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OneWorldGiving : Uniting NGO's and Donors for a Better World

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ABSTRACT

"OneWorldGiving: Uniting NGOs and donors for a Better World" is a project aiming to bridge the gap between donors and NGOs in India's philanthropic scene. The initiative aims to create a platform that promotes efficiency, transparency, and cooperation, fostering shared responsibility and trust among all parties involved. Other studies have focused on cloud-based mobile applications, automation of donation procedures using Azure Logic Apps, Android app for receiving food, clothing, and book contributions, and mobile applications for community projects and NGOs. However, challenges such as platform-specific specifications, outdated devices, and specialist knowledge in Flutter programming may arise. The NGO Portal website aims to help NGOs and potential volunteers interact, promoting a sense of community and unity among stakeholders. The Android application focuses on making book contributions to NGOs easier, with a Donation Registration component, Firebase database, and User Management feature. The project aims to create a transformative platform that promotes cooperation, openness, and group compassion, improving lives for those in need.

Keywords : OneWorldGiving, NGOs, Flutter, Firebase, Charity.

I. INTRODUCTION

With the goal of addressing the urgent need for effective resource allocation in India's philanthropic scene, "OneWorldGiving: Uniting NGOs and donors for a Better World" is an innovative effort driven by the union of technology and compassion. Unquestionably, in today's globalised world, bridging the gap between donors looking for meaningful ways to give and Non-Governmental Organisations (NGOs) dedicated to global issues is a vital task. This ambitious effort is the result of a profound awareness of the barriers that, in spite of widespread generosity, prevent resources from being distributed to those in need. Enthusiastic non-governmental organisations (NGOs) frequently face challenges in engaging with prospective donors, and donors themselves struggle to discern reliable causes in a fragmented marketplace. The problem is made worse by the administrative difficulties involved in handling donations of necessities like food, clothing, and stationery products [1]. In response, "OneWorldGiving" seeks to transform charity by establishing a smooth platform that encourages efficiency, transparency, and cooperation.

Fundamentally, the project promotes unity by uniting people, groups, and charitable organisations behind the common objective of improving lives [2] . By utilising technology, the platform breaks down barriers and ensures that finances and resources are used effectively by facilitating direct contacts between NGOs and funders [1],[2] . In order to foster shared responsibility and trust among all parties involved, transparency and accountability are essential. Donors are able to see the results of their gifts through "OneWorldGiving," which empowers them and helps them feel more connected to the organisations they support. The project aims to improve the lives of those in need by optimising the benefits of charity endeavours and optimising the process of contributing. The goal of "OneWorldGiving" is to inspire good change in communities all around India and beyond by uniting people in acts of collective giving.

II. RELATED WORK

A. Pathak et al. In [3] The cloud-based mobile application "Ek Ka Josh," designed specifically for Non-Governmental Organisations (NGOs), is presented in this article. With the application's improved functionality and accessibility, non-profits can run their operations efficiently even while they're on the go. "Ek Ka Josh" uses cloud computing to provide team members instant access to vital information and resources, promoting smooth teamwork and communication. Although the mobile-first strategy increases ease and flexibility, there might be disadvantages such as a reliance on dependable internet access and a reduction in capability when compared to conventional desktop apps. However, the application's emphasis on mobile accessibility is a step in the right direction towards providing NGOs with the resources they need to have a significant effect.

Ambasta et al. In [4] This study investigates the automation of donation procedures in non-governmental organisations (NGOs) via the use of Azure Logic Apps. NGOs may save human labour and minimise mistake risk by streamlining donation management operations using Azure's powerful automation features. Efficient data processing and transmission are made possible by Azure Logic Apps' easy connection with a variety of data sources and applications. The need for Azure service knowledge and any fees related to using these services, however, might be disadvantages. All things considered, automating donation procedures using Azure Logic Apps is a viable strategy for improving operational effectiveness and guaranteeing resource allocation inside non-governmental organisations.

