

<b>Team ID</b>	NM2025TMID06483
<b>Project Name</b>	Supply Leftover Food to Poor
<b>Team Members</b>	Rishikha A(812822205059) Sneka G(812822205068) Rathika M (812822205057) Sangavi S(812822205060)

### **3. Requirement Analysis Phase — Supply Leftover Food to Poor**

#### **3.1 Introduction**

Defines functional and non-functional requirements for the NGO-centered food-recovery system.

#### **3.2 Functional Requirements**

User Management: Secure registration/login for Admin, Donor, NGO, Volunteer roles.

Donation Posting: Donors create donation records (type, quantity, pickup window, location, photos).

Matching & Scheduling: NGOs/volunteers can view and accept donations; schedule pickups.

Pickup Tracking: Update statuses (Posted → Accepted → Picked-up → Distributed).

Safety Checklist: Donor and NGO verification steps (temperature, packaging, time since cooking).

Routing Assistance: Provide suggested pickup routes for volunteers.

Notifications: Real-time alerts (SMS/email/push) for new donations and status changes.

Reporting: Analytics on donations collected, beneficiaries reached, and waste reduced.

#### **3.3 Non-Functional Requirements**

Performance: Support concurrent users (donors and NGO users) with low latency.

Security: Authentication, role-based access, data encryption, minimal PII storage.

Reliability: High availability during meal-times and events.

Usability: Simple UI for low-tech NGO staff and volunteers.

Scalability: Able to add new cities/NGOs and integrate SMS gateways.

#### **3.4 System Requirements**

Hardware: Servers or cloud VM, volunteers' mobile devices for pickup confirmations. Software: Web browser for donors/NGOs, Node.js/Django, React, MySQL/Postgres, mapping API.

#### **3.5 User Requirements**

Donor: Quickly post surplus food and indicate pickup constraints.

NGO/Volunteer: Browse donations, accept, schedule pickups, and mark distribution.

Admin: Verify NGO registrations, monitor operations, and manage guidelines

#### **3.6 Feasibility**

Technical: Uses proven web stack; mapping APIs and SMS gateways available.

Operational: NGOs can be onboarded with training materials; volunteers use mobile confirmations

Economic: Low-cost open-source stack minimizes operational costs.