

Remnant Food Donation System Using Full Stach Web Development

Alok Kumar Gupta¹, Ayush Kumar Choubey², Aman Kumar Srivastava³, Himanshu Tripathi⁴

^{1,2,3,4}Department of computer science And Engineering , Institute Of Technology And Management Gida Gorakhpur, India.

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Abstract: An important goal in our world today is to eliminate food waste by reutilizing available food sources within local communities: leftover food items in restaurants, stores and food distribution centers that may be approaching expiration; and any perishable items not used in entirety within their desired period. This is highly significant, particularly during crises such as the COVID- 19 pandemic. This paper focuses on creating an interesting mobile application (app) called Seva that provides a ubiquitous platform wherein users can visualize available food resources in their local area and consequently gain access to food, thereby tackling two major issues, i.e., hunger and food waste. This app is pertinent to the user and fits the general realm of AI for Smart Living in Smart Cities. In addition to entailing IoT (Internet of Things) and ubiquitous computing, this work makes positive impacts on both healthcare and environment by reducing hunger and food waste respectively. We describe our Seva app development using principles from AI, and especially HCI (Human Computer Interaction), along with its evaluation encompassing user surveys. We also list some open issues with the scope for future work. The focus of this project is to reduce the amount of food wasted and being used to the needy people. Therefore, an android-based application is developed by which a person can donate food with their capacity and at the same time the application lets the organization put their request on their requirements. In this project the guest can login & enter their Location, amount of food and type of food available. Then a simple notification is given to the agent. After seeing the notification, the agent among that location can login & can gather the details of the donor. The donor can hold an account in this application & whenever there is food wastage, he can login and enter the details of food and location. The agent can also hold an account and can retrieve the details. After retrieving the details, the agent can collect food from the donor and redistribute it to the orphans or others.

Key Word : AI in Smart Cities ; App Développment ; COVID-19 ; Food Waste Elimination ; HCI ; Healthcare ; Hunger Allevain ; IoT ; Smart Living ; Ubiquités Comptions.

I. INTRODUCTION

These days, in highly populated countries like India, food wastage is a big issue. A lot of food is thrown away in garbage bins, streets, and landfills. Marriages, canteen, restaurants, social and family get-together and functions expel so much of food. Food wastage is not only an indication of pollution or hunger, but also of many economic problems. Instead of wasting food we can put them in use by donating them to various organizations such as orphanages, old age homes, NGOs, etc. participants to ensure the food delivery. A lot of food is thrown away in garbage bins, streets, and landfills. Marriages, canteen, restaurants, social and family get-together and functions expel so much of food. Food wastage is not only an indication of pollution or hunger, but also of many economic problems. Instead of wasting food we can put them in use by donating them to various organizations such as orphanages, old age homes, NGOs, etc. participants to ensure the food delivery. This is an internet based mobile application for the NGO named Jan Visas Singh This system creates a common collaboration between a donor and a volunteer from the NGO where the donor uploads all the food details at the same time the volunteer receives a notification of availability of the food once the donor uploads it successfully. This system will create a common collaboration portal for hotels/restaurants and charities. Charity can directly contact restaurants who have food remaining and report generation which will show how much food is donated by which restaurant and provide reward points for them.

II. OBJECTIVES

Minimizing food wastage and feeding the hunger is the main goal of the food donation project Donating to the needy not just benefits the recipient, it also benefits the donor in improving the physical, psychological, emotional and spiritual well-being. However, you need to do your research about the charitable organizations that share the same interest as yours.

Prospects in which Donation is Beneficial for the Donors:

Education

For many donors, donating is a platform for knowing about the issues surrounding that particular need. Most people choose to learn about the issues, before donating, to get the wider perspective.

Donating to the needy gives new information and reveals a different point of views about different social issues such as homelessness, hunger or poverty.

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Community Donating to the needy is a great way to improve the conditions in your neighborhood or community. Donating food to the worthy people or organizations helps counter poverty, hunger and at the same time, it can improve harmony, friendliness, and trust among residents. It has been found that charitable donations promote increased levels of prosperity, and boost health, happiness, cooperation, goodwill, and strong communities. Health It has been observed that generosity releases endorphins that generate feelings of calmness, peace, gratitude, and satisfaction which help in easing tension and stress.

Thus, people who help the needy get the benefits in terms of stronger immune system, lower heart rate, increased energy, lesser pain, and lower blood pressure.

Are you interested in food donation? Would you like to get the benefits of donation?

If you are an individual or an NGO or an organization, partner with us to provide home-made quality food to the needy. We already have tie-ups with few NGOs and organizations for the purpose of betterment of the livelihood of the people. Join us at Misrii.com and let's contribute together in getting rid of hunger from the society.

