****

**MULTIMEDIA UNIVERSITY OF KENYA**

**FACULTY OF COMPUTING AND INFORMATION TECHNOLOGY**

BACHELOR OF SCIENCE IN COMPUTER TECHNOLOGY

**A WEB BASED APPLICATION BRIDGING SURPLUS TO THE SUFFERING TO END HUNGER CRISIS PROPOSAL PAPER**

BY: VICTOR MUNENE NTIKA

REG NO: CIT-222-023/2021

UNIT CODE: BCT 2315

**SUPERVISOR: DR. DAVID NJOGA**

**DECLARATION**

I hereby declare that this project is my own work and has, to the best of my knowledge, not been submitted to any other institution of higher learning

Student : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Registration Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature: ............................................... Date:....................................................

This project has been submitted as a partial fulfillment of requirements for the Bachelor of Science in Computer Technology of Multimedia University of Kenya with my approval as the University supervisor.

Supervisor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature: ..................................................... Date: ..................................................

### **CHAPTER 1: INTRODUCTORY ELEMENTS**

#### 1.1 Background of the study and project

Donar is a charity, non-profitable organization which aims at combating world hunger challenges starting with our country. The name Donar, is a spanish word that comes from the english word donate, which means to give money or goods for a good cause. Donar is an innovative web solution that facilitates the seamless donation of surplus food, water, and funds. Beyond the act of giving, our platform connects the surplus from restaurants and individuals to areas of the country where hunger prevails, creating a ripple effect of positive change.

According to Wikipedia, hunger is defined as a condition in which a person does not have the physical or financial capability to eat sufficient food to meet basic nutritional needs for a sustained period of time. This may lead to malnutrition, which is the lack of sufficient nutrients in the body, diseases or worse enough. death.

From time immemorial, world hunger has been an issue that has disturbed various communities and sectors of a vast number of countries. As the years continuously progressed, the scarcity of food continues to grow despite the travail attempts by various organizations, both non profit and profitable, governmental and individual organizations to combat the continuous occuring pandemic. These various parties are all brought together by one common factor and that is to help in the fight against world hunger.

There are various world organizations to help in the combat of this world issue such as the World Food Programme, Goal 2: Zero Hunger under the United Nations Sustainable Development programme, local government food donation programs and many more which mobilize the growth and spread of this initiative. With the continuing spread of the organizations to able supporters, we hope to combat this issue and defeat it one day in the future, together.

#### 1.2 Problem Statement

To combat hunger in various sectors of the country with the assistance of restaurants and different parties who are willing and able to donate surplus food, water and funds.

There are very many families that are living in hunger and starvation not because they choose that life, however it is because of natural calamities and disasters beyond their control. Such families do all they can which may include moving away from ancestral, sacred land due to the unforgiving situation.

Moreover, there are a number of restaurants and hotels where there is surplus food, which is used and treated like garbage, thrown out and disposed of. These restaurants believe that this food is of no further use and thus their reason to throw it out. However, by digging into the matter, it is found out that that bit of food that is thrown out may help a starving child or family at large. The awareness of Donar as a charitable organization that collects surplus food from restaurants and hotels

#### 1.3 Aim of the study

##### 1.3.1 Project Objectives

1.⁠ User-Centric Website: Develop an intuitive and user-friendly website that simplifies the process of donating surplus food for restaurants and individuals.

2. Strategic Distribution: Efficiently channel surplus resources to areas where hunger is a pressing issue, ensuring a targeted and impactful contribution.

3. Global Hunger Alleviation: Contribute to the global fight against hunger by addressing the basic needs of affected communities and tribes.

4. Outreach: To channel the organization as far and wide as possible in order to reach and work with as many restaurants and individual persons that are willing to contribute and help with the matter.

5. Partnerships: This includes collaborating with various food banks and child support centers that may aid in the distribution and collection of various foodstuffs and anything that may be of assistance in the growth of the organization together with aid to the unfortunate.

6. Awareness creation: One of the most efficient ways of solving a problem is to educate and to create an awareness of a matter. In this situation, we would make it an objective to multiple restaurants and individuals not to throw away their surplus food but store it well because it may be collected and distributed to areas facing hunger problems.

#### 1.4 Significance of the project

The creation of Donar is to help create an awareness and help in the journey of finding a solution to eradicate world hunger. This project is a stepping stone and an insight to the entire country or even past its borders to grow a community of charitable givers and helpers in the community to give to the unfortunate and those who direly need it. The less fortunate should believe that they are never alone in such problems and that a brotherhood and sisterhood is always there for assistance and to boost their community as well.

Donar aims to bring together a group of well-wishers who are ready to help for the flourishing of the unfortunate and their communities.

#### 1.5 Scope

1. Design and development of website - Involves designing an intuitive and easy to use website interface. The design focuses on the ease of use for restaurants that are looking to donate food surpluses as well as for individual parties that are willing to donate on the same.

2. Identify limitations and problems arising with the continuing of food charity programs and attempt to reach as far destinations of the country as possible with continuous positive progress over time.

3. Assist ongoing food charitable organizations to find and allocate foodstuffs and other materials that may be of assistance to them.

4. Building a community of young peers ready to serve back to the community by visiting the highly sensitive and struck areas and reaching out to help.

#### 1.6 Assumptions

Some of the few assumptions made are:

1. There are a big number of restaurants that actually throw away surplus food per day or weekly.

2. These restaurants that dispose of surplus food would be willing to donate for those facing hunger.

3. Foodstuffs which would be donated or are surplus are in good form and shape for human consumption.

4. Trust between the organization and well-wishers will be established quickly since it is new and people should not think it is a scam.

#### 1.7 Limitations

1. Clients have more trust in already existing organizations thus there is faulty trust in our upcoming plan.

2. Getting different modes of transport to help deliver food from restaurants to distant locations that are in need.

3. Getting storage facilities to preserve donated foods in situations of donations of perishable foods.

4. With time, the cost of operating the organisation - as a non profitable association - may become too costly to run the operations of pickup and delivery.

### **CHAPTER 2: LITERATURE REVIEW**

#### 2.1 Introduction

This chapter talks about the current knowledge and research on different methods currently used to counteract the ever-growing issue of world hunger. The literature review provides a framework for understanding the current state of the issue at hand and their contrasting attempts to solve the problem. It also includes various shortcomings and how the proposed system may assist in filling the gap.

#### 2.2 Related systems

The donation of foodstuffs, toys, clothes and other different materials have been going on for quite a while now. Multiple profitable and other nonprofitable organizations have been formed in the course of time, some may be full organizations and others done by individual well-wishers. Such people, well-wishers, may occasionally come together to try and form something joined for a bigger organization such as the world food programme.

Currently, there are quite a number of organizations which foresee and practice charity work in multiple communities as well as in a number of counties in our country, Kenya.

An example of such organizations includes Food Banking Kenya. This is a non-governmental organization that has been in existence since 2017 aboard a mission to combat food loss and food waste, promote sustainable practices and extend their reach both nationally and globally. They are part of the Global Food Banking Network, which supports community-led solutions to alleviate hunger all over the world. In addition to their personal goals, they also align their profession with some ambitions which are recognized and are worked to achieve globally such as, Zero hunger whose main objective is to End hunger, achieve food security and improved nutrition and promote sustainable agriculture, Responsible hunger and production dealing with waste and chemical management with significant reduction of their release to the environment, climate action and good health and well-being just to mention but a few. Food Banking Kenya takes volunteers to assist in the visiting of the less fortunate , giving hope and nourishment for challenged souls. This way, with the more number of volunteers, the distributions are able to go smoother and to reach a larger number of people since there is an extra set of hands thus more manpower.

Besides Food Banking Kenya, there is Kenya Food Bank, formed by a renown Kenyan artist, Octopizzo. Being born from Kibera, he understood the hustle and struggle it becomes for parents and fellow residents to get food and various amenities that are essential for their well-being and for those who have children, to cater for them as well. The foundation was formed in response to the COVID-19 economic collapse, which had forced many people to stay home and others being laid off from their jobs, basically putting the economic world on pause. Due to this, a number of families suffered from lack of sufficient funds to acquire meals and materials needed on a day to day basis. This took a heavy toll on their families since others could barely afford the required meals of the day in order to afford at least one for coming days. The Kenya Food Bank has a simple, easy-to-use website where interested parties may visit to know more about the foundation, what they stand for and how they may be of assistance in achieving their common goal. The foundation works with both local and foreign volunteers who are ready to join and act together for the fight against hunger in struggling regions and families.

Among others, there is the SMACHS Foundation. This foundation is a non-profitable organization that empowers young people to lead the fight against hunger and climate change in Kenya. With their partners as very high and reputational companies and organizations such as the National Irrigation Authority, the Ministry of Water, Sanitation and Irrigation and Huawei among others, they are empowering the youth to venture into farming to help protect the environment, to help slow down the causes of climate change.

#### 2.3 Limitations of these systems

Despite all the acknowledged foundations and organizations and their solid systems, they still have various flaws that may affect their operations and make it difficult for first-time users to navigate around.

To begin with, some of these websites may be too difficult to navigate around thus causing a new user to be overwhelmed by the amount of content or flow and procedure of things on the pages. With too much information or difficulty to navigate around, a person who is there for the first time and has no information on how to go about the website may give up and pass the opportunity.

Moreover, there is a lack of enough volunteers in some of the foundations thus causing less outreach programs than planned. In some foundations, there is insufficient manpower to assist in the collection, arrangement and distribution of foodstuffs from the well-wishers to the communities in need. The lack of manpower may even be caused due to stigmatization from friends and family who may use that opportunity to scold the volunteers in how they are not being paid, especially in non-profit organizations where all the money and donations sent by well-wishers is used explicitly to buy items needed buy the less fortunate to make more of an impact.

On top of those points, there may be the lack of awareness on the different foundations that are in existence.The lack of awareness may be caused by the overlooking of such topics by other day-to-day challenges. Due to this, such organizations may be overshadowed and people would tend to forget about them.

#### 2.4 How the proposed solution will handle these weaknesses

The proposed system aims at counteracting these issues in various ways. To begin with, Donar shall have an easy, user-centric website which is not too complex for the average reader, straightforward and detailed with each and everything an interested and an already involved party would like to know. This makes it easier for viewers to understand who we are, what we do and why we do it at ease and not strain them.

On the weaknesses of volunteers, Donar seeks to look for and bring in more youth volunteers who are ready to spread the donations and fight the crisis. We have put in thought and have realized that attracting people to assist to do such tasks may be quite a heavy task, therefore, Donar believes that there should be a reward occasionally for such volunteers and that is why the foundation aims to put in place some events that may build team work and team building such as retreats or even tournaments. It is believed that this may be an encouraging factor towards the volunteers which may in turn attract more and make the word spread farther which pulls more well-wishers to join in on some of the activities.

Furthermore, our foundation aims to create and widen the awareness and bring forth the seriousness of the matter. The foundation aims to hold walks and marathons which are also charity drives where well-wishers and interested parties may bring dry foodstuffs for donations. With the collaboration of some media houses and big social media personalities, we may achieve a goal to spread the word and educate the large crowd masses on the importance of donations and caring for our fellow brothers and sisters who are not able to get these amenities.

### **CHAPTER 3: METHODOLOGY**

#### 3.1 Introduction

To be able to know how areas in this field are covered, how donations are made and how they are facilitated across the less fortunate, we take research and collect data from known sources to create an outline of the system in planning. This chapter covers the different methods used to collect data on how related existing systems are, how they function, their defects and how Donar can improve on such areas.

#### 3.2 Methodology

#### 3.3Data collection methods

*Administering Questionnaires*

To local residents around different neighborhoods, we went round and handed out some questionnaires to help us understand what they would like to see on a charity foundation hosted and operated by the youth. The questionnaires also included questions pertaining to the certain issues they faced during their expedition. For those who had the chance to visit the areas as volunteers, we included a section which covers questions pertaining to their experience.

*Surveys*

For this method of collecting data, we went round to areas where they have been struck by the unforgiving hunger crisis and asked a few members of the community to assist us in filling those surveys. We got feedback from them on how current systems of administering their food resources round the community and how improvements on the same may be done.

*Researching from websites*

Among other data collection and retrieval methods, one of the most efficient methods to get results and information about existing charity foundations and their operations. This also helps find the mission and vision for existing foundations, their sponsors and partners. With sponsors and partners, this makes the growth of an organization seem more legit and more approving to other well-wishers who have decided to do more research on them. Different partners and sponsors may bring different things to the table that may be of big help, for example, one party may bring lorries or vans for transporting the goods from their storage areas to the various communities.

*Observation*

Furthermore, observation of current running and succeeding foundations is another important method that we used on the birth of Donar. These foundations may have a frequent running of operations and have the passion to continuously help fellow brothers and sisters in times of need. We have made an observation that this passion and zeal is crucial in the growth and success of such an organization. This also includes teamwork and upon being assigned different roles and tasks, everyone carries them out whole-heartedly as if their lives depended on it.

**Conclusion**

In conclusion, according to the data we collected on several foundations using the different methods as listed above, there are several methods that are put in place for the succession of an organization in this field of work. The foundation must have a lot of zeal to help those that are less fortunate. The website for the organization must also be simple, user friendly and contain each and everything an interested party needs to know about the foundation and how they may help if need be.

#### **References**

Wikipedia - *The Human Nutrition definition and the types of effects caused by lack of some nutrients* - <https://en.m.wikipedia.org/wiki/Human_nutrition>

World Food Programme - *The world’s largest humanitarian organization saving lives in emergencies* - <https://www.wfp.org/global-hunger-crisis>

Zero Hunger Programme - *A goal formed by the United Nations focusing on eradicating world hunger by 2030* - <https://www.un.org/sustainabledevelopment/hunger/>

Food Banking in Kenya - *An existing non-governmental organization in Kenya dealing with the crisis of hunger* - <https://foodbankingkenya.org/about-us/>

Kenya Food Bank - *A foodbank foundation that takes donations both in forms of money or non-perishable foods -* <https://kenya.foodbank.co/#foodbank-donate>

Smachs Foundation - <https://smachs.foundation/index.html>