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Food Share Network: An AI Based Food Donating Application

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Abstract: This website “Food For All” facilitates food donation and distribution to reduce excess food and hunger. The project system aims to address the issue of food waste by creating a platform that facilitates the collection of excess or leftover food from various donors, and redistributing it to individuals in need through the collaboration with non-governmental organizations (NGOs). 40% of the food produced in India is wasted. It is further estimated that the value of food wastage in India is around ₹92,000 crores per annum. This website provides information and resources on how to reduce excess food, improve food quality, and promote healthy eating habits.

Keywords: Donors, NGOs

I. INTRODUCTION

This Project is a mission-driven initiative focused on reducing food waste and addressing hunger through a user-friendly web-based platform. We connect food donors, including restaurants, hotels, and individuals, with non-governmental organizations (NGOs) to efficiently redistribute surplus food to those in need. This website also benefits the Consumers to request food packages from the NGOs. This project revolves around the fundamental principle of redistributing excess or leftover food from various sources, including restaurants, hotels, event venues, and individuals, to the vulnerable segments of society through partnerships with non-governmental organizations (NGOs). By harnessing the power of technology and community collaboration, we aim to create a seamless, web-based platform that connects donors with NGOs, making it easier than ever to share the abundance of food with those who need it the most. This noble endeavor seeks to bridge the gap between abundance and scarcity, between those who have surplus food and those who are in dire need of a meal. With a mission to alleviate hunger, reduce food waste, and foster community cooperation, the Food Donation Project stands at the forefront of social and environmental responsibility.

II. PROPOSED SYSTEM

In this proposed system, we have developed a system for donating the excessive food to the needy through NGOs. Food Waste Management has been designed in such a way that it can fulfill the needs to help reduce the wastage of the food that is been happening and even donating the food that is not been served to the customers to the charity or NGO’s. Restaurants can donate their food to the nearest NGO’s in case the food is prepared in excess. All the NGO’s will receive the donation request and can decide if they need to accept the request or not. Since the prediction is done separately, in future we can add prediction and it can be automated.

III. SYSTEM DESIGN

A. Use Case Diagram

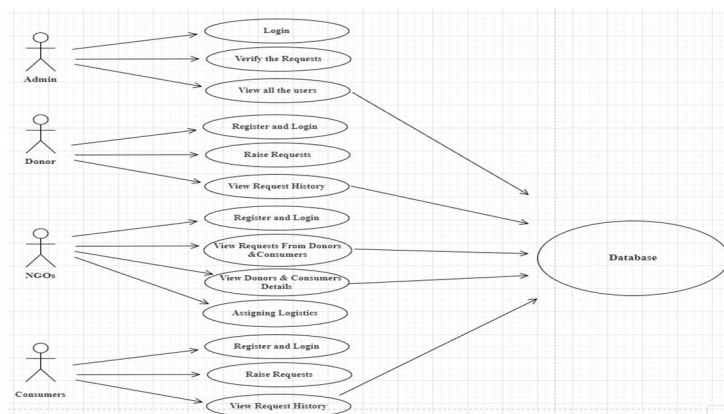


Fig 3.1 Use case diagram

B. Workflow Diagram

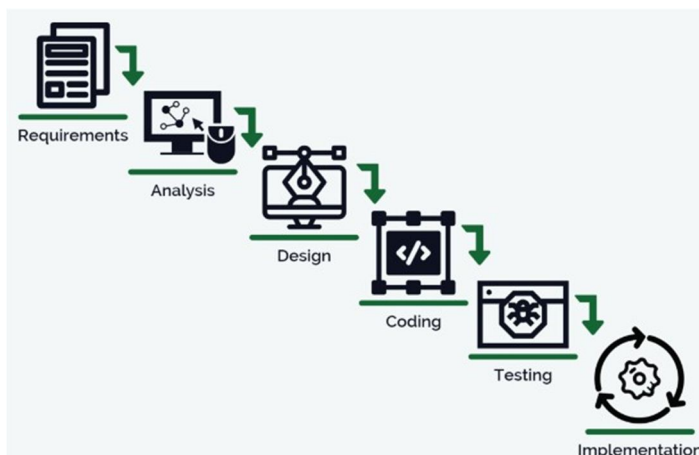


Fig 3.2 Workflow diagram

The use case diagram specifies the activities performed by each user and is shown in Fig. 3.1. The workflow of this project is shown in Fig. 3.2.

