IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 2, June 2023

Food Waste Management System towards Zero Hunger

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Abstract: *This project is used to manage wastage foods in a useful way. Every day the people are wasting lots of foods. So we have to reduce that food wastage problem through online. If anyone has wastage foods they are entering their food quantity details and their address in that application and then the admin maintain the details of food donator. The donator can create the account and whenever they are having wastage food they can login and give request to the admin. And the admin also maintain the buyer (orphanage, poor people,..) details too. After the admin view the donator request and give the alert message like time to come and collect the food. And the admin collect foods from donator through their nearby agent then provide to nearest orphanages or poor people. After receiving the food from the agent by admin and give alert message to that donator. If the donator needs any detail about the orphanage with helping thought they can give request to the admin and collect the orphanage details. This project is food redistribution is an enormously successful social innovation that tackles food waste and food poverty. The user's details are maintained confidential because it maintains a separate account for each user.*

Keywords: food waste, hunger rate, sustainable development goals, social entrepreneurship

I. INTRODUCTION

The sharp increase in the amount of wastage in terms of food, clothes, books, etc. makes the need for charity in terms of donation. This paper presents 'Helping Hands', a new internet-based application that provides a platform for donating old stuff and leftover food to all needy people/organizations. It provides information about the motivation to come up with such an application, thereby describing the existing donation system and how the proposed product works for the betterment of society. The product is shown to be an effective means of donating things to organizations, etc. over the internet. It shows the potential for avoiding the wastage of food, clothes, books and the other stuff. In highly populated countries like India, food wastage is a disturbing issue. The streets, garbage bins and landfills have ample proof to prove it. Marriages, canteens, restaurants, social and family get-togethers and functions expel out so much food. Food wastage is not only an indication of hunger or pollution, but also of many economic problems. The high standard of living has resulted in the wastage of food, clothes, etc. because of quick changes in habits and lifestyle. Instead of wasting these things we can put them in use by donating them to various organizations such as orphanages, old age homes, etc. The product is an internet-based android application that basically aims at charity through donations. Most people don't realize how much food they throw away every day — from uneaten leftovers to spoiled produce. About 95 percent of the food we throw away ends up in landfills or combustion facilities. In 2013, we disposed more than 35 million tons of food waste. Many people wish to donate things to needy organizations. Also, many organizations wish to ask for various things required by them such as clothes, food grains, books, utensils, etc., but there is no source available through which they can satisfy their requirements. Thereby, an Android application has been developed through which people can donate items as per their capacity and the application also allows organizations to put up their requests, i.e. items required by them, if any. The majority of the population today uses smart phones with active internet connection, which is the basic requirement for this product to function properly.

DOI: 10.48175/IJARSCT-11318

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1.1 System Requirements

MySQL is one of the most recognizable technologies in the modern big data ecosystem. Often called the most popular database and currently enjoying widespread, effective use regardless of industry, it's clear that anyone involved with enterprise data or general IT should at least aim for a basic familiarity of MySQL. With MySQL, even those new to relational systems can immediately build fast, powerful, and secure data storage systems. MySQL's programmatic syntax and interfaces are also perfect gateways into the wide world of other popular query languages and structured data stores. what is MYSQL? A database is a structured collection of data. It may be anything from a simple shopping list to a picture gallery or a place to hold the vast amounts of information in a corporate network. In particular, a relational database is a digital store collecting data and organizing it according to the relational model. In this model, tables consist of rows and columns, and relationships between data elements all follow a strict logical structure. An RDBMS is simply the set of software tools used to actually implement, manage, and query such a database. MySQL is integral to many of the most popular software stacks for building and maintaining everything from customer-facing web applications to powerful, data- driven B2B services. Its open-source nature, stability, and rich feature set, paired with ongoing development and support from Oracle, have meant that internet-critical organizations such as Facebook, Flickr, Twitter, Wikipedia, and YouTube all employ MySQL backends

1.2 Software requirements

- Operating system : Windows 7 and above
- Coding Language : kotlin ,
- ANDROID IDE : Android Visual Studio
- Database : Fire bas

