



Review on Application for Waste Food Management and Donation

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ABSTRACT

Food waste is increasing at a rate that has never been witnessed before, and this is negatively affecting the factors that propel economic growth. People squander large amounts of food every day. We need to use online applications to stop food waste. If a hotel or individual has food waste, they need to enter their address and the amount of food they have in the application. After that, the administrator will monitor the food donor orphanage information. The donor can sign up, check in, and make requests to the administrator at any time if they are squandering food. The administrator also maintains a record of the buyer's information (old age home, orphanage, etc.) following the donation request and message's examination by the administrator. The administrator collects food donations from contributors and distributes them to the closest nursing homes or orphanages through the use of a local agent. The administrator sends the donor an alert message as soon as the agent delivers the meal.

KEYWORDS: Food donator, Food wastage problems, collecting foods.

1. INTRODUCTION

Using the food sources that are easily accessible in nearby communities—such as perishables that are not finished within the designated time frame and unsold food in stores, restaurants, and food distribution centers that might be close to expiring—is one way to eradicate food waste in the modern world. This is crucial, particularly during emergencies like the COVID-19 epidemic. It focuses on creating the entertaining mobile application (app) SeVa, which provides a popular platform where users can view the food resources available in their community and subsequently purchase food, thereby tackling two important issues: food waste and hunger. This app is pertinent to and aligns with the broader field of AI for Smart Living in Smart Cities.

1.1 PROBLEM STATEMENT

This work involves ubiquitous computing and the Internet of Things while also reducing hunger and food waste, which benefits healthcare and the environment. This tutorial on SeVa app development walks through the application of AI principles, specifically those concerning HCI (Human Computer Interaction), and how to assess it through user feedback. It includes an outline of future work as well as a list of open issues. The Food Donation Portal, the program that is being proposed, is an online resource that provides impoverished people and organizations with a means of donating unsold food. The product is thought to be a powerful way to donate goods to charities and other organizations online. Food pollution is a worrying phenomenon in highly developed nations like India. A lot of food is wasted at weddings, pubs, canteens, social and family gatherings, and other events. Instead of throwing these things away, the plan is to donate them to different organizations, such as senior homes and orphanages. Some people and businesses would like to donate merchandise to charities that support the underprivileged. It is common for many organizations to request different necessities, such as clothing, food grains, books, utensils, etc. however The proposed initiative, the Food Donation Portal, is an online resource that allows users and those in need to connect with one another via the food donation app. Users are also able to donate extra food without wasting it. It encourages us to donate the extra food by letting users in the area know about the food information that is available. The users who made the request are demanding the notice. Food is distributed by the machine according to priority giving organizations a venue to give away leftover food. The product is thought to be a powerful way to donate goods to charities and other organizations online. While food pollution is an issue, etc., there isn't a source that meets their requirements. As a result, a smartphone application that enables users to donate food items based on their capacity, and it frequently enables organizations to apply their requests for food products—that is, for items that they might need, if any.

1.2 OBJECTIVES

- Using technology lessens labor.
- Making use of extra food to feed those in need.

- By using available food for donation, it also aids in lowering the amount of food waste produced.
- Because we use GPS and Google Maps, the cost of building a project is practically affordable.
- The device will continue to function and offer a round-the-clock service.
- Food can be made available by the machine for a relatively low price.

