

The Food Oasis: Web Application for Food Sharing

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Abstract — The modern age is characterized by rapid technological advancements, largely driven by the Internet of Things (IoT). This technology has become integral to human life. However, amid this fast-paced world, food waste remains a significant issue. Despite the progress, food wastage has seen a severe increase in recent years. According to the Food and Agriculture Organization (FAO), one-third of the food produced globally for human consumption—approximately 1.3 billion tons per year—is wasted. Meanwhile, a World Health Organization (WHO) report indicates that 20% of the global population suffers from severe food shortages. In response to these challenges, we propose the web application for Food Donation, a noble and innovative initiative aimed at addressing the dual issues of food waste and hunger within our community. In a world where a substantial amount of food is wasted while numerous individuals and families struggle with food insecurity, our project seeks to bridge this gap by creating a platform for food sharing and community support. This web-based application is designed to facilitate the collection of surplus food from donors and its distribution to those in need. By leveraging technology, the Food Donation Project aspires not only to reduce food waste but also to make a significant impact on food insecurity in our community. This project utilizes Android Studio and PHP languages are used. For the database, we have used MySQL. This is the foundational concept and primary objective of our project.

Keywords: Food Donation, logistics, NGO, Food waste reduction, Web Application.

I. INTRODUCTION

In a world where an astonishing amount of food goes to waste, and countless individuals face the harsh reality of hunger, the need for transformative solutions has never been more pressing. This Project is a compelling response to these dual challenges that our community faces – food surplus and food scarcity. By harnessing the power of technology and community collaboration, our project sets out to bridge this gap, not just between surplus and scarcity but also between the hearts and needs of our society.

The Project emerges as a beacon of hope, driven by a collective sense of social responsibility and a commitment to making our community stronger and more compassionate. We believe that no one should go to bed hungry when there is an abundance of food that can be shared and enjoyed.

This project centres on the creation of a web application that serves as a central hub for food sharing. It is a virtual platform that connects individuals, businesses, and organizations willing to share their

excess food with those who need it the most. Ensuring that edible food does not go to waste and that no one in our community goes without a meal.

The essential idea of this venture named “Web based application for Excess Food Management” is to gather the abundance/extra food from givers like lodgings, cafés, marriage lobbies, and so on and circulate to the poor individuals through nongovernmental organizations (NGO). NGOs will gather the extra or abundance food from previously mentioned settings for the appropriation to the penniless individuals. NGOs, that are assisting unfortunate networks with fighting against starvation and unhealthiest, can raise a solicitation for supply of overabundance/left-over food from eateries through this application.

The Food Donation Project is more than just a digital platform; it is a movement, a call to action for our community to come together and make a tangible difference. It aspires to reduce food waste, combat hunger, and build a more interconnected and compassionate society.

II. PROPOSED SYSTEM

The proposed system for the FoodDonation Project is a comprehensive and user-centric web application that aims to streamline the process of food donation and distribution, ultimately reducing food waste and alleviating hunger within our community. This system will offer a user-friendly interface accessible to individuals, businesses, and organizations, allowing them to easily list surplus food items and connect with those in need. To initiate their involvement, users will be prompted to register and create profiles, allowing for secure and personalized interactions within the platform. Donors will have the capability to list surplus food items, providing detailed descriptions, quantities, and expiration dates, if applicable. Recipients, on the other hand, will have access to a search and request feature, enabling them to find nearby food donations based on their specific requirements. The platform will incorporate a robust search functionality that enables filtering by location, type of food, and availability. Real-time notifications and messaging capabilities will facilitate seamless communication between donors and recipients, ensuring efficient coordination for food collection or delivery. A secure donation process will be implemented to safeguard sensitive information and protect user privacy. The system will also integrate features for user feedback and ratings to establish trust and transparency within the community. The proposed system is not merely a digital platform but a holistic approach to addressing food waste

and hunger, encouraging a sense of social responsibility, community engagement, and sustainability. It will serve as a powerful tool to bring about positive change and create a stronger, more interconnected society that values the sharing of food resources for the benefit of all. Overall, this proposed system aims to create an intuitive and reliable platform that maximizes the impact of food donations, fosters a sense of community, and ultimately addresses the critical issues of food waste and hunger in our society.

A. WORKING PRINCIPLE

This online application for food squander the executives incorporates three modules like Administrator, Benefactor (Client) and Operations (conveyance framework). Every module incorporates enlistment and login to the site. Giver enlistments will be confirmed by the administrator to keep away from the trick or phony demands or phony supplies. After check, both will raise a solicitation for gift and need. Administrator can see the solicitations and supplies and cause them to impart by trading the subtleties in view of the accessibility, type and amount of food from the Benefactor to the penniless one. Furthermore, last conveyance kid takes the food from client and convey to mentioned individual.

SYSTEM DESIGN

B. Flowchart of System

- Start
- Open the FEMS Website.
- Access your account.
- If you don't have an account, create one by signing into the app.
- Enter valid Email Id or Mobile Number and password and click on LOG IN.
- Upload details of food, view details and also connect to the NGO.
- Stop

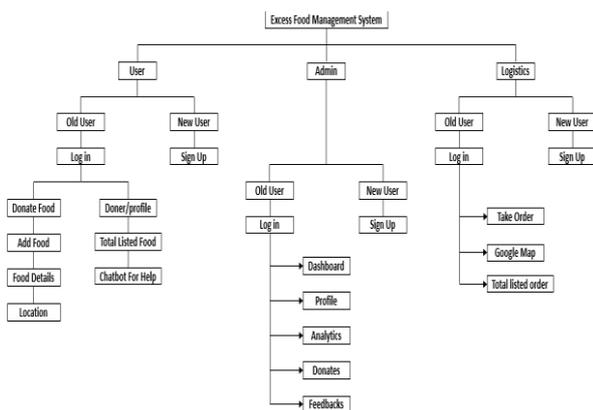


Fig 3.1: Flowchart of system

C. Workflow Diagram : The Workflow diagram having various intermediate steps from requirements to implementation. The said all steps are demonstrated using figure 3.2.

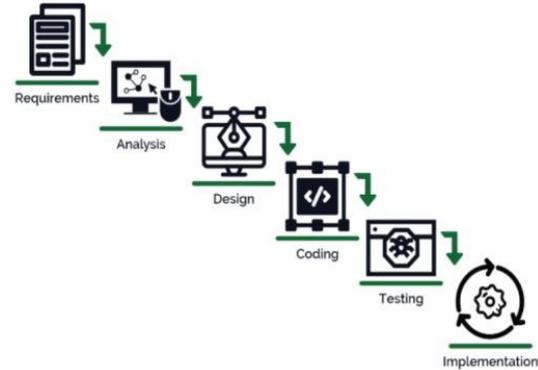


Fig 3.2: Working Flow operation

The system comprises of Three major modules:

- a. Admin:
 1. View the solicitation raised by Benefactor and strategies.
 2. Accept or deny the solicitation from the clients after check genuine data or not.
 3. Mapping the Operations with NGO and Giver.
 4. View the grievances and ideas about the solicitations and can answer it.
 5. View the number of doners are there by their orientation and area
- b. Donor (User):
 1. Register with name, username, secret phrase and some private data.
 2. Login with enrolled Username and secret phrase.
 3. Raise the solicitation with subtleties like Food name, feast type, Amount, Address, number of bundles that can be sent and area.
 4. View the raised demands and can see the status in regards to whether the solicitation is acknowledged or denied by the Administrator.
 5. Can give grievances or ideas about the site abilities.
 6. Also use chatbot for help
- c. Logistics (Delivery System):
 1. Register with name, username, secret key and some private data.
 2. Login with enrolled Username and secret word.
 3. View the raised demands and can see the status in regards to whether the solicitation is acknowledged or denied by the Administrator.
 4. Take Orders

5. View googles map
6. Can give grievances or ideas

III. EXECUTION

In the landing page, the clients must be enrolled in different jobs like Giver, NGO or Strategies. After enlistment, they can raise the solicitations with the accessibility for givers, prerequisites for NGOs and vehicle subtleties in their particular logins. Then, at that point, the administrator can login to his current circumstance and can either acknowledge or keep the solicitations from getting the giver and the NGO. And furthermore, he will plan the Benefactor with NGO alongside the coordinated operations, utilizing the planning highlight accessible in the site



