

## “Android App to Track Product Expiry Notifier”

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**Abstract** — The modern age is an era of fast-growing technology, all thanks to the Internet of Things. The IoT becomes a prime factor of human life. As in this running world, no one cares about the wastage of food. The severe gradual increase in food waste can be seen in recent years. According to Food and Agriculture Organization (FAO), one third of food produced by humans for human consumption is wasted all over the world, which is almost 1.3 billion ton per year, on another side 20

% of people in all over population struggling for food in severe food shortages as per a WHO's report. Our work is introducing a new approach. The Food Donation Project is a noble and innovative initiative designed to address the dual challenges of food waste and hunger in our community. In a world where an alarming amount of food goes to waste while many individuals and families go without enough to eat, our project aims to bridge this gap by creating a platform for food sharing and community support. This web-based application helps to collect the food from the donors and to distribute to the needy people. The Food Donation Project aspires to not only reduce food waste but also make a significant impact on food insecurity within our community. This is the basic concept and the main objective of this project.

**Keywords:** *product data, Client, Server, PHP, MySQL*

### INTRODUCTION

In a world where an astonishing amount of product 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 basic concept of this project entitled “Web based application for Excess product Expiry Notifier” is to collect the excess/leftover food from donors such as hotels, restaurants, marriage halls, etc. and distribute to the needy people through NGOs. NGOs will collect the leftover or excess food from above mentioned venues for the distribution to the needy people. NGOs, that are helping poor communities to battle against starvation and malnutrition, can raise a request for supply of excess/left-over food from restaurants through this application.

## I. PROPOSED SYSTEM

The proposed system for the Product Expiry Notifier is a comprehensive and user-centric web application that aims to streamline the process of food Expiration 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 product, and availability. Real-time notifications and messaging capabilities will facilitate seamless communication between users and recipients, ensuring efficient coordination for product 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 product waste and hunger in our society.

## II.I Working principle

This web-based application for product expiry notifier includes modules such as Admin, Donor (User) and Logistics (delivery system). Each module includes registration and login to the website. Donor registrations will be verified by the admin to avoid the scam or fake requests or fake supplies. After verification, both will raise a request for donation and need. Admin can view the requests and supplies and make them communicate by exchanging the details based on the availability, type and quantity of food from the Donor to the needy one. And last deliver to requested person.

## II. SYSTEM DESIGN

### II.I. Flowchart of System

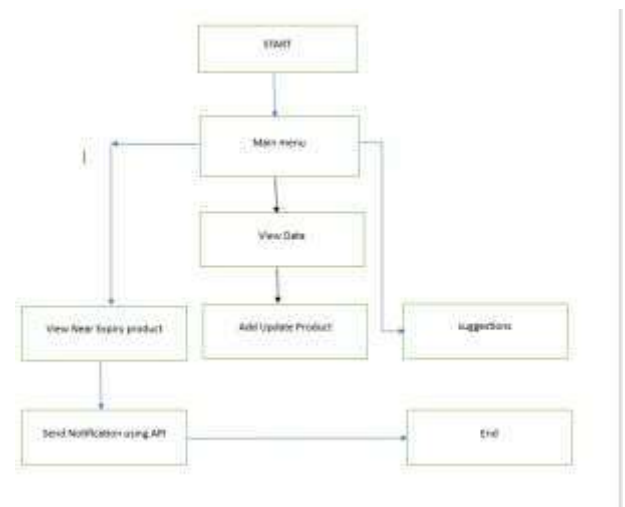


Fig 3.1 Flowchart

### II.II. Workflow diagram

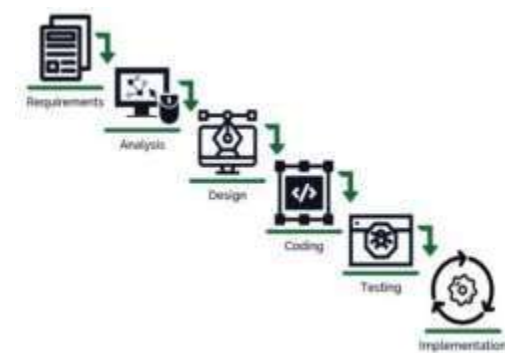


Fig 3.2 Workflow diagram

## III. SYSTEM IMPLEMENTATION

The system comprises of one module

### A. User

**Sign-Up Process:** Provide areas for users to provide details about the items they handle or interact with, including expiration dates if relevant, when they register as logistical staff or donations. During the registration process, make it extremely evident how important it is to provide precise product details, including expiration dates, in order to facilitate donation and delivery. The login procedure should safely authenticate users and direct them to the relevant dashboard according to their job (login, admin, donor, or logistical).