II. SYSTEM DESIGN

2.1 System Architecture

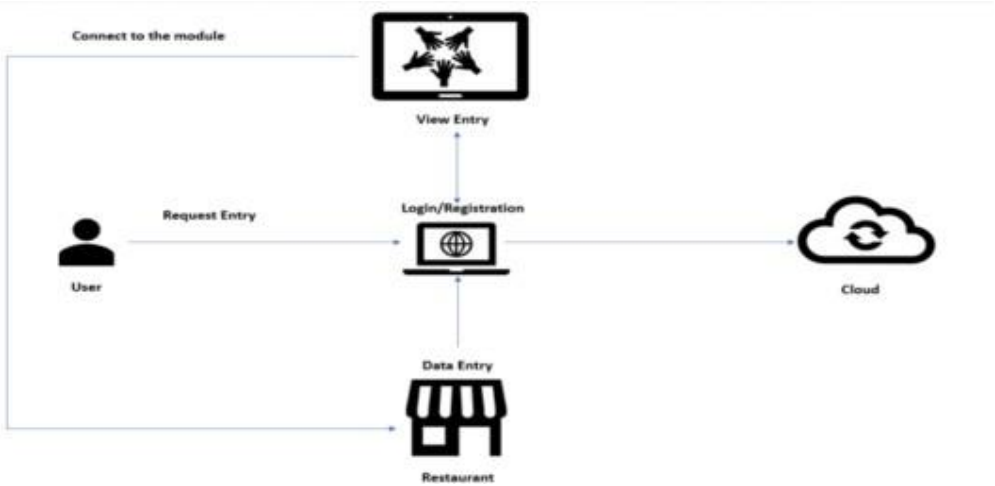

Fig 1. System Architecture

2.2 Data Flow Diagram

In Data Flow Diagram, we Show that flow of data in our system in DFD0 we show that base DFD in which rectangle present input as well as output and circle show our system, In DFD1 we show actual input and actual output of system input of our system is text or image and output is rumor detected likewise in DFD 2 we present operation of user as well as admin.

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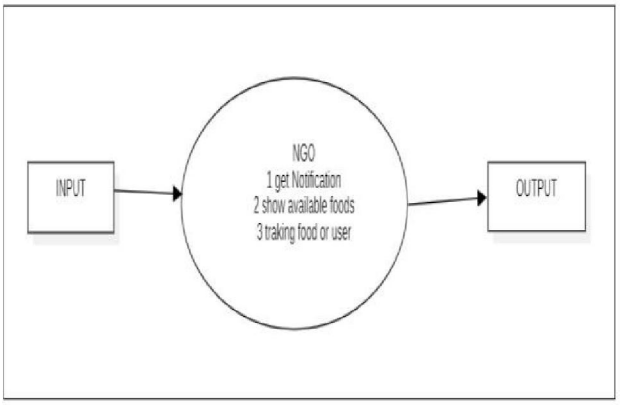
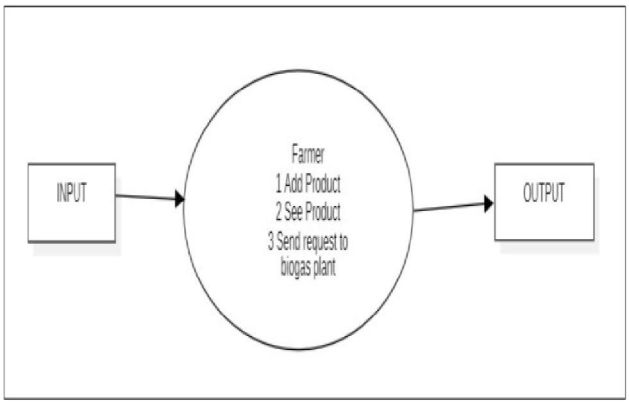


Fig 2. Data Flow diagram 0 for Food Waste Management



. **Fig 3.** Data Flow diagram 1 for Food Waste Management

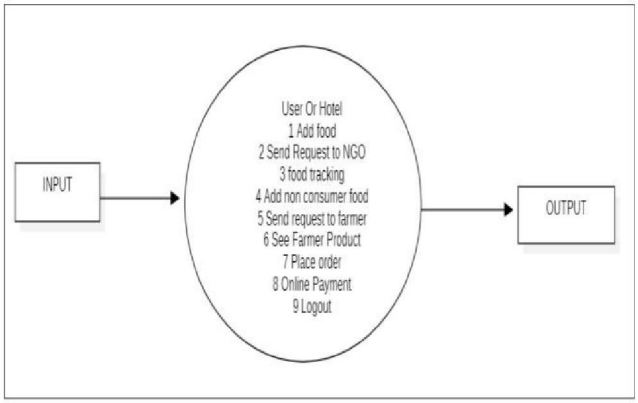


Fig 4. Data Flow diagram 2 for Food Waste Management

2.3 UML Diagrams

Unified Modelling Language is a standard language for writing software blue prints. The UML may be used to visualize ,specify, construct and document the artifacts of a software intensive system. UML is process independent ,although optimally it should be used in process that is use case driven, architecture- centric, iterative ,and incremental .The Number of UML Diagram is available.

