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iDonate Application: Revolutionizing Charitable Giving through Technology

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ABSTRACT

The increasing need for charitable contributions in society has led to the development of various platforms aimed at facilitating donations. However, many existing applications need more user-friendly interfaces and efficient donation processes, which can deter potential donors. This project addresses these issues by developing the iDonate app, a mobile application designed to streamline the donation process and enhance user engagement. The primary purpose of this research is to create an intuitive platform that not only simplifies the act of donating but also encourages users to contribute regularly. The Agile software development methodology was employed to achieve this, allowing for iterative development and continuous user feedback throughout the project lifecycle. The methodology facilitated the identification of user requirements and the incorporation of necessary features, ensuring that the final product aligned with user expectations. Key phases included requirement gathering, interface design, and system modelling, which were crucial in shaping the app's functionality. The project's principal results indicate that the iDonate app significantly improves user satisfaction by providing a seamless donation experience. User acceptance testing revealed a high level of approval regarding the app's design and usability, with participants noting its straightforward navigation and appealing interface. In conclusion, the iDonate app successfully addresses the challenges existing donation platforms face, offering a solution that promotes charitable giving through enhanced accessibility and user engagement.

1. Introduction

The iDonate application represents a significant advancement in charitable giving, leveraging technology to enhance the efficiency, transparency, and accessibility of donations. In an era where digital solutions are increasingly integrated into daily life, the iDonate platform not only simplifies the donation process but also fosters a culture of giving that is responsive to the needs of both donors and recipients.

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The importance of the iDonate application lies in its potential to revolutionize how charitable contributions are made and managed. Traditional charitable giving often suffers from inefficiencies, lack of transparency, and difficulties in tracking the impact of donations. By utilizing modern technologies such as blockchain and artificial intelligence, iDonate addresses these challenges head-on. For instance, blockchain technology can enhance transparency in donation tracking, ensuring that funds are allocated appropriately and reach their intended recipients [1,2]. This is particularly crucial in the context of Zakat, where the need for efficient distribution systems is paramount [1].

The iDonate application embodies the principles of accountability and trust, which are essential for encouraging donor participation. As highlighted in recent studies, donors increasingly seekGY assurance that their contributions will be used effectively [3,4]. Integrating programmable donations, where funds are released based on specific conditions, can enhance donor confidence by ensuring that contributions align with the donors' intentions [3,4]. This innovation meets the evolving expectations of contemporary donors and aligns with the broader societal demand for greater accountability in charitable [5].

In addition to improving the mechanics of giving, the iDonate application plays a vital role in fostering a culture of philanthropy within society. By making the donation process more accessible and user-friendly, it encourages individuals from diverse backgrounds to participate in charitable activities. This democratization of giving is essential in addressing social inequalities and mobilizing resources for various causes, from poverty alleviation to disaster relief [6,7]. Furthermore, as online giving continues to grow, with reports indicating a 21% increase yearly, platforms like iDonate are pivotal in harnessing this momentum to drive positive societal change [8].

In general, the development of our country is strongly connected with the growth of the development in technology [9]. Thus, the iDonate application stands at the forefront of a technological revolution in charitable giving. Its significance extends beyond mere convenience; it embodies a transformative approach to philanthropy that prioritizes transparency, accountability, and accessibility. As society grapples with pressing social issues, innovations like iDonate are crucial in mobilizing resources and fostering a culture of giving that can lead to meaningful change.

2. Problem Statement

The iDonate application, as a digital platform designed to facilitate charitable giving, faces several critical challenges that hinder its potential to revolutionize the philanthropic landscape. One significant problem is the persistent issue of trust and transparency in online charitable donations. Despite the increasing popularity of digital platforms for fundraising, many potential donors remain skeptical about how their contributions are utilized, leading to hesitance in engaging with such platforms [10]. This skepticism is often rooted in past experiences with fraudulent activities and mismanagement within the non-profit sector, which have eroded public confidence in charitable organizations [10].

Moreover, the lack of standardized practices for ensuring accountability in donation distribution exacerbates this problem. Many donors are concerned about the opacity surrounding the flow of funds, which can deter them from making contributions through digital platforms [10]. The iDonate application, while innovative, must navigate these trust issues by implementing robust mechanisms for transparency and accountability. This includes leveraging technologies such as blockchain to provide real-time tracking of donations and ensuring that funds are allocated as intended [11].

The iDonate application must address the challenge of user engagement and retention in a competitive digital landscape. With numerous platforms vying for attention, it is crucial for iDonate to attract users and maintain their interest over time. This requires integrating features that enhance

user experience, such as gamification elements that encourage ongoing participation and foster a sense of community [3].

