Hunger Free-Extra Food Transportation to Needy People

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Abstract— **Food waste is increasing. According to data provided by the Food and Agriculture Organization of the United States on food loss and food waste. 1/3 of the food produced for human consumption worldwide, approximately 1.3 billion tons, is wasted every year. On the other hand, according to the World Health Organization, 20 percent of the population faces malnutrition. Therefore, solutions must be found to prevent waste and help feed those in need. This Android food waste management app helps collect leftover food from restaurants and cafes and distribute it to those in need. NGOs that help poor communities fight hunger and malnutrition can request food from restaurants through the application. Once the request is accepted, the NGO can pick up the food from the restaurant and distribute it. In this way, this Android food waste management app will help restaurants reduce food waste and feed the poor and needy. Problems with food waste in developing countries are now seen as a major threat to sustainable development and waste management. Many countries face problems such as environmental and hygiene problems caused by food waste due to poor food management. This project examines differences in waste production between developed and developing countries, highlighting the importance of income, population growth and public participation in waste management. This food waste management website deals with waste management from hotels, restaurants, workplaces, etc. can help collect the remaining food and distribute it to those in need, they must send a picture of the food along with their name through this website and it will then be delivered to them. According to them, the Web food waste management website will help restaurants reduce food waste and provide food to the poor and needy. Food waste is a pressing problem in a populous country like India. There is ample evidence of this in the streets, trash cans and dumps. Weddings, restaurants, restaurants, social and family gatherings and many catering events. Food waste is not only a symptom of hunger or pollution, but also a symptom of many economic problems. The high standard of living has led to wastage of food, clothing and other things due to rapid changes in habits and lifestyles. Don't waste them, orphanage, nursing home etc. We can use it by donating to various organizations. The product is an application that focuses on making money online mainly by donating.**

I. INTRODUCTION

This Website of "Hunger Free-Extra Food transportation to needy people" SYSTEM can assist in collecting the leftover food from hotels, restaurants, Functions, etc. to distribute among those in need, through this website they have to upload the food images with their names then they will get the detail of orphanages, old age homes, near highways based on the donor location In this way this web-based food waste management system will help restaurants and functions to reduce food waste and will help in feeding the poor and needy people

STEPS TO DO IN IT:
- Food Waste Reduction
  1. Eat as much as you can.
  2. Donate to needy peoples.
  3. Think wise do many things.
- Collecting Food
  1. Through the location of donors of food within the radius of the needy peoples.
  2. Based on the donors uploading.
- How to Donate Food Free
  1. Excess of food in any functions.
  2. Else based on the donor's interest.

- How to Implement
  1. Creating the website based on the locations of the donors and needy peoples.
  2. Uploading of the food and location.

- How to Reach
  1. Through the location within the radius.
  2. Donate the products as early as possible.

II. LITERATURE SURVEY

The research paper titled "Web-based Application for Food Waste Management" by R. Uma, S. Ranjith, I. Kaja Mohaidheen, and S.R. Dharaneesh, published in the Journal of Cleaner Production in 2022, addresses the pressing issue of food waste through the development and implementation of a web-based application. [1] The literature review delves into existing studies on food waste management, highlighting the escalating global concern regarding the environmental, economic, and social implications of inefficient food disposal. [1] The authors explore prior research on technological interventions, emphasizing the growing role of web-based platforms in optimizing food waste reduction strategies. Furthermore, the review scrutinizes the challenges faced by conventional methods and underscores the potential impact of digital solutions in promoting transparency, collaboration, and data-driven decision-making in food waste management.[1] By synthesizing insights from relevant literature, the paper sets the stage for the proposed web-based application, positioning it as a valuable contribution to the evolving landscape of sustainable food waste management solutions.

