Ideation Phase

Define the Problem Statements

Supply Leftover Food to the Poor

PROJECT INFORMATION

Field	Details
Date	November 1 , 2025
Team ID	NM2025TMID08527
Project Name	To Supply Leftover Food to the Poor
Maximum Marks	2 Marks

CUSTOMER PROBLEM STATEMENT TEMPLATE

Overview:

Restaurants, hotels, catering services, and event organizers waste significant quantities of edible food daily while simultaneously, poor and hungry individuals in the same cities struggle to access adequate nutrition. This creates a paradoxical situation where food abundance meets food scarcity. Communities lack efficient mechanisms to connect surplus food sources with populations in need. The absence of systematic food redistribution leads to:

- Environmental degradation from food waste in landfills

- Economic loss from discarded food resources

- Continued hunger among vulnerable populations despite available food

- Missed opportunities for social impact and community building

They need a way to efficiently collect surplus edible food from donors while ensuring food safety, maintaining beneficiary dignity, and creating sustainable operations. A clear coordination system with automated logistics would help match surplus food with those in need. This solution will improve food security for vulnerable populations, reduce environmental waste, and create community engagement.

PROBLEM STATEMENT TEMPLATE TABLE

Format: Problem Statement (PS) Analysis

Problem Statement	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	Restaurant owner	Donate surplus food responsibly	I don't have convenient way to do this	No systematic collection process exists	Frustrated & unable to help
PS-2	Poor individual	Access nutritious meals consistently	Food availability is unpredictable	No organized food distribution system exists	Anxious & uncertain
PS-3	Community volunteer	Help reduce food waste	Operations are unorganized	No coordination system or infrastructure	Overwhelmed & ineffective
PS-4	Food donor	Ensure donated food is safe	I lack assurance about food safety protocols	No verification system exists	Concerned & hesitant
PS-5	Beneficiary	Receive food with dignity	Distribution process feels degrading	No respectful service model in place	Embarrassed & reluctant

DETAILED PROBLEM STATEMENTS

PROBLEM STATEMENT PS-1: RESTAURANT OWNER / FOOD DONOR PERSPECTIVE

As a restaurant owner,

I am trying to **donate my daily surplus food to help those in need,**

But **I don't have a convenient, safe, and organized way to do this,**

Because **there is no systematic mechanism to collect surplus food from multiple donors, no clarity on legal protections, and no clear process for food handover,**

Which makes me feel **frustrated, hesitant, and unable to contribute meaningfully to the community despite having excess food daily.**

Detailed Problem Description:

Current Situation:

Every evening, restaurants discard 20-40 kg of perfectly edible food due to overcooking, buffet surplus, or preparation margins. This food could feed dozens of people but instead goes to waste.

Specific Challenges:

1. **No Collection Mechanism**:
   - No one comes to collect the food
   - Donors don't know when or how to donate
   - No clear process for food handover
   - Timing is uncertain and unpredictable

2. **Liability Concerns**:
   - Fear of legal action if donated food causes illness
   - Uncertainty about food safety responsibility
   - Lack of clear legal protection for donors
   - Insurance coverage unclear

3. **Operational Disruption**:
   - Donation process seems time-consuming
   - Staff unclear about what food can be donated
   - Lack of training on proper food handling
   - Fear of disrupting normal operations

4. **Lack of Transparency**:
   - Uncertainty about where food goes
   - No feedback on impact of donation
   - No documentation for tax benefits
   - No recognition for contribution

5. **Quality and Safety**:
   - Concerns about food being stored improperly
   - Worry about contamination during transport
   - Unclear standards for food acceptance
   - No quality assurance process

Consequences:

- Food continues to be wasted daily
- Donor remains unable to fulfill social responsibility impulses
- Lost opportunity for brand enhancement through social impact

- No tax deduction benefits realized

- Community relationship opportunities missed

Desired Outcome:
A simple, convenient process where:

- Food donors can notify about surplus with one click

- Collection happens reliably at specified times

- Food safety is ensured throughout process

- Legal protections are clear and documented

- Impact of donation is visible and measurable

- Tax deduction documentation is provided

PROBLEM STATEMENT PS-2: POOR INDIVIDUAL / FOOD BENEFICIARY PERSPECTIVE

As a poor individual struggling with food insecurity,

I am trying to **ensure my family has enough nutritious food to eat daily,**

But **I cannot access reliable, consistent sources of food despite its availability in nearby restaurants and hotels,**

Because **there is no organized system connecting surplus food sources with people in need, and I lack resources to purchase adequate meals,**

Which makes me feel **anxious, desperate, and helpless about my family's nutrition and survival.**

Detailed Problem Description:

Current Situation:
Daily wage laborer earning ₹200-300 per day struggles to afford 3 meals for family of 4. While restaurants nearby throw away food, the family goes hungry on days with insufficient work.