III.RESULT & ANALYSIS

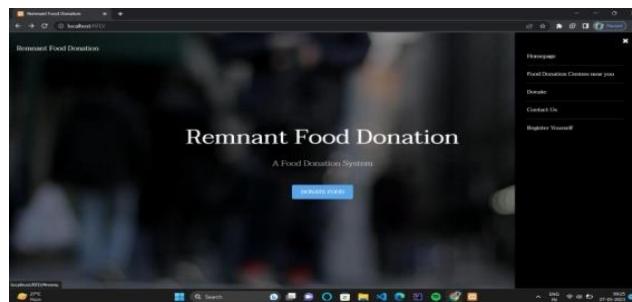


Fig:5.1 Preview Page



Fig:5.2 Home Screen Page

Home-screen: The home screen is the homepage / start screen that customers see when the app is first opened. The blocks of your app are accessed via the home screen. This page is also used for showing off your brand, mostly via the background image.

The goal is to have the home page portray what the app is about, how it's helpful, and why users should use it. The home page often serves to orient visitors by providing titles, headlines and images and visuals that show what the application is about, and in some cases, who owns it and maintains it.

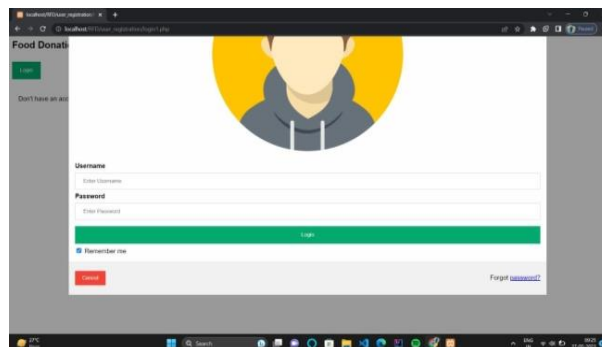


Fig:5.3 Login Page

Registration page: The Registration screen has two text form field widgets that serves as our email and password fields, as well as an elevated button to handle event submission. In the on Pressed call-back of the Elevated Button widget, you'll handle the validation of your form data. If the form is validated, you pass your user data to the register User method from the ApiClient class for processing. If the response is an error, you show a snackbar with the error message. Otherwise, the user is redirected to the Login Screen.

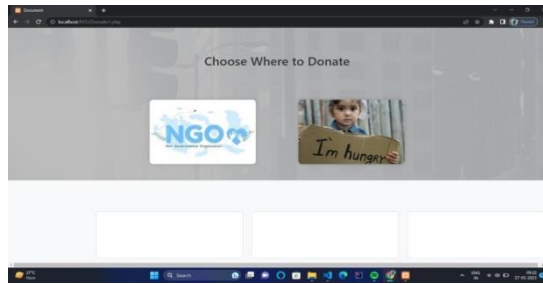


Fig:5.5 Choose to Donate were



Fig:5.6 Category Of Food Donate

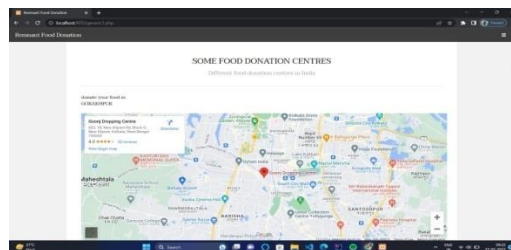


Fig:5.7 Location to Donate



Fig:5.8 Recent Work Through the Portal

User Registration Details									
Full Name	Email	Phone	Address	City	Postcode	Age	Gender		
Abdul	abdul@gmail.com	9876543210	London	London	SE1 1AA	25	Male		
John	john@gmail.com	9876543210	London	London	SE1 1AA	30	Male		
John	john@gmail.com	9876543210	London	London	SE1 1AA	30	Male		
John	john@gmail.com	9876543210	London	London	SE1 1AA	30	Male		
John	john@gmail.com	9876543210	London	London	SE1 1AA	30	Male		
John	john@gmail.com	9876543210	London	London	SE1 1AA	30	Male		
John	john@gmail.com	9876543210	London	London	SE1 1AA	30	Male		
John	john@gmail.com	9876543210	London	London	SE1 1AA	30	Male		
John	john@gmail.com	9876543210	London	London	SE1 1AA	30	Male		
John	john@gmail.com	9876543210	London	London	SE1 1AA	30	Male		