The research paper entitled "Web-Based Solution for Fighting Food Waste and Hunger" authored by S. Lee and J. Kim, published in The International Journal of Web-Based Learning and Teaching Technologies in 2020, explores the intersection of technology and social responsibility in addressing the dual challenges of food waste and hunger. [2] The literature review comprehensively surveys existing scholarship in the domains of food waste management and hunger alleviation, underscoring the intricate relationship between these issues. [2] It examines the global scale of food wastage, emphasizing its adverse environmental impact and the ethical imperative to address hunger amidst abundance. The authors delve into prior works on various technological interventions, highlighting the potential of web-based solutions in fostering a more efficient and equitable food distribution system. The review critically analyzes the limitations of conventional approaches, emphasizing the need for innovative strategies. [2] By synthesizing insights from diverse literature, the paper positions its proposed web-based solution as a promising avenue for simultaneously tackling food waste and hunger, contributing to the discourse on leveraging technology for positive social impact in the realm of food security.

The research paper titled "Hunger-Free Communities: Web-Based Solution for Addressing Food Deserts," authored by M. Ali and published in the Journal of Information Science and Engineering, provides a comprehensive exploration of the intersection between web-based technologies and the critical challenge of addressing food deserts. [3] The literature review within the paper extensively surveys existing scholarship, shedding light on the multifaceted nature of food deserts and their detrimental impact on communities. It critically assesses prior research on strategies to alleviate food deserts, emphasizing the persistent barriers to access faced by underserved populations. [3] The author synthesizes insights from studies focusing on web-based solutions, highlighting the potential of technology to bridge gaps in food distribution, enhance information access, and empower communities. Furthermore, the review examines the limitations of traditional approaches and underscores the need for innovative solutions to create hunger-free communities. By grounding its research in a thorough literature review, [3] the paper positions its proposed web-based solution as a promising avenue for addressing food deserts and fostering equitable access to nutritious food, contributing to the ongoing discourse on leveraging technology for positive social change in the realm of food security.

The research paper titled "Food Waste Reduction and Valorization: Sustainability Pathways for a Circular Economy," authored by Charikleia Karakosta, Nikolaos Moustakas, and Nikolaos S., and published in Conservation and Recycling, engages in a thorough exploration of sustainability pathways within the context of a circular economy as they relate to food waste reduction and valorization. [4] The literature review within the paper meticulously surveys existing scholarly works, highlighting the urgent need to address the environmental and economic implications of food waste. It critically evaluates previous research on circular economy models, emphasizing the potential for valorization strategies to transform food waste into valuable resources. [4] The authors synthesize insights from studies that examine various sustainability initiatives, including waste reduction measures and innovative methods for repurposing food by-products. Moreover, the review assesses the challenges and opportunities associated with implementing circular economy principles in the context of food waste management. [4] By grounding their research in a comprehensive literature review, the paper positions itself at the forefront of the discourse on sustainable practices, providing valuable insights into the potential pathways for achieving a circular economy in the realm of food waste reduction and valorization.

The research paper titled "Foodernity - A Mobile and Web Application for Food Sharing," authored by John Amiel R. Morilla, Fhillip Carl Bagsic, Mark Kenneth Dela Cruz, Carl Daniel A. Patio, and Emeliza R. Yabut, and published in the 2021 1st International Conference in Information and Computing Research (iCORE) by the College of Computing and Information Technologies at National University in Manila, Philippines, presents an innovative exploration into the realm of mobile and web applications designed to facilitate food sharing. [5] The literature review within the paper navigates through existing studies on technology-driven solutions for addressing food insecurity and food waste, underscoring the global significance of such challenges. It critically examines prior research on mobile applications and web platforms aimed at reducing food wastage and ensuring equitable food distribution. [5] The authors draw on insights from the intersection of technology and social responsibility, discussing the potential impact of digital platforms in fostering community-driven initiatives for sharing surplus food resources. [5] Furthermore, the review addresses the practical implications and challenges faced by similar applications, providing a context for the development and implementation of Foodernity. By synthesizing perspectives from diverse literature, the paper positions its proposed solution within the broader landscape of technology-driven food-sharing initiatives, offering a valuable contribution to the discourse on leveraging digital platforms for addressing contemporary social and environmental issues related to food.

III. EXPERIMENTAL SETUP

It involves both the hardware and software requirements needed for the project and detailed explanation of the specifications.

System Specifications:

Hardware Requirements:

- A PC with Windows/Linux OS
- Processor with 1.7-2.4gHz speed
- Minimum of 8gb RAM
- 2gb Graphic card

Software Specification:

- Text Editor (e.g.: -VS-code)
- Frontend tools like HTML, CSS, JS
- Python libraries and framework of Django

Advantages:

- Benefits will be both the Donor's (reducing food wastage), and the needy.
- Keep track of wastage food for needy.
- User can play role in saving food wastage and help the needy.

IV. IMPLEMENTATION

We use the website to reduce food items in the preparation process. This food distribution system is a social innovation that is effective in solving the problems of food waste and food poverty. Hoarders hoard food and clothes, furniture, etc. stores other items. . The donor gives it to the nearest orphanage or to the needy people in the neighborhood. We can reduce the food crisis and help those in need by sending reminders to donors after leaders receive representatives' products. The application form is web-based and requires an internet connection and will provide a platform for donors and seekers when registering in the system. If the user wants to donate something, they can send a message from the app. This message will appear as a notification in the Free tab for other users. The message will be stored in the backend database. Once the notification is sent, the donation can be collected by the orphanage or the person in need and can contact the donor by replying. The system's user interface will be simple and easy to use, and the target will be the Web. Donors perform tasks such as registering and logging into the system. It is also possible to post free items and view all requests for free items (items needed by the organization). Both administrators and donors can see the recipient's address. Administrators can also view and update information. Both administrators and recipients can see the donor's location. Customers can also perform tasks such as requesting items, viewing requested items, and requesting donations.

Login and Registration:

This phase involves login and registration for both the guest and Agent. The user's details are maintained confidential by maintaining separate account for each user. At the same time only, the agent can view the details of the registered guest.

Notification:

This phase involves the notification to the agent by the guest. The user will send the notification which contains the location of food available via notification bar. This is achieved by using notification button.

Admin Module:

In admin module, the administrator maintains the agent details as well as the donator details. The administrator collects the food from the agent. The administrator gives the orphanage details directly to the donator.

*Donator Module:*

In donator module, the donator gives the wastage of food to the orphanage. The donator gives the request to the admin for the purpose of to collect the wastage food. The donator views the orphanage details and agent details.
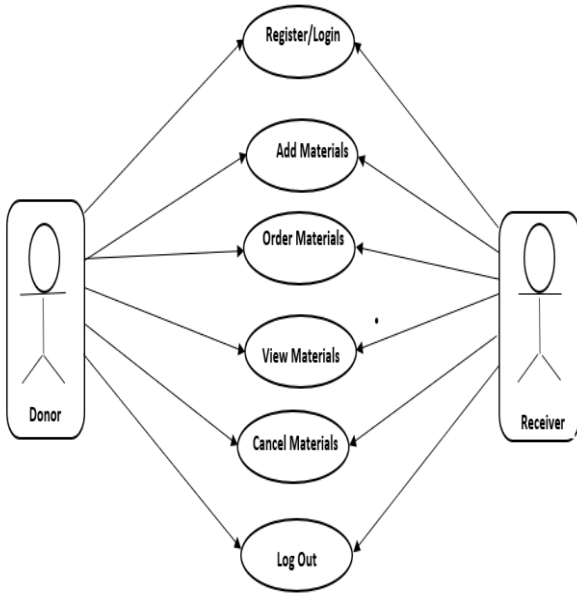
Receiver Module:

