

Food Rescuer

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ABSTRACT

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Food is produced in sufficient quantities to feed all of humanity. Despite this, about a billion people go hungry every day. Between one-third and half of all food produced worldwide is wasted or lost each year, according to estimates. This quantity will be sufficient to feed twice the world's needy. Solutions to all the food waste problems may become accelerators of legislative improvements, social development, environmental governance, and corporate innovation if they are thought out thoroughly. This system mainly concentrates on treating food wasted or stored, smartly and effectively by, Selling excess food online on daily usage by restaurants through separate e-commerce. In restaurants, auditing food wastage helps in analysing how much of food is wasted and how well can it be prevented. It also builds a stable finance to orphanages. The goal is to send food to those need food and who can't afford it

Keywords : - Food waste Challenge, Social development, environmental governance, selling excess food, stable finance

I. INTRODUCTION

Over 12 billion people are dying of hunger and in sooner or later, huge quantities of food gets wasted in India alone and Covid pandemic has made it even worse. a technique of reducing the food wastage is to channel it to needy people. Considering the restaurant industry during this pandemic where business is extremely unpredictable due to the lockdown and time restriction which results in surplus food getting wasted. within the same way there are lots of NGO's and communities littered with a shortage of food and resources Food waste could be a global issue that's currently the middle of attention of the globe community. Every country within the

world to trying to develop various methods to contribute in solving this problem. According to the FAO, refuse refers to food fit for human consumption that has been abandoned, whether it has been held over its expiration date or has spoiled. This is frequently due to food spoilage, but it can also be due to other factors such as market surplus or individual customer shopping/eating habits. In this scenario, in order to aid the globe in reducing food waste, the proper solution is essential to lessen this problem. There is enough food produced across the world to feed everyone on the planet. Despite this, nearly one billion people go hungry. Between one-third and half of all food produced globally is wasted or lost each year, according to estimates. This quantity is

sufficient to feed double the number of hungry people on the planet. When thoroughly considered, solutions to any or all of the waste concerns might serve as catalysts for legislative changes, socioeconomic evolution, ecological regulation, and corporate development. this technique mainly concentrates on treating food wasted or stored, smartly and effectively by, Selling excess food online on daily usage by restaurants through separate e-commerce. In restaurants, auditing food wastage helps in analyzing what quantity of food is wasted and the way well can or not it's prevented. It also builds a stable finance to orphanages. The goal is to send food to those need food and who can't afford it. Food banks are often forced to buy food supported their requirements, since they need difficulty procuring enough and therefore the correct type of food. Furthermore, in certain circumstances, an absence of appropriate tools, equipment, and infrastructure affects response capacity in response to contribution offers, limiting the amount of prospective beneficiaries who may be supplied. As a result, food banks in some parts of the globe are having difficulty collecting funding from both governmental and private sources to buy the mandatory foundation, program, and hardware to boost the contribution process of processing and administration



Figure 1. Working of a food bank

And except for the organization of food banks and therefore the personnel a bank's logistics are essential

have remained simple: the donor informs the bank of his or her intention to donate products, and also the bank and Additionally, the donor and the recipient agree on how the items will be supplied as well as the advantages that will be received by the donor. the method of receiving commodities takes place at the bank's distribution center, where the things are stacked on pallets so classified, with any products that are unsuitable for human consumption being eliminated. The packing procedure is completed at the top. The storing process is introduced if necessary. Once this process is finished, the fund's administrative department will notify the foundations.

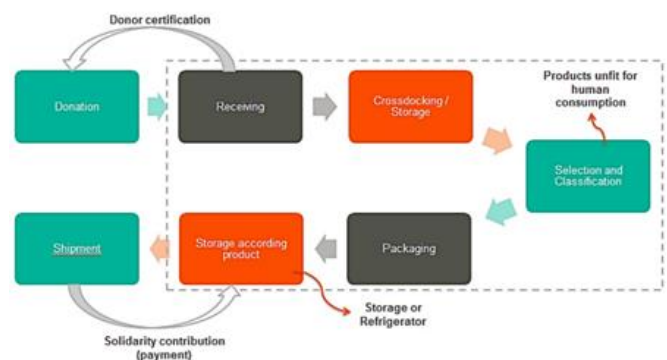


Figure 2. Logistics in an exceedingly bank

These processes usually receive food with the following:

1. There are flaws in the otherwise excellent presentation.
2. Expiration date is short.
3. Items have a low turnover rate.
4. Goods in a condition of ripeness that necessitates immediate consumption.

This network is devoted to assist existing bank systems, broaden their operations, increase impact, and deliver food to more hungry people and creation of Food Rescues Project aimed to form bank and dealing alongside with NGO to make new food banks.

The main objective of developing is to decrease the number of food that's wasted and to those who are in need. As a result, an android-based application was

developed that allows people to count food depending on their abilities while also assisting companies in presenting requests to meet their demands. To use the Food Donation Project System app, you'll need a smartphone at the very least.

II. EXISTING SYSTEMS

Those who wish to give products must currently visit the organization in person and offer food or other supplies. They'll have to hunt for websites where they can donate leftover food if they don't do so. On a regular basis, large manufacturers, wholesalers, and organized communities contribute food to food banks or squander tonnes of food. They'll have to find a food-insecure group. This procedure takes a long time since it necessitates contacting the company to confirm the necessity. If the individual does not require the meal, they must seek assistance from another charity. As a result, the donor gets exhausted and depleted.

III. PROPOSED SYSTEM

Users who are looking for a means to donate leftover food without wasting it can utilise the food donation app as a conduit. It enables us to provide additional food by telling nearby users of the available food. The needed users have claimed the notification.