Fig 5.3 Home Page (Donor)



Fig 5.1 Home Page of the Website



Fig 5.4 Chat-Bot for Support

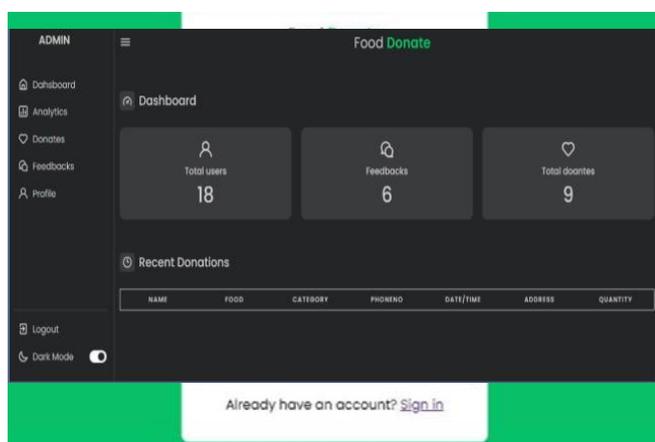


Fig 5.2 User Registration Page

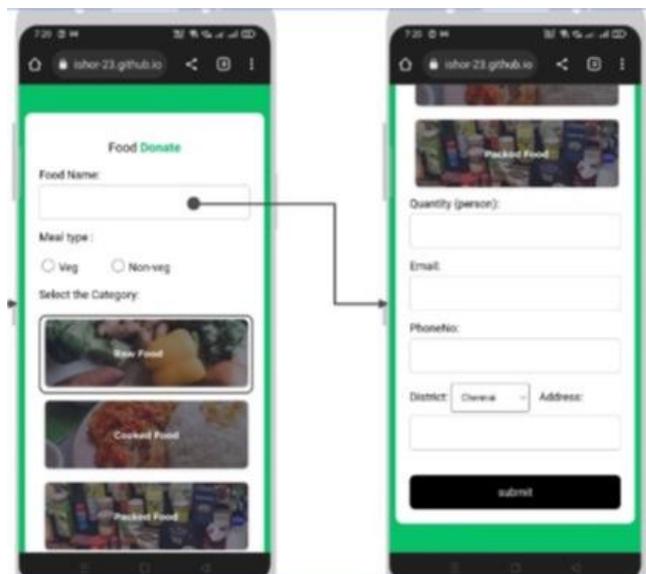


Fig 5.5 View Raise (Donor)

IV. CONCLUSION

The Food Donation Project stands as a testament to the power of human compassion and innovation in addressing the pressing issues of food waste and hunger within our community. Throughout this project, we have outlined our vision, objectives, and the proposed system, system execution and now, as we reach its conclusion, we reflect on the transformative potential it holds.

Our vision was not just to create a web- based platform but to foster a sense of shared responsibility and community. By connecting surplus food with those who need it, we hope to not only reduce the staggering amount of food that goes to waste but also alleviate the suffering of individuals and families who struggle with food insecurity. This project has the potential to transform lives, one meal at a time.

The proposed system we have outlined is more than just a digital tool; it is a bridge between hearts and needs. It offers a user- friendly interface that empowers donors to share their surplus food with ease, and recipients to find nourishment in their times of need. The features for real-time communication and user feedback will create a network of trust and transparency, which is essential in building a thriving community of food sharing.

As we conclude this project, we are not merely reaching an endpoint but embarking on a new beginning. The success of the Food Donation Project hinges on the engagement of our community. It calls for the involvement of local businesses, individuals, and organizations to come together and make a lasting impact. The potential for a society where no one has to go to bed hungry is within reach.

In closing, the Food Donation Project invites you to be a part of this meaningful journey. Together, we can create a more compassionate, connected, and sustainable community where food is shared and enjoyed by all. The opportunity to combat food waste and hunger is within our grasp, and by joining hands, we can turn this vision into a tangible reality.

Let us embark on this journey together, knowing that our collective efforts can make a world of difference.

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