IV. SYSTEM IMPLEMENTATION

The system comprises of four major modules:

A. Admin

- 1) View the request raised by Donor, NGO and Consumers.
- 2) Accept or deny the request from the users after verify true information or not.
- 3) Mapping the NGO and Donor.
- 4) View the complaints and suggestions about therequests.

B. Donor

- 1) Register with name, username, password and some personal information.
- 2) Login with registered Username and password.
- 3) Raise the request with details like date, number of packets that can be sent and location.
- 4) View the raised requests and can view the status regarding whether the request is accepted or denied by the NGOs.
- 5) Can give complaints or suggestions about the website capabilities.

C. NGO

- 1) Register with name, username, password and some personal information.
- 2) Login with registered Username and password.
- 3) View the raised requests and can view the status regarding whether the request is accepted or denied by the Admin.
- 4) View nearby Orphanages.
- 5) Create food packages and deliver it to the Consumers.
- 6) Can upload certificates to the website

D. Consumers

- 1) Register with name, username, password and some personal information.
- 2) Login with registered Username and password.
- 3) Raise the request with details like date, number of packets that can be get and location.
- 4) View the food added to the cart and can view the status regarding whether the request is accepted or denied by the Admin.
- 5) Can give Feedbacks and upload the images.

V. EXECUTION

In the home page, the users have to be registered in various roles such as Donor, NGO or Consumers. After registration, they can raise the requests with the availability of food, requirements for NGOs and available details in their respective logins. The admin has to verify the NGOs after their registration. Then the admin can login to their environment and can either accept or deny the requests of the NGO. Also, the admin can map NGO with Donor.

