Project Design Phase

Solution Architecture

Date: 03/11/2025
Team ID: NM2025TMID04420
Project Name: To Supply Leftover Food to Poor
Maximum Marks: 4 Marks

Solution Architecture:

Goals of the Architecture

• Create a structured system to collect leftover food from donors.
• Ensure safe handling and distribution of food to poor communities.
• Maintain proper tracking between donors, volunteers, and receivers.
• Reduce manual effort by streamlining the donation and delivery workflow.

Key Components

• Donor Module (Homes, restaurants, event organizers)
• Volunteer Module (Handles collection and delivery tasks)
• Quality Check Process (Ensures leftover food safety)
• Distribution Module (Maps collected food to needy areas)

Development Phases

1. Register donors and volunteers.
2. Donors submit leftover food details (quantity, type, pickup time).
3. Volunteers are assigned for collection and delivery.
4. Food is checked and delivered to poor individuals.

Solution Architecture Description

The solution architecture creates a safe and efficient system for distributing leftover food to poor individuals. Donors submit available food details, volunteers collect it, perform a basic quality check, and deliver it to targeted communities. This design reduces food wastage, improves coordination, and strengthens community support while ensuring timely access to meals.

Example - Solution Architecture Diagram

Figure 1: Architecture and data flow of the food redistribution system

Reference:

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