Project Design Phase
Solution Architecture

Date	02 NOVEMBER 2025
Team ID	D62F116B4D1897894BB441A9447B6D32
Project Name	To Supply Leftover Food to Poor
Maximum Marks	4 Marks

The **Solution Architecture** of the project *"To Supply Leftover Food to Poor"* defines how various Salesforce components interact to streamline the collection, tracking, and delivery of leftover food from donors to the needy through volunteers and NGOs.

This architecture integrates **Salesforce Admin** and **Developer functionalities** to ensure automation, transparency, and security in the food distribution process.

1. Overview of System Flow

The overall workflow follows a simple and effective sequence:

Donor → Salesforce Application → Volunteer → NGO/Receiver

1. **Donor** enters details of available leftover food (type, quantity, location, expiry).
2. The **Salesforce Application** stores the data and automatically assigns a **Volunteer** using Flows.
3. The **Volunteer** receives a notification and collects the food from the donor's location.
4. The collected food is delivered to the **NGO or Receiver**.
5. The **Trigger** updates the food status (e.g., *Collected*, *Delivered*).
6. **Reports and Dashboards** provide real-time tracking and performance metrics to the admin.

2. Components of the Architecture

a) Custom Objects

- **Donor** – Stores donor information such as name, contact, and organization.
- **Food_Item** – Contains details about the leftover food, including quantity and expiry date.
- **Volunteer** – Tracks volunteer information and their assigned tasks.
- **Distribution** – Records details of delivery and receiver status.

b) Automation Tools

- **Flows:** Automate volunteer assignment and task creation.
- **Apex Triggers:** Update food status and maintain data integrity automatically.

c) Security & Access Control

- **Profiles:** Define access levels for Admin, Donor, Volunteer, and NGO.
- **Sharing Rules:** Ensure privacy and restrict unauthorized data access.

d) Reporting & Analytics

- **Reports:** Show total donations, active volunteers, and food distribution metrics.
- **Dashboards:** Provide visual representation of the project's performance in real time.

e) User Interface (Lightning App)

- Custom Lightning App for easy navigation and access to objects, reports, and dashboards.
- Home Page designed with shortcuts to frequently used sections.

Food Donation and Delivery Process

Admin Monitors Performance

The administrator reviews performance reports on the dashboard.

Volunteer Collects and Delivers Food

The volunteer gathers the food and transports it to the NGO.

Donor Enters Food Details

The donor inputs information about the food donation into the system.

NGO Updates Status

The NGO updates the donation status in the system.

Salesforce Assigns Volunteer

The system automatically assigns a volunteer to the donation.