

GiveLife: A Unified Donations Android-Based Application

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Abstract:

The GiveLife app is an Android app that manages donations. It enables users to contribute food, clothes, blood, money, and books. The app also connects people with doctors. Users can make donations, view their giving history, and collaborate with NGOs to receive targeted assistance. A robust admin panel verifies users, validates information, and ensures donations reach their intended destinations. The app boasts a secure backend, offers real-time tracking, and features a user-friendly interface. This enhances traditional donation methods by reducing waste and streamlining the process for both donors and recipients. GiveLife provides a transparent approach to charitable giving, creating a more interconnected and efficient donation system.

Keywords: Donation, Donor, NGO, Blood Bank, Food, Books, UI/UX, Firebase Integration, Data Security

I. INTRODUCTION

In our modern times, handling donations comes packed with several obstacles. These include "**a lack of clarity wasteful ways of giving out aid, and a gap between donors and those who get help**". Old-school ways of donating bank a lot on "**hands-on work actual check-ups, and all-over-the-place monitoring**", which results in a scattered and not-so-smart system. Plenty of folks giving money or stuff are left wondering if it all gets to the people in need, while non-profits and places that store and give out blood face headaches over keeping stock and sharing things out .

The push for digital change is big in lots of business areas, and now it's super important to use tech stuff for giving back too. The app called **GiveLife** is like a cool digital hangout spot where folks who want to give stuff, charities, and the people who need help can all talk and work things out together. It's got this smart **QR code thing** to make sure the help goes where it's needed, plus you can keep an eye on your donation in real time, which is pretty neat. And with all the high-tech doodads like safe money-sending things cloud thingies to store data, and brainy AI that looks at the deets, **GiveLife** is trying to make sure giving your dollars and stuff is super clear, can be trusted, and easy for anyone to jump in and do.

With the arrival of **smartphones, cloud computing, and data security measures** digital donation platforms can now explore fresh opportunities. GiveLife, ditching old-school donation processes that need **physical logistics manual verification, and in-person follow-ups**, uses **automation and digital connectivity** for a slick way to get donations to the right place. This method boosts trust for those giving money and cuts down on the paperwork for NGOs and social groups.

II. EXISTING WORK

Traditional ways of giving mean you have to drop stuff off, be there in person to raise money, and keep track of everything by hand. These old-school tactics come with a bunch of problems: it's not always clear where your donation goes, it can be a slow process, and sometimes it's not super safe. Folks who like to give often have trouble making sure their help lands in the right hands. At the same time, non-profits and other groups have a tough time keeping their records straight and managing all the stuff they get.

We've got these new-fangled digital ways to give money, like "crowdfunding platforms", NGO-specific sites, and even ones the government's put its stamp on. The thing is, they're great at gathering cash but not so hot when it comes to keeping track of it all in real-time supporting a bunch of different categories, or checking things automatically. Most of these crowdfunding sites are all about the cash money, and they forget about other important stuff folks might wanna give, like chow, duds, or a good read. Then you've got those NGO websites which might let you give to certain groups, which isn't what you'd call giving donors a ton of choice. And those government websites? Sure, they're super official and all, but they can be pretty darn slow and get all tangled up in red tape.

When you take a good hard look at these setups side by side, you notice some pretty big holes when it comes to "transparency, accessibility, and donor engagement". GiveLife's got this plan to sort out these hiccups. They're rolling out this all-in-one do-it-all kind of site that makes giving way easier. They're promising that everything's gonna be safe, quick, and crystal clear for everyone.

DISADVANTAGES

Lack of Transparency: Donors have **no visibility** into how their contributions are utilized.

Manual Tracking Issues: NGOs and organizations struggle with **paper-based record-keeping**.

Limited Reach: Donations are often restricted to **local areas** due to logistical constraints.

No Real-Time Monitoring: Difficulty in tracking **donation status, inventory, and recipient needs**.

Security Concerns: Risk of **fraud and mismanagement** in fund distribution.