Specific Challenges:

1. **Unpredictable Food Access**:

   - No consistent source of free or affordable food

   - Charitable distribution unreliable and sporadic

   - Cannot plan meals knowing availability

   - Children and elderly suffer from inadequate nutrition

2. **Knowledge Gap**:

   - Unaware of available food assistance programs

- Don't know where to go for help

- No information about timing or locations

- Difficulty accessing services due to lack of awareness

3. **Dignity and Respect Issues**:

   - Fear of being judged or stigmatized

   - Concern about being treated poorly

   - Embarrassment about needing assistance

   - Want to maintain self-respect while receiving help

4. **Accessibility Challenges**:

   - Distribution centers too far to reach

   - Cannot spend time traveling for uncertain food

   - Need food immediately, not after waiting

   - Transportation costs are prohibitive

5. **Quality and Reliability**:

   - Uncertain about food safety and freshness

   - Worry about receiving spoiled or unsafe food

   - No assurance of nutritious meals specifically

   - Inconsistent food types make planning difficult

6. **Health and Developmental Impact**:

   - Children miss school due to hunger

   - Inability to work productively when hungry

   - Health problems from malnutrition

   - Long-term developmental issues for children

Consequences:

- Chronic hunger affecting family health and productivity

- Children unable to attend school and study

- Reduced work capacity due to weakness and illness

- Widening inequality and lost opportunity for improvement

- Psychological stress from daily survival anxiety

Desired Outcome:
A reliable system providing:

- Predictable, consistent access to nutritious food

- Easy way to know where and when food is available

- Respectful, dignified service without judgment

- Safe, fresh, quality food appropriate for family needs

- Quick access without long waiting periods

- Flexibility in collection times and locations

PROBLEM STATEMENT PS-3: COMMUNITY VOLUNTEER PERSPECTIVE

As a community volunteer wanting to address food waste and hunger,

I am trying to **organize meaningful food redistribution efforts in my community,**

But **I cannot effectively coordinate between food donors, logistics, and beneficiaries without proper systems and infrastructure,**

Because **there is no centralized platform, no clear organizational structure, and no technological support for coordinating large-scale food redistribution,**

Which makes me feel **overwhelmed, ineffective, and frustrated that good intentions cannot translate into sustained impact.**

Detailed Problem Description:

Current Situation:
Enthusiastic volunteer wants to bridge food gap but lacks organizational infrastructure to do so at scale. Ad-hoc efforts have helped individuals but cannot scale or be sustained.

Specific Challenges:

1. **Coordination Complexity**:

   - Difficult to find and contact donors willing to participate

   - No system for matching donor supply with beneficiary demand

   - Logistics of collection and distribution unorganized

   - Communication among volunteers scattered across channels

2. **Operational Inefficiency**:

   - Route planning done manually and inefficiently

   - Duplicate efforts or missed opportunities

   - No visibility into what food is available where

   - Cannot track impact or outcomes systematically

3. **Resource Constraints**:

   - No dedicated transportation for food collection

   - Limited storage facilities for food handling

   - Insufficient volunteers for consistent operations

- No budget for operations or equipment

4. **Training and Safety**:

   - Volunteers untrained in food safety practices

   - No standardized procedures for food handling

   - Quality inconsistency across operations

   - Risk of food safety incidents without proper protocols

5. **Beneficiary Management**:

   - Difficulty identifying genuine need cases

   - No system for registering and tracking beneficiaries

   - No way to verify if assistance is reaching those most in need

   - Sustainability concerns about beneficiary dependency

6. **Sustainability**:

   - No funding or financial model for operations

   - Volunteer burnout from unorganized work

   - Inconsistent operations affecting donor and beneