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Food Wastage Management System

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ABSTRACT: This paper is used to manage Donation foods in a useful way. Everyday people are wasting foods, So we have to reduce that food Donation problem through mobile. If anybody has Donation foods they click message send button and it will send the message of food availability, location information and their registered mobile number to nearest (30km) food donators. Then who will make a call first they will get the food. This system is android based application provides interaction between mobile users and NGO's.

KEY WORDS: Food Wastage Management, Short Message Service, Google Maps.

I. INTRODUCTION

In the country where the commercial status has reached in a stage that tons of available edible food is heaved away as waste in every stage of the marketing. Food wastage is estimated 25 percentage of the available amount of succulent food. The food is important energy demanding product group and resource. The prevention of food waste can be done by contributing to save resources to reduce environmental impact during all stages of marketing system. This paper evaluates the challenge faced by needy people and animals due to food wastage and the way we can manage wastage of food.

A. Problem Statement

- Food waste is a major issue, with tons of edible food discarded daily while many go hungry.
- Wastage occurs at all levels – homes, restaurants, supermarkets, and supply chains.
- Environmental harm – Rotting food in landfills releases harmful gases, increasing pollution.

B. Objective

1) Market to Satisfy Expectation of a Guest
2) The process of purchasing receiving, storing issuance and preparation of foodstuffs and other beverages for final provision
3) Efficient Formulation Control System
4) To that the project performed according to an app specification by which they provide all requirements, specified so as to not suffer from any kinds of problem they face while they keep records all their required data.

C. Purpose of Project

1) Use of technology and reduce efforts
2) Utilization of extra food to nourishments needy people.

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II. SIGNIFICANCE OF THE SYSTEM

The aim of system is to make sure that food is not wasted and provided to needy people as nobody intends to waste food in the beginning, some situation in marketing behavior and individual lead to the food waste. People waste edible food as an achievement that indicates our population. Throwing of food is a distressing problem everywhere. The street and trash bins depository have more food as a hint to prove it. The functions and party halls of hotels throw out so much food. In the united community evolution setup is up to forty percent food is composed is starved. Fifty thousand. In total, every time crore amount of food is thrown and wasted. "World Environment Day" operation conducted in this year is on subject "Think Eat Save". The operation is based on anti-food diffusion and bread loss. The politics action is answerable to needy people facing complication in food today. The civilization and traditions are playing a lead role in drama of wasting edible food. The gigantic wedding conducting consists of largest dinner of variety foodstuff. The succulent food which is wasted could be reorganizing for human utilization. Throwing available and edible waste food can be simply nourished by someone else and is sheer wastes of resources. orphanage works as food collectors, collects food and redistribute dry food and cooked food from donor to community centers (needy people). The approach deals with collecting the food waste by orphanages and donating to needy people (charity homes), considering the types and sources of food. The approach support orphanage to collect surplus food waste from donor and donate that food to needy people. Food is currently accessible in large quantities for supply to the Angio. Food must be consumed within 2-3 hours. Please contact us before the deadline.

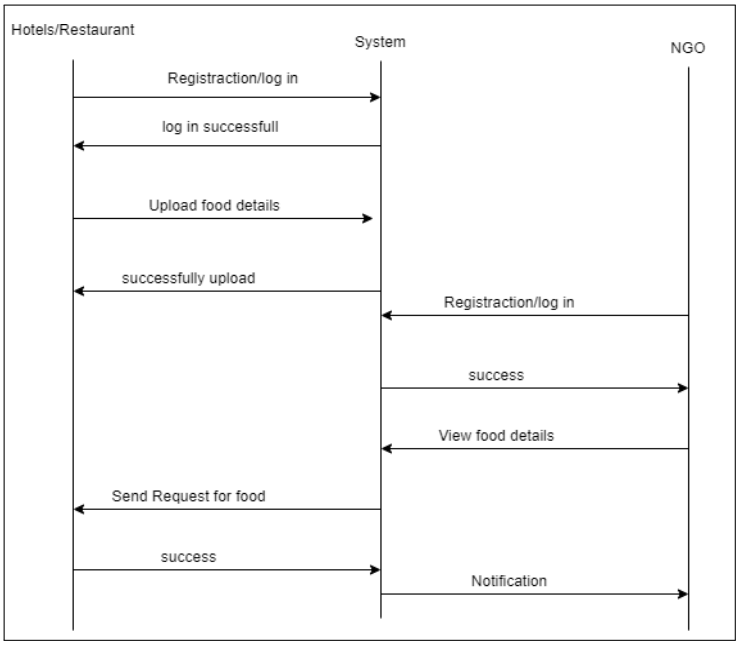

Figure 1: Sequence Diagram

III. LITERATURE SURVEY

We have found different papers related to food management system.

1.Paper Name: FoodX, a System to Reduce Food Waste Publication: IEEE 2020 Author**: JShinta Oktaviana R, Diana Ambarwati Febriani, Intan Yoshana ,LR. Payanta**

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Summary ::- Food waste is a serious problem that occurs in various countries. Indonesia is a country that produces food waste, the second largest after Saudi Arabia. Currently, there are several communities who care about the issue of food waste and hunger in Indonesia. The Community collects excess food from eligible donor consumption to be distributed to people in need. They have the aim to reduce the problem of food waste and numbers starving in Indonesia. However, the process of channeling food to donors and the community is still practically a manual where the community contacts the donors one by one, so it is considered less effective. This research aims to create a system to connect the community with individuals or organizations that want to donate excess food. In order for users to give faster feedback, this system was made using the prototype methodology. At the final stage of the development, testing was carried out by involving several volunteers and 3 communities to see the completeness of the features system. FoodX system made already accommodate the needs of 2 types of food communities (with and without volunteer) and provide security. Authors have concluded that this system is important for commercial places; they have discussed few advantages of the system.

2.Paper Name: A Food Wastage Reduction Mobile Application Publication: IEEE 2018 Author: **Ayesha Anzer, Hadeel A. Tabaza, and Wedad Ahmed ,Hassan Hajjdiab**
Summary ::- Wasting food is a common problem in our society. Food waste management is crucial since it can improve our environmental and economic sustainability. We have identified the use of mobile technology to reduce food waste management and built an android mobile application that allows restaurants to donate and share their foods and leftovers with people in need. This app will enable users to register, login, view items, add items, add items to cart, remove an item from the cart, and log out. This app is using the firebase storage and real-time database. Any user in need can see all the food images donated by different users and add it to his or her cart.

3.Paper Name: Smart Resource Management: Civic Engagement and Food Recovery Publication: IEEE 2019 Author: **Irini Spyridakis ,Madison Holbrook , Brent Gruenke ,Srinithi Sellakumaran Latha**
Abstract ::- Food waste is a prevalent issue worldwide. Close to 15 percent of households in the U.S. are food insecure. The U.S. wastes up to 40 percent of food, disposing not only food, but also wasting precious resources ranging from land, water, labor, and energy in the production and transportation of food from farm to consumers. At the University of Washington (UW), a research group in the department of Human Centered Design Engineering (HCDE) designed a solution to food waste by creating an interactive, responsive open source website (Meal Matchup) to facilitate food donation and connect dining hall managers, local shelters, and student deliverers. This paper focuses on the consequences of food waste as well as how Meal Matchup manages resources and helps deliver leftover food to those in need through the use of technology, volunteerism, and civic engagement.

4.Paper Name: DOVIR: Virtualizing Food Donation Distribution through Mobile Application and Cloud-Based Supply Chain Management Publication: IEEE 2021 Author: **Divy Chhibber, Aditi Tripathi and Sandip Ray**
Abstract ::- Food insecurity, the lack of access to safe, nutritious and adequate food, has remained a persistent and major problem in our society, particularly in low-income communities. It leads to many serious consequences, including hunger, malnutrition in children, poor health conditions in adults and early mor- tality. One direction to address food insecurity is to facilitate streamlined food donation from communities with surplus food. In this paper, we present an approach, DOVIR, to address this crucial problem. DOVIR includes mobile smartphone application together with cloud-based services to create a virtualized infras- tructure for enabling precise, in-time food donation. We discuss the architecture of DOVIR, and several design considerations to ensure its practical viability.

