

“ANDROID BASED DONATION SYSTEM”

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Abstract— To streamline and expedite the process of contributing to charities, a software project known as the Donation System was developed. This method acts as a link between donors and recipients in an increasingly digital environment, guaranteeing an open and effective approach for helping the underprivileged. Donors can examine a variety of charity organizations, track the impact of their efforts, and make online contributions thanks to the system. Beneficiaries benefit from the system's assistance in efficiently managing and allocating donations. By working together on this initiative, we hope to improve the philanthropic ecosystem as a whole and encourage a culture of giving while improving the lives of people in need. The Helping Hand Donation System (HHDS) is an all-inclusive platform created to make charity donations and aid to underprivileged people and communities easier. This method attempts to close the gap between help providers and recipients by offering an easy-to-use interface for sending money and allocating aid efficiently. To optimize its effects and guarantee sustainability, accountability, and openness, the HHDS integrates a number of characteristics and capabilities. The goal of the HHDS design and development phase is to create a platform that is easy to use and suitable for a wide variety of users. This provides functions for tracking donations, processing secure payments, and reporting. To guarantee that everyone who could donate or benefit from the system may do so, special consideration is given to accessibility and inclusivity.

Keywords—Donation, Charitable Organization, Donors, Beneficiary, Android.

I. INTRODUCTION

In a world marked by disparities in wealth and opportunities, there exists a pressing need for efficient and transparent systems to facilitate charitable giving and support those in need. The Donation System is a groundbreaking project that addresses this need by leveraging technology to connect donors with charitable organizations and beneficiaries in a seamless and effective manner. This system is a response to the changing dynamics of philanthropy in the digital age, where individuals and organizations are seeking more accessible, accountable, and impactful ways to make a difference. The Donation System aims to bridge the gap between those willing to contribute to the betterment of society and those who require assistance. This project provides a platform that not only encourages and simplifies the act of giving but also ensures that donations reach their intended recipients efficiently. It promotes transparency, trust, and accountability, which are essential components of any successful charitable endeavor.[14]In today's interconnected world, the need for efficient donation management systems has become increasingly vital. Charitable organizations, NGOs, and even individuals often find themselves overwhelmed with

the complexities of managing donations, ensuring transparency, and maximizing their impact on society. [13] The emergence of digital technologies offers promising solutions to streamline these processes and enhance the effectiveness of donation management.

The aim of our project is to develop a robust and user-friendly Donation Management System (DMS) that addresses the challenges faced by organizations and individuals involved in philanthropic endeavors. By leveraging the power of technology, our system aims to facilitate seamless donation collection, tracking, and distribution while prioritizing transparency, security, and ease of use. Through this project, we seek to empower charitable entities to optimize their operations, enhance donor engagement, and ultimately make a more significant and lasting impact on the communities they serve. Our donation management system will incorporate features such as online donation portals, donor management tools, real-time tracking mechanisms, reporting functionalities, and more, to cater to the diverse needs of users across various sectors. With a dedicated focus on usability, scalability, and security, our project endeavors to set new standards in the realm of donation management. By fostering greater transparency, accountability, and efficiency, we aspire to inspire trust and confidence among donors, recipients, and stakeholders alike, ultimately fostering a culture of generosity and social responsibility in our society.

A. Purpose

Provide a user-friendly platform to encourage more individuals to choose to donate. Moreover, accepting donations for contemporary problems. thereby aiding in the eradication of hunger, resource waste, etc. Serving as a link between donors and NGOs/ashrams simplifies the process and offers an intuitive android tool for both parties.[5]

B. Scope

The development of this product surely prompted several new areas of investigation. This product has a wide scope of implementation by creating it live. Furthermore, this product creates several edges for the business and also the community. By taking it online, it'll help many folks throughout town by donating daily. Hundreds of thousands of food units are either lost or wasted whereas a lot of individuals suffer from deficiency disease. A plausible initiative is the donation portal within which giant retail chains and probably different organizations will give donation. These items are collected and delivered to nongovernmental organizations. A donation portal can facilitate thousands of individuals that suffer from starvation and additionally consume food that was wasted for no reason.[5]