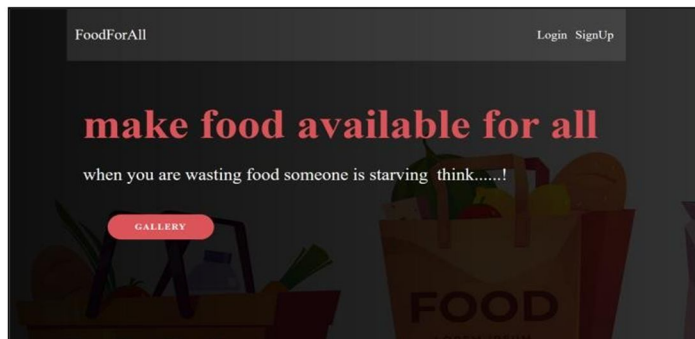


Fig 5.1 Home page of the website

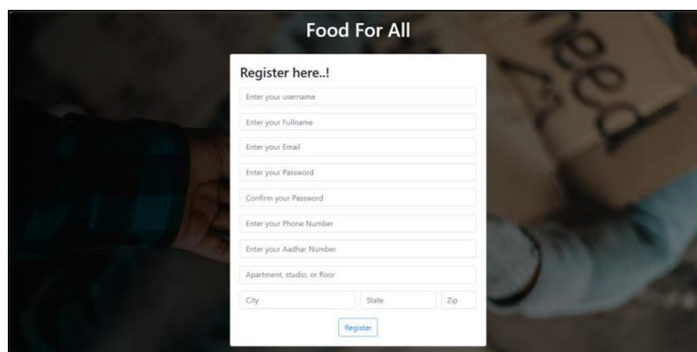


Fig 5.2 User registration page

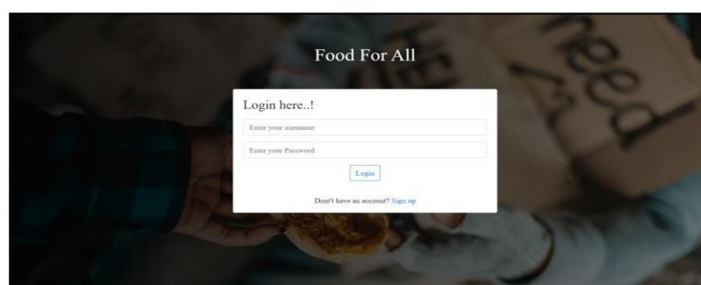


Fig 5.3 Login page

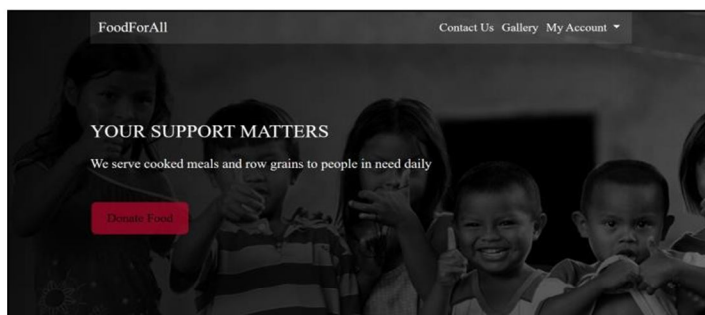


Fig 5.4 Donor request page

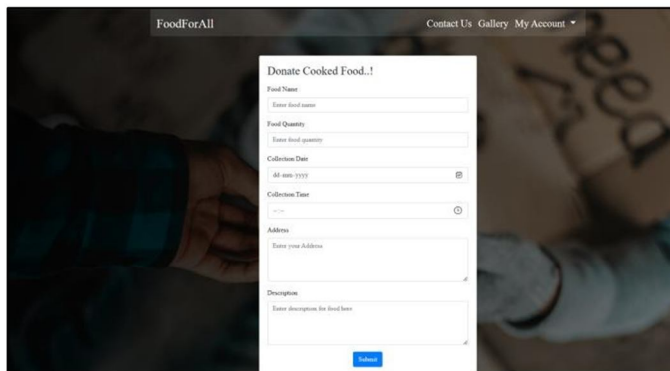


Fig 5.5 Donor Request making Page



Food Type	Quantity	Status	Date of Donation
Wheat	15	Pending	Sept 5, 2023
Wheat	60	Pending	Sept 6, 2023
biryani	150 persons	Pending	Sept 6, 2023
Lentils Rice	100 persons	confirm	Sept 6, 2023

Fig 5.6 View request status (Donor)

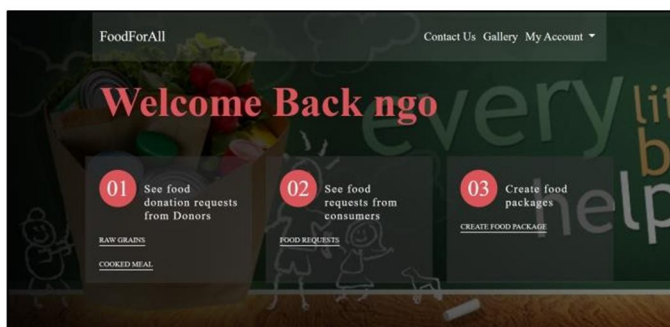
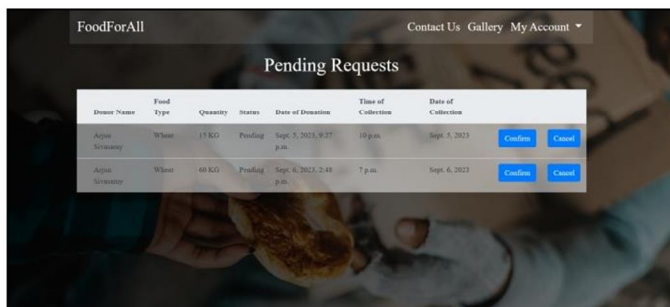


Fig 5.7 NGO page



Donor Name	Food Type	Quantity	Status	Date of Deadline	Time of Collection	Date of Collection	
Alpha University	Wheat	15 KG	Pending	Sept 5, 2023, 9:37 p.m.	10 p.m.	Sept 5, 2023	Confirm Cancel
Alpha University	Wheat	60 KG	Pending	Sept 6, 2023, 2:48 p.m.	7 p.m.	Sept 6, 2023	Confirm Cancel

Fig 5.8 NGO pending requests page (from Donors)

Food Type	Quantity	Date of Order	Confirm	Cancel	User Details
Moong Dal	12 KG	Sept. 8, 2023, 9:56 a.m.	Confirm	Cancel	User Details
Coru	6 KG	Sept. 8, 2023, 9:57 a.m.	Confirm	Cancel	User Details
pack 4	8 PACKAGE	Aug. 22, 2023, 12:21 p.m.	Confirm	Cancel	User Details
Package 2	14 PACKAGE	Sept. 8, 2023, 9:54 a.m.	Confirm	Cancel	User Details
Pack 3	1 PACKAGE	Sept. 23, 2023, 10:56 a.m.	Confirm	Cancel	User Details
Pack 3	8 PACKAGE	Sept. 8, 2023, 9:54 a.m.	Confirm	Cancel	User Details
pack 4	6 PACKAGE	Sept. 8, 2023, 9:56 a.m.	Confirm	Cancel	User Details