G. Pandey et al. In [5] This study looks at creating an Android app that helps Non-Governmental Organisations (NGOs) receive food, clothing, and book contributions. Donors may provide necessities using the application's user-friendly interface, which might improve resource distribution and allocation efficiency. The application seeks to simplify the contribution process for users while addressing important needs in communities by focusing on certain donation kinds. The application's restricted emphasis, however, can have drawbacks because it might exclude other kinds of contributions and have a smaller total influence on the NGO sector. However, creating specialised apps for certain contribution kinds is a step in the right direction towards meeting the demands of a varied community.

Shinde, et al. In [6] The creation of a mobile application with possible usage for community projects and non-governmental organisations (NGOs) is the main emphasis of this article. The software has functions including managing food donations, redistributing excess food, and running awareness campaigns to promote sensible consumption habits. The programme aims to actively involve users in efforts to fight food waste and other associated social concerns by using mobile technology. On the other hand, issues with user engagement and adoption as well as the influence of

the application's scalability might occur. The creation of smartphone apps to reduce food waste highlights the need of using technology to solve urgent social and environmental issues, despite these possible disadvantages.

Tashildar, Aakanksha, et al. In [7] This article addresses the creation of mobile apps using the cross-platform development framework Flutter, and it may have consequences for non-governmental organisations (NGOs) looking to increase their online visibility. Flutter has benefits including native performance across many platforms, quick development cycles, and reusable code. NGOs may utilise Flutter to create feature-rich apps that appeal to a wider user base, including those who use iOS and Android smartphones. On the other hand, difficulties with platform-specific specifications, incompatibilities with outdated devices, and the demand for specialist knowledge in Flutter programming might occur. Notwithstanding these possible drawbacks, Flutter offers NGOs a chance to improve their digital capacities and interact with funders, volunteers, and recipients in a productive manner.

J. K. Vagairya, et al. In [8] This article presents NGO Portal, a specialised website created to help Non-Governmental Organisations (NGOs) and potential volunteers or members interact. The portal offers members resources to find and become involved with issues they care about, as well as a single location for NGOs to highlight their goals, initiatives, and volunteer opportunities. The goal of NGO Portal is to promote a feeling of community and one purpose among stakeholders by using technology to facilitate communication and cooperation. However, there might be disadvantages such as difficulties with user uptake and platform upkeep, as well as fragmentation within the NGO support ecosystem. NGO Portal, however, is a promising effort that makes use of technology to assist and empower NGOs and their communities.

M. Goel, et al. In [9] In order to improve volunteer management and engagement, this paper offers an application architecture intended to link volunteers and non-governmental organisations (NGOs). To facilitate cooperation between NGOs and volunteers, the framework offers functions including volunteer registration, project coordination, and communication tools. The framework seeks to increase volunteer-driven initiative efficiency, openness, and accountability by centralising volunteer management procedures inside a digital platform. The framework's integration with the current NGO management systems, as well as the need for continuing maintenance and support, might provide difficulties, nevertheless. Notwithstanding these possible drawbacks, the application framework is a useful resource for non-governmental organisations (NGOs) looking to use technology to empower and mobilise volunteers in support of their causes.

A. Singh et al. In [10] The usage of an Android application designed expressly to make book contributions to non-governmental organisations (NGOs) easier is covered in this study. Donors may give books using the application's user-friendly interface, which might increase community access to educational materials. The application attempts to answer the particular requirements of NGOs and recipients in the education sector by focusing on a particular contribution type. Notwithstanding, the application's restricted scope can give rise to constraints, so precluding other categories of contributions and limiting its comprehensive influence. Notwithstanding these possible disadvantages, the introduction of specialised apps for certain contribution kinds is a positive step towards meeting the demands of a varied population and bolstering NGO endeavours.

Examining and evaluating different technology tools and solutions intended to assist Non-Governmental Organisations (NGOs) with their operations and

donation administration was the goal of the study carried out via these cited publications. The goal of the study was to determine the benefits, shortcomings, and constraints of the current systems, which included automation tools, donation-specific apps, cloud-based mobile applications, and frameworks for facilitating volunteer connections between NGOs and organisations. The study aims to give insights into the many ways and technology available for improving NGO efficiency, transparency, and effect in serving their communities by summarising the results of these articles.

