# An Andriod Application for Blood and Organ Donations

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**Abstract.** Blood and Organ donation is considered as the noble help toward mankind yet the major challenge is to find the exact blood group and needed organ at the required time. This android application mainly aims to solve this problem by tracking these donors with the help of cloud. The system is designed such that any person willing and eligible to donate blood or even any other organ registers via this application and donar information is preserved. The admin can send an alert to the donors to proceed for help to the needed patient. The use of cloud makes this system much better than other e- blood and organ donar bank.

**Keywords:** Cloud Computing, Blood donation, patient, donor

## 1  Introduction

Blood and organ donation is considered as one of the novel work in terms of humanity. Various organisations and individual comes in front to provide help in this novel cause yet the major problem is to find the exact blood group at the required time.

In the year 2015, Prof Snigdha put forward the concept of Android Blood Bank system in order to monitor willing blood donors at an urgent time using GPS technology to trace the nearby blood banks. Two major issues of this application are the GPS service and the web browser. Prof Naser [3] along with his teammates designed another mobile app in order to track blood donors. This app directly connects the end user with the donors in time of emergency, this app also provide service such that the donors can interact among themselves and also with the Hospital blood centre. Similarly, Prof Backiyalakshmi[2] proposed cloud based Android Blood Donor App. The cloud based services enables emergency blood delivery since it had immediate access to donor's information and location. It is a location-based application, helps in finding donors in order to match blood groups with respect to the location and users can also access their mobile numbers for spontaneous help in case of emergency. Many developments came for such applications[1,4,5,6,7] Our android application mainly tracks these donors with the help of cloud. In [8, 9] weighted fuzzy logic is used in training the data. where as in [10] methods used to handle Time series dataset are addressed. In [11] PIMA diabetes dataset are used as a test case and

performed predicted on different feature. where as in [12] gradient ascent approach is used to weight the terms.

## 2  Proposed Architecture

In The proposed system is used for maintenance of blood donor's information. This proposed system can be of 3 modules: User Interface, Admin Interface and Cloud Storage

A.  *Admin Interface:* This module can interact with both donors & patient. Each member consists of a donor or patient is having a unique email id and password which helps in identifying him. The member is provided with a login form which can be only filled with help of email id. The menu available to the admin in the interface is -Change Password, Update donor details / Update patient details

B.  *Donor:* Each donor had to give his email id and government id proof, which identifies him uniquely. The menu available to the donor in the interface is - Change password, Search specific Blood group and Appointment for donating blood. *C.and other organs*

C.  *Patient:* This module gives data like patient's name, blood group and their contact data. If there is an occurrence of crisis like request for uncommon blood group then client can ask for the predetermined blood to the benefactor straightforwardly. The kind of blood required can be requested according to the medical state of patient.

D.  *Cloud Storage:* All the details about the blood donors and patients data are stored in the cloud database. User can update the personal information which will be reflected into the cloud directly. This is helpful in tracking and managing information.

E.  *User Interface:* This module consists of two sub modules:

    a.  *Individual user Interface:* The individual donor login or do register for blood donation with the help of this module. He/ She register via the link provided in the application with donor's name, government id, gender, blood group and other contact information like

    b.  *Organization Interface:* Here, each organization want to connect it database with that of cloud can freely connect with this application using this interface.
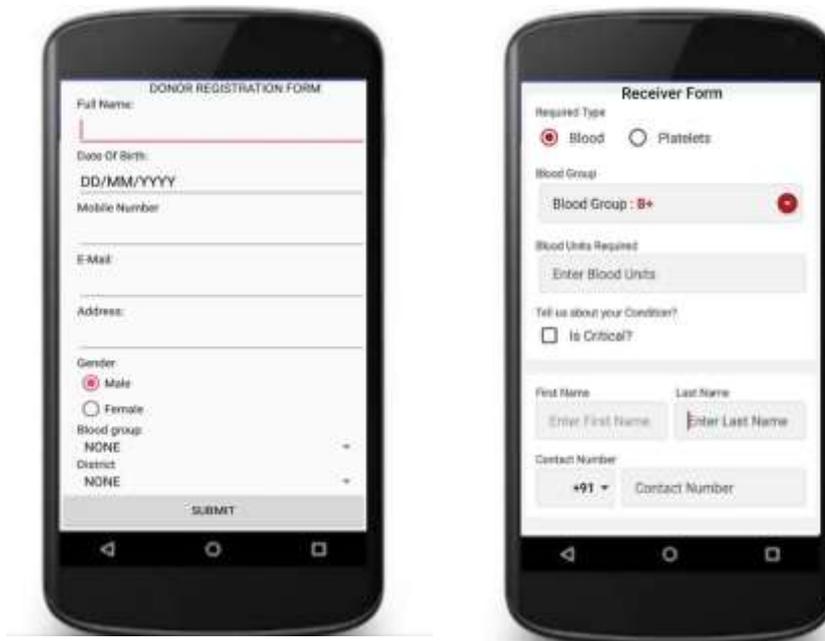
**Fig. 1. a)** Donor Registration Form          b)Patient Registration form
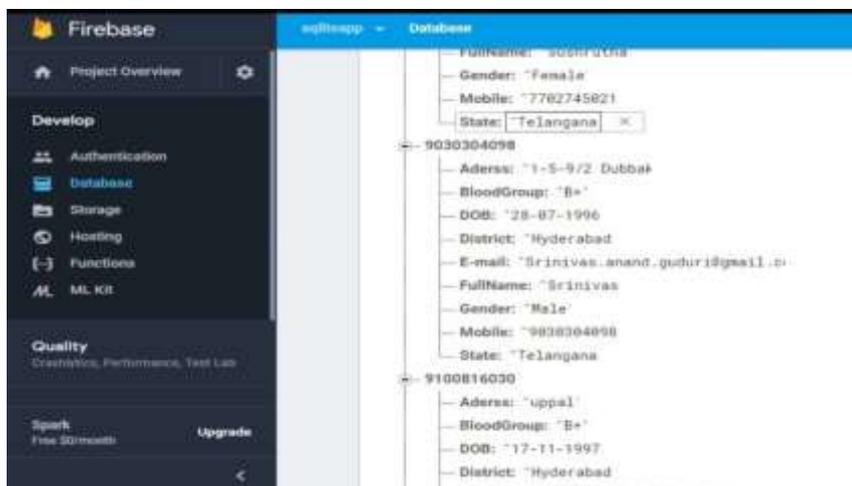


**Fig. 2.** Data Base of Donors

## 5   Conclusion and Future Work

In this paper, we proposed an informative blood and organs donor system on latest technology of cloud computing. It characterized by ease of use in organizing the organ and blood donations effectively. The benefits of this system represented in:

  i.   New Donors.
  ii.   Increased sharing.
  iii.   Speed in knowing the shortage of blood and organ inventory.
  iv.   Saving the humanity and facilitating the process of finding a donor faster and in lower costs and losses.
  v.   Update data faster

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