

**IMANI DONATION: A WEB BASED APPLICATION FOR DONATION SERVICE**

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### **Declaration and Approval**

We declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of our knowledge and belief, the research proposal contains no material previously published or written by another person except where due reference is made in the research proposal itself.

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## **Abstract**

In response to the pressing need for streamlined donation processes and enhanced accessibility to resources for underprivileged children, this project aims to develop a web-based application. The application will serve as a platform to facilitate the donation of essential resources to children in recognized organizations across the country. By leveraging modern technology, our goal is to bridge the gap between donors and recipients, making the donation process more efficient and impactful.

Despite the existence of various organizations dedicated to supporting children in need, many challenges hinder the effective distribution of resources. These challenges include barriers to accessing donations, lack of incentives for potential donors, and security concerns surrounding online donation platforms. Addressing these issues is crucial to ensuring that children receive the assistance they require in a timely and secure manner.

To realize our project objectives, we plan to utilize a range of tools and technologies, including HTML, Java, and other relevant web development frameworks. These technologies will enable us to create an intuitive and user-friendly interface for both donors and organizations. Additionally, we will implement database management systems to securely store donor information and track donation transactions in real-time.

Our approach to addressing the identified challenges will involve a combination of qualitative and quantitative research methods. We will conduct interviews with stakeholders, including representatives from charitable organizations and potential donors, to gain insights into their needs and preferences. Furthermore, we will administer questionnaires to gather data on donation behaviors and perceptions. Additionally, we will review existing literature and studies related to donation systems to inform our design decisions and best practices.

By integrating these methodologies, we aim to develop a robust and effective donation platform that not only simplifies the donation process but also instills trust and confidence among users. Through continuous refinement and user feedback, we aspire to create a sustainable solution that positively impacts the lives of children in need.

**Keywords:** Java, HTML, frameworks, user feedback.

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## **Chapter 1: Introduction**

### **1.1 Background Information.**

Children in less privileged areas are experiencing in-access to proper welfare. According to the United Nations Children's Fund, approximately one in five children worldwide lives in extreme poverty, lacking access to adequate nutrition, healthcare, education, and shelter. Orphanages and homes play a crucial role in providing care and support for many of these vulnerable children, offering a safe haven and basic necessities they might otherwise go without.

However, despite the efforts of these institutions, they often face significant challenges in meeting the needs of the children under their care. Limited resources, overcrowding, inadequate infrastructure, and a lack of funding are common obstacles that orphanages and homes encounter, hindering their ability to provide comprehensive care and support to every child.

Despite the essential role played by orphanages and homes in caring for impoverished children, there are notable gaps and missing links in the current system. These include inadequate access to resources where many orphanages and homes struggle to secure the necessary resources, such as food, clothing, educational materials, and medical supplies, to meet the needs of the children they serve. Furthermore, limited transparency and accountability where there is often a lack of transparency and accountability in the management and distribution of resources within orphanages and homes, leading to concerns about the equitable allocation of support. Also, insufficient support for long-term outcomes where while orphanages and homes provide immediate relief and support to children in need, there is often a lack of emphasis on long-term solutions, such as education, vocational training, and family reunification, to break the cycle of poverty and dependency.

Addressing these gaps is of utmost significance for improved well-being of children by addressing the challenges faced by orphanages and homes, we can enhance the well-being and quality of life for the children they serve, ensuring they have access to the resources and support they need to thrive. Also, strengthening communities by investing in the care and support of vulnerable children not only benefits individual children but also contributes to the overall development and resilience of communities, fostering stability and social literacy. The study therefore proposes a web-based application that offers donation services to the children in need from the willing public.



## **1.2: Problem Statement**

Ideally, every child should have access to adequate nutrition, education, and a nurturing environment to thrive and reach their potential. Orphanages and homes should serve as safe havens that provide comprehensive care and support, equipping children with the resources and opportunities they need to break the cycle of poverty.

