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Food Wastage and Food Supply Management

Prof. S.Sonawane[1], Ms.Tanya Sawanti[2] , Ms.Samrudhi Lokhande[3], Ms.Saloni Pavaskar[4]

Professor, Department of Information Technology, AISSMS's Polytechnic, Pune, Maharashtra, India[1]

Student, Department of Information Technology, AISSMS's Polytechnic, Pune, Maharashtra, India[2,3,4,5]

ABSTRACT : India may be a nation primarily comprised of villages. In India, farming is the primary industry. The welfare of farmers is essential to the development of any nation. Due to a lack of cooperation among farmers and the absence of a union to protect their interests, farmers are plagued by a variety of problems. The goal of this approach is to sell goods to customers directly online. One of a person's basic needs is food, which comes before needing clothing, housing, and other basic essentials. It is crucial because it sustains life by nourishing the body of a person. Yet, food waste has reached a new level due to the country's growing population and development. There are numerous people that want to provide food for the hungry.

KEYWORDS: Farmers, Food, Donate, NGO.

I. INTRODUCTION

One of a person's basic necessities is to have food. As the world's population rises, food becomes a requirement that must be given in large amounts and in high quality. Many events in the food system, including those related to production, processing, distribution, merchandising and catering sales, and consumption, might result in food loss or waste. Food waste hierarchy ranks treatment solutions for food waste from most favoured to least preferred based on their detrimental effects on the environment when avoidance is not an option.
Also, by lowering the overall quantity of water, land, and energy used in agriculture, reducing food waste in all areas of the food system is crucial to lowering the impact agriculture has on the environment.

II. LITERATURE SURVEY

"A Mobile Application for Food Waste Management in Urban Areas using Android Studio"

Author:D. Kanchana and P. Venkatachalam

Abstract: is a study that recommends using Android Studio to develop a mobile application for reducing food waste in cities. Below is further information on the paper:
The topic of urban food waste and its effects on the economy and ecosystem are covered in the first section of the article.
The authors then propose a smartphone application that would let consumers keep track of their food waste and learn sustainable eating practises.
The app's features include a food waste log, food donation options, and educational tools for reducing food waste, to name just a few.
The writers also discuss the design and development of the application using Android Studio in the section on technical issues.
The application's potential benefits, including reducing food waste and promoting sustainable

"Design and Implementation of a Smart Food Waste Management System based on Android Platform"

Author : Y. Huang and X.
Abstract: A smart system for managing food waste is described in Chen, a research paper, and it uses an Android application as its user interface. Further information on the paper is provided below:
The paper begins by outlining the issue of food waste, its detrimental effects on the environment, and the necessity of an effective system to control food waste.
After that, the authors go over the system's architecture and layout, which includes an Android application, a cloud server, a microcontroller, and a sensor for food waste.

The food waste sensor measures the weight of the waste within a trash can by being fastened to the lid.
The sensor data is processed by the microcontroller before being sent to the cloud server for evaluation.

"Development of a Food Waste Management System using Android Application"

Author:S. M. M. Kamruzzaman and M. S. Rahman

Abstract: In the introduction, the paper discusses the problem of food waste, its harm to the environment, and the need for a system to reduce food waste.
The writers then go over the system's architecture and design, which comprises a database, a web server, and an Android application.
The database contains data on how food waste is produced and managed, including the type and amount of trash generated as well as the disposal methods used.
The web server acts as the system's backend, processing data from the database and sending it to the Android app.
Users of the system can track their food waste, receive waste reduction advice, and learn about sustainable eating behaviours through an Android app that serves as the system's user interface.
The writers go over the system's testing and installation procedures as well as the results of user research they carried out to determine the system's effectiveness.
The conclusion of the report discusses the system's potential benefits, which include reducing food waste and fostering sustainable living habits.
This study provides a comprehensive description of a food waste management system using an Android application, demonstrating the potential of mobile technology to address environmental challenges. It can be a helpful tool for researchers and programmers that are interested in creating systems like this.

