Waste Food Management System Using Flutter

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Abstract

This app contains various module such as individual(personal donator), login page, Admin , restaurant and NGO's. This android-based Food Waste Management system can assist in collecting the leftover food from hotels & restaurants to distribute among those in need. NGOs that are helping poor communities to battle against starvation & malnutrition can raise a request for food supply from restaurants through this application. Once the request is accepted, the NGOs can collect the food from the restaurants for its distribution.

Food is one of the basic necessities of humans ,and it stands first among all basic needs- food, shelter and clothing .It is important as it nourishes the human body sustaining the very existence of humans. However with the rising population and development of this country, food wastage has risen to a new high. There are many people who wish to food to the needy but are unaware of how exactly they can execute that. Our application revolves around helping the needy by connecting NGO'S and common people.

The NGO will get the details of the restaurants or orphanages wishing to donate via our application and thus a network is established between donors, people who aim the donors in donating (NGO'S) and the actual needy people to whom the donated items is sent. Our application aims that to bring about transparency, clarity and swiftness in the process of donation thus aiming to mitigate prevailing issues in whatever zone it is possible for us to do so.
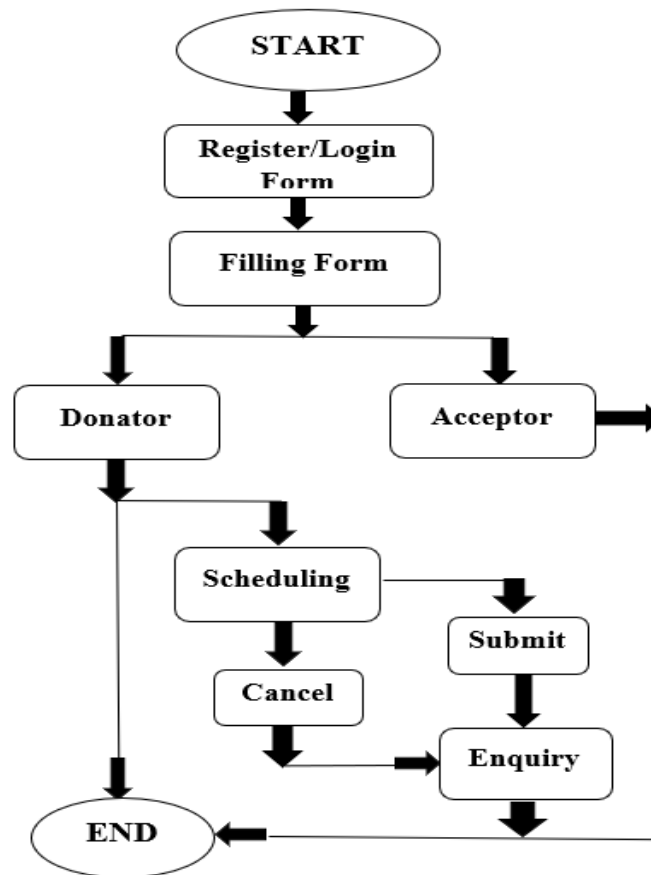
Introduction

The main purpose of our application is to reduce food wastage with the help of donation. Because of this application needy people will also get a source to overcome there hunger and the remaining food in the restaurants and orphanages will not been wasted now. A drastic increase can be seen in food waste. As per data given by Food and Agricultural Organization 1/3 rd of food produce for human consumption is wasted globally, which accounts for almost 1.3 billion tons per year. On the other hand also as per WHO 20% of the population faces extreme food shortages. Hence there is a need to come up with a solution that can avoid food waste and help to feed those needy people. This application can assist in collecting the leftover food from restaurants and orphanages to distribute among those needy people.

NGO'S that are helping poor communities to battle against starvation and malnutrition can raise a request for food supply from the restaurants and orphanages through this application. Once the request is accepted, the NGO'S can collect the food from the restaurants and orphanages for its distribution. The majority of the population today uses smart phones with active internet connection, which is the basic requirement for this product to function properly.

Methodology

The project contains Acceptor and Donator modules. Before this module first this will add the Login Form to both Acceptor and Donator. Then added the Filling Form In this form added the Name of fuser, Address ,Adhar Number ,Mobile Number and added the two modules Acceptor or Donator if you are Acceptor goes to Acceptor and if you are Donator then goes to Donator. In this Donator module added the Food type, photo And name . In this Acceptor module added the Location of Orphanage /Old Age Home/NGO's, Address , photo And name . After that it will goes to the Scheduling Page in this page adding the Slots based on date if the Donator wants donate food today then it will check slot and then booked it .

Literature Survey

[1] Vikram ,Anirudh , Bhuvaneshwaran ,Praveen kumar and Suganth kumar , "A Survey on Food Waste Management System", 2021.

Food loss or food waste is the food that is not eaten by the consumer. By properly analyze and manage the food waste makes our world to economically and environmentally healthy and make the resources available for the future generations. Everyday many students in the college wasting lots of foods. Its an initiative to develop a web application for college used to keep track and analyze the food waste and to take a better decision by knowing what went wrong and to take the essential steps to avoid the food wastage.

[2]Bagherzadeh M, Inamura M, Jeong H, "Food waste along the food chain", 2014.

Food waste and loss are sometimes classified into two broad categories – avoidable and unavoidable. For industry, avoidable food waste includes damaged stocks and products that have not been used. Food waste occurs for a number of reasons, including over purchasing, poor preparation, and inadequate storage, and excessive serving sizes. While avoidable food waste could be prevented (for example through better planning), unavoidable food waste consists of unsellable or inedible food. Available technology and economic efficiency also contribute to determine the distinction between avoidable and unavoidable food waste.

[3]Davis C, "Food recovery through donations as a response to food waste",2014.

In this work, A case study of two grocery stores participating in food recovery program in Boulder. University of Colorado, Boulder, CU Scholar. In other words, food waste represents any food that gets produced for human consumption but goes uneaten. With nearly half of all food available for consumption in the INDIA getting thrown out each year, the issue poses serious environmental, social, and financial implications. From farming to disposal, food waste emerges due to inefficient practices along the food lifecycle that misuse not only the nutritional and monetary values of the final product but also the various inputs of each step, such as energy and freshwater, while the main disposal practice of landfilling contributes to environmental degradation.

Result Analysis

Sr. No.	Name of existing product	Method/ approach used	Characteristics of existing system	Advantages in existing system	Disadvantages of existing system	Criteria of product
1.	Food waster survey.	Web application	Detecting the wastage of Food.	1).In colleges students waste their food in canteen as like celebration.	1)Only limited to the College area.	Free service
2.	Food recovery	Website	Detecting food wastage and this food gives to NGO.	1).In all hotels food is uneaten then he collect the food and gives to the NGO.	1). Only website is present.	Free service

Conclusion

REFERENCES

[1] Vikram, Anirudh, Bhuvneshwar ,Praveen kumar and Suganthkumar "A Survey on Food Waste Management System" 2021.

[2] Bagherzadeh M, Inamura M, Jeong H "Food waste along the food chain. OECD Food, Agriculture and Fisheries Papers" 2014.

[3] Davis C "Food recovery through donations as a response to food waste: A case study of two grocery stores participating in food recovery program in Boulder. University of Colorado, Boulder, CU Scholar" 2014.

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[5] Payne, Rap. (2019). Using Firebase with Flutter. Doi:10.1007/978-1-4842-5181-2_12.