the initial system, the distance calculation is made by taking the distance as crow flies. In the optimized system, it is converted to the actual distance. This optimization makes the system more realistic. The second improvement is performed on the system's infrastructure. Especially, by taking into consideration the rapid development of mobile device technology which uses Android operating system, the system has been carried from the from ANT building environment onto Gradle build automation platform. In further studies, we aim the add evaluation of traffic density between living donor's locations and healthcare centers to the living donor selection criteria.

III. METHODOLOGIES

A. Android Studio is the official integrated development environment (IDE) for Android app development, based on IntelliJ IDEA. Android Studio is designed specifically for Android development. It is available for download on Windows, MAC OS X and Linux, and replaced as Google's primary IDE for native Android application development. Android Studio offers flexible Gradle-based build system, code templates to help you build common app features, rich layout editor with support for drag and drop theme editing, built-in support for Google Cloud Platform, making it easy to integrate Google Cloud Messaging and App Engine and much more.

Android Studio features a new and improved interface design perspective where you can view the interface you are working on and its related components.

Android Studio provides a number of user interface tools to assist you with creating layouts, implementing style themes, and building graphic or text resources for our app. The Android build system is the toolkit you use to build, test, run and package your apps. The build system can run as an integrated tool from the Android Studio menu and independently from the command line.

B. Backendless is a mobile backend as a service (MBaaS) platform that combines API, user, and database management functionality with a user-friendly, web-based interface. Backendless offers the ability to send emails and push notifications and supports real-time chat and geolocation-based functionality. A Backendless backend can be customized with manually written code or using our Codeless logic builder. Backendless mBaaS is a complete backend with support for user authentication, data persistence, file storage, messaging and custom business logic. Everything you need to build awesome apps without worrying about servers.

IV. FUTURE ENHANCEMENT

In future this App will be providing the facility of doing the blood donation activity at your home. So the ones who want to donate blood but can't go and donate blood because of any reason, no need to worry we will provide home service, to save their time and energy too.

V. CONCLUSION

This App helps user to find the nearby blood donors easily. The App is user friendly and has convenient user interface. The reliability, robustness and correctness of the App exact need more elaborate study to help the customer. The Backendless maintain the user details, blood requests, blood donors details and user's location easily.

VI. ACKNOWLEDGMENT

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