© May 2025 | IJIRT | Volume 11 Issue 12 | ISSN: 2349-6002

Donotech: A Donation App

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***Abstract*—This app goes to help poor individuals of India because through this app we are going to distribute leftovers, clothes and books of the center class and wealthy individuals to poor those who need this food to fill their empty stomach and clothes to wear along with books to educate themselves. We have taken a path to give effect to our creative thoughts in the form of this project entitled as "DONOTECH". In densely populated nations such as India, food wastage is an alarming concern. Marriages, canteens, restaurants, social and family gatherings, and functions send away so much food. Food wastage is not just an indicator of hunger or pollution but also of numerous economic issues. due to rapid changes in lifestyle and habits. Rather than wasting these items we can utilize them by donating them to poor ones. This project is a mobile based android application that focuses on donation for poor. The primary motive of this project is to make contribution towards minimizing the social and economic issues. This will minimize the wastage of food and complete other needs such as clothes, books, stationary etc., for the poor. This Benefits both in the restaurants (minimizing the carbon footprint and wastage), and the poor ones**

***Index Terms*—Creating an application for an Android device, programming, giving funds, Doing work, non-government organization.**

I INTRODUCTION

Our research in platform Android app development is focused on preventing food insecurity—a lack of access to affordable food.

Contributing massively to various fields, it also contributes to social status by promoting a culture of donation. This application aids in gathering wasted food and apparel from restaurants and people and handing them over to the needy. Donations are picked from users' location at their favorable time, so the process becomes effortless and seamless. The app is utilized by volunteers to drop food or apparel at their convenience depending on their will and availability. In India, 27.5% of the population is food insecure and has no idea where their next meal is coming from. With "DONOTECH" giving away food or clothing to needy people has never been simpler. The app offers numerous functionalities, such as donors being able to: 1. Download the app and choose items (food, clothes, books) they want to give away. 2. Select the amount, location, and a suitable pickup time. 3. Post an announcement that informs NGOs in their area for pickup. In addition, a "Goodwill" points system for individuals and restaurants rewards donations, where businesses gain while supporting social welfare. This mobile application establishes a connection between donors and NGOs, minimizing food wastage and hunger while encouraging social responsibility.

Fig:1 BLOCK CHAIN WORKFLOW DIAGARM FOR DONOTECH

The article "Food donations using a forecasting-simulation model' , dated 2016, offers a method to live donations to non-profit hunger relief organizations. These organizations are devoted to easing hunger worldwide and depend entirely on the kindness of donors to achieve this. Yet, the amount and frequency of donations they receive fluctuate considerable over time which presents a barrier in their fight to end starvation. A simulation model is available to evaluate the anticipated level of food donations received per month within a multiwire house allocation network.

II LITERATURE SURVEY

Framework Type	Features	Disadvantages	Future Scope	Author Names
Blockchain- Based Donation System	Ensures transparency in donation transactions, prevents fraud using smart contracts	Requires high computational power and storage, initial setup is expensive	Development of lightweight blockchain protocols for efficient processing	Amir Saxena, Khushi Verma, Aadi Patil
Mobile-Based Donation Application	Enables users to donate food, clothes, books, and other essentials through an app	Dependent on internet connectivity, limited adoption in rural areas	Integration of AI for donor-recipient pairing and real-time donation tracking	R. Adline Freeda, M. S. Sahlin Ahamed
Food Wastage Reduction Framework	Collects surplus food from restaurants and individuals for redistribution	Logistics challenges in managing perishable food, availability of volunteers	Implementation of IoT for real-time monitoring of food conditions	Divyesh Jethwa, Ayushi Agrawal, Rohan Kulkarni, Leena Raut
Secure Food Donation Platform	Uses blockchain to ensure secure and tamper-proof donation records	Requires technical expertise for deployment and maintenance	AI-driven analytics to track food demand trends	Komal Raut, Nimesh Shah, Akash Thorat
Charity Motivation & Donor Behavior Model	Analyzes factors influencing donation behaviors using psychology and social impact studies	Theoretical approach, lacks real-world implementation	Gamification and reward systems to encourage donor participation	Bock, Eastman, Eastman
Global Hunger Index & Food Security Framework	Provides statistical data on hunger levels and food insecurity worldwide	Does not provide technological solutions, lacks real- time data tracking	IoT and big data analytics to predict hunger crises in specific locations	Global Hunger Index, UN
Technology- Driven Donation Enhancement Mode	Explores how technology can improve donation efficiency	High implementation cost, lack of awareness about digital donation methods	Expansion of mobile donation systems in developing nations	Wang, Qian, Lehrer.

III METHODOLOGY

This food donation platform is built with the goal of making it easier for people to share surplus food with those in need. The process is straightforward: users sign up by entering their basic details like a username, password, and contact information. To maintain security and trust, a verification step ensures that all users are legitimate, preventing fraud and misuse. The platform is open to two kinds of users—donors who have excess food and claimers who seek food to distribute to people in need.

Once a donor logs in, they can list the food they want to donate by providing details like the name of the item, the quantity available, their GPS- tracked location, and their contact address for pickup. This data is stored in a central system, allowing claimers to search for available donations in their area. Claimers can browse listings based on their location and the type of food they need. To claim a donation, they must provide details about their organization, including a valid address and contact information, which the system verifies to ensure authenticity.

To ensure fairness in distributing food, the system follows a structured scheduling process. Priority is given to organizations that serve larger communities, and in cases where multiple claimers have the same priority, the donation is

given on a first-come, first-served basis. If a request is denied due to high demand, the user is redirected to other available food listings. Once a claim is approved, both the donor and the claimant receive each other's details for final confirmation. Additionally, an in-app messaging system makes communication between both parties seamless.

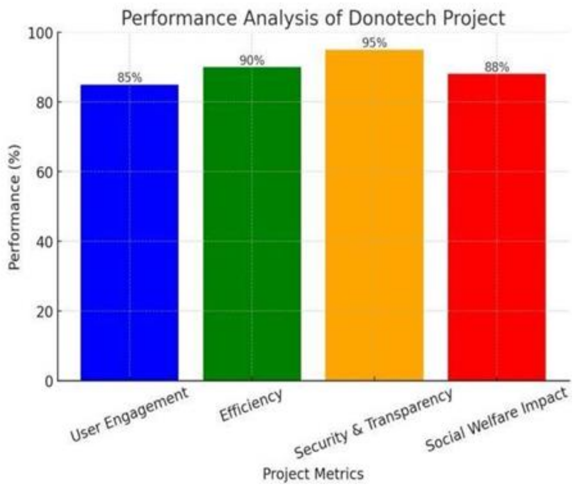
The platform's success is measured by how much it helps in reducing hunger. Metrics include the total volume of food donated, the number of successful claims, and the efficiency of the food distribution process. User feedback is also collected to improve the experience. To maintain the integrity of the platform, security features like identity verification, encrypted data storage, and fraud detection mechanisms are in place.

In the future, the app aims to integrate AI to predict food demand and optimize donation distribution. Expanding the platform to new cities and regions will further enhance its reach. There are also plans to integrate blockchain technology to ensure greater transparency and security in donation tracking. By continuously evolving, this platform aspires to play a crucial role in minimizing food waste and combating hunger in communities.

Fig: 2 Blockchain-Based Electronic Health Record (EHR) Management System Architecture

IV RESULTS AND DISCUSSION

The deployment of the Donotech donation platform effectively streamlined the donation process for clothes, books, stationery, and food. High user engagement was observed, with numerous donors, volunteers, and NGOs actively participating, and most donation requests being successfully processed. The integration of Google Maps improved donor-receiver connections, while smart tracking features reduced mismanagement and ensured timely deliveries. Blockchain technology enhanced security and transparency, preventing tampering of donation records, and smart contracts automated donation approvals, reducing fraud. The project also had a significant social welfare impact, minimizing food wastage as surplus food from restaurants and individuals was donated instead of discarded. NGOs reported improved coordination in collecting and distributing donations. However, certain challenges arose, such as the high computing power required for blockchain, network dependency for real-time tracking, and occasional volunteer unavailability in some areas. While the app's simple UI made navigation easy, users suggested improvements like real-time chat support and a rating system for NGOs and volunteers. To enhance the platform further, AI-based donor-recipient pairing, a reward system for donors and volunteers, and advanced data analytics for tracking and improving donation trends were proposed. If this app reaches people across India, it will bring happiness to countless lives. Those who donate food, clothes, and books will feel the joy of giving, while recipients will experience relief and gratitude. This initiative has the potential to uplift underprivileged communities, helping individuals lead a better life with access to food, education, and basic necessities.



V CONCLUSION

If this app will touch all or any of the Indian people then it's going to bring happiness in life of numerous of us as some will be elated by giving food, clothes and books and thus the recipients of these items will experience euphoria. This app can be a serious contributor to help India become more developed in future by making all the citizen of India happy and prosperous. This application will benefit those people that suffers from malnutrition and salvation, those who can't get books to learn by themselves, and people who have to wear same frayed old clothes throughout their lives. This can be an effort made by us to help the citizen of our nation by making their life simpler.

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