III.Methodology

Fig 1 illustrates, In order to expedite the processing of food, clothes, and stationery product contributions, the donation management project's system architecture is composed of four main parts. First, contributors of any kind may register their goods in the system by using the Donation Registration component. This applies to both people and organisations. Next, a Firebase database is created and used to store these registered products, acting as a single location for all donated goods. NGOs may request things from the database as receivers in order to engage with the system and ensure that resources are distributed and allocated efficiently. Last but not least, the system's User Management feature helps contributors to easily oversee their contributions, promoting accountability and openness throughout the giving procedure. This architecture, taken as a whole, offers a strong foundation for effectively monitoring and managing contributions, all the while encouraging accountability and openness throughout the donation process.

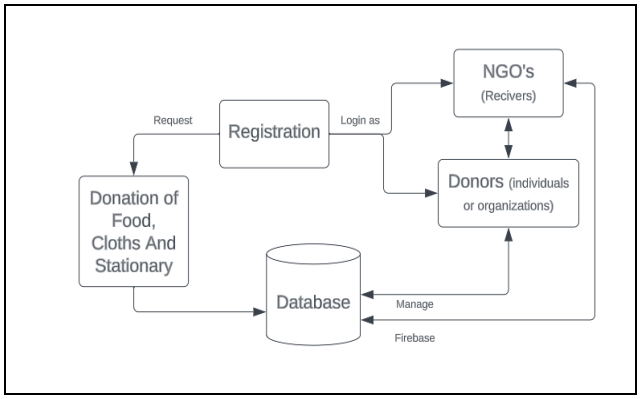

Fig1 System Architecture

A. Registration

The Donation Registration module of the suggested system will be implemented as a user-friendly interface created using Flutter. Individuals or groups making donations will have access to a specific page where they may enter information about the goods they would want to provide. Fields such item type (food, clothes, stationery), amount, description, and any more information will be included in the interface. To provide a visual context, users will have the option to submit pictures of the donated goods. Mechanisms for validation will guarantee that all required fields are filled out and the data entered is correct. The data will be submitted and forwarded to the Firebase database for further processing and archiving.

B. Database

Firebase will be used by the Database module as the backend database solution. We'll create a connection to store and retrieve data with ease using Flutter's connectivity with Firebase. Collections matching various contribution categories (e.g., food, clothes, stationery) will be included in the database. Each contribution entry, which includes information about the donor, the item name, amount, description, and picture URLs, will be kept as a document inside the appropriate collection. Firebase's real-time database features will guarantee that all users and devices have access to the same data, enabling effective donation information storage and retrieval.

C. NGO Interaction

To improve communication between NGOs and the database, a special screen inside the Flutter application will be created for the NGO Interaction module. NGOs will have access to a dashboard showing available donation goods sorted by kind (food, clothes, stationery) after logging onto the portal. NGOs may browse through the available products, examine their information, and make requests for particular things they need by using the UI components of Flutter. Transparency and effective distribution of donated resources are ensured by the system, which updates the database to reflect the item's status as desired by the NGO upon request submission.

D. User Management

Donors will be able to manage their contributions with the help of the User Management module, which will be integrated into the Flutter application. Donors will be able to see a list of the products they have provided, together with the current status of each gift (e.g., pending, requested by NGO, delivered), on a user profile screen. Donors may change or delete their contribution entries as required by using Flutter's state management and navigation features. Donors will also get alerts or updates on the progress of their contributions, guaranteeing accountability and openness all the way through the donation process.

E. Flow of App

Fig 2 illustrates, The process of a contribution management system incorporated into an application is shown by the activity diagram, which starts with user login or registration. Users are sent along different pathways after authenticating according to whether they are Non-Governmental Organisations (NGOs) or donors. Individuals and organisations that donate may examine the current contributions, access reports, and submit donation requests with specific item kinds like food, clothes, or stationery on a single dashboard. Donors are notified for collection arrangements after an NGO approves their gift request. On the other hand, non-governmental organisations have the ability to observe and approve requests for donations; they only need to wait for the donor to authenticate their identity before getting in touch with them to begin the collection process. At logout, both paths come together to signify the end of the application session. This streamlines the contribution management process and promotes speed and transparency.