2. LITERATURE SURVEY

As the world's population continues to rise, food waste and food stockpiling are becoming serious issues globally. Currently, a range of methodologies are being studied for the purpose of processing and managing food waste for the benefit of society [4]. Most people stop thinking about it before and after the food is thrown away. They don't give a damn or consider the possibility that the food they are throwing away could help those who are starving to death [5]. About one-third of the food produced for human consumption is lost or wasted worldwide, amounting to 1.3 billion tons of food annually [6]. Shinta Oktaviana R, Lr. Payanta, Intan Yoshana, and Diana Ambarwati Febriani [7], "FoodX, a System to "Reduce Food Waste" suggested a prototype-based food donation system. For the system, they produced four different user types: donors, volunteers, application managers, and community managers. The application manager was responsible for supervising and controlling all volunteer, donor, and community transactions. The role of community managers is to oversee the distribution of food from donors and notify them of the distribution's outcomes. Since not all communities had volunteers, they developed a Donor's application to distribute food; the Volunteer application was only intended to assist with the process of gathering and distributing food. Aaron Ciaght [8] The client-server GIS and smartphone application is described in "Smartphone Based Waste Food Supply Chain For Aurangabad City Using GIS Location Based And Google Web Services," which was published in 2014. for the city without hunger. The client-side app offers the option to donate food to a charitable organization in order to feed the hungry. Donors input basic data such as longitude and latitude, the type and quantity of waste, its value, and their phone number. Food waste can be collected by charities, who then distribute it to hungry people. After registration is complete, the information is uploaded to a server database where charities can store donor entries in tabular form. This database also provides directions and the best route for donors to take to get to the closest charity. Therefore, food waste can quickly reach hungry people. A paper detailing an in-kind charitable donation system app powered by social innovation design concept was proposed by Yue Qui and Chunxian Liu [9]. In this study, Yue Qui and Chunxian Liu created the "Afu" smartphone app, which allows users to donate to Chinese people in need. It was created with the goals of increasing civil donation efficiency, encouraging respect and cooperation among all participants, and establishing charity as an activity that anybody can participate in at any time. The AFU charity service design employs the design concept of "problem solving and meaning building," which combs through the relationship between the chaotic design objectives, which include poor information, lack of trust, and creating a better charitable experience.

3. PROPOSED SYSTEM

Using the application in the suggested system, we are cutting down on food waste. Relocating food is a hugely beneficial social development that addresses both the need for food and food waste. At that point, the administrator uses their local specialist to pick up food from the donor and deliver it to the nearby shelters or underprivileged individuals. We will reduce the issue of food waste after the administrator gets the food from the specialist and sends the donor a prepared letter.

The suggested app is an Android platform that was created with Android Studio using Java and XML. It is associated with the site © 2021 IJSRET 1258 International Journal of Scientific Research & Engineering Trends Volume 7, Issue 3, May–June-2021, ISSN (Online): 2395–566X and will serve as a platform for researchers and contributors following their efficiently register within the system. In the unlikely event that a client wishes to make a contribution, he or she should say something original in the document. Various customers will see this message as a note on the gifts page. This message can be found in the backend information base. When a note is received, the shelters that wish to ensure the gifts can respond and get in touch with the contributor.

Android is built on this framework, which will have an intuitive and simple user interface. We currently anticipate getting rid of the majority of waste that typically exists in India, which is significant. We are looking for and hoping to improve upon something similar that will add to the effectiveness and utility of the application such as clothing, books, repairs, etc.

Regardless, the application is only compatible with Android-powered smartphones running Android OS or higher. If contributors and searchers are comparable to one another, the application will still be lucrative. The above usage case graph displays three performers: the donor, recipient, and administrator. The donor performs tasks including registering and logging into the system. Additionally, he will view all gift criteria and set up items for gifts (things desired by associations). The recipient's region is visible to both the donor and the administrator. In a similar vein, the administrator will update and filter the knowledge base. The donor's region will be visible to both the administrator and the recipient. Additionally, the Recipient will carry out duties like declaring items, more observing items listed, claiming donations.