## IV. EXECUTION

In the home page, the users have to be registered in various roles such as add product, NGO or Logistics. After registration, they can raise the requests with the availability for donors, requirements for NGOs and vehicle details in their respective logins. Then the admin can login to his environment and can either accept or deny the requests of the donor and the NGO. And also, he will map the Donor with NGO along with the logistics, using the mapping feature available in the website

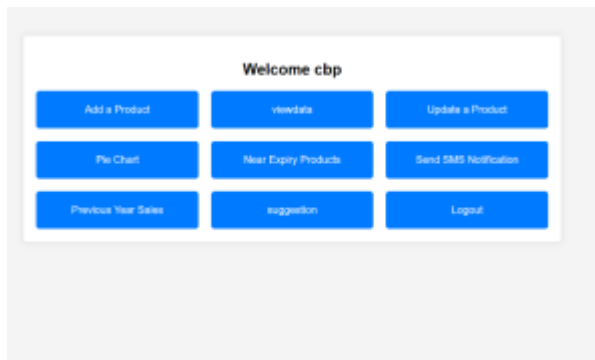


Fig 5.1 Home page of the website

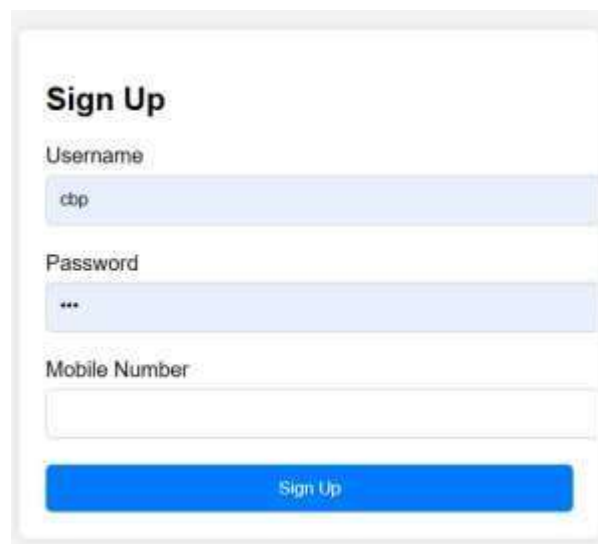


Fig 5.2 User registration page

Name	Quantity	Price	Manufacture Date	Expire Date	Sold
Bread	50	\$21.00	2024-04-28	2024-07-30	No
Milk	100	\$25.48	2024-04-28	2024-06-06	No
Eggs	200	\$23.99	2024-04-28	2024-05-10	No
Sugar	50	\$22.48	2024-04-28		No
Salt	50	\$20.99	2024-04-28		No
Tee leaves	100	\$30.99	2024-04-28	2025-04-28	No
Coffee powder	100	\$28.99	2024-04-28	2025-04-28	No
Rice	100	\$27.99	2024-04-28	2025-04-28	No
Lentils (Da)	100	\$29.99	2024-04-28	2025-04-28	No
Cooking oil	50	\$26.48	2024-04-28	2025-04-28	No
Flour	50	\$24.99	2024-04-28	2025-04-28	No
Biscuits	100	\$21.28	2024-04-28	2024-12-28	No
Potatoes	100	\$20.48	2024-04-28	2024-05-10	No
Onions	100	\$20.29	2024-04-28	2024-05-10	No
Tomatoes	100	\$22.28	2024-04-28	2024-05-06	No

Fig 5.3 product view

Fig 5.4 notification send

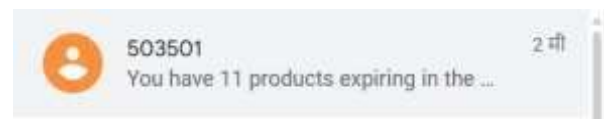


Fig 5.5 notification for Support

Product: Milk	Expires on: 2024-06-05
Product: Eggs	Expires on: 2024-06-10
Product: Potatoes	Expires on: 2024-06-10
Product: Onions	Expires on: 2024-05-11
Product: Tomatoes	Expires on: 2024-05-06
Product: Bananas	Expires on: 2024-06-02
Product: Apples	Expires on: 2024-06-03
Product: Oranges	Expires on: 2024-06-03
Product: Bottled water	Expires on: 2024-06-05
Product: Soft drinks	Expires on: 2024-06-05

Fig 5.6 Expiring product page

## V. 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.

Conclusively, the Product Expiry Notifier offers a pragmatic and user-focused resolution to the enduring problem of overseeing product expiration dates. Through the use of PHP, MySQL, and the Fast2SMS API, this application enables users to take proactive steps towards mitigating product waste and guaranteeing the consumption of safe, fresh products.

During this project's conception and execution, a number of significant advantages have surfaced. In order to improve inventory management and lower the chance of eating outdated items, customers are first given a handy platform to arrange and monitor the expiry dates of their products. Second, the addition of SMS notifications using the Fast2SMS API improves the system's usability and accessibility by guaranteeing that users, irrespective of their online presence, receive timely alerts.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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