In Agent module, the Receiver maintain the orphanage details. It can also maintain the donator details. The Receiver give the request to the admin for collect the food from the donator. After collect, the food the agent gives the alert message for the donator.
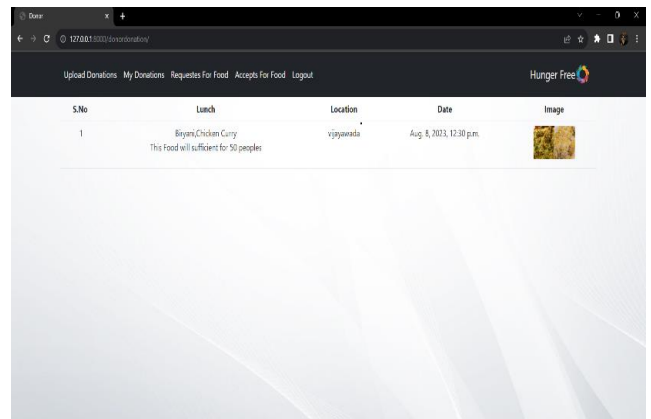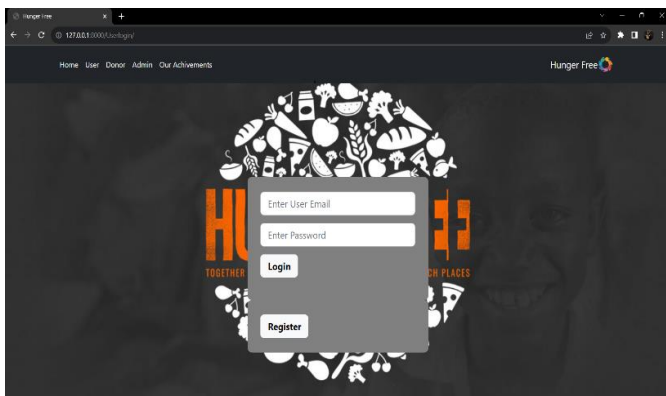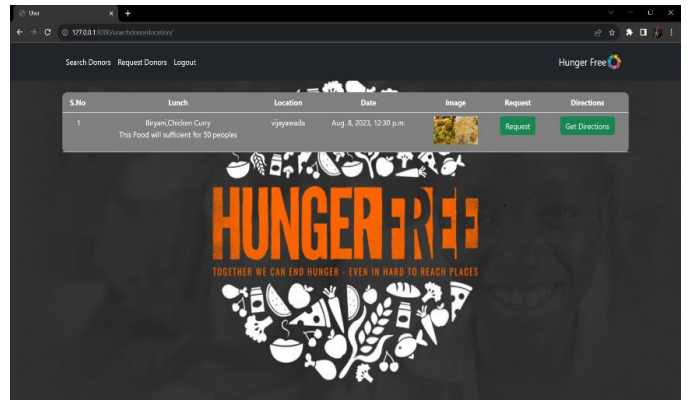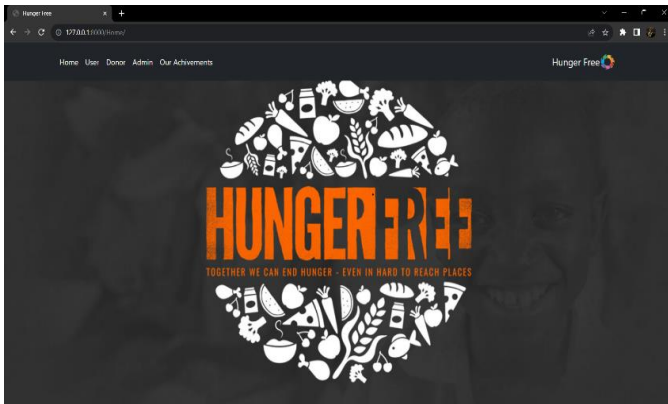
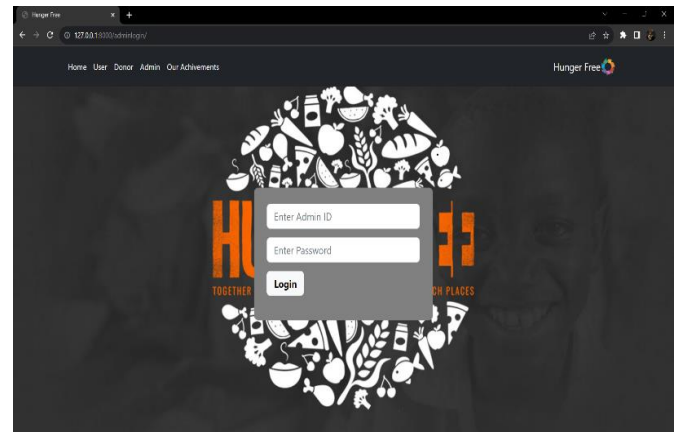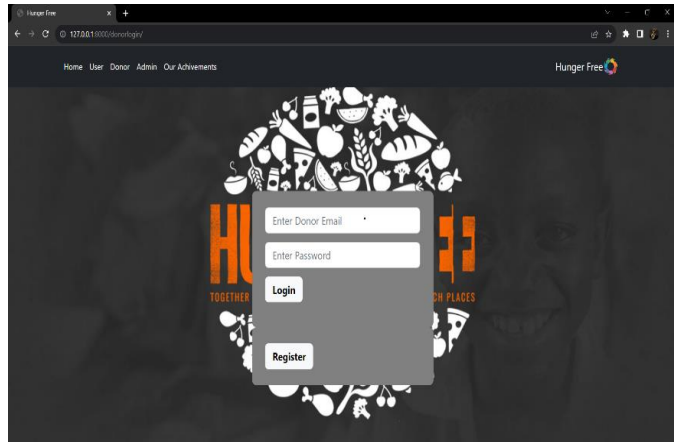*FLOW CHART*
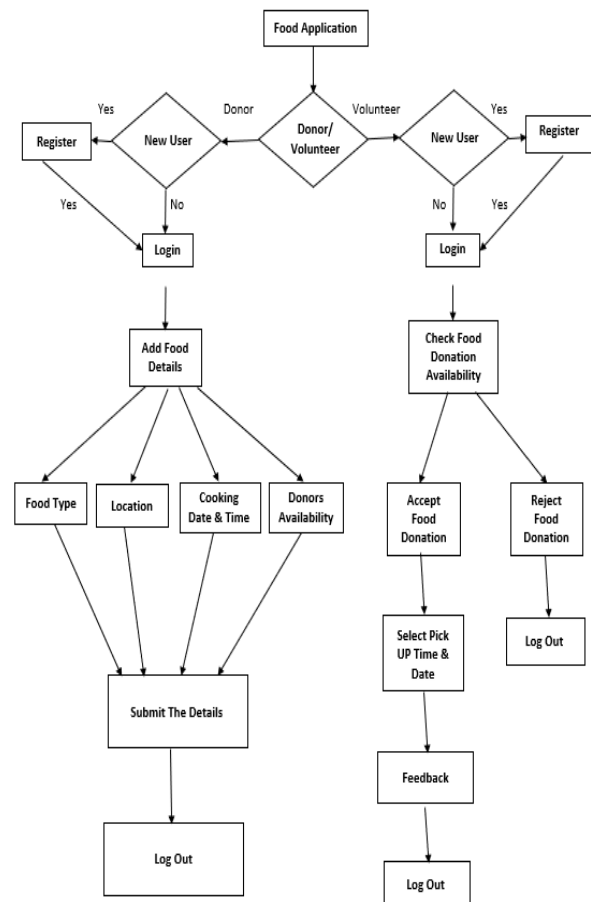
USECASE DIAGRAM

V. RESULT

CONCLUSION

Thousands of food items are wasted every day, and many people go hungry and malnourished. Feed the hungry instead of wasting food. Many organizations/NGOs/restaurants can donate extra food to hungry people through this site. In a country like Bangladesh, where 3.4 million street children live in various cities, this website will help reduce food shortages. You can also follow this website to create a mobile application to save food for orphans. Thanks to this process, our country will be able to reduce food waste by donating and saving food to orphanages and other homes. This e-printing application is a concern for people who need food, such as NGOs and different organizations that help the poor and homeless. This is the time for kindness and wise people to help the poor by giving extra food. Food will be used at the highest price. Now is the time to reduce waste and save our planet from heavy collisions. The electronic application is also easy to use and can be easily created by anyone with basic PC knowledge. Therefore the app will attract more customers. It also encourages research and new ideas that can improve our health. On the other hand, having an assistant will be better than ever. Differences between different sculptures will be minimized in order to create a sense of participation for all residents. Because the Constitution is still brought to the attention of the public and ensures that the dream comes true as expected.

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