Some modern platforms offer **partial solutions**, such as **crowdfunding websites** or **individual NGO portals**, but they often lack **comprehensive integration, multi-category support, and real-time verification**.

Crowdfunding Platforms: Limited to financial donations, lacking tangible donation options.

NGO-Specific Websites: Restricted access to only certain organizations, making it difficult for independent donors to contribute.

Government Donation Portals: Often bureaucratic and slow, leading to delays in donation distribution.

III. PROPOSED WORK

The GiveLife app aims to connect old-school donation problems with today's tech progress. It's got this all-in-one live system for handling donations that makes sure your gifts get to the right folks without a hitch. The setup works with all kinds of donations and makes the process smooth for people giving away, the charity groups, and the ones getting help.

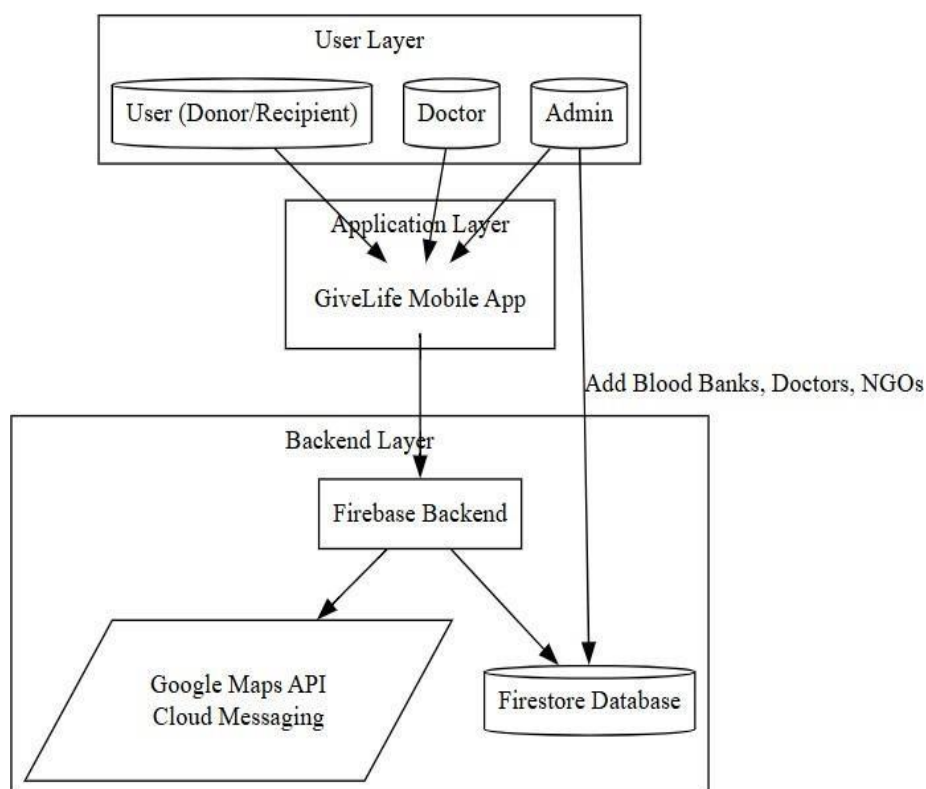
FEATURES OF GIVELIFE

- **Real-Time Verification:** The **admin panel** ensures that all donations are properly assigned to legitimate NGOs or individuals in need.
- **Multi-Category Donations:** Users can donate **food, clothes, blood, money, and books**.
- **Secure Transactions:** Integration with **multiple payment gateways** for safe monetary donations.
- **Doctor Consultation Feature:** Users can **book telehealth consultations** with verified doctors for **medical guidance**.
- **Data-Driven Analytics:** Insights for NGOs and admins to **optimize donation allocation and recipient needs**.

TECHNICAL IMPLEMENTATION

1. **Mobile Application:** Built using **Android Studio** with **Firestore backend**.
2. **Database Management:** Cloud Firestore for real-time data access.
3. **QR Code Generation:** Used for tracking donations and preventing fraud.
4. **User Authentication:** Secured via Google Firebase Authentication.
5. **Payment Gateway Integration:** Support for **UPI, credit/debit cards, and wallets**.
6. **Machine Learning Algorithms (Future Scope):** Predictive analytics for donor recommendations.

DESIGN



The **GiveLife** app follows a structured donation process, ensuring efficient management and transparency. Users begin by registering and selecting their role—donor, recipient, or NGO. Donors can contribute food, clothing, books, or blood, with each donation verified through a QR code-based tracking system to ensure authenticity. Once verified, the donation is assigned by the admin to an appropriate recipient or NGO. Recipients can request available donations, and NGOs help facilitate distribution. Additionally, the app includes a doctor consultation feature, allowing users to seek medical advice. Real-time updates notify all parties of donation status, and a feedback system ensures continuous improvement. Through its streamlined workflow, **GiveLife** creates an organized and transparent platform for charitable giving.

IV. EXPERIMENTAL RESULT

The performance and usability of the **GiveLife** application were analyzed through real-world testing. The application was deployed for testing in a controlled environment, with various user roles including donors, NGOs, and recipients. Feedback was collected based on ease of use, efficiency, and reliability.

Key outcomes observed include:

- **Faster and More Transparent Donations:** Real-time status updates ensure transparency.
- **Reduced Manual Effort:** NGOs and admins can **track and manage donations digitally**.
- **Improved Security & Verification:** Fraud prevention through **QR-based tracking and admin authentication**.
- **Enhanced Donor Engagement:** The user-friendly UI/UX **encourages repeat donations**.
- **Scalability for Future Expansion:** The system can be extended to **new categories and geographies**.

Admin Actions:

- To log in to admin account admin has to use their username/email and password to log in.
- After logging in, the admin enters the main page of the admin side, where all his actions will be displayed.
- The admin can perform all types of actions in the app like.
- The admin can add doctors by adding their details in the app and can view all doctors who are involved in app.
- The admin can also add NGO's after verifying them accordingly and can view all of them.
- The admin can also add blood banks and can view blood banks in the app.
- The admin has all the rights to remove and add doctors, NGO's and blood banks.

Admin Screens

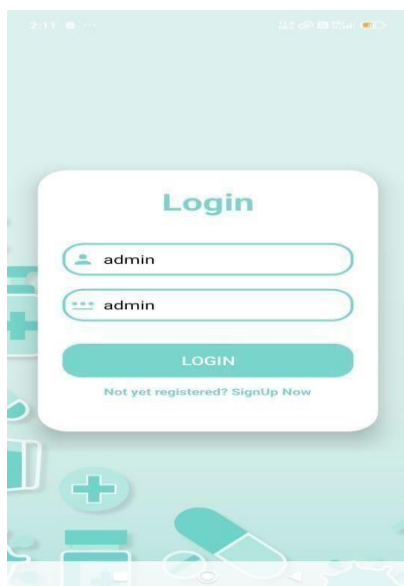


Fig 1: Admin Login

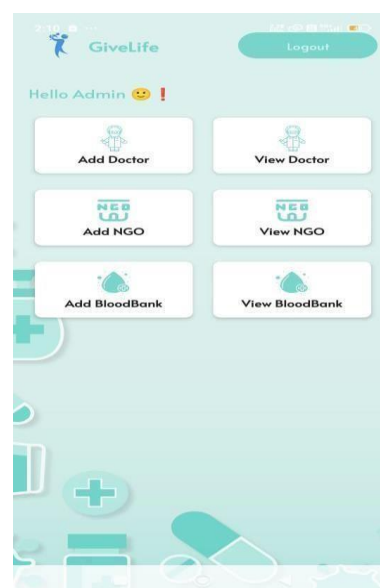


Fig 2: Admin Page

It prominently features a section for admin login, where admin can enter their username/email and password to access admin's account by clicking on the "Login" button. This initial screen serves as the entry point to the app, ensuring that only authorized admin can proceed further into the system, thereby maintaining security and proper access control. Conductor Page screen is the main interface for the admin after logging into the GiveLife: Unified Donation app. It presents several key options such as adding new doctors, NGO's, blood banks for donations, viewing added doctors, NGO's, blood banks, and can also remove them and logout from the app.