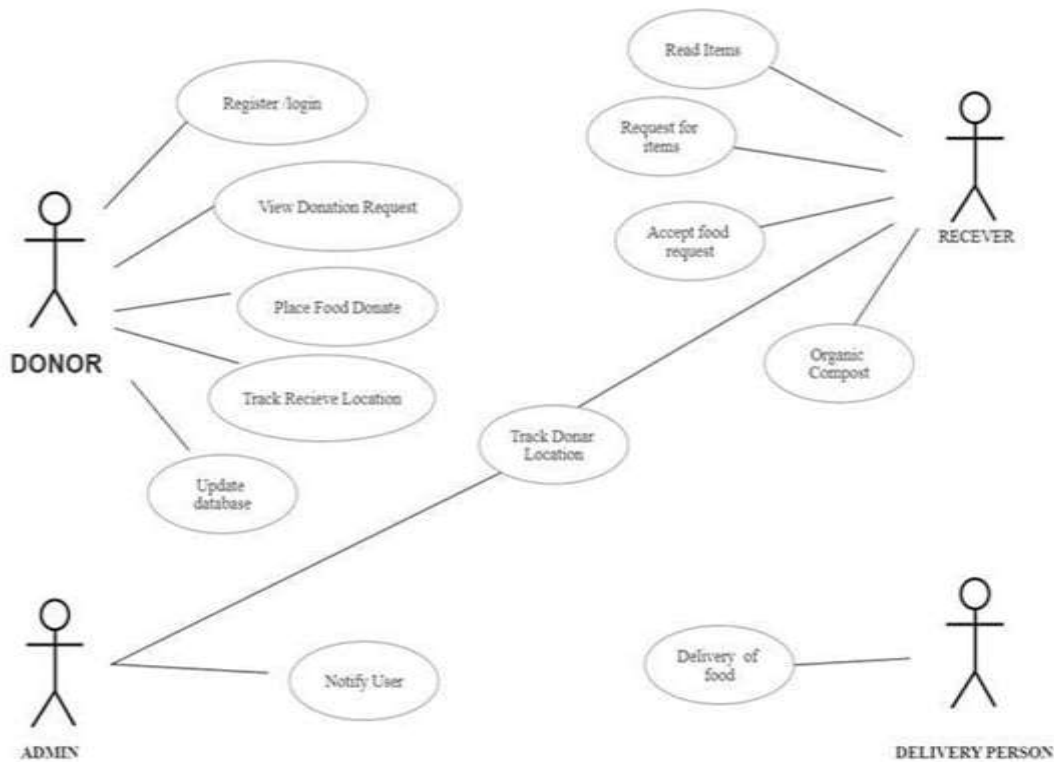
4. MODULES

1. Login &Registration -This module involves login & registration for both the guest and Agent. The user's details are maintained secretly by maintaining separate account for each user. At the same time only, the agent can view the details of the registered guest.

2. Notification -This module involves in the notification to the agent by the user. The user will send the notification that contains the location of food and quantity. This is done by using notification button.

3. Admin Module -In admin module, the administrator maintains the agent details and the donator details. The administrator collects the food from the near by agent and distribute it to the nearby orphanage or old age home by the agent. The administrator gives the orphanage and oldage home details directly to the donator for any further donation

4. Donator Module - In this module, the donator gives the leftover food to the orphanage by creating account on this website. The donator gives the request to the admin to collect the leftover food. The donator views the orphanage details and agent details. Receiver Module In Agent module, the Receiver keeps the orphanage details. It can also keeps the donator details. The Receiver give the request to the admin to collect the food from the donator. After collect the food the agent gives the alert message for the donator.



5. REQUIREMENTS

Hardware Requirements:

System	:	Intel i5 Processor.
Hard Disk	:	8 GB.
Mouse	:	Logitech.
Ram.	:	4 GB

Software Requirements:

Operating system	:	Windows 11 and above.
Coding Language	:	HTML5, CSS, CSS3, JS or jQuery, Bootstrap Ajax
IDE	:	Android Studio
Database	:	MS- SQL server.

6. CONCLUSION

The proposed application that avoid food wastage and also fulfill other requirements like clothes, books, utensils, etc. of needy people. Food waste in fast food restaurants is a serious issue that contributes to social, environmental, and economic problems. It leads to higher rates of food insecurity, especially among needy families. We proposed a plan to encourage fast food chains to donate excess food.

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