

# Problem-Solution Document

Date	19 JUNE 2025
Team ID	LTVIP2025TMID31579
Project Name	To Supply Leftover Food to Poor
Maximum Marks	

## Problem Statement:

Organizations and individuals involved in food distribution face several challenges, including:

- **Food Waste:** Excess food from restaurants, events, and households often goes to waste instead of being redistributed to those in need.
- **Inefficient Coordination:** Lack of a centralized system for connecting food donors with recipients leads to missed opportunities for food redistribution.
- **Logistical Challenges:** Difficulty in managing logistics for food pickup and delivery, including scheduling and transportation.
- **Awareness and Engagement:** Limited awareness among potential donors about the impact of food donation and how to participate.

## Target Users / Stakeholders:

- **Food Donors:** Restaurants, catering services, grocery stores, and individuals.
- **Nonprofit Organizations:** Charities and food banks that facilitate food distribution.
- **Volunteers:** Individuals who assist in food collection and delivery.
- **Recipients:** Individuals and families in need of food assistance.

## User Needs:

- **Centralized Platform:** A user-friendly platform to connect food donors with recipients.
- **Real-Time Notifications:** Automated alerts for donors about food pickup requests and for recipients about available food.
- **Logistics Management:** Tools for scheduling pickups and deliveries, including route optimization.
- **Reporting and Analytics:** Dashboards to track food donations, waste reduction, and impact metrics.
- **Mobile Access:** A mobile-friendly interface for users to access the platform on-the-go.

## Proposed Solution:

### 1. Web and Mobile Application

- **User Registration:** Allow donors and recipients to create accounts and manage their profiles.
- **Food Donation Listings:** A feature for donors to list available food items, including quantity and pickup times.

- **Recipient Requests:** A system for recipients to request food based on their needs.

## **2. Automated Notifications**

- **Alerts for Donors:** Notify donors when food is requested or when they have pending donations.
- **Updates for Recipients:** Inform recipients about available food and pickup times.

## **3. Logistics Management Tools**

- **Scheduling System:** A calendar feature for managing food pickups and deliveries.
- **Route Optimization:** Integration with mapping services to provide the best routes for food transport.

## **4. Reporting and Analytics Dashboard**

- **Impact Tracking:** Metrics on food saved from waste, number of meals provided, and user engagement statistics.
- **Feedback Mechanism:** Allow users to provide feedback on the donation process and logistics.

## **5. Community Engagement Features**

- **Awareness Campaigns:** Tools for promoting food donation initiatives and engaging the community.
- **Volunteer Coordination:** A section for managing volunteer sign-ups and schedules.

## **Expected Outcomes:**

- **Reduction in Food Waste:** Significant decrease in the amount of food wasted by facilitating donations.
- **Increased Food Access:** Improved access to food for individuals and families in need.
- **Enhanced Community Engagement:** Greater awareness and participation in food donation efforts.
- **Streamlined Operations:** More efficient logistics and coordination between donors and recipients.