

1. Requirements analysis:
- Hardware Requirements
- Smartphone or PC (Android/Windows)
 - Internet Connectivity
 - Server or Cloud Storage (optional)

Software Requirements

Frontend: HTML / ReactJS / Android App

- Backend: Python / Django /

Node.js / Database: MySQL / Firebase

Tools: VS Code, Figma, Google Maps API

- Functional Requirement Categories:
1. Donor Management Functional Requirements
- FR-DM-001: Donor Registration
- System shall allow authorized personnel to register new food donors
 - Collect and store donor organization name, contact persons, phone, email, address, and food types
 - Generate unique donor identification codes
 - Validate email and phone number formats



FR-DM-002: Donor Profile Management

- System shall enable updating donor information (contact details, food types, operating hours)
- Allow donors to modify their food generation schedules
- Track historical changes to donor information
- Enable activation and deactivation of donor accounts

FR-DM-003: Donor Verification

- System shall verify donor credentials and licensing (where applicable)
- Conduct background checks for food safety compliance
- Maintain compliance status flags
- Document verification dates

FR-DM-004: Donor Communication

- System shall send notifications to donors about collection schedules
- Provide feedback on donation patterns and impact

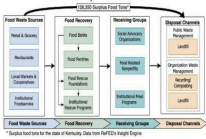
- Enable messaging between donors and coordinators
- Generate donation certificates for tax purposes

2. Food Inventory Management

Requirements FR-FI-001: Food

Collection Recording

- System shall record collected food items with donor ID, food type, quantity, unit, collection time
- Capture storage requirements (refrigeration, ambient, frozen)
- Record expiry dates and shelf life information
- Generate unique food item IDs



FR-FI-002: Quality Assessment

- System shall record quality assessment results (fresh, acceptable, questionable, rejected)

- Capture assessment timestamps and assessor identification

- Link quality assessments to specific assessment criteria
- Flag rejected items for proper disposal

FR-FI-003: Inventory Tracking

- System shall maintain real-time inventory of available food items
- Track quantity changes as food is distributed
- Monitor storage conditions and alerts
- Generate low-stock warnings

FR-FI-004: Expiry Management

- System shall track expiry dates and calculate remaining shelf life
- Generate alerts as items approach expiry
- Prioritize expiring items for distribution
- Track and report waste from expired items