"An Android-Based Food Waste Management System for Sustainable Living"

Author:S. Singh and M. Singh

Abstract: Certainly! The research article "An Android-Based Food Waste Management System for Sustainable Living" by S. Singh and M. Singh makes the suggestion of an Android-based food waste management system. Below is further information on the paper:
The introduction of the paper discusses the problem of food waste, its negative impact on the environment, and the requirement for a system to control food waste.
The authors then go on to detail the system's architecture and design, which includes an Android application, a database, and a web server.
Users of the system can track their food waste, receive waste reduction advice, and learn about sustainable eating behaviours through an Android app that serves as the system's user interface.
The database includes details on the management and production of food waste,
The web server acts as the system's backend, processing data from the database before sending it to the Android application.
The authors discuss the system's testing and installation in addition to the results of a user study that was conducted to determine the system's effectiveness.
The end of the report discusses the system's potential benefits, such as its capacity to reduce food waste and promote sustainable living.
In-depth analysis of an Android-based food waste management system and its potential to promote sustainable living are provided in this study.
It can be a helpful tool for researchers and programmers that are interested in creating systems like this.

III. PROBLEM STATEMENT

One of the most pervasive problems facing the world today is food waste. Massive volumes of food waste are produced as a result of population growth, the fast urbanisation of areas combined with industrial development, changes in lifestyles, and changes in economic status. When food waste is dumped in landfills, it releases dangerous greenhouse gases like carbon dioxide and methane, which contribute to global warming and climate change. Waste also occurs in regard to natural resources like land, freshwater, fossil fuels, and human resources. So, as part of trash recycling and

recovery in food waste management, innovative and sustainable valorisation methods are needed to handle this food waste.

Around 1.7 billion tonnes, or approximately one third of the food produced for human use, are lost to waste every year, according to the Food and Agricultural Organization (FAO).

worldwide squandered or lost. Around $1 trillion, 700 billion, and 900 billion in annual expenditures are connected with this loss on an economic, environmental, and social level, respectively. At 2014 wholesale prices, the value of food waste in India (losses during and after the harvest of significant agricultural products) is estimated to be over 92,000 crore per year. Throughout the food value chain, production accounts for 24% of global food loss and waste, handling and storage for 24%, and consumption for 35%. The amount of food waste produced in the nation is steadily rising. We require a strong structure to deal with this issue.

III. PROPOSED METHODOLOGY

To reduce the original image's size, we define various scale factors for the vertical and horizontal directions. The pre-processing technique scales down the original colour image and turns it into a grayscale image. Finally, using edge density detection, adaptive thresholding for the discovered edges, and line density filtering, a collection of potential regions is extracted. The number plate is finally located by confirming each of the potential zones. The extracted number is looked up in the database to learn more about it.
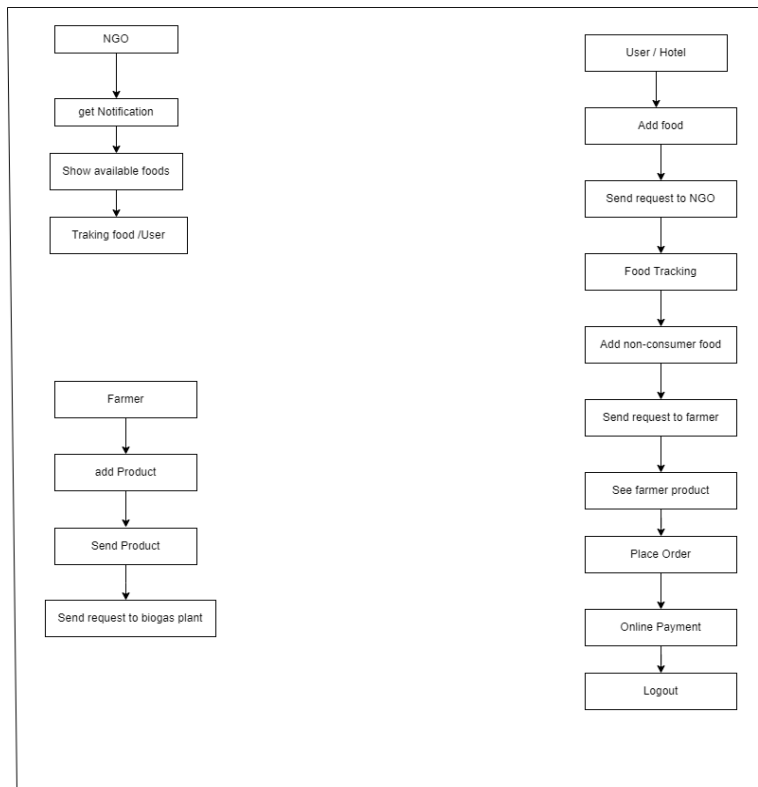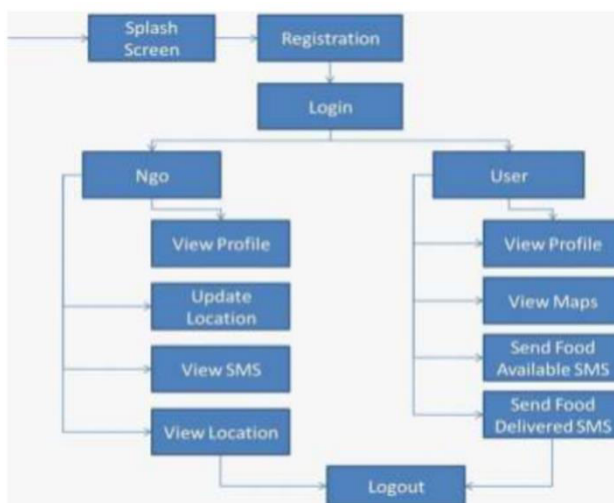