II. LITERATURE SURVEY

A centralized method for donating human organs, plasma, blood, and platelets. It is a comprehensive online application that integrates blood donation to better serve the demands of the healthcare industry, and its elements, as well as volunteer organ donation and designated organ transplant notification. The primary goal is to develop a completely working system that combines all forms of health-oriented contribution with timely updated information.[1]

Building an electronic information system regarding the donors and organizations engaged in blood and plasma donation is the aim of the Blood Donation System project. With the use of this application, the recipient can look up registered donors online for the specific blood type or plasma they need. If they match, the receiver can get in touch with the donor directly, and the registered donor's location and contacts are shown. It would function as a sort of bridge that would allow the beneficiary or a close family to get in touch with the contributors directly. Since the donor must also upload the prescription and hospital information, the recipient can also be validated by the donor.[2]

Redirecting large-scale food leftovers is the primary emphasis of current efforts to reduce food waste; household food leftovers are not given as much attention. Therefore, we suggest using a digital application to distribute extra food to those in need on a local and large scale. We can reach a wider audience by using mobile applications as a platform, which also makes it easily expandable. Users who are in need of assistance can register as receivers, while those who are ready to contribute food can register as donors[3].

As a result, a comprehensive system for organ donation and transplantation is necessary to ensure a just and effective procedure that improves patient satisfaction and trust. In order to facilitate organ donation and transplantation administration in a way that is completely decentralized, safe, traceable, auditable, private, and reliable, we suggest a private Ethereum blockchain-based system in this article. We create smart contracts and give an overview of six algorithms, including information on how they were tested, implemented, and validated. By conducting studies of secrecy, security, and privacy and contrasting our solution with the ones that already exist, we assess the effectiveness of the suggested solution[4].

The organ management data system provides features that enable easy access to donor records that have been gathered across the nation. When it comes to the various types of donations, the primary function is to gather the contributions from the donors, send them to the appropriate organizations, and give the relevant doctors at those organizations the information they need to ensure transparency. to oversee user upkeep and donation registration.[5]

There are also a lot of destitute and defenseless people when one considers the nation's poverty line and the most recent

natural disasters. Most essential supplies, such as food, clothing, utensils, etc., are scarce. Our major objective is to eliminate the waste of these beneficial resources by offering a platform for their donation. Helping Hand, our website, attempts to move most of the process—from campaign creation and management to social cause support—online, aiming to address each of the aforementioned issues.[6]

Organ donation and transplants were important treatments that improved lives thousands of patients since the first successful kidney transplant in 1954, who suffered organ failure(s). However, the distribution of Kidney failure is a complicated process, partly due to the significant supply and demand for kidneys are out of balance. Different allocation algorithms have been used to solve this problem and authority problem, as well as several blockchain-based solutions have been proposed.[7]

This study offers a solution in the form of a safe and smart web-based blood donation system that enables for both patients and healthcare providers to access blood and organ information record processing. The database would be managed using Blockchain technology, and only authorized users will have access to it. Finally, the proposed system generates a smart identity created with Ethereum Smart Contracts by tracking all registered donors (ESC). The system predicts blood demand for the next ten years using linear regression Model with high accuracy R-squared 0.998[8].

III. EXISTING SYSTEM

There are a variety of donation systems available online. The visitor can explore a variety of topics on available websites, such as money campaigns for the underprivileged and campaigns organized by other NGOs or individuals. The user must log in to continue with the process [11]. Give them access if they are a legitimate user. If not, reenter your credentials. The way the webpage loads depends on the type of user. There were various types of other donation systems like book donation systems that allow users to login and register and donate books to the needy one. There are a variety of blood and organ donation applications as well. This application can be based on blockchain, machine learning and other technology available. Existing donation systems allow donors and receivers to login or register into the system and make donations[10].

IV. EASE OF USE

Developing a user-friendly interface for a helping hand donation system project entails creating forms that are easy to use, provide clear instructions, and allow users to donate or get help. User experience must come first in order to promote participation and provide accessible for all participants. Furthermore, adding functionalities like multilingual support and mobile responsiveness can improve usefulness for a wider range of users. To guarantee a flawless donation experience for both donors and organizations, our Android donation system places a high value on simplicity and user-friendliness. The following

salient characteristics and design tenets enhance its user-friendliness:

A. **User-Friendly Interface:** The user interface's straightforward and aesthetically pleasing design makes it easy for users to go through the contribution procedure. The app is straightforward to use and intuitive to navigate, with call-to-action buttons placed prominently and clear instructions.

B. **Simplified Process for Donations:** We have made it easier for people to donate by reducing the number of steps needed to complete their transactions swiftly and conveniently. There is less complexity and friction in the contribution process because it is divided into easily understood steps.

C. **Optimizing for Mobile:** Given that many customers prefer to donate using smartphones or tablets, make sure the donation procedure is mobile-friendly.

D. **Iteration and Testing:** Test the contribution system frequently with actual users to find any usability problems and make necessary design revisions.

V. FLOWCHART

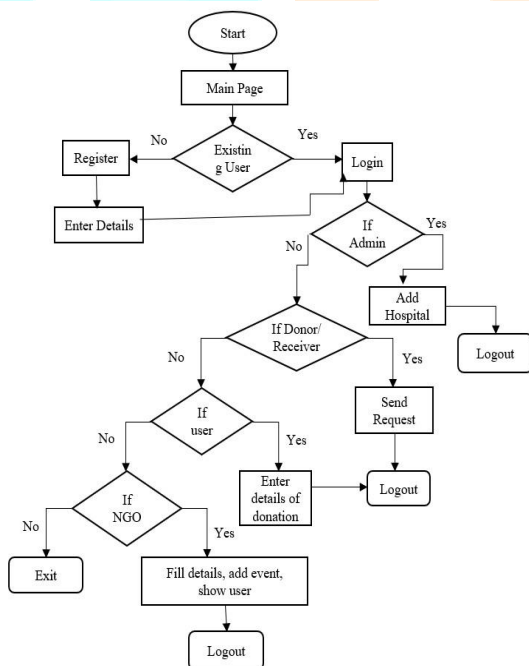


Fig 3.1 Flowchart

VI. ADVANTAGES

A. **Accessibility:** With the widespread use of Android smartphones, a donation system built on this platform ensures accessibility to a large audience.

B. **Convenience:** Donors can easily contribute from their smartphones anytime, anywhere, without the need for additional hardware or software.

C. **Integration:** Android donation apps can integrate with various payment gateways, making it easy for donors to contribute using their preferred payment methods.

D. **Tracking and Reporting:** Android apps can provide real-time tracking of donations and generate detailed reports, helping organizations manage their fundraising efforts more effectively.

E. **Engagement:** Mobile apps offer opportunities for interactive features like push notifications, personalized messages, and social media integration, enhancing donor engagement and retention.

F. **Cost-effectiveness:** Developing an Android-based donation system can be more cost-effective compared to traditional methods or developing for other platforms.

G. **Security:** Android platform offers robust security features, including encryption and secure authentication methods, ensuring the safety of donor information and transactions.

VII. FUTURE WORK

The future scope for a helping hand donation system project is vast and promising. As technology continues to advance, there are numerous opportunities to enhance the system's effectiveness and reach. Integration with emerging technologies such as blockchain can provide increased transparency and security, ensuring that donations are efficiently tracked and utilized for their intended purposes[12].

Additionally, leveraging machine learning algorithms can enable more accurate targeting of aid to those in need, based on various factors like demographics, location, and urgency. Collaboration with other organizations and governments can also foster a broader network of support and resources, enabling the system to address a wider range of humanitarian challenges effectively [9].

VIII. CONCLUSION

In conclusion, the Donation System is a game-changer in the world of philanthropy. By combining technology, transparency, and user-friendliness, it empowers donors, supports beneficiaries, and enhances the overall charitable ecosystem.[10] This system offers a brighter future for those in need and those willing to make a difference, making charitable giving more efficient and impactful.

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