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Website Design for Food Waste Disposal System

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ABSTRACT: To create a web-based application that minimizes food waste at events, restaurants, and other gatherings. The current system does not offer an interface for donations or data analysis, it just offers statistics on the amount of food that is wasted. Analyzing data will let you see the effect. Giving away extra food requires the following information first the place where the extra food is located and the amount of food that is available. Immediate notifications to volunteers, local orphanages, and NGO's to collect them. A recent analysis found that 1.3 billion tons of food are wasted annually and that one-third of the food consumed is leftover. The goal of the paper is to create a system that lowers the quantity of food wasted by creating a website application that uses data analysis to display the effects of extra food. By informing the surrounding users (NGO's, volunteers), it also makes it possible to donate the extra food that is produced.

KEYWORDS: food waste,donors, users, admin,NGO's,food,;

I. INTRODUCTION

One of the largest industries in the world is the food industry. major significance to many national economies. But in the next 50 years, there will be a significant increase in food production due to the tremendous rise in global population and the demands placed on the food supply system. In these conditions, large volumes of food industry wastes is receiving more and more national and international social, political, and scientific attention, at the global level. The Food and Agriculture Organization's report (FAO, 2011a) estimates about the world loses or wastes one-third of the food produced for human use. When considering the given the growing number of hungry people and the limited availability of natural resources, it is clear that One of the most significant challenges of the future will be waste management systems. This website application serves as a connection between the individual who needs food and the food donor. The food giver enters the amount of food they are donating, and addresses. The term "food system" is used broadly to refer to a variety of aspects of business, retail, transportation, agriculture, and eating in general. The phrase "food system" is being used in a manner consistent with its broad definition. One of the top five food producers in the world is constantly listed as the European Union (EU) they are china,india,united states,brazil and Europe. The eating habits of Europeans have changed significantly through time (for example, we now consume twice as much meat per capita as we did 50 years ago). However, the amount of beef consumed globally on a per capita basis has decreased by 10% since 1995. According to studies, Europeans consume significantly more fish, poultry, veggies, and marine products than Americans do on average. The donor may open an account and log in whenever if food is available, users can login and submit a request to the manager (NGO). The administrator will obtain the donated food. then provide to nearest through their nearby agent to poor people or orphanages. When the food is delivered, there is a notification sent to that donor. This project is a meal distribution It is a hugely successful social enterprise. innovative solutions to poverty and food waste. The Donor information is kept private because keeps a unique account for every donation. It's a restaurant. Owners must correctly forecast the amount of potential visitors. Because it keeps a separate account for each donor, the donor information is kept private in data base can not access any one. Owners must correctly forecast the amount of potential visitors. In this project, offer a method to forecast how many customers will eventually dine at a big-screen restaurant supervised learning and data. The information used for the use of historical data and restaurant information for the prediction historical bookings and visits. The information used to large-scale real-world datasets are used to assess our methodology.

II. RELATED WORK

The specific system being proposed is A mobile application called Food For All was created with the intention of reducing food waste and making food available to those in need with the aid of NGOs. food waste occurs in large quantities. current situation Food is wasted frequently every day in restaurants and motels., campus activities, canteens, and a variety of other social gatherings. The majority of individuals today contribute food manually by going to Donation centers are centered around various NGOs. Here is an a program that uses the Internet for communication connection between NGO volunteers and food donors Discuss the availability of food and other important information.[1].

Food waste is an important issue all over the world. According to a survey, more than 58 percent of the food that people produced for Every day, consumption is wasted. As a result, without access to sufficient food for a living, more than 60% of people in third-world nations die from hunger. As a result, the nations with more advanced technology are more open on this topic. As a result, limited food could be discarded or given to those in need. People are said to be more dependent on smartphones in the present day, where we have advanced through artificial intelligence. Various applications have been created to reduce food waste, and they provide the ability to submit any extra food[2].

The Food for You (F4U) mobile charity application, according to Suraya Masrom, was created to lessen the load on impoverished individuals who depend on food for survival. The issue of food waste can be resolved concurrently by using application. There are a small number of mobile charity applications, but none of them connects those in need, contributors, and food producers to address the issue of food waste. The paper, which defines the restriction of the implementation, is accessible with a features analysis of across other charitable mobile applications.[3]

As soon as users have successfully entered into the system, the Android app "Aahar" allows donors and NGOs to donate and collect food. The system is made up of three main donors, NGOs, and modules for administration. The donor finishes projects like logging in/registering and adding products to the donation submit a request to contribute and be viewed. the beneficiary performs duties like ordering things and showing Declare donations and the items requested. In charge will monitor the collection and make it better. The both the donor and the administrator consider the viewpoint of the beneficiary. The gifts from donors will be posted as a reminder to other users in the contribution the backend folder and the message will be saved there[4].