Figure 1 depicts the system, which primarily consists of two elements.

System Module:

1) NGO
2) Mobile User and these
are considering main modules of the system.

Mobile User Module:
Mobile User In this module mobile user able to interact with NGO's to avoid the
food wastage in functions, parties and soon. In this mobile user can register,
login and performs the following activities:
•Set the current location
•Search the NGO's availability
• Send SMS to Food availability to NGOs
•After the delivery is complete, send an SMS to the NGO recipients of the food

NGO Module:
•This module provides an interface to the NGO's.
• NGO's register for the app, log in, and update their information in this module..
• View the Food information.
• And view the location of mobile users who send the food availability SMS.
• And if he is interested, make a call to a mobile user.

Send SMS Module:
• In this module, the system will use SMS Manager in the Telephony Service to send the SMS to the receiver..
• In this we have the recipient number and the message to be sent. We will
first create a object for SMS Manager in the Telephony service, using the
method send Text Message system will send the message.
• After sending SMS to desired recipients.

Database Module:
• It is crucial to maintain the all the data in proper way.
• We establish a table in this module and store information about NGO's, mobile users, history, and other things.
• The proposed system can be implemented as follows: In this proposed
system we implemented android application to efficiently enable
communication between NGOs and users.
• In this system we use SQLite DB to store the information about users
and NGO's. This System utilises SMS service and Google Maps
Efficiently.

IV. PROJECT PURPOSE

India may be a nation where villages predominate. In Bharat, agriculture is the primary industry. Any nation's ability to develop hinges on how well its farmers are doing. Due to the lack of cooperation among farmers and the absence of a union to protect their interests, farmers are tormented by a variety of problems. This method is made to allow customers

to purchase things directly online. Together with clothing and shelter, food is one of a person's three basic needs, and it comes first.. It is important because it nourishes the body and keeps people alive. Due to the nation's expanding population and economic growth, food waste has reached a new level. There are numerous individuals who want to provide meals for the hungry yet are uninformed of the specifics of how they can carry it out. Our application focuses on linking NGOs and regular people to provide aid to the poor. The contributors will be able to see a variety of options for making donations When the NGOs acquire the information about the people wishing to donate via our application, a network is created between donors, those who assist donors with donations (NGOs), and the actual needy people to whom the donated item is delivered. In order to minimise current issues wherever we can, our application aims to increase the contribution process' openness, conciseness, and speed.

V. FUTURE ENHANCEMENT

Live up to tourist expectations at the market. purchasing, securing, storing, distributing, and preparing food and beverages for delivery. to create a reliable control system.to be finished in line with the app's specifications.
It satisfies the project's requirements as stated, making it simple for them to keep track of all the information they need. Instead of throwing it out, a lot of food will be preserved. Money will be distributed to those who truly require it. Every day, a third of the food produced worldwide is wasted. We will benefit greatly from this application in the future.

VI. CONCLUSION

For the purpose of online action prediction in untrimmed skeletal sequences, we have presented a network model, SSNet. The introduction of a stack of convolutional layers models the dynamics and dependencies in the temporal domain. For SSNet, a scale choices method is also proposed, allowing our network to select the appropriate layer for the most appropriate window scale for action prediction at each time step. Additionally, to enhance the performance of our network, a hierarchy of dilated tree convolutions is created to learn the multi-level structured representations for the skeletal data. All of the benchmark datasets that have been tested show higher performance using our suggested strategy. The SSNet is suggested in this research as a solution to the online action prediction problem. The issue might possibly be solved by expanding this network. It is necessary to find each action in the skeleton sequence and, at the same time, forecast the class of each action in order to perform temporal action detection in streaming skeleton sequences. This extension is left for future work.

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9940 572 462 6381 907 438 ijircce@gmail.com