

Project Design Phase

Solution Architecture

Date	01 Nov 2025
Team ID	NM2025TMID07455
Project Name	To Supply the Leftover Food to Poor
Maximum Marks	4Marks

Solution Architecture:

Goals of the Architecture:

- Facilitate efficient distribution of leftover food from restaurants, hotels, and events to poor and needy people.
- Minimize food wastage by creating an automated donor–receiver matching system.
- Provide real-time tracking of food availability, pickup, and delivery status.
- Enhance transparency and coordination between donors, NGOs, and volunteers.

Key Components:

- **Donor Module:** Restaurants, hotels, and event organizers can register and post available leftover food details (type, quantity, location, and pickup time).
- **Receiver Module:** NGOs or volunteers register to collect and distribute food to the poor.
- **Admin Panel:** Manages user registrations, verifies donations, and oversees food distribution progress.
- **Notification System:** Sends alerts to nearby NGOs or volunteers when food becomes available.
- **Tracking System:** Monitors real-time pickup and delivery activities.

Development Phases:

- **Registration Phase:**
Implement donor and NGO registration forms and database setup.
- **Donation Posting Phase:**
Allow donors to upload leftover food details, including pickup time and quantity.
- **Matching and Notification Phase:**
Use location-based matching to notify nearby NGOs or volunteers.
- **Tracking and Delivery Phase:**
Enable tracking from pickup to final delivery with confirmation from the receiver.
- **Feedback Phase:**
Implement feedback and rating features to improve future operations.

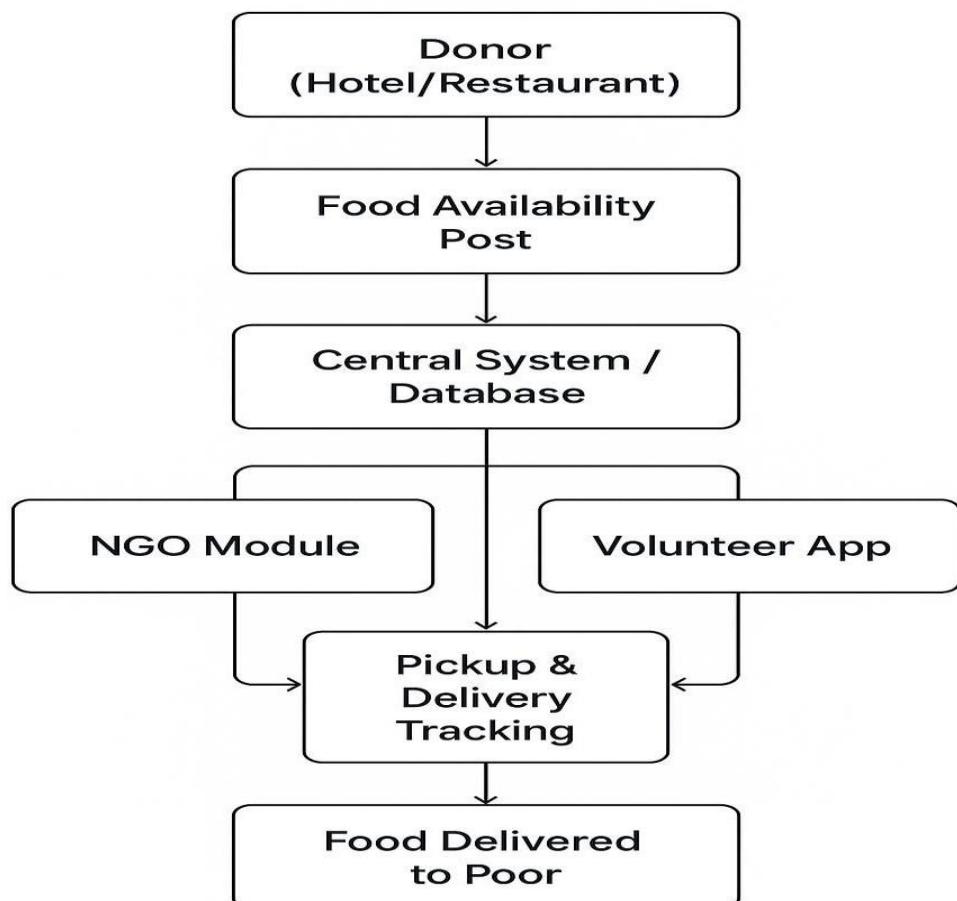
Solution Architecture Description:

The **solution architecture** for “To Supply the Leftover Food to Poor” is designed to connect food donors with NGOs and volunteers in real time through a centralized digital platform. When a restaurant or hotel posts leftover food, the system automatically matches it to nearby NGOs or volunteers using location-based filtering. Once accepted, a notification is sent for pickup, and delivery tracking begins.

All activities are logged within the system to ensure accountability and transparency. The admin can monitor the entire flow — from donation posting to food delivery confirmation — using the dashboard. The design promotes sustainability by reducing food waste and helps address hunger in underprivileged communities.

This architecture ensures a seamless and scalable process for managing food donations, utilizing modern web and mobile technologies to enhance coordination, efficiency, and social impact.

Example-Solution Architecture Diagram:



Reference

- <https://aws.amazon.com/architecture/>
- <https://www.atlassian.com/agile/project-management>
- <https://www.visual-paradigm.com/scrum/what-is-agile-software-development/>