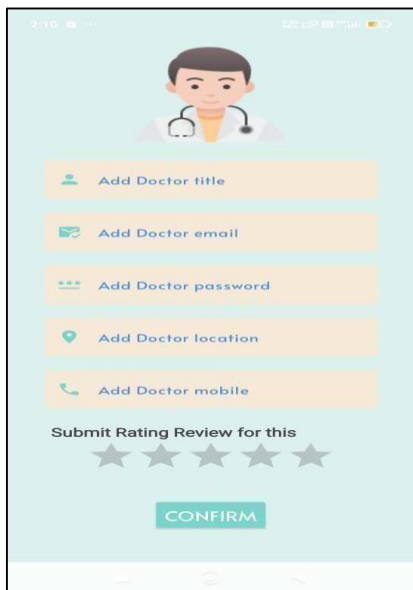


Fig 3: Add Doctors



Fig 4: View Doctors

Add and view doctors are two tasks of admin through which he can manage all the operations regarding doctors in the app and can also check slots of consultation allotted to them.

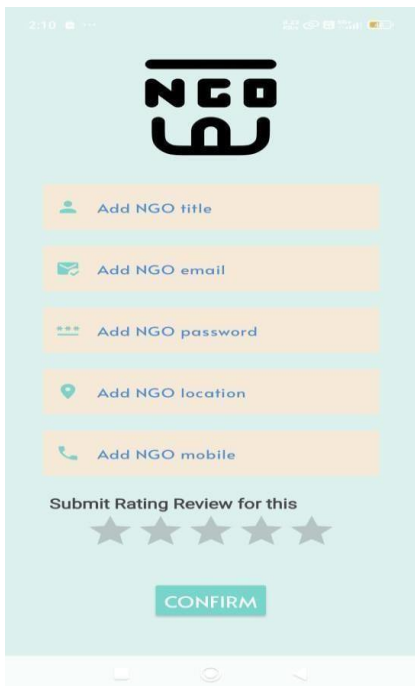


Fig 5: Add NGO's



Fig 6: View NGO's

Adding and viewing NGO's is also one of the tasks done by the admin, where the admin can add NGO's after checking all of them legally and the admin can manage the donation allotment to the organisations which are included in the app.

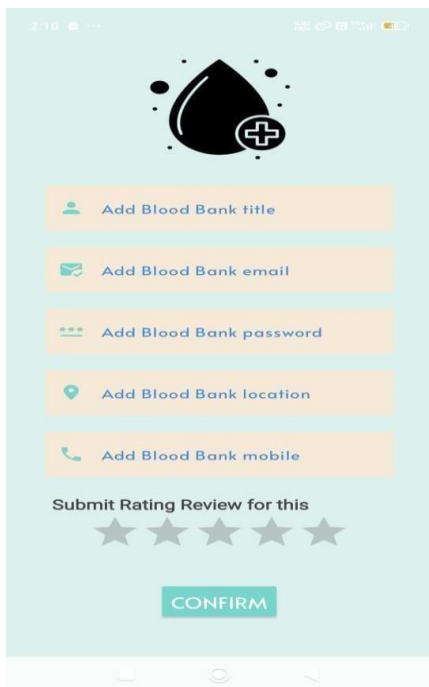


Fig 7: Add Blood Banks



Fig 8: View Blood Banks

The admin panel in the GiveLife application plays a crucial role in managing blood banks efficiently. Admins have the authority to add new blood banks, update existing records, and verify their authenticity before making them available to donors and recipients. When a blood bank is added, essential details such as location, available blood types, contact information, and operational hours are stored in the system. This ensures that users can access real-time information about nearby blood banks and make informed donation or request decisions. Additionally, admins can view, edit, or remove blood bank listings, ensuring that only verified and active facilities are displayed. This structured approach enhances the reliability and accessibility of blood donation services, contributing to a more organized and transparent system.