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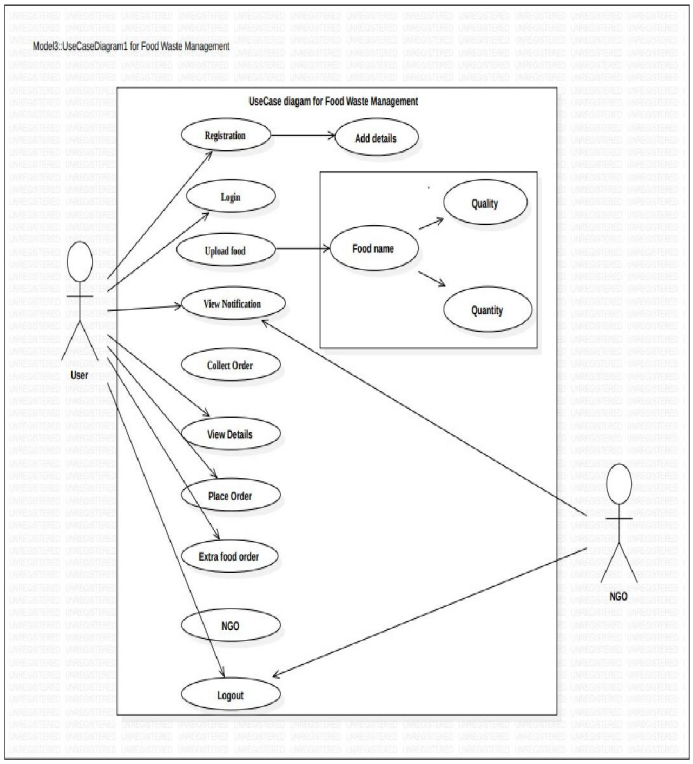

Fig 5. Use case Diagram

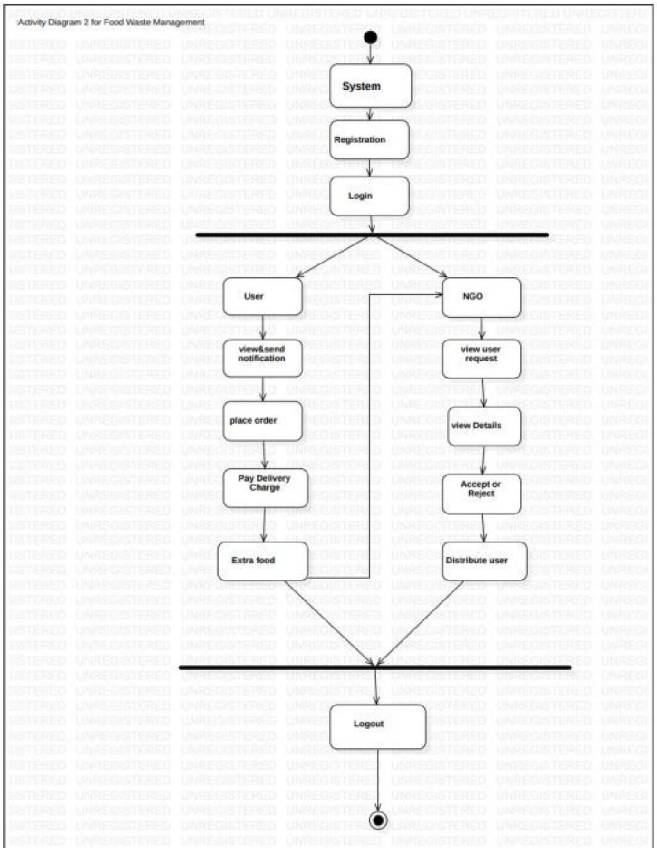

Fig 6. Activity Diagram

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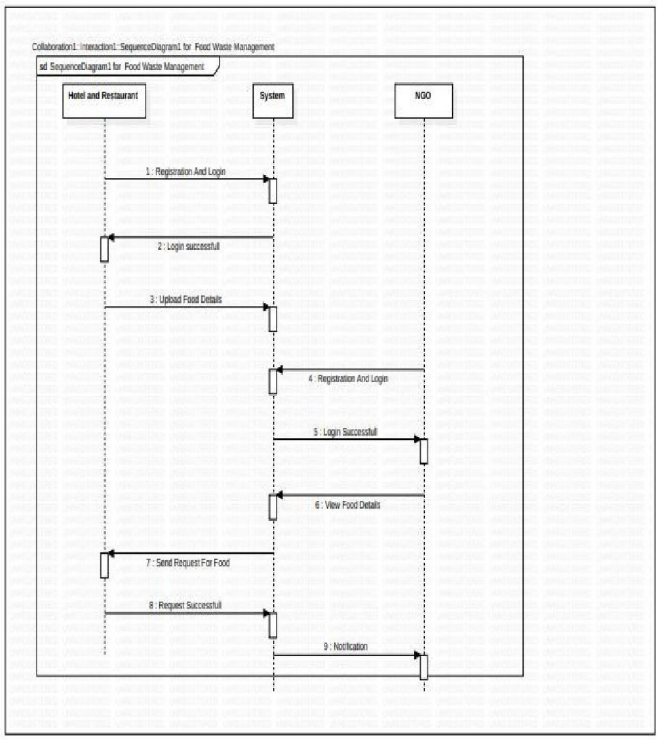