However, the current reality falls short of this ideal. Many orphanages and homes struggle to meet the basic needs of the children they serve due to limited resources and a lack of sustainable support systems. As a result, children living in these institutions often face barriers to accessing quality education, healthcare, and essential services, perpetuating the cycle of poverty and vulnerability.

To address this pressing issue, it is imperative to implement measures that enhance the capacity and effectiveness of orphanages and homes in providing holistic care for impoverished children. By fostering transparency, accountability, and sustainable resource allocation, we can empower these institutions to create nurturing environments where children can thrive. Additionally, investing in long-term solutions such as education, vocational training, and family reunification will not only improve the well-being of individual children but also contribute to the overall development and resilience of communities. Thus, by bridging the gap between the current reality and the ideal situation, we can work towards ensuring that every child has the opportunity to grow up in a supportive environment that enables them to realize their full potential.

## **1.3: Objectives**

### **1.3.1: General Objective**

By developing a system for enhancing the quality of care and support provided to impoverished children in orphanages and homes, ultimately improving their well-being and prospects.

### **1.3.2: Specific Objectives**

- i. To assess the existing challenges faced by orphanages and homes in meeting the needs of impoverished children.
- ii. To review the existing systems for managing resource allocation to orphanages.
- iii. To develop a web-based application for managing donations to orphanages.
- iv. To test the developed system.

#### **1.4: Research Questions**

- i. What are the primary challenges faced by orphanages and homes in providing care and support to impoverished children?
- ii. What are the current systems used for managing donations to orphanages?
- iii. How is a web application for managing donations to orphanages developed?
- iv. How is the developed system tested?

#### **1.5: Justification**

Research on the challenges faced by orphanages and homes in providing care and support to impoverished children is essential for upholding fundamental human rights and promoting social justice (UN General Assembly, 1989). These institutions play a crucial role in safeguarding the well-being of vulnerable children, yet they often encounter significant obstacles in meeting their needs. Limited resources, overcrowding, and a lack of sustainable support systems hinder their ability to provide adequate nutrition, healthcare, education, and nurturing environments (Browne et al., 2009). Without addressing these challenges, children living in orphanages and homes are at risk of facing lifelong consequences, including poor health outcomes, limited educational attainment, and perpetuation of the cycle of poverty (Whetten et al., 2009).

Furthermore, research in this area has broader implications for public health, social, and economic development. By identifying effective interventions and best practices, research findings can inform the development of evidence-based policies and programs aimed at improving the quality of care and support for vulnerable children (Whetten et al., 2014). Investing in the well-being and prospects of children in orphanages and homes not only benefits individual children but also contributes to building stronger, more resilient communities and societies (UNICEF, 2012). Thus, conducting research on this topic is not only ethically imperative but also crucial for promoting sustainable social and economic development and ensuring the rights and well-being of all children.

#### **1.6: Scope and Delimitations**

The scope of this research will primarily focus on orphanages and homes catering to impoverished children, particularly those facing challenges related to limited resources, overcrowding, and inadequate support systems. The study will aim to investigate the specific challenges encountered by these institutions in providing care and support to children, with a particular emphasis on factors such as resource allocation, infrastructure, and service delivery.

Additionally, the research will explore the impact of these challenges on the well-being and prospects of children living in orphanages and homes.

However, it's important to note some delimitations of this study.

**Geographic Limitation:** The study will focus on orphanages and homes in specific geographic regions or countries, potentially limiting the generalizability of findings to other contexts.

**Scope of Investigation:** The research will primarily investigate challenges faced by orphanages and homes in providing care and support to impoverished children, with a focus on factors such as resource allocation, infrastructure, and service delivery. It may not extensively explore other aspects of child welfare or alternative care settings.

**Intervention Coverage:** While the study aims to identify effective interventions and best practices, it may not encompass all potential strategies for addressing the identified challenges within orphanage settings.

**Resource Constraints:** The research may be limited by factors such as time, budget, and access to relevant data or stakeholders, which could impact the depth and breadth of the study's findings.

**Individual Experiences:** The study may not extensively delve into the experiences of individual children or families within orphanages and homes, as the focus will primarily be on systemic challenges rather than individual case studies.