Fig 5.8 NGO pending requests page (from Consumers)

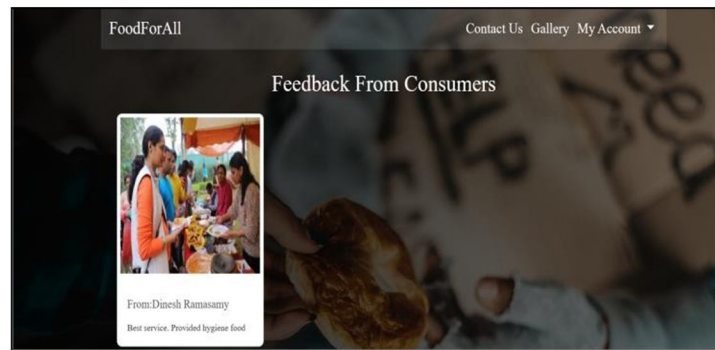


Fig 5.9 Feedback viewing Page

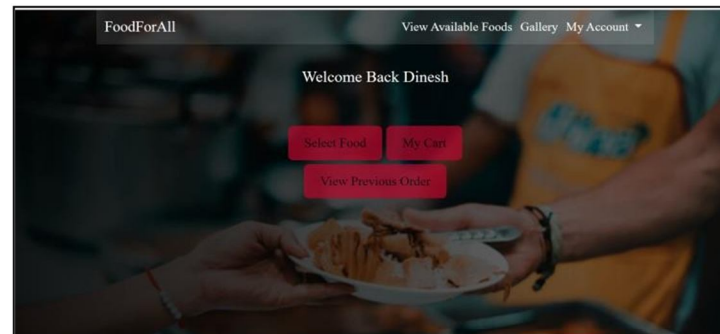


Fig 5.10 Consumer Page

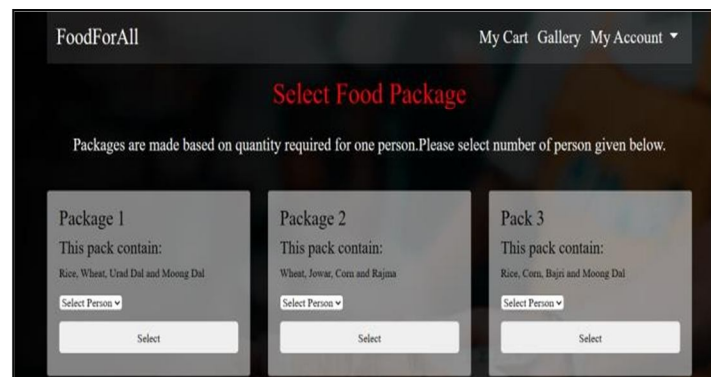


Fig 5.11 Consumer Request Page

Donor Name	Food Name	Quantity	Date of Donation	Location	Date of Collection by NGO
Devipriya	Kambu curd rice	15 Person	Aug. 10, 2023, 10:37 a.m.	10,north street	Aug. 10, 2023
Jasmi Raju	Sambar rice	10 Person	Aug. 21, 2023, 2:01 p.m.	120.R.S street	Aug. 21, 2023
Dinith Ramanthy	Rasam	45 Person	Aug. 21, 2023, 2:35 p.m.	120,south street,n.nagar	Aug. 21, 2023
Dinith Ramanthy	tomato rice	50 Person	Aug. 22, 2023, 11:36 a.m.	10,kumarar nagar, cross street	Aug. 22, 2023

Fig 5.12 Consumer Page with available fooddetails

Fig 5.13 Consumer Feedback Page

Fig 5.14 Admin Page

VI. CONCLUSION

This project is an innovative solution that tackles the problem of hunger in an efficient and effective way. It connects food donors and receivers through a website that facilitates food donation and distribution. It also provides information and resources on how to reduce excess food, improve food quality, and promote healthy eating habits. The project has many benefits for the environment, the economy, and the society, such as saving natural resources, reducing greenhouse gas emissions, improving land quality, enhancing biodiversity, lowering food prices, increasing food security, and supporting human rights. This web-based application works properly and responsive to the users with proper retrieval from the database. Also, there is a help menu available in all user logins which is answered by the admin. In this way this website comes with various features for the effective consumption of waste food by the needy people. This project also demonstrates the power of social innovation and technology to address global challenges and create positive impacts for the planet and its people.



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