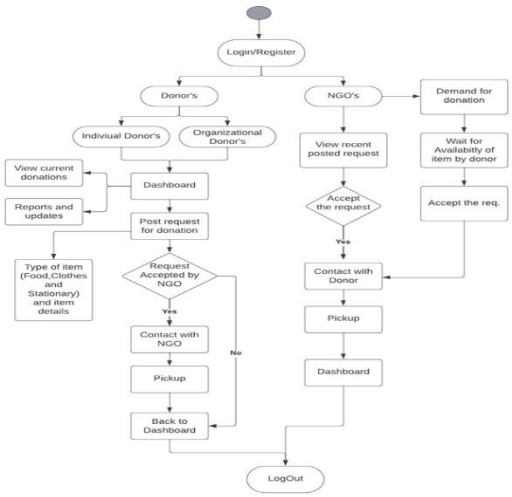

Fig 2. Activity Diagram

IV. Implementation

The system's user interface (UI) is painstakingly crafted to provide donors and organisations with easy-to-use capabilities and smooth navigation. Sections like Home, Donate, Request, Organisations, Profile, and Logout are all easily identifiable because to the navigation bar at the top of the user interface. Each area also has a matching text name and symbol. A visually beautiful banner graphic and a large "Donate Now" call-to-action button greet visitors on the Home screen. Users may go further into areas such as "Featured Organisations," "Recent Donations," and "Upcoming Events" by selecting the "View All" option for each section. Donors may quickly choose the kind and amount of their gift in the Donate section, which also has a search bar and an aesthetically appealing list of organisations complete with descriptions and logos.

Similar to this, the Request section gives organisations the ability to express their requirements for donations via an easy-to-use form, along with a special space for keeping track of past requests and their progress towards fulfilment. A thorough list of organisations is provided in the Organisations section, and each one has a "View Profile" option for further interaction. Users may get personalised insights in the Profile area, which includes a photo of themselves, their name, and a comprehensive donation history that highlights past donations. Lastly, a smooth way to quit the programme is provided via the Logout feature. By using a clear and contemporary design, readable font, and intuitive user interface, the user interface guarantees a positive user experience while encouraging openness and effectiveness in the contribution administration procedure.

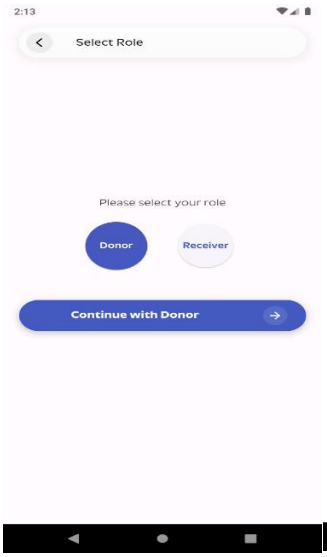

Fig 3. Select a Role

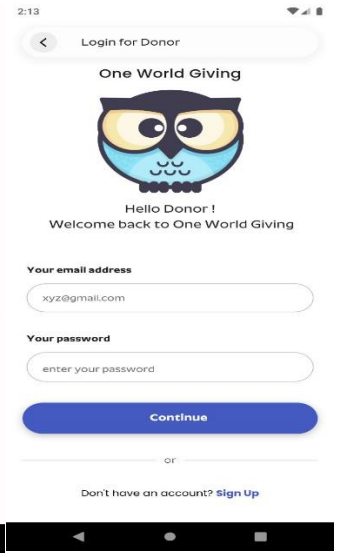

Fig 4. Login Page as per role

Fig 3. Refers to selection of role at the initial stage, and registering as a user for donor or receiver account. In which the donor can post the request for the donation which will be display on the receivers home page, after accepting or denying the request, the donors and receiver (NGO's) can communicate for the further delivery of the donated food, cloth or stationary product. Fig 4, Fig 5, Fig 6, Fig 7, Fig 8 represent the UI of the "OneWorldGiving" application.