## **Chapter 2: Literature Review**

### **2.1 Introduction**

This chapter is to cover the current objective of our application in helping in donation of resources to impoverished children. It also shows the related works of this system and how those have been achieved and the general layout of what is to be accomplished in order for the application to work and to be implemented. It also focuses on the challenges facing the current systems in place and our solutions. We also address the gaps in the current systems and how we overcame them.

### **2.2: The current state of donation services in the country**

In today's world donation services have undergone big transformations especially due to the emergence of online platforms. They have also improved largely because of crowdfunding, where individuals and organizations are able to rally funds to assist with children's medical care, healthcare and general welfare.

Corporate social responsibility has also played an important role in ensuring that people recognize their responsibility in giving to others in need. Transparency and honesty of the patrons in need also ensure that the donations go towards helping the children in need. Emerging technologies also help in ensuring in monetary funding of these children.

#### **2.2.1 Challenges facing the current donation services in the country.**

One challenge could be the large amount of people and organizations that are in place appealing for donations. Especially with the rise social media there is a vast number of organizations that seek donations, and this is detrimental to other upcoming organizations looking for donations as well.

Transparency and accountability sometimes also remain to be seen from these organizations. Donors are less likely to contribute donations if they do not know where their donations are being used. This skepticism also hinders other honest organizations from getting the help they need because of the reputation other organizations receive.

Ensuring equal distribution of resources also poses as a challenge to these donation services. Usually the donations received may be inadequate for all the children in need in these organizations. Sometimes resources maybe allocated to those in dire need leaving the others compromised.

Accessibility is also a challenge faced by those who do not have the benefit to be digitally involved. Because a lot of these services are provided online, organizations that are limited technologically, one way or the other, suffer because they are not able to get more donation opportunities like the ones who are able to access the internet.

## **2.3 Related Works**

Some of the related works seen working in this way are:

### **2.3.1 M-Changa, A mobile funding option.**

This is a mobile money donation platform set in place to help people raise and donate funds for various causes and projects. It is very popular because of its ease of use and accessibility to anyone in need.

It allows users to create campaigns and share personal stories to potential donors. Donors then make donation through several mobile money systems in place such as M-Pesa, Airtel Money or Equitel Money, making it easy for every user to have a way to access the donations they have received or to participate.

This system also inspires social responsibility ensuring that donations are made regularly. Receivers of these donations are also able to interact with the donors establishing a trusting relationship and leading to greater participation and support for these activities.

It has been a valuable resource for users in need and can also be used to fund children in need with their education, health care and their overall well-being.

### **2.3.2 Go get Funding, A crowdfunding option.**

This is a crowd-funding option that enables users and organizations to raise funds and receive donations for their campaigns.

Different users can create campaigns to receive donations, whether for personal use or business or medical reasons. Patrons from child orphanages can also apply for donations for the organization they are in charge of. This is dependent on the generosity of the global community.

This platform allows people to choose between flexible funding and fixed funding. Flexible funding enables the user to keep all the funds raised regardless of whether the target was met or not. This provides the user with a greater control over their fundraising strategy, catering to different circumstances. Fixed funding however does not allow the user to keep the funds raised regardless of whether or not the goal was reached.

This platform has facilitated the success of different campaigns, empowering individuals to overcome financial barriers and gain monetary freedom to do what they choose. From medical treatments to business start-ups the platform continues to serve as a beacon of hope in the crowdfunding landscape.

### **2.3.3 SIDA**

This is the Swedish International Development Cooperation Agency, that is cooperation with Kenya to curb poverty in the country. It operates under the Swedish Ministry for Foreign Affairs and works in collaboration with several organization including the Kenyan Government in this case.

It encompasses a large range of areas including healthcare, education, and human rights. It provides financial support and assistance to partner countries and organizations to help them address the development changes. It is guided by principles of transparency and accountability including result-oriented programming. It emphasizes the importance of ownership and participation, ensuring that interventions are tailored to the specific needs and priorities of partner countries.

SIDA also plays a vital role in advocating for global development issues and promoting international cooperation through partnerships and policy dialogue.