Using GIS location-based technology and Google Web Services, the paper "Smartphone Based Waste Food Supply Chain for Aurangabad City" It discusses the client-server GIS and was published in 2014. and a smartphone application that eliminates hunger city. The client side program provides the opportunity to give meals to those in need. Donors display the basic details like food quantity and what kind of food it is, how much there is, and their particular mobile number. NGOs or any other social The meal will be picked up by a working organization, and Deliver it to the hungry. following registration will be finished On the server, an update will be made. database on the side that organizations can access keep donor entries in the most effective way[5].

III. METHODOLOGY

To develop a food waste disposal system may contain 3 types administrator, distributor and food receiver as a Respected to admin, donor and users.

Admin:

- The admin role can control any component of the platform and has access to the entire website. Donors and regular users can all have accounts that admins can create and manage.
- They are able to keep an eye out for any unwanted content and moderate the site. Information and analytics on user activity, donation trends, and food waste statistics are available to admins.
- In this part, the admin can see the totals for each state, city, food donors, food listed, food requests overall, new food requests, food requests that have been rejected, and food requests that have been fulfilled.
- They can also oversee connections with charities and organizations.

Donor:

- Donors are people or organizations that want to give food to cut down on waste.
- The website allows donors to register and set up a profile with their contact details, location, and the food they are able to donate.
- They can look through the charities and organizations that are accessible in the area and choose the ones they want to support to.
- Donor can also give a food for the peoples and is help of the website to donate a food for the hungry people.

- Donor can also manage the food details, update the food and add the time and date of submission of food to a admin. donor can be permanent donor and random donor are their.

Users:

- Users are the 2 types of users permanent users and random users. permanent users are NGO's, hostels, old age houses. random users are when the food is available that time gives to that users.
- Users can login with the gmail or phone number to login. users can register when the users are new for this website.
- Users can view the web site and contact for the admin for availability of food.
- The available food section for the user can request the food for they want. when they login to that website.
- Users can see the available food on website. the admin can list the daily users in the dataset, they will manage all the activity on the website.

