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## International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

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# Online Blood Availability on Android Application Using Mobile Application Development

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**ABSTRACT:** Human blood is an essential element of human life with no substitute. Voluntary blood donors are the corner stone of a safe and adequate supply of blood and blood products. The safest blood donors are voluntary, non-remunerated blood donors from low-risk populations. Blood donors in India, as across the globe, are of three types; voluntary donors, replacement donors and professional donors. Most donations are as a result of replacement donations, which are non-remunerated donations, provided by the relatives of patients. Professional donors are those who donate blood in exchange for money. Replacement and professional donors may be compelled to donate blood, though their health conditions are unsuitable to donate blood. They do not help maintaining a stock of blood for emergency situations. Moreover, they do not provide rare blood groups. These points are indicating the need and importance of voluntary blood donations.

### I. INTRODUCTION

Human blood is an essential element of human life with no substitute. Voluntary blood donors are the cornerstone of a safe and adequate supply of blood and blood products. The safest blood donors are voluntary, non-remunerated blood donors from low-risk populations. Blood donors in India, as across the globe, are of three types; voluntary donors, replacement donors and professional donors. Most donations are as a result of replacement donations, which are non-remunerated donations, provided by the relatives of patients. Professional donors are those who donate blood in exchange for money. Replacement and professional donors may be compelled to donate blood, though their health conditions are unsuitable to donate blood. They do not help maintaining a stock of blood for emergency situations. Moreover, they do not provide rare blood groups. These points are indicating the need and importance of voluntary blood donations. The success of blood donation camp depends on people who organize the camp and blood bank team.

### II. EXISTING SYSTEM

The existing system, the operator is facing many of problems for entering the data of the Donors like maintaining the Donors information. It is more difficult to verifying all the information and making reports for each and every Donor activation, difficult to update the reports. The present system is a manual work and it should require so much of manpower and it is time consuming process and also it is very inconsistent and not reliable.

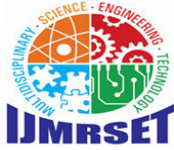
#### Disadvantage:

1. Lot of paper work
2. Waste of time
3. No correct information

### III. METHODOLOGY

#### PROPOSED SYSTEM:

The purpose of blood donation camp is to select a suitable donor whose blood is safe to the recipients and who himself shall not in any way be harmed by blood donation. Outdoor voluntary blood donation camps in India are organized in three phases. They are pre-camp phase, camp phase, post-camp phase. Conducting voluntary blood donation camp in regular basis will increase the stock of blood units in blood bank which is needed for optimum functioning of the health-care system.

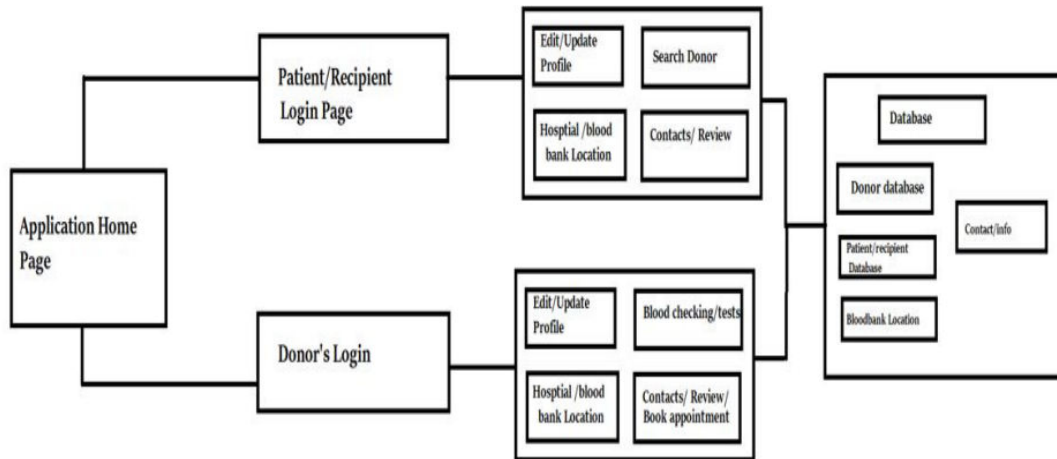


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Conclusion: The organization of blood donation camp should be best and safe to the patient/recipients and to the blood donor also. With increase in population and development of more advanced medical and surgical procedures, the need for blood is ever increasing