The food goods are the most often used, and they are distributed proportionately.

- The Food Donation Project System programme is set up in such a way that users have two options.
- If a person wishes to donate food, they must first log in using their username and password, and then fill out the application with the following information:
 - the food item's name and the extra amount
 - The position of the user as determined by GPS.
 - Information on how to gather leftover food.

The knowledge about the donors is made public on the app, and anybody can claim the meal.

- If the user is claiming food, he must supply the address as well as the contact information for the organisation to which he belongs

The structure is set up in such a way that one or more persons can claim the meal. If there are several people claiming the meal, the app divides up the work and grants requests on a first-come, first-served basis. The amount of food saved and the number of people served are shown in graphs and reports. The success rate is calculated using the influence of lowering the hunger rate.

IV. NEED FOR THE PROJECT

A. STRATEGIZE

- Target User

Based on this problem statement, restaurant owners were targeted as they will have surplus food wasted from their restaurants and need to find out what will they do with that food. Also the Organisations who were in need of food.

- Business Goals

According to the competitive research where users where not having an exact procedure to achieve their goals, here are the list of goals I want to sat before getting into the process

B. EMPATIZE

- User Interview

My target were the restaurants and the NGO's to the main objective of "What will you do with the surplus food? / Where. kind of food will you receive when anyone donates?"

• User Journey Mapping

My target were the restaurants and the NGO's to the main objective of "What will you do with the surplus food? / Where and of food will you receive when anyone donates?



Figure 3. Process in a Food Bank

V. ARCHITECTURE FLOW

This method allows us to keep a track on the user's usage path of the application and to avoid confusion if we are stuck at a particular step

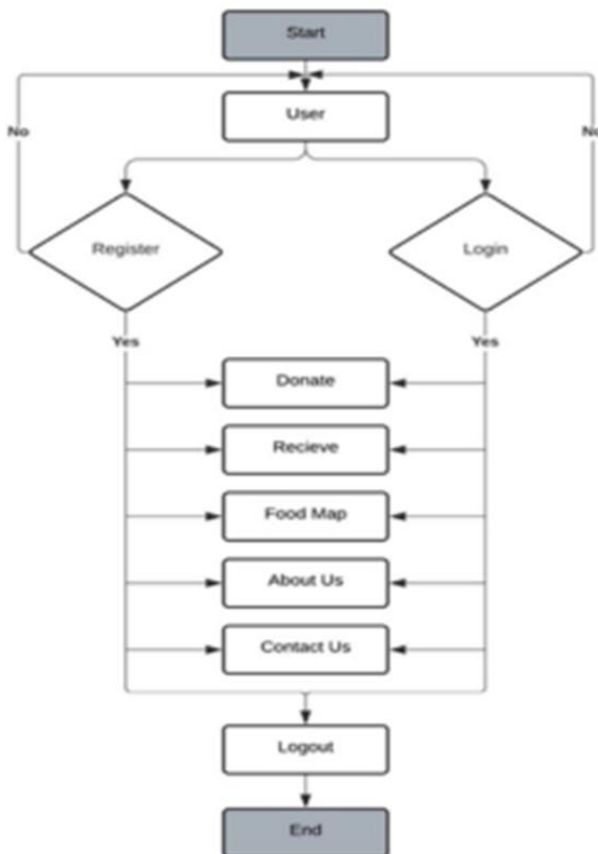


Figure 3. Flow Diagram for Food Rescuer App

VI. ADVANTAGES

These are set of features to be listed in the app to increase the usability and also awareness of hungry people to the Restaurant Owners.

1) Posting Availability of food

People who are need of food can know the food availability status instantly. The donor who don't want to waste time in searching can immediately post the food availability to reach out to the needy people.

2) Communities, Organisations and Volunteers

Same as restaurant owners, even communities and volunteers can also register in this app to know the availability of the food. Donor can choose any of the organization or community to directly donate to them. Volunteers are people who help the needy due to their helping nature.

3) Adding Hunger Spots

People who know about a spot where there are hungry people and in need of food can add their location here. Communities and volunteers who collect and delivery.

VII. MODULES

1. Sign-up and log in: The user has to sign in with the name, email ID, contact number, and address.
2. Donating the surplus food: The user has to choose the activity if donating or claiming the surplus food. It is required to fill the contact address where the food is available.
3. Claiming the surplus food: If the user claims for the surplus food, need to specify the organization name with address and contact details.
4. Data Analysis with Reports: Once the data gets recorded, the system generates reports with the total number of people fed and the total quantity of food donated.

VIII. CONCLUSION

Hundreds of thousands of tons of food are either lost or wasted while millions of people suffer from malnutrition. A plausible initiative are the food banks in which large retail chains and potentially other organizations can donate food. This food is collected and delivered by food banks to people in need. Such food banks have helped thousands of people but still the percentages are negligible as compared to the large quantities of food that are wasted with no more reason that destroying is cheaper. On the other hand, food banks have also their own problems: Poor distribution strategies, informality in handling and delivering food, lack of infrastructure, the mismatch between the supply and nutrition needs, among others. As consequence, research and actions are needed to improve the efficiency of food banks. City governments have a major role as well, and there is still more to be done: Without large investments, social policies that support food donation and measures to reduce consumer attitudes toward food waste may be adopted. For example, reducing or excluding taxes for those who donate can easily be done without having a significant impact on the public finances; attempting to implement cultural campaigns to promote awareness of nutrition as a scarce resource; promoting equitable access to food; encouraging manufacturers to donate food to low-income population campaigns, and so on.

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