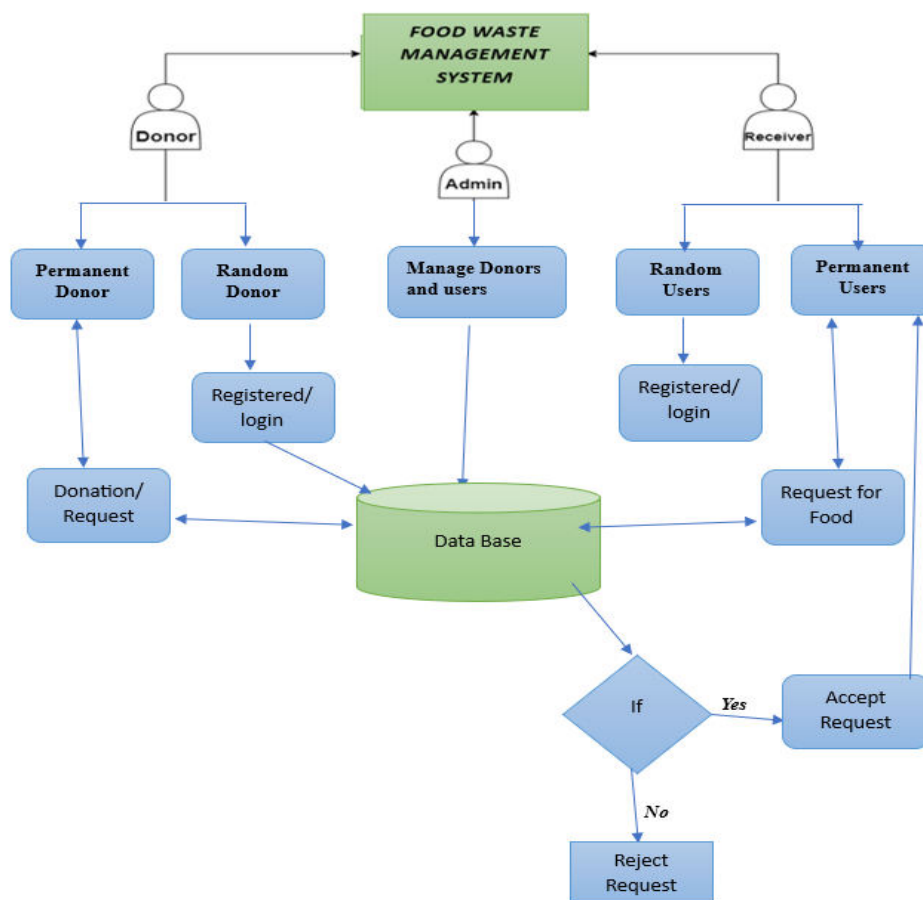


Fig:1 Data flow Diagram

- In this dataflow diagram mainly 3 section is their 1.admin 2.donor 3.users. In donor and users section they divided into 2 parts permanent donors/users and random donors/users. Admin can manage all the activity in the food waste disposal website. Collect the data base of donors and users in this website to link between the donors and users. Admin can assign the food for the requested people in this website, admin has decide the food is to be needed the most for this registered users. Donors can give any type of food for this website the food quality will check in this website and then assign the users for their available food. Users can not depend on this website for food they will maximum to try to give for the food for the hungry users. donor can login with gmail or phone number to donate the food and add the details of food ,area,date and time. users can see the website when they are login. random donors are registered with website and permanent donors are donate the



food and admin can request the food from donors.random users can registered with the website,permanent users can request for a a food admin can accept or reject the request.

IV. RESULTS

Food waste disposal paper aim to reduce the amount of food wasted and improve sustainability in the food system.this paper preventing,reduction,recovery and recycling of food waste.

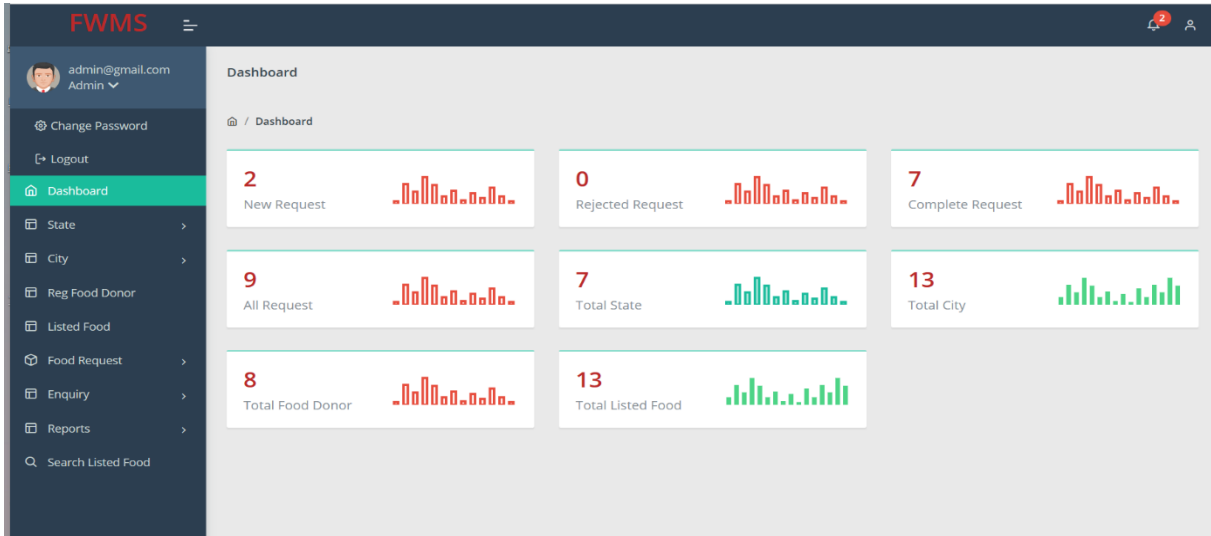


Fig:1 Admin page

Food Requested and reject from users of year 2022:

Month of year 2022	No.of Requested	No.of Request Accept	No.of Request Reject
Jan	50	40	10
Feb	60	45	15
Mar	70	58	12
Feb	80	67	13
May	85	70	15
Jun	75	65	10
July	80	65	15
Aug	65	45	20
Sep	88	60	28
Oct	86	63	23
Nov	96	83	13
Dec	93	83	10

Table:1 Users Request of 2022

food requested and reject of users year 2022 dat analysis show in the above table,donors are more intrrest to donate food for the poor people,admin can manage the food disposal system in this website.