The iDonate application faces significant challenges in establishing trust and transparency in online charitable giving, compounded by a lack of standardized accountability practices and the need for enhanced user engagement. Addressing these issues is essential for the platform to fulfill its potential to revolutionize charitable giving through technology.

While digital platforms like the iDonate application aim to revolutionize charitable giving, a significant research gap exists in addressing the persistent issues of trust and transparency that hinder donor participation. Despite the growing adoption of technologies like blockchain, there is limited empirical evidence on their effectiveness in fostering trust among donors. Specifically, research is lacking on how transparency mechanisms, such as real-time tracking of donations and fund allocation, impact donor confidence and long-term engagement. Furthermore, there is no standardized framework to ensure accountability in donation distribution, which leaves room for ambiguity and skepticism. This lack of clarity continues to deter potential donors, indicating a need for deeper investigation into scalable and universally applicable accountability models for digital fundraising platforms.

3. Literature Review

To conduct a comprehensive review of previous studies on the iDonate application and its role in revolutionizing charitable giving through technology, it is essential to explore various dimensions of the subject, including technological advancements in charitable giving, the impact of digital platforms on donor engagement, and the challenges related to trust and transparency in online donations. Below is a synthesis of relevant literature that provides insights into these areas.

3.1 Jom Menyumbang Application

Fig. 1. Home Page of Jom Menyumbang Application

Jom Menyumbang provides information on the largest non-government organizations on activities and charities. Aman Palestin Berhad was established in 2004 to help and aid human rights activities everywhere required. Jom Menyumbang also responds to other emergencies and causes of natural disasters. Inspired by our Islamic faith and guided by our values, we envisage a caring world where communities are empowered, social obligations are fulfilled, and people respond to the sufferings of others.

This application provides various categories of donations from which users can choose. Every category provided is based on what they do and what they want in Palestine because, as a Muslim people, we know that we have a celebration like Ramadan, Hari Raya, Korban, and many more so other than focus on donating for food and needs, people also can donate for any activity for upcoming activities.

3.2 Tulus & Sedekah Application

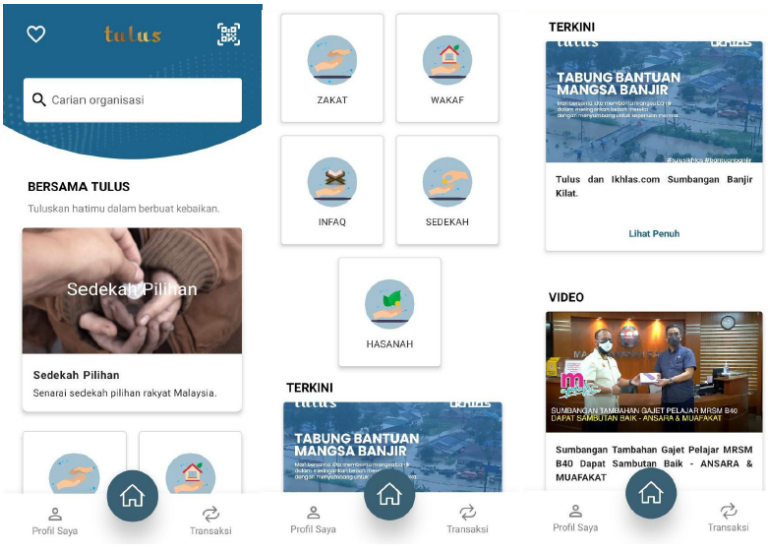

Fig. 2. Home Page of Tulus & Sedekah Application

The Tulus & Sedekah application is developed and operated by Tulus Digital Sdn.Bhd. This Islamic app allows fast and secure year-round access to Islamic and Syariah-compliant payment services and transactions such as Zakat, Waqaf, Infaq, and Sedekah online. It is designed to be used anywhere and anytime.

This application provides many features on the home page, for example, information on donations, the category of donations, donations for the flooded victim, video, a navigation tab (user's account and transaction), and QR code and favorite (based on which category or places the user is interested in). So, when one application provides many choices and information, it will be more enjoyable.

3.3 Bersamamu Application

Figure 3 shows a Bersamamu Application. It contains location, categories of donation, districts, and subcategories. Users can view all places and donation categories provided before they start donating. Besides, it has a navigation tab that includes home, requests, banks, and user profiles. This application has a spectacular functionality that allows you to request a donation. This page is for people who need help with food, other needs, and many more. So they need to fill in this request

donation, such as choosing the category, phone number, and location, and adding a message about what kind of donation they want. I am providing this request to help many more people who need help.

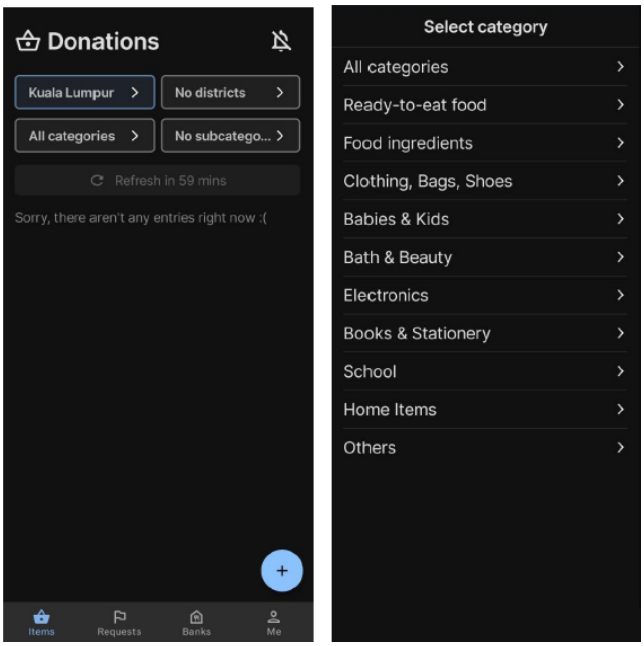

Fig. 3. Bersamamu home page and category donation

4. Methodology

The development of the iDonate application primarily employs the Agile Methodology, which emphasizes iterative development and continuous improvement. This approach allows for multiple development and testing cycles, ensuring that the application evolves based on user feedback and satisfaction. By focusing on a user-centric approach, the methodology ensures that the features and functionalities of the iDonate app align with the needs and expectations of its users.

Agile promotes collaboration among cross-functional teams, including developers, designers, and stakeholders, to consider all aspects of the application during development. Regular testing phases, such as unit testing and user acceptance testing, are integral to the process, validating that the feature works as intended and identifying any issues early on. The flexibility and adaptability inherent in Agile allow the development team to respond to changes in requirements and priorities, accommodating new insights or user needs that may arise throughout the project lifecycle.

Fig. 4. Agile methodology diagram

The project is divided into manageable phases, each focusing on specific functionalities, which helps maintain organization and clarity. Ongoing documentation and feedback collection further enhance the process, enabling the team to track progress and make informed decisions for future iterations. These elements of Agile methodology collectively contribute to the successful development of the iDonate application, ensuring it meets its objectives of providing a comprehensive and user-friendly platform for charitable donations.

5. System Design

A flowchart diagram gives a clear picture of how simulator or application will function [12]. By the way, the system design process for the iDonate application can be effectively illustrated using a Use Case Diagram, which captures the interactions between users (actors) and the system. Here is a breakdown of the system design process using a Use Case Diagram:

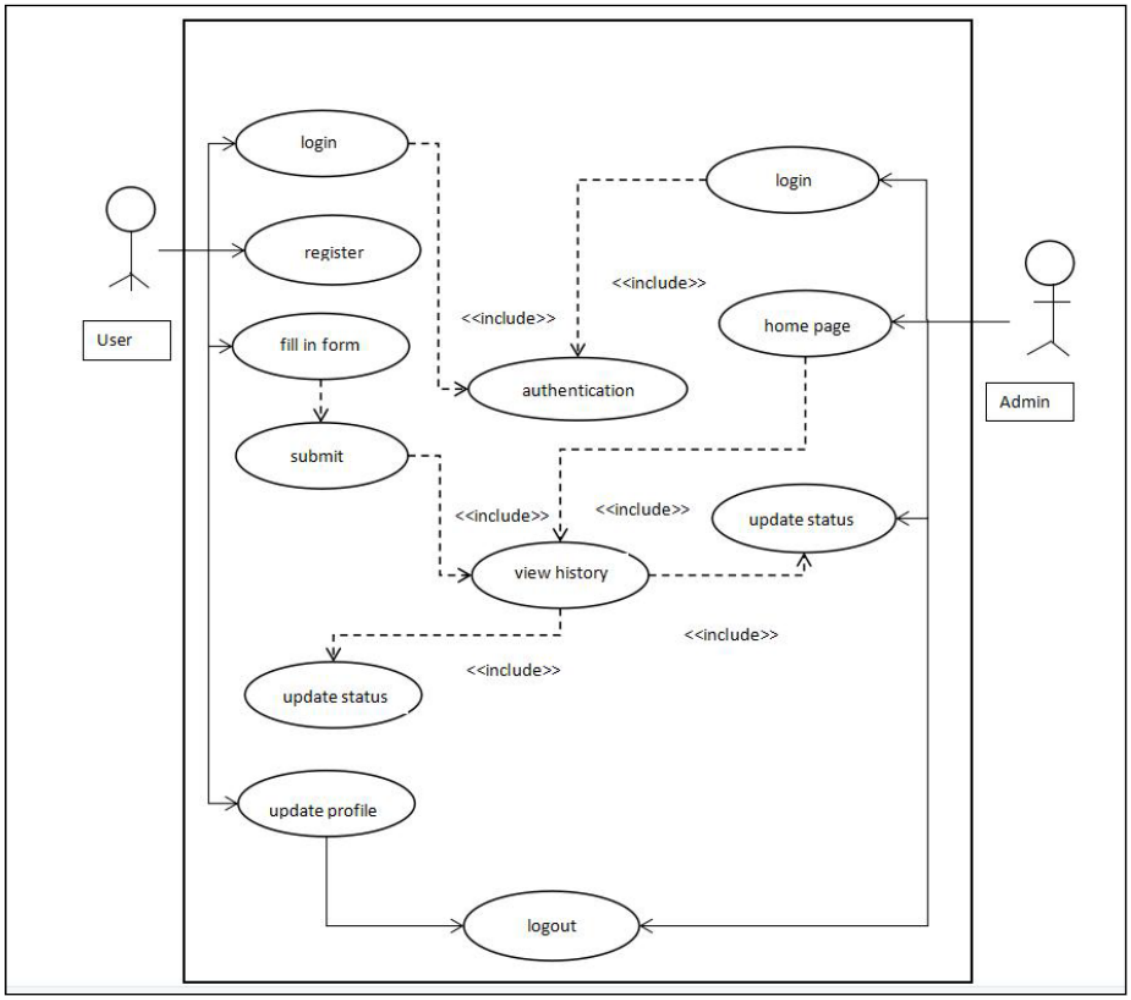

Fig. 5. Use Case Diagram of iDonate Application

6. Result and Finding

Figure 6 shows the home page of the iDonate app, which includes login and registration options for users to access the application. Additionally, there is a separate admin button because, as mentioned earlier, the app is designed for users and administrators. The reason for separating the admin and user buttons is that I could not implement a multi-user login on a single page. I wanted to prevent the risk of users or administrators accidentally accessing the wrong interface, so I opted to keep the buttons distinct. Moreover, there is a function for unauthorized users who attempt to access the admin page, reducing any security concerns.

Fig. 6. Home page of iDonate Application

Every location in the iDonate app includes detailed information, such as the type of donation needed, the location, account number, and contact details. This makes it easier for users to learn more about the specific donation site. Figure 7, for example, highlights Masjid Saujana Utama in Sg Buloh, showcasing the information for that location, which includes a video and several pictures from past events or activities held at these places. Providing this crucial information and visual content aligns with the objectives of iDonate. When creating a donation app, it is essential to inform users about the types of donations needed, where they can contribute, and to offer photos as evidence so users can understand the condition of the site.

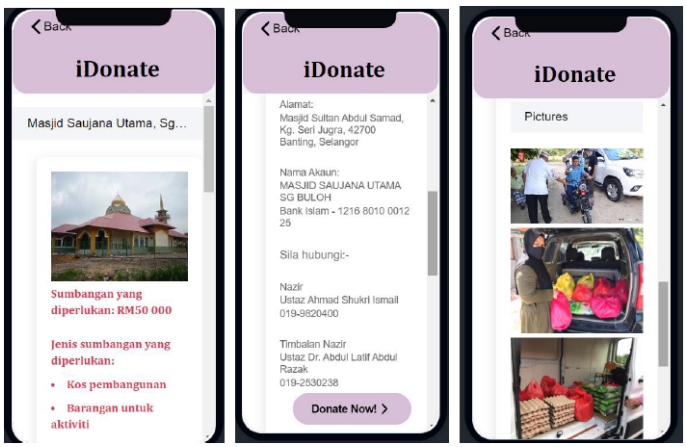

Fig.7. iDonate Information page

Figure 8 shows an online donation form in the iDonate app that users need to complete before proceeding with their donation. Users fill out the form with their donation information after making a payment using the provided account details. This allows iDonate to collect donation data, and the respective organization can reference the user's donation details through the app. The Online Donation Form includes fields for the user's name, email, chosen donation location, type of donation (money or goods), donation amount, bank type, and an option to upload the payment receipt via a file upload button.

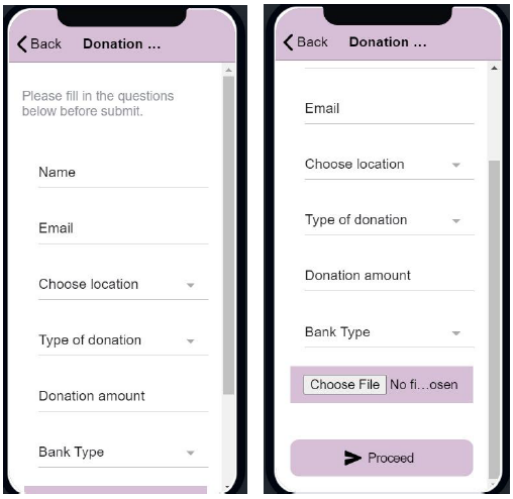

Fig. 8. Online Donation form

Overall, the chart demonstrates strong support for the app, with the vast majority of respondents recognizing its potential to benefit users and the community. However, the presence of some "Maybe" and "No" responses suggest room to address concerns, such as app usability, outreach, or trust-building features.

Figure 9 shows the pie chart of survey responses evaluating whether creating a donation application, like iDonate, would have a positive impact on users and the community. Out of 31 responses 77.4% (24 respondents) believe the app will "Definitely" have a positive impact. This overwhelming majority highlights confidence in the app's ability to make a meaningful difference in facilitating donations and fostering community support. 16.1% (5 respondents) responded with "Maybe," indicating some hesitation or uncertainty about the app's impact. This suggests areas for further improvement or better communication about the app's benefits. 6.5% (2 respondents) said "No," implying skepticism about the app's effectiveness or relevance.

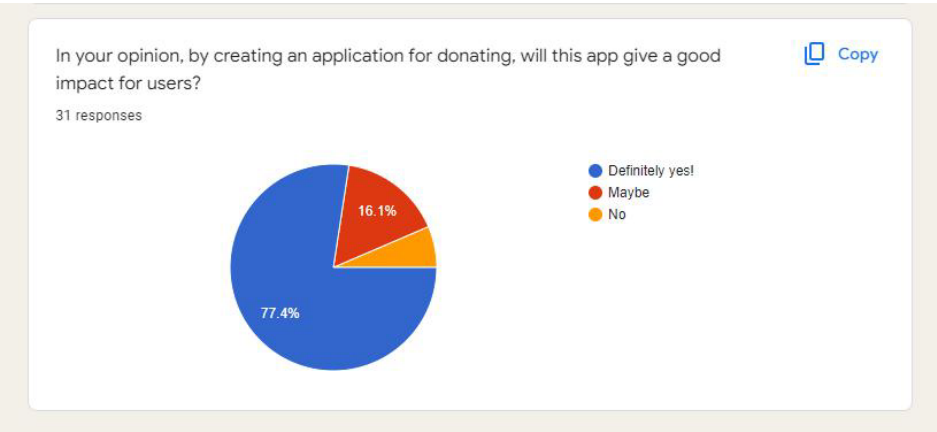

Fig. 9. Pie Chart of Survey result

The iDonate app is designed to facilitate donations while ensuring ease of use and security for both users and administrators. iDonate app emphasizes user-friendly navigation, detailed transparency, and secure donation management.

7. Conclusion

In conclusion, the iDonate application represents a significant advancement in charitable giving, leveraging technology to create a more efficient and accessible platform for both donors and recipients. Throughout the development process, we have identified and addressed critical challenges in the existing donation landscape, such as the lack of comprehensive information and difficulty navigating multiple platforms. Integrating various features into a single application, iDonate simplifies the donation process and enhances users' transparency and trust.

The application has undergone rigorous testing to ensure its functionality and user-friendliness, reflecting our commitment to delivering a reliable tool for charitable contributions. As we look to the future, there are numerous opportunities for further enhancements, including adding new features, improved user engagement strategies, and expanded outreach to a broader audience.

Ultimately, the iDonate application aims to inspire a culture of giving and social responsibility, encouraging individuals to contribute to causes that resonate with them. We believe that by fostering a community of compassionate donors and informed recipients, iDonate can make a meaningful impact on society, helping those in need while empowering users to make a difference. As we move forward, we remain dedicated to refining the application and exploring new avenues for growth, ensuring that iDonate remains a vital resource in the charitable sector.

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