Fig 7. Sequence Diagram

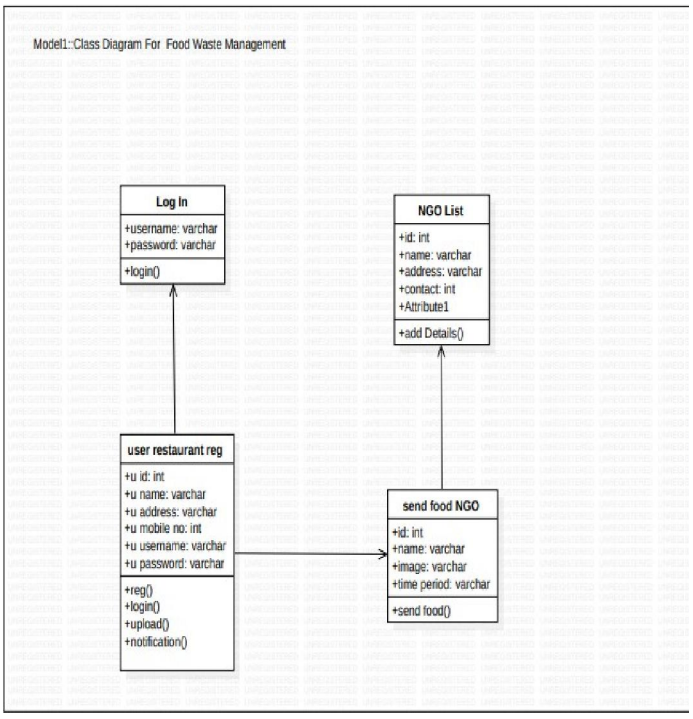

Fig 8. Class Diagram

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III. RESULT

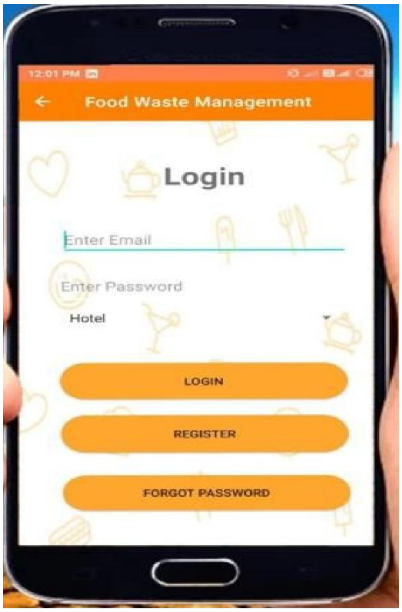

Fig 9. Main page and Login Page

This is the main page of the application all activity starts from this page such as registering, login, and forget password e There are four users in this application hotel, NGO, user, and farmer and we can log in here also

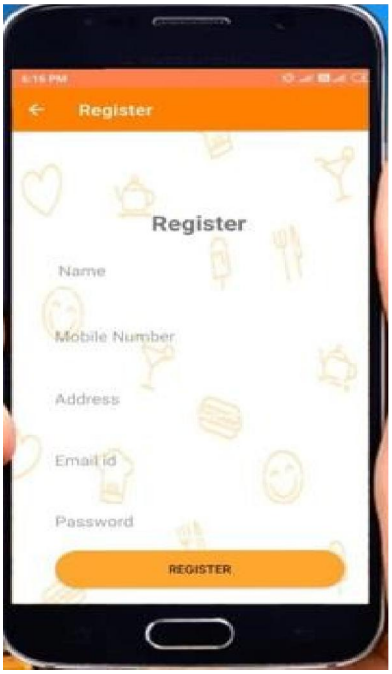

Fig 10. Register page

This is the registration page for all users. There is enter some basic information such as Name, mobile no, address, Email id, password, etc. and click on the register button.

