Project Design Phase
Solution Architecture

Date	30 OCT 2025
Team ID	NM2025TMID00011
Project Name	To Supply Left Over Food To Poor
Maximum Marks	4 Marks

Solution Architecture:

Goals of the Architecture:

- Ensure efficient collection and distribution of leftover food
- Maintain real-time coordination between donors, NGOs, and volunteers
- Minimize food wastage through automation and timely delivery

Key Components:

- **Donor Module** – Allows restaurants, event organizers, or individuals to register leftover food
  • **NGO/Volunteer Module** – Enables NGOs and volunteers to receive food requests and confirm pickups
  • **Database** – Stores details of donors, food items, locations, and delivery status
  • **Notification System** – Sends real-time alerts for food availability, pickup, and delivery updates
  • **Tracking System** – Monitors the live status of food collection and distribution

Development Phases:

- Register donors and NGOs on the platform
- Create a food listing module for entering leftover food details
- Implement automated matching and notification logic
- Test the pickup and delivery workflow with real-time tracking

Solution Architecture Description:

The solution architecture is designed to streamline the process of collecting and distributing leftover food through a unified digital platform. When donors submit details of available food, the system automatically identifies the nearest NGOs or volunteers using location-based mapping. Real-time notifications are triggered to coordinate quick pickups, ensuring food freshness and reducing waste. All data is securely stored in a centralized database to maintain transparency and traceability. The development cycle involves setting up donor and NGO accounts, building food listing and matching modules, and testing the complete workflow from donation to delivery. This architecture enhances efficiency, encourages community participation, and supports sustainable hunger relief efforts.

Example - Solution Architecture Diagram:

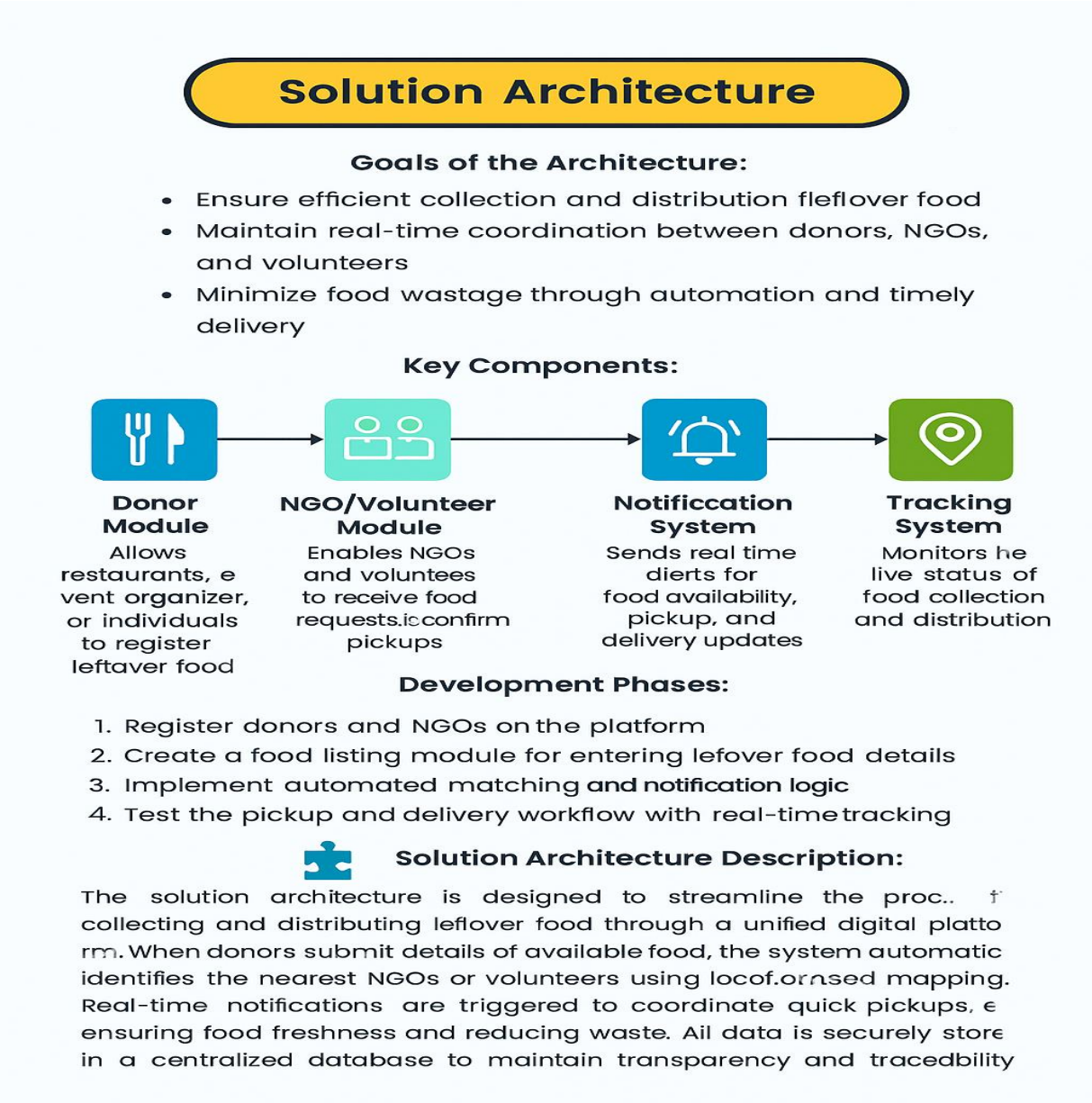

Figure: Solution Architecture for Supplying Leftover Food to the Poor

Reference: https://aws.amazon.com/blogs/industries/voice-applications-in-clinical-researchpowered-by-ai-on-aws-part-1-architecture-and-design-considerations/