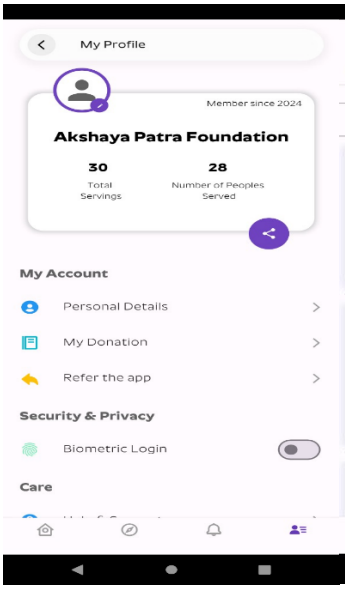

Fig 5. Profile Page

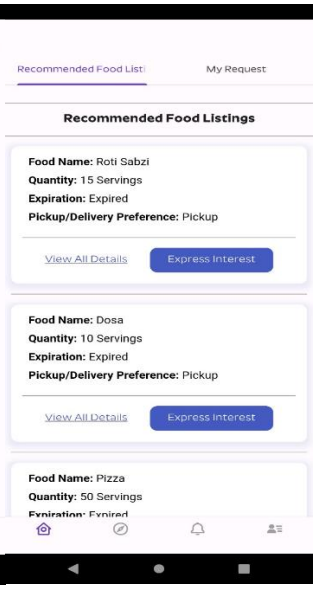

Fig 6. List of donation

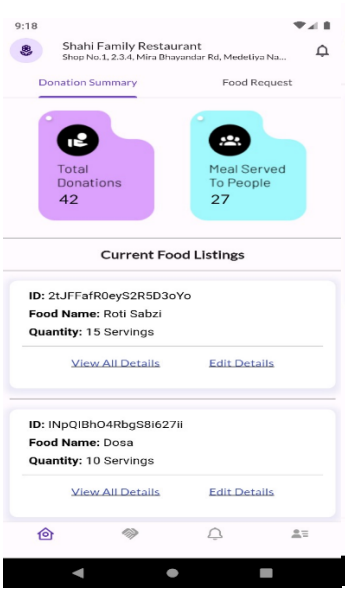

Fig 7. Donation listing

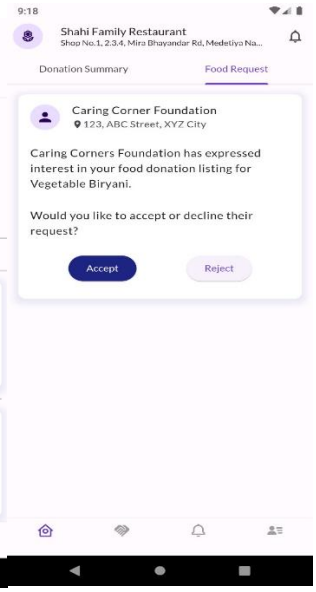

Fig 8. Request pop up

V. Experiment and Result

In the experimental stages of the "OneWorldLiving" application's user experience testing, participants—who included NGOs and donors—completed activities designed to assess the usability and functioning of the app. They had to register, donate, and solicit contributions, all while having their interactions and opinions carefully observed. The participants expressed high levels of satisfaction with the app,

finding it to be user-friendly and effective for coordinating donations, according to the findings. NGOs complimented the platform for efficient communication and gift management, while donors valued the tracking tools and simplified procedure. Although some minor interface improvements were recommended, the trial demonstrated that "OneWorldLiving" is successful in facilitating seamless connections between donors and NGOs, hence promoting a culture of social impact and generosity.

VI.Conclusion

The significant undertaking at hand is a critical attempt to use compassion and technology to solve urgent global concerns. The initiative has brought together donars and NGOs and created a strong basis for streamlined charity giving via thorough documentation. Because the design and procedures have been well thought out, an organised approach to project execution is guaranteed. In the future, the emphasis will be on the implementation phase, which includes creating the web platform and mobile application, putting them through rigorous testing, and deploying them. Sustained upkeep and assistance will guarantee a flawless user experience. Future improvements will be guided by tracking the project's effect on philanthropic endeavours and user feedback. The ultimate objective is to develop an impactful, effective, and user-friendly platform that revolutionises the charity giving landscape. The goal of this project is to improve the lives of people who are less fortunate by promoting cooperation, openness, and the strength of group compassion in our globalised society. Ultimately, the overarching goal is to create a transformative platform that not only facilitates charitable giving but also fosters collaboration, transparency, and the collective strength of compassion in our globalized society, thereby making a tangible difference in the lives of those in need.

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