Fig:5.9 User Registration Detail

Donation List											
Item	Programme	Number of People	Contact Name	Contact Email	Contact Phone	Address	Additional Comments	Postcode	Postcode	Postcode	Delivery Type
Meat	Meat	10	John	john@gmail.com	9876543210	London		SE1 1AA	SE1 1AA	SE1 1AA	Self-delivery
Meat	Meat	20	John	john@gmail.com	9876543210	London		SE1 1AA	SE1 1AA	SE1 1AA	Self-delivery
Meat	Meat	15	John	john@gmail.com	9876543210	London		SE1 1AA	SE1 1AA	SE1 1AA	Self-delivery
Meat	Meat	20	John	john@gmail.com	9876543210	London		SE1 1AA	SE1 1AA	SE1 1AA	Self-delivery
Meat	Meat	15	John	john@gmail.com	9876543210	London		SE1 1AA	SE1 1AA	SE1 1AA	Self-delivery
Meat	Meat	15	John	john@gmail.com	9876543210	London		SE1 1AA	SE1 1AA	SE1 1AA	Self-delivery
Meat	Meat	15	John	john@gmail.com	9876543210	London		SE1 1AA	SE1 1AA	SE1 1AA	Self-delivery
Meat	Meat	15	John	john@gmail.com	9876543210	London		SE1 1AA	SE1 1AA	SE1 1AA	Self-delivery
Meat	Meat	15	John	john@gmail.com	9876543210	London		SE1 1AA	SE1 1AA	SE1 1AA	Self-delivery
Meat	Meat	15	John	john@gmail.com	9876543210	London		SE1 1AA	SE1 1AA	SE1 1AA	Self-delivery

Fig:5.10 Donation List

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Above is the detailed view of the Food Donation App, in this we have 2 categories one for receiver/user and other for donors. For registration and login purposes in both cases we have the same process of it but with some extra info of food type, quantity in case of donor. Both can create, edit profiles of their own and change any info any time. Later on, Donors can create a donation card for confirmation of donation availability, and which will be visible to the user and through this card user can connect to the donor and can see their contact details on progress of deal. Finally, they can give feedback To the donor and write reviews.

IV.PROBLEM & DISCUSSION

Problem Occurrence

Zero hunger is a food wastage reduction based technology in which gets surplus food from public function, restaurants, Birthday parties convention halls, homes (if there is a large quantity), etc. and distributes to those are conducting NGO's. There are many reasons why inhabitants of a certain country or region could benefit from having operational food donation charity organization, or a food bank.

As mentioned above, even in rich countries with high sensitivity towards people in need, governmental measures are not able to fulfill all needs. One could argue that the best and the cheapest solution to patch the holes left by formal state institutions is in enabling peer-to-peer relationships between local donors, and local recipients, or local charity organizations that are dispatching donations directly to recipients.

However, during our field research that included series of interviews with voluntaries and activists in Croatian hybrid platform called Food network, and in charity shop in the city of Rijeka, we obtained a knowledge that small local organization are, without cooperation on wider level, in constant imbalance between goods needed and goods that they have in inventories. Furthermore, they are in constant time misbalance as donors are more willing to donate in certain times of the year.

The problems of uncoordinated local (and even not local) charity organizations were best seen during 2014 severe floods in several municipalities in Eastern Croatia. During that crisis, some, but not all, charity shops were making a big extra effort to collect and dispatch food, clothes and shoes to the areas hit by natural disaster. In the same time the Croatian Red Cross collected more than 60 million HRK (around 8 million EUR) in donations but failed to distribute it to the ones that were forced out of their homes by the flood and kept the funds in the Red Cross bank account.

That was later poorly explained by inability to identify and locate people in need. Another issue and limitation of the peer-to-peer donation system is that Croatia is a financially highly centralized country with most financial power in the city of Zagreb (Figure 2 and 3). This creates further imbalance between "wealthy" charities in Zagreb and not so fortunate charities in less developed areas. To address this and other problems of uncoordinated food donation, many countries opted to organize food banks, as intermediates.



Fig:3.1 Food Lost And Reduction

Absence of Supply Management System

As provider and supplier, we never think of the logistics behind healthcare services. But they form the backbone of the industry. Efficient logistics practices ensure smooth services. However, managing these logistics is still a tricky task. While it may sound more like a supply chain mismanagement problem, it creates troubles like mismanaged food and people or the donor at the backend.

Traditional supply chain management is often wasteful and inefficient. It leads to money wasted on lost and damaged inventory, improper delivery of equipment or medication, and the damage caused to patients, all of which amount to massive financial losses for services.

Solution: Invest in Data Management Systems To avoid heavy losses and spending unnecessarily, it's imperative to turn to digital healthcare technology providers for a powerful and effective solution. Invest in an inventory or warehouse management system at the higher end of supply chain management. A robust data management system powered by [data analytics](#) is not only constantly updated and operates within an easy-to-use graphic user interface (GUI) but also provides insightful and meaningful data. This way, administrative and medical professionals can access accurate inventory numbers and current budget allocations.

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Fig:3.2 Sustainable Food

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The project focuses on solving some critical social problems:

The motivation behind this project is to feed the needy and hungry with untouchable edible surplus food. To bring a social change in every individual to reduce food waste and to make the World Hunger Free. Food waste is a relevant global problem due to its consequences on food security, economy, and environmental sustainability. This project focuses, in detail, on finding the main motivation for food waste among the young and the principal actions to prevent it. The whole scope of our project is that food should reach every person in India. No one should go hungry. And we develop a "Zero hunger" system that is very helpful for the social group and those who are doing social activities.

Besides the structure in food banks and the staff required, the logistics of a food bank has kept basic: donor advised of his/her intention to donate products to the food bank reaching an agreement with the donor on how the products will be delivered and the benefits that the donor will have (tax exemption). The process to receive goods is performed at the distribution center of the bank where the products will be stored on pallets and later they must go through a classification stage, where products which are unfit for human consumption are discarded. Finally the packaging process is performed. If it is necessary, the storage process can be added (Pipino & Marino, 2012).

V.CONCLUSION & FUTURE SCOPE

The excess food produced in functions gatherings can be easily donated. Visualization of the impact of donation has a positive impact on the users. An effort focused on feeding the hungry and minimizing food Wastage at the same time. An Application which can be used to donate or claim the excess food. Donating the excess food provides the location of where excess food is available & details of the food quantity available and sends immediate alerts to nearby NGO\'s, orphanages, and volunteers to collect them.

Our study has looked into the problem of food waste that has many serious side effects economically and socially. However, the waste of the food can be prevented or at least decreased using political rules and technology. Mobile application technology is helpful for food waste management. The app aims to encourage better food management. Our proposed solution should reduce food waste by facilitating food sharing in groups using mobile technology. This work is a first step towards designing a better system to reduce daily food waste.

As per the knowledge the technology is advancing and growing day by day. The main motto is to help needy people. The idea behind the project can be used by many people who wish to donate things to needy organizations. Also, many organizations like to ask for various things required by them such as clothes, food grains, books, utensils, etc. The proposed application would eliminate food waste and also fulfill various prerequisites, such as clothes, books, utensils, and so on, of penniless associations. There is a great deal of food waste that exists every day at eateries and bistros, as described above in the illustration. Instead of discarding junk equivalents (which typically is the situation It can be used very effectively to take care of the destitute.

Similarly, because the pickup is arranged by the corporation, the cafés/bistros need not think about it. Both the eateries/bistros (reducing carbon impression and waste) and the penniless would benefit in future jobs, there was no

standard food data system on food packages that offers the consumer the data on both the name of the food package, just as its expiry date. The required change will be to get the name of the food from the generic identification of the object and read the expiry date using OCR appliances. Be it as it might, the degree of convenience of using this option is just marginally more remarkable than using the manual alternative that of fills the food data. In order to provide detailed details, a few organizations have initiated preliminaries using QR code on their food packages. In any event, certain hurdles do need to be passed in order to make it into a standard. Yet this application provides a realistic and powerful arrangement for the interim.

The traditional paper-based scheme is one of the most commonly used food ordering schemes. All the documents are kept on paper in this method. The primary downside to this scheme is that records can quickly get misplaced or destroyed. Cash, time and paper are also lost. No type of dynamicity is given by paper-based systems. Just a minor alteration calls for the entire menu card to be reprinted.

This machine does not work perfectly because it has some bugs and from the point of view of a consumer it is time-consuming, even a significant amount of human effort is required. 2.2 Machine use in hospitality management. The automation of the food ordering system was pioneered with the advent of computers. PC connection was developed where the waiter would enter the order in the system after taking the orders. Then the respective orders were seen on a computer in the kitchen.

The kitchen staff arranged the dishes accordingly, notifying the waiter who retrieved and served the dishes to the respective tables upon completion. The scheme was also able to intimidate the waiter about a dish's availability. The waiter was allowed to inquire for adjustments or even delete a customer's order if a particular dish was unavailable. Bills were created at the cash counter after serving the food.

All the information entered by the customer is fed into the machine that had direct access to the management through this application to sell the food products. The biggest benefit of our method is that our application helps everyone to cook food and sell it. In future work, there was no standard food information system on food packages that gives the user the information of both the name of the food, as well as its expiry date. The viable improvement would be to get the food name from the product barcode and read the expiry date using OCR tools. However, the level of ease of using this option is only slightly greater than using the manual option of filling the food information. Some companies have started trials using QR code on their food packages to provide detailed information. Notwithstanding, there are still a lot of hurdles to pass for it to become a standard. But for the meantime, this application presents a viable and effective solution.

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