Project Design Phase-II

Technology Stack (Architecture & Stack):

Date	26 June 2025
Team ID	LTVIP2025TMID31149
Project Name	To Supply Leftover Food To Poor
College Name	Ideal Institute Of Technology

Technical Architecture

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1	User Interface	Interface for restaurants, NGOs, and volunteers to interact	Salesforce Lightning Web Components, HTML, CSS
2	Application Logic-1	Donation workflow: food listing, pickup request, status updates	Apex (Salesforce backend), Salesforce Flow
3	Application Logic-2	Notifications for pickups, deliveries, expiry alerts	Salesforce Process Builder, Apex Triggers
4	Application Logic-3	Intelligent donor-recipient matching	Salesforce Einstein AI
5	Database	Store food donation records, user profiles, NGO details	Salesforce Standard and Custom Objects
6	Cloud Database	Cloud storage of donation logs, reports, analytics data	Salesforce Data Cloud
7	File Storage	Upload food images, receipts, health certifications	Salesforce Files, Amazon S3 (if

			external integration needed)
8	External API-1	Verify location & route optimization	Google Maps API, Mapbox API
9	External API-2	NGO registration verification (government or official ID check)	DigiLocker API / Aadhar API
10	Machine Learning	Predict food demand, prioritize delivery based on perishability	Salesforce Einstein / External ML via Heroku
11	Infrastructure	Hosting, scalability, and CI/CD for custom services	Salesforce Platform, Heroku

TABLE 2:Application Characteristics:

S.No	Characteristics	Description	Technology
1	Open-Source Frameworks	Frontend frameworks or utility libraries used in integration	Bootstrap (UI), Leaflet.js (maps), Chart.js (analytics)
2	Security Implementations	Ensure data privacy, secure access, and regulatory compliance	OAuth 2.0, Role-Based Access Control (RBAC), SHA-256 Encryption, Field-Level Security, OWASP Top 10 Mitigation
3	Scalable Architecture	Scalable multi-tier architecture to handle growing donors and NGOs	3-Tier Architecture: UI → Business Logic → Database; Salesforce Platform + Heroku Microservices

4	Availability	High uptime with minimal service disruption through distributed cloud services	Salesforce Cloud Infrastructure, Heroku Dynos, Load Balancers
5	Performance	Fast response times, optimized for high load with caching and CDNs	Salesforce CDN, Object Caching, Governor Limits Optimization