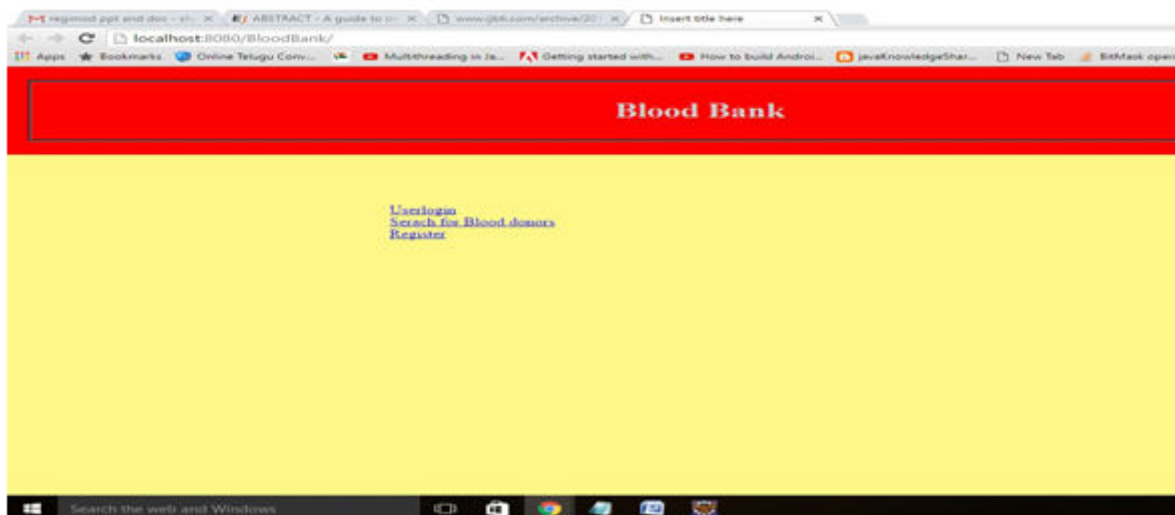
### SYSTEM ARCHITECTURE:



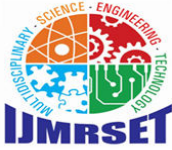
### IV. IMPLEMENTATION

We have implemented the design structure for the android application. The structure for our application is designed using flutter which is a open source UI developed by google. All the tabs/application sections are designed using flutter UI which transforms the app development process. Build, test, and deploy beautiful mobile, web, desktop, and embedded apps from a single codebase. The ui begins with a flash screen page which is a welcome page of the android application for blood donation. The flash page is given a timer of 3-4 seconds after which the user lands on home page which consists of user login/signup tab.

### V. EXPERIMENTAL RESULTS



Home page



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**Registration**



**BLOODHUB**

**Name:**

**Sex:**

**Blood Group:**

**Contact No:**

**Address:**

**Division:**

**Email:**

**Password:**

I want to be a Donor

**Register**



**Sign in**



**BLOODHUB**

**Want to Save Lives?**  
**Register/Login**

**Sign in**

**Create an account**

[Forgot password?](#)

**BloodHub**

**Needs A+ Blood Donor!**  
**Contact: 9869636963**  
**Posted by: Asha khalal**  
 Posted on: 03:07 PM, 3/7/2023  
 From: Milanchowk, Butwal

**Needs A- Blood Donor!**  
**Contact: 121212121212**  
**Posted by: Thanatip Singpee**  
 Posted on: 04:25 PM, 14/10/2024  
 From: CHRIST, Bangalore

**Needs A+ Blood Donor!**  
**Contact: 9999999999**  
**Posted by: abc**  
 Posted on: 10:25 AM, 14/11/2024  
 From: CHennai, Tillotama

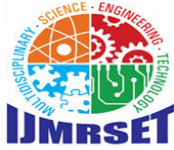
**Needs B+ Blood Donor!**  
**Contact: 871452360**  
**Posted by: Suhas**  
 Posted on: 03:24 PM, 22/4/2024  
 From: belgod, Parasi

**Needs AB- Blood Donor!**  
**Contact: 1234567890**  
**Posted by: pankaj soni**  
 Posted on: 10:44 PM, 4/12/2023  
 From: navagam, BaBa Memorial

**+**

Registration page

Donor Details page



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The screenshot shows two pages from an Android application. The top page, 'Request Blood', has a red header with a back arrow and the text 'Post Blood Request'. It contains a form with fields for 'Contact: Mobile No.', 'Location: Enter Address', 'Blood Group: A+' (with a dropdown arrow), and 'Choose Locality: Hyderabad' (with a dropdown arrow). A red 'POST' button is at the bottom. The bottom page, 'Search Donor', has a red header with a hamburger menu icon and the text 'Find Blood Donor'. It contains a form with 'Choose Blood Group: A+' (with a dropdown arrow) and 'Choose your Division: Hyderabad' (with a dropdown arrow). A red 'SEARCH' button is at the bottom. A red circular button with a white plus sign is visible on the right side of the bottom page.

Request Blood page

Search Donor page

### VI. CONCLUSION

In this project, we proposed a vocabular multi-authority CPABE scheme that can support efficient attribute revocation. Then, we constructed an effective data access control scheme for multi-authority Data storage systems. We also proved that our scheme was provably secure in the random oracle model. This vocabular multi-authority CPABE is a promising technique, which can be applied in any remote storage systems and online social networks etc. We have successfully made the automation of Blood donor details. It reduces a lot of paper work and man power.

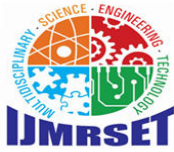
Health sector is the most important sector in India. Providing efficient solutions for blood donation process will replace regular complicated manual process with easier one. Herefore, this project aims at creating a proper and complete system providing solution in blood bank management for blood donors and patients. This allows secure transactions between the donor and manage its blood donation activities. Support fast searching to find match blood for the right person and provide support of blood bank information. The project uses android application interface for the implementation.

### VII. FUTURE ENHANCEMENT

For future work, we plan to extend the proposed privacy-preserving access control to incremental data and cell level access control.

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