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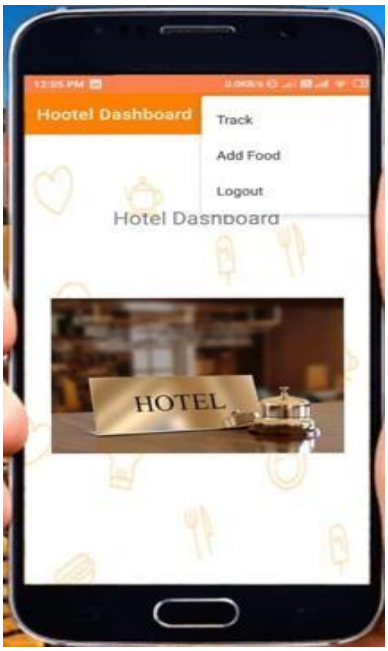

Fig 10. Hotel dashboard and features

Hotel Dashboard, This page is open when users select a hotel in a type of user. On this page, there are right side corner provides three dot symbol click on it and go to Hotel features

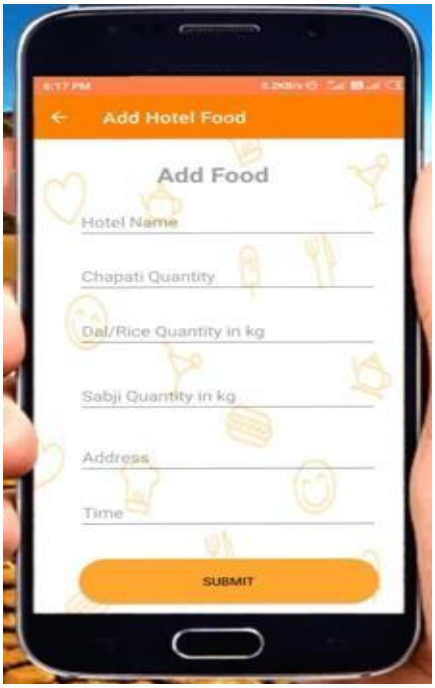

Fig 10. Add food

Add Hotel food, Hotel user clicks on add food then opens this page here is some hotel food information such as Hotel name, chapati in quantity, dal/rice in k.g, sabji quantity in k.g, Hotel address and time when food is made.

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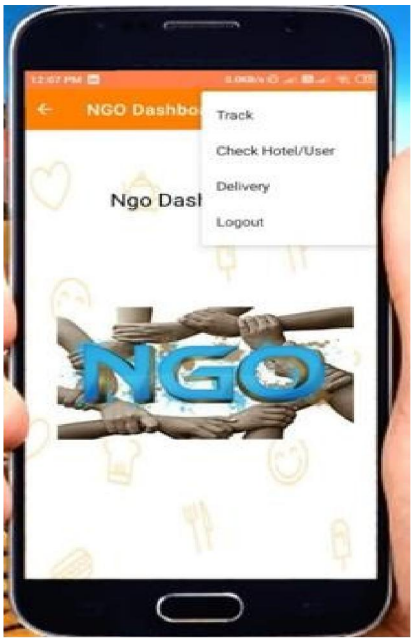

Fig 10. NGO Dashboards

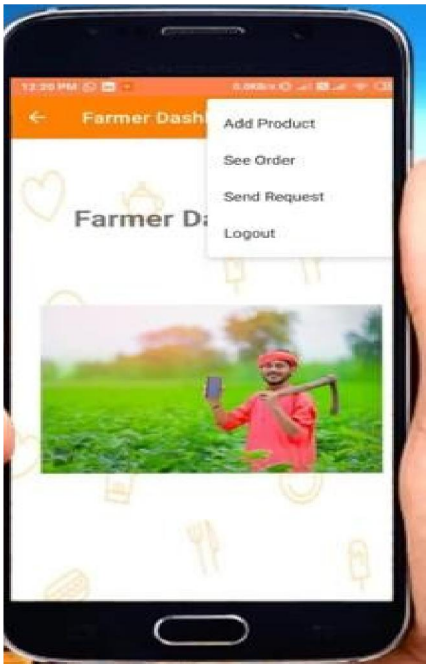

Fig 10. Farmer dashboards

IV. CONCLUSION

The sustenance approach serves to stay away from the crevice between the NGO and Donor. The approach serves to give sustenance waste to penniless individuals who are battling for nourishment. The approach unites these two, in such a route, to the point that these NGOs can persuade the ”nourishment to be squandered” without bother, and the inns/eateries/party-lobbies discover these sustenance seekers with no additional exertion then it will serve a more noteworthy cause and will be an enormous administration to mankind.

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