IV. METHODOLOGY

In the proposed system architecture, orphanages and NGOs will be registered on a centralized government platform, categorized by their geographic locations. This registration will include basic information about each member, allowing the system to effectively calculate and monitor their daily food requirements. Alongside these organizations, hotels, caterers, and event organizers will also register on the platform, Instituted is a daily fixed amount of food to orphanages and NGOs closer within the proximity so that surplus food is properly rerouted to the needy without wastage. The system architecture also leads to allocation of food based on availability and proximity with real-time tracking on food donations. Considering that food should be consumed within 2-3 hours of preparation, it also has time-sensitive notifications for this platform to ensure food delivery and consumption before the expiration window, enhancing the efficiency of the distribution process.

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A. System Architecture

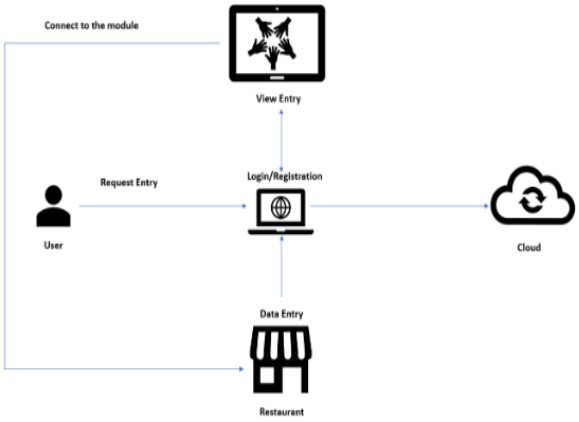

Figure 2: Architecture Diagram

In Data Flow Diagram, we Show that flow of data in our system in DFD0 we show that base DFD in which rectangle present input as well as output and circle show our system, In DFD1 we show actual input and actual output of system input of our system is text or image and output is rumor detected like wise in DFD 2 we present operation of user as well as admin.

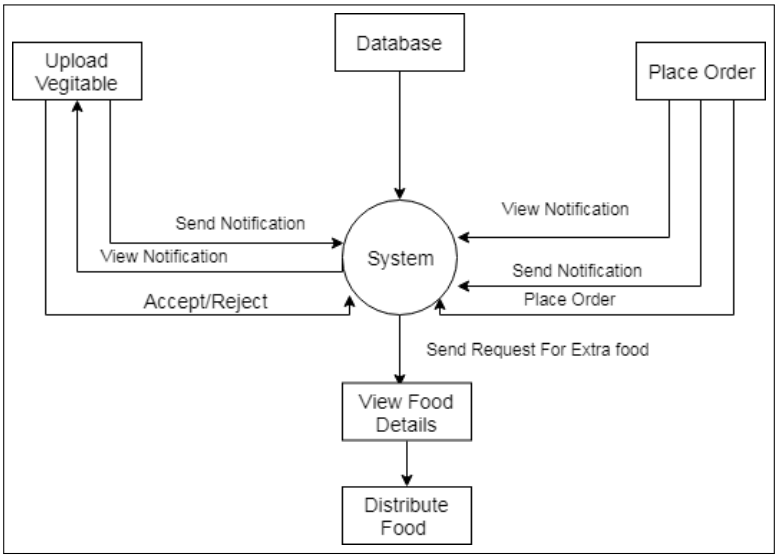

Figure 3: Data Flow Diagram

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V. CONCLUSION AND FUTURE WORK

This approach bridges the gap between NGOs and donors, ensuring that surplus food reaches those in need instead of going to waste. By creating a seamless connection between food providers and NGOs, we make it easier for restaurants, hotels, and event organizers to donate without hassle, while those in need receive timely nourishment. With food availability increasing, this initiative not only fights hunger but also promotes responsible resource utilization.

Looking ahead, we aim to **enhance efficiency through technology**, such as **AI-driven waste tracking, real-time donation alerts, and automated logistics coordination.** Expanding partnerships, integrating mobile applications, and implementing smart food storage solutions will further **minimize waste and maximize impact.** By refining this system, we can create a **sustainable, scalable, and deeply compassionate food redistribution network—one that truly serves humanity**

VI. ACKNOWLEDGEMENT

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