### **2.3.4 GiveDirectly**

This is a non-profit organization that operates a unique and innovative cash transfer program aimed at alleviating poverty in some of the poorest regions globally. It allows users to directly transfer funds to organizations in need giving freedom to decide how to allocate the funds according to their own preferences. This approach ensures that the cash donations are effective and efficient at reducing poverty and empowering individuals to lift themselves out of deprivation.

It operates in poverty-stricken areas where individuals are living on the poverty line, identifying them through rigorous data analysis and community outreach. Once the individuals are selected money is sent to them electronically allowing for fast and secure transactions. It aims to address the causes of poverty and empower individuals to make meaningful changes in their lives as well as investing in income-generating activities and other long-term solution to improve their welfare.

This platform is easy to use and has therefore earned praise from the users. It has consistently shown positive outcomes in terms of poverty reduction, economic empowerment, and social impact.

## **2.4 Gaps in the related works**

Despite the success of these platforms, accessibility is a constant problem related to all of them. This is mainly due to the fact that a lot of these platforms are based online, so some users are not able to access these platforms. Therefore, even though we celebrate inclusivity, reaching some areas remains a challenge.

Many of these platforms though effective, tend to offer short-term assistance and immediate relief but there is the need for long term solutions to address these issues and their root causes preventing continuance of these cycles in other areas.

While these donations do go towards poverty-stricken areas, there is lack of monitoring and evaluation of the donations especially resource-based ones. There lacks transparency and accountability by these organizations and these campaigns about whether they are being used for the improvement of humanity.

Cultural norms and beliefs can impact the effectiveness of these donation platforms. If trust and meaningful engagement is not paramount in these communities, then this can hinder the donation of resources.

Data privacy and security is also a challenge especially because these platforms are based online. Cash donations are especially affected because there is no guarantee of protection of bank details or protection of the cash donated. Personal details put at risk may lead to exploitation and a stigma around cash donations.

## **2.5 Conceptual Framework**

The main question intended to be answered is how to facilitate this donation service in the country.

Some key concepts and variables include:

The digital aspect whereby this is a web-based application meaning that it will only be accessed online. This will incorporate platform design, user interface and functionality.

Charitable giving behavior where the actions and decisions made by the donors will determine the success of this platform. This will include motivation for giving and preferences for the charitable causes specified by the users.

Technological factors that include digital literacy and access to mobile money.

Studies indicate a trend of users using online donation services with factors such as ease of use, trust, credibility, and influence. These digital platforms offer increased engagement and support for charitable causes.