User Actions:

- Users can browse available donation categories and select the type of donation they want to contribute.
- After selecting a category, users enter donation details such as quantity, details of donation.
- A QR code is generated for each donation, enabling tracking from donor to recipient.
- Users receive real-time status updates and notifications about their donation process.
- Users can request assistance by browsing available donated items listed by NGOs.
- The app provides a doctor consultation feature where users can book appointments and receive medical advice.
- Registered users can manage their past and active donations from their profile section.
- NGOs and blood banks can review and accept donations based on current needs.
- Users can submit feedback and ratings based on their donation experience.

User Screens:

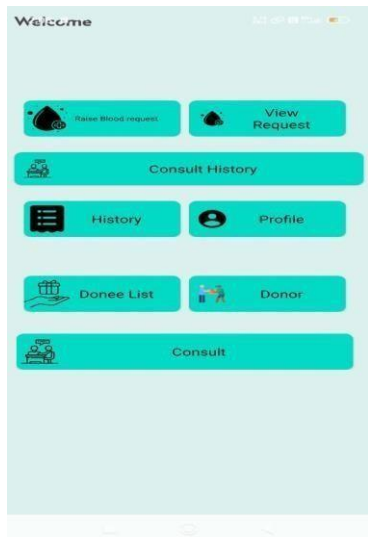


Fig 7: User Page



Fig 8: User Profile

The user(donar) registration and login functionality involves the following steps: Users first register in the system by providing necessary details, which are then stored in the database. After registration, user can log into their accounts to access and manage their profiles and other functionalities within the system. Registered users can log in to the application.

After logging in, user can:

Raise Blood Requests: Raise requests for a particular blood group he requires and details are stored in the database.

View Blood Requests: To view the list of requests raised by the user.

Add your Donation: User can add the item that he wants to donate by clicking the picture and adding the description.

View Donation History: To view the list of donations made by the user.

Consult History: The list of doctors consulted by the user is shown here.

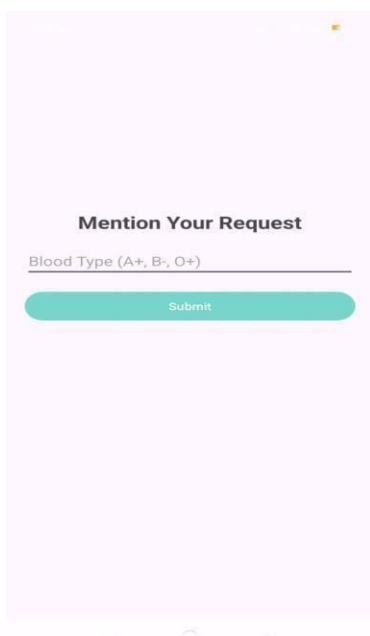


Fig 9: Raise Blood Requests



Fig 10: View Blood Requests



Fig 11: Add your donation



Fig 12: View Donation History



Fig 13: Consult History

V. CONCLUSION

GiveLife app is changing the game when it comes to how we handle donations. It's tossing tech into the mix and sorting out a bunch of old problems, like when you can't see where your money's going, or stuff takes forever to get where it needs to, or it doesn't even get to the right place. It's got this slick QR thing to check things are legit, a cloud setup to store all the info, and a way to watch donations like a hawk in real time so everything goes to the folks who need it.

This app doesn't just make it a breeze to keep tabs on your giving; it also makes you want to interact more with its super-easy setup and clever alerts that keep you in the loop. And check this out—they've even got doctor chats in there, so GiveLife's doing more than just handing out things; it's making it easier to get health advice too.

Upcoming upgrades might roll out AI that suggests donations, use blockchain for checking transactions, and get fancy algorithms to guess what people will need, all to lock in GiveLife's spot as a top-tier digital donation whiz. GiveLife is busy making itself safer, can handle more stuff, and runs smoother. It's on track to set the standard for super-smart ways to handle gifts and make giving a breeze, be trustworthy, and make a difference.

VI. REFERENCES

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