Smart Food Bank & Donation Distribution CRM

PHASE 1 — Requirement Gathering & Research

1. Requirement Gathering

Goal: Build a Salesforce-first, scalable platform to centralize donation intake, automate matching & volunteer assignment, track delivery lifecycle (pickup \rightarrow drop-off), and provide transparent impact reporting to donors, NGOs and operational teams.

Primary success metrics (SMART):

- Increase successful redistribution of food donations by 40% in 6 months.
- Reduce average pickup-to-delivery time for perishable items to ≤ 6 hours.
- Achieve ≥ 80% volunteer shift fulfillment via automation.
- Provide donors with ≥ 95% on-time SMS/email confirmations.

Objectives:

- Replace ad-hoc spreadsheets/WhatsApp flows with a single system of record.
- Automate matching to reduce manual coordination and reduce food wastage.
- Enable mobile-first volunteer workflows (QR scan check-in/out).
- Provide dashboards for operations, donors, and management.

2. Stakeholder Analysis

- Donors (Restaurants, Supermarkets, Households) quick intake, scheduling, receipts, visibility.
- Recipient NGOs / Community Centers accurate lead times, delivery scheduling, capacity reporting.
- Volunteers / Drivers mobile tasks list, QR check-in/out, navigation instructions.
- Coordinators / Admins manual override, SLA monitor, compliance & audit trails.
- Finance donation valuation, receipts, reconciliation.

3. Business Process Mapping

Current (ad-hoc):

Donor contacts coordinator (calls/WhatsApp) \rightarrow coordinator records in spreadsheet \rightarrow assigns volunteer manually \rightarrow pickup/delivery \rightarrow spreadsheet updated.

Problems: No SLA enforcement, no geospatial matching, delayed pickups, and limited donor feedback.

Proposed (Salesforce-enabled):

- 1. Donor Portal: Donor creates Donation record (photos, expiry, quantity, pickup window).
- 2. Auto-Matching Flow: Salesforce Flow/Apex runs scoring (proximity, expiry urgency, NGO capacity).
- 3. Volunteer Assignment: Flow assigns available volunteers; Twilio SMS sent.
- 4. Mobile LWC QR Check: Volunteer scans QR at pickup & drop; Delivery_Task updates, hours logged.
- 5. Feedback & Reporting: Recipient submits feedback; donor receives receipt/impact summary; dashboards update.

4. Industry-Specific Use Case Analysis

- Perishable Matching: Prioritize donations nearer to expiry.
- Batching Pickups: Combine nearby donor pickups.
- Emergency Requests: NGOs push urgent requests; system escalates.
- Volunteer Swap: Volunteers request shift swaps via portal.
- Compliance: Log photos, temperature notes, chain-of-custody info.

5. AppExchange & 3rd-party Tools (recommended)

- Twilio SMS notifications, confirmations.
- Google Maps / Mapbox geocoding, proximity search, routing.
- QR libraries LWC with JS QR library for scanning.
- Survey tools Salesforce Surveys / AppExchange apps.
- Payment connectors Stripe/Razorpay for monetary donations.
- Mapping Apps Geopointe / MapAnything for visualizations.

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