

Stage 1: Detailed Project Description

Content Table

Project Title	2
Project Summary	2
Description	2
Usefulness	2
Realness	3
Functionality	3
Project work distribution	3
UI Mockup	5

Excess Food Distribution Application

Project Summary

This website solves the issue of managing and distributing excess food. It will enable the food providers (Restaurants or dinings) to connect and give food to interested users. The website will contain the profiles of food providers and the users who will be the potential consumers of the food. The food providers can post an update on the website about the amount of excess food and the type of food available, and interested users can reserve it via the website.

In addition to this, the registered users will also be notified via email based on personalized preferences. The website will also display the statistics of the food donated throughout the month/year. Also, the restaurants will be given the analysis of the monthly/weekly food wastage. This will help the food providers to make decisions towards reducing the excess food.

Description

The project aims to build an application to help food providers distribute excess food. This project will help users from various walks of life like students, needy people, and busy employees, etc.

At the same time, it will help NGOs (Volunteer Organisations) get information regarding such places so that NGOs can work with them to serve the needy. Also, people registered on this website can get this information based on their eating preferences, likes/dislikes, location, etc. This will help solve the problem of food wastage.

Usefulness

Almost every food place has a lot of excess unconsumed food at the end of the day, which gets dumped. There are a lot of people who are struggling to get proper food due to various personal reasons. Apart from needy people, even a student will benefit from this product because students are very busy and sometimes skip meals or eat unhealthy food due to their busy schedules. This website will be a savior for a variety of people. Also, many volunteer organizations are looking for places to get food to distribute to needy people. This service will help connect all fronts and help solve the food wastage problem.

An organization named Robin Hood Army(RHA) in India works toward solving the excess food distribution problem. But they operate via Whatsapp groups in a localized manner. Our website provides an easy-to-use web interface to food providers and users. Unlike RHA, we provide an end-to-end solution, eliminating the requirement of volunteers and directly connecting users to food providers. Additionally, the website also provides statistics to the food providers.

Realness

The data regarding hotels, locations, and food menus are available online, which will be scrapped from the internet. We will generate fake user data and distribute them to various locations to facilitate location-wise searching for nearby food options. Volunteer organization data can also be scraped from the internet or generated.

- 1. Food Provider:** *(Data collection via scraping and auto generation)*
 - a. Name
 - b. Location
 - c. Rating
 - d. Contact
- 2. User:** *(Auto-generated)*
 - a. UserId
 - b. Location
 - c. Phone Number
- 3. Food Items Offered:** *(Data collection via scraping and auto generation)*
 - a. Item Name
 - b. Date
 - c. Quantity Available
 - d. Reserved status
 - e. Food Provider ID (FOREIGN KEY)
- 4. Food Orders:** *(Auto-generated)*
 - a. UserID
 - b. Food Items Offered ID (FOREIGN KEY)

Functionality

Information regarding “What data is stored in the database” is stated in the Realness section. Here, we will discuss the functionalities and creative components.

- 1. Simple Functionalities**
 - a. CRUD queries:
 - i. Create: Users, Food providers, Food items, Food availability

- ii. Update: Food availability, Food items, Closing time
- iii. Delete Users, Food providers,
- b. Food providers can post the availability of excess food on the website.
- c. Search: Users can search nearby restaurants based on various filters like location, food type, available time, etc.

2. Complex Functionalities:

A personalized notification system will be implemented where users will be sent notifications about excess food based on their interests and preferences. This will be done as a background task, and this functionality will be implemented via asynchronous task libraries or cloud mailing solutions.

3. Creative Component:

The website will provide monthly/weekly analysis of food wastage so that the food providers can make decisions to decrease food wastage. A dashboard will be displayed on the profiles of the food providers.

Project work distribution

1. Documentation: *bongale2, mayanks4, hsf3, shetty5*

2. Frontend Engineering:

- a. Authentication pages: *shetty5, hsf3*
- b. Forms: *bongale2, mayanks4*
- c. Dashboard: *mayanks4, shetty5, hsf3*
- d. Home Page: *hsf3, bongale2, shetty5*
- e. Main Page: *shetty5, bongale2*
- f. Notification: *hsf3, mayanks4*

3. Backend Engineering:

- a. Search functionality: *shetty5, bongale2, mayanks4*
- b. Notification system: *hsf3, bongale2*
- c. Data Analytics: *mayanks4, hsf3, shetty5*

4. Database:

- a. CRUD queries: *bongale2, mayanks4, hsf3, shetty5*
- b. Designing Schema: *bongale2, mayanks4, hsf3, shetty5*

UI Mockup

PAGES VISIBLE TO
HOTEL

HOTEL SIGN UP

NAME

CONTACT

LOCATION

SIGN UP

HOTEL DASHBOARD

MONTHLY
FOOD WASTAGE

ANALYTICS

USER

RESERVED FOOD

CANCEL

PAGES RELATED TO USER

USER SIGN UP

NAME	<input type="text"/>
CONTACT	<input type="text"/>
LOCATION	<input type="text"/>
<input type="button" value="SIGN UP"/>	

USER HOMEPAGE

Search by location, preference <input type="button" value="Q"/>			
Hotel Name	Close Time	Distance	Amount available
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

RESERVATIONS

Filter by Date, Hotel <input type="button" value="Q"/>		
Date	ORDER ID	Status
<input type="text"/>	<input type="text"/>	<input type="text"/>

Hotel Information (Shown to User)

Hotel Name :			
Contact :			
Open Till :			
Food Item	Reserve ?	Veg/Non-veg	Qty.
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>