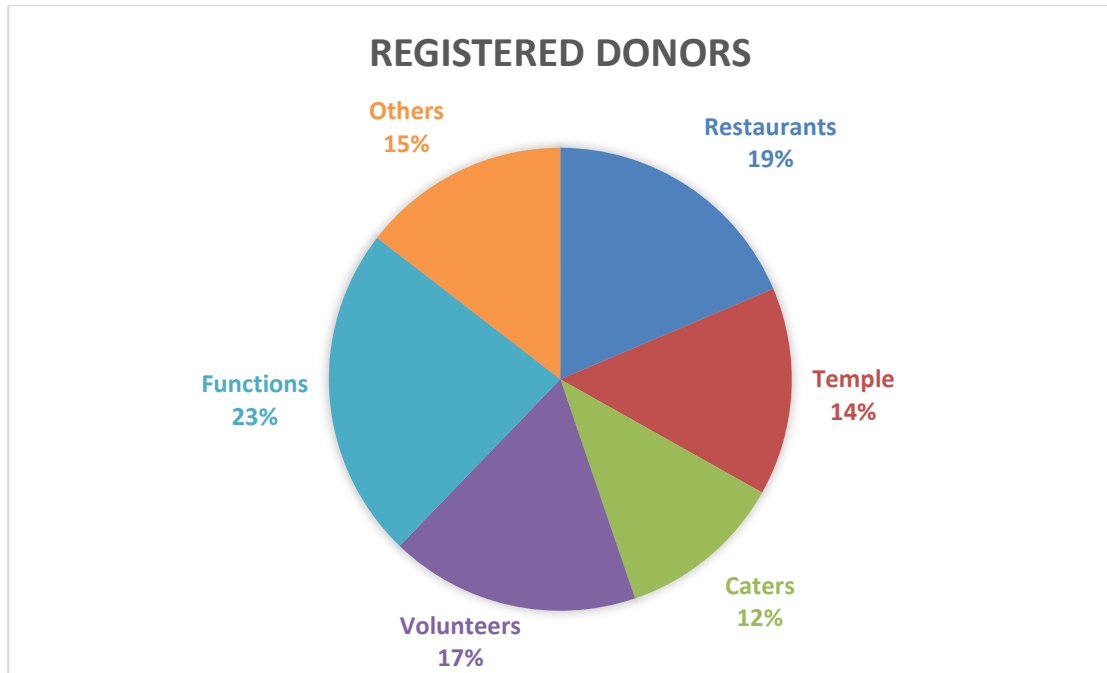


Fig 2:Registered Donors

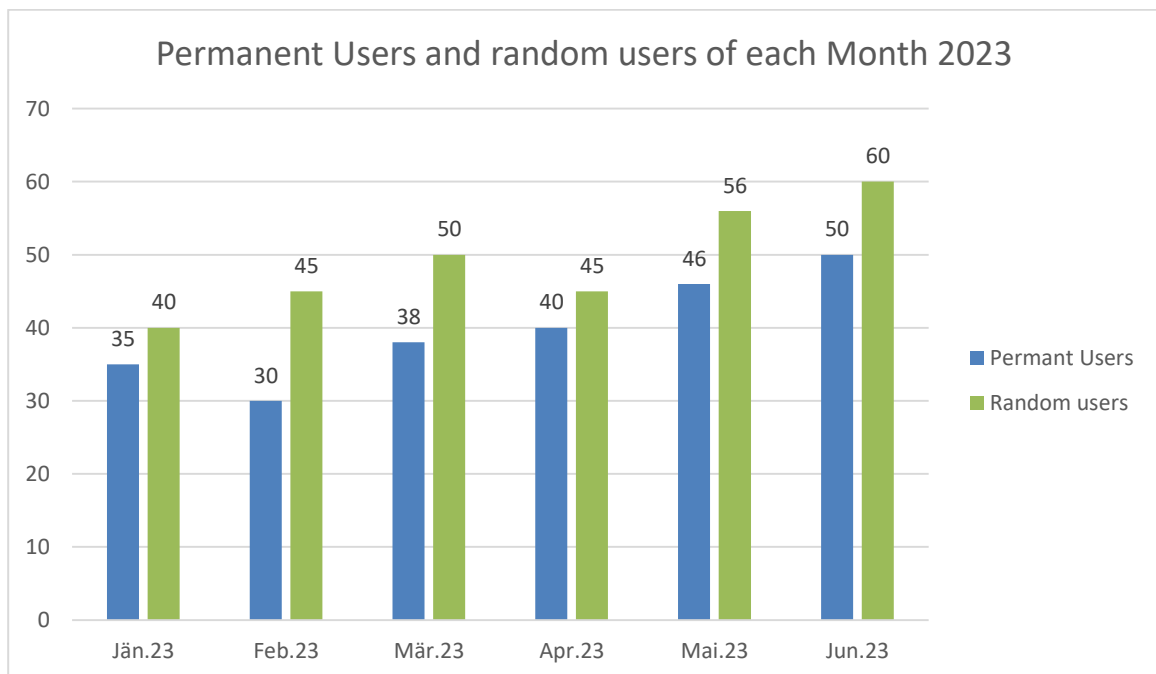


Fig:3 Permanent and Random users

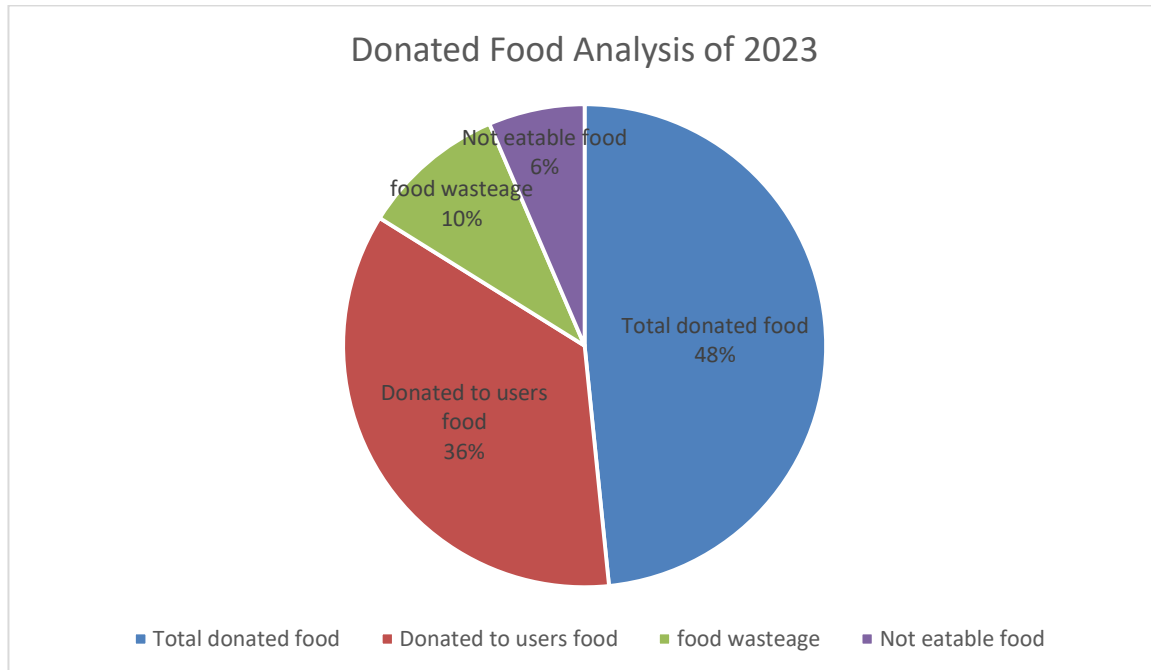


Fig:4 Donated Food analysis 2023

In above diagram shows the Donated food analysis of 2023 total donated food, donated to users, food wastage, not eatable food from donors.

V. CONCLUSION AND FUTURE WORK

By presenting alternatives for proper disposal, the food waste disposal website project aims to address the urgent problem of food waste and provide a forum for education and encouragement of people to decrease food waste. We have made tremendous progress and succeeded in a number of important goals throughout the project. First, we created a user-friendly website that offers in-depth details about the effects of food waste and helpful suggestions for decreasing it. The website uses interactive elements like infographics, movies, and articles to successfully engage and inform visitors. We hope that by making the facts easily understandable, people would be motivated to act and make more thoughtful decisions about their food consumption and disposal practices. Second, our website provides a variety of tools and resources for disposing of food waste properly. To compile accurate and current information, we also worked with nearby companies, groups, and waste management agencies. Their knowledge and assistance were crucial in assuring the dependability and accuracy of the website's material. Through these alliances, we have promoted a sense of community involvement and established a forum for ongoing discussion and cooperation in the fight against food waste.

Collaboration with NGOs and Government Agencies: Work together with NGOs and government organizations on projects aimed at reducing food waste. The project can increase its influence and contribute to more comprehensive solutions by coordinating efforts and pooling resources. Consider creating a mobile application for the platform for disposing of food waste. Users' accessibility and convenience would be improved via a mobile app, which would enable them to monitor their food waste while on the road and receive notifications and updates in real time.

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