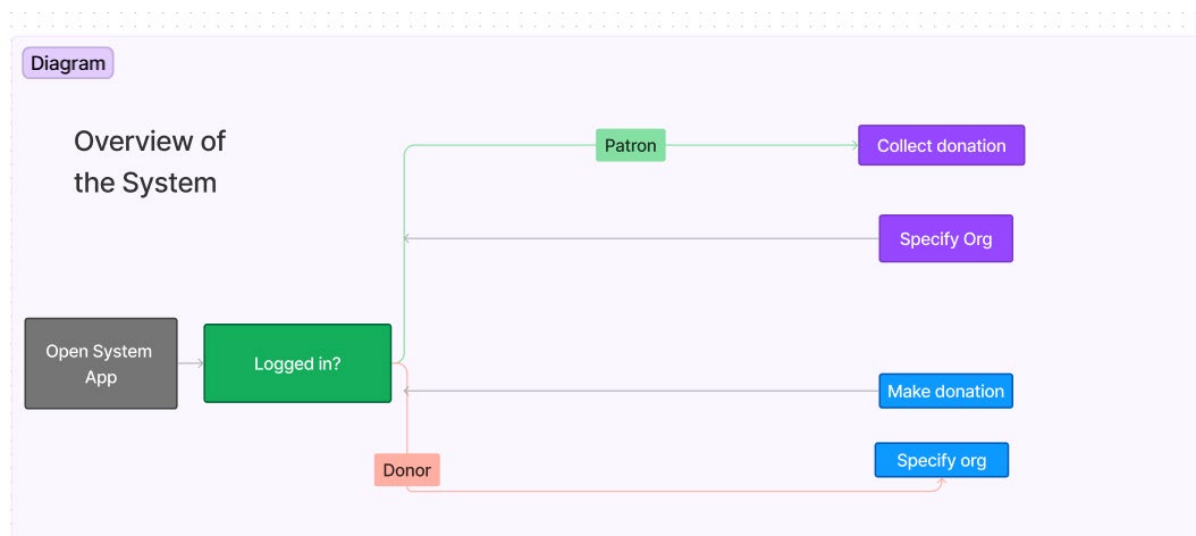


Figure 2.5.1: conceptual framework.



## **Chapter 3: Methodology**

### **3.1 Introduction**

The design process that will be used for the development of this System is SSADM (Structured System Analysis and Design Methodology). Use of clear diagrams and process specification will be put in place to specify how the document will be presented. Each step that will be followed will be explained in detail.

### **3.2 System Development Methodology**

For the development of this system, the methodology we will use is Design Thinking. This will emphasize a human approach that could be necessary for this donation system. It is flexible and will be able to accommodate users' needs and testing solutions iteratively. The stages are Empathize and analyse, define, and sympathize, ideate, prototype and tune and test and validate.

### **3.3 Justification of the Methodology**

Because the project touches on social responsibility and social issues then a human approach is needed so that the engineering and creation can reflect onto the users and on the system. Incentives will also be used to urge users to donate and help the children in need.

### **3.4 Methodology phases**

These are the phases involved in the creation of this system:

#### **3.4.1 Empathize and analyse.**

This stage enables users to gain a deep understanding of their needs and requirements through observations. This calls for determination that the problem is genuine and capable of being resolved. It also needs prior knowledge of the environment that the system is to be operational in.

#### **3.4.2 Define and Synthesize**

This phase involves using the information gained in the first phase to create an accurate definition of the problem. This involves using the findings in the first phase to get opportunities for innovation. The goal is to frame the problem in such a way that it inspires creative solutions.

#### **3.4.3 Ideate**

This is the brainstorming phase where the users create a wide range of creative ideas to address the problem identified in the define stage. This involves critical thinking and decision making. It may also involve unconventional solutions but overall stimulates creativity and generates

innovative ideas. In our case context diagrams could be put in place to easily explain to the users how the system is to be used and its functionality.

#### **3.4.4 Prototype and Tune**

Functional designs are built in this phase. This makes the system come to life. The concepts agreed upon in the last phase are implemented in this case. This stage in construction entails training the model with data and tuning the parameters based on the outcomes.

#### **3.4.5 Test and Validate.**

This phase enables the users to receive feedback on the solutions that have been deployed during the construction of the prototype allowing the set objectives to be reached. Accuracy is also enhanced through the testing of data.

### **3.5 Deliverables**

#### **3.5.1 System Documentation**

This is a written document that provides comprehensive information about the developed system, including the problem and the development strategies that were employed.

#### **3.5.2 Model and User Interface**

To enable users to interact with it easily, CNN model was developed then integrated with the user interface.

### **3.6 Tools and techniques.**

#### **3.6.1 User Interviews**

Conducting one-on-one interviews with users to understand their experiences and understanding their environments in order to empathize.

#### **3.6.2 Mind mapping**

This involves creating visual diagrams that organize ideas and solutions to the problem.

#### **3.6.3 Feedback loops**

Establishing mechanisms for collecting feedback from users throughout the design process and taking note of areas to revisit.

#### **3.6.4 Iterative Design**

Continuously refining and improving prototypes based on user feedback and testing results to iteratively enhance the solution.

### **3.6.5 Programming languages**

Different programming languages such as Java Script and C++ will be used in the creation of this project.

### **3.6.6 Databases**

XAMPP and other databases and SQL applications will be used to accurately organize the users involved and securely hold the information presented.

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## Appendix

This is the Gantt chart we used thus far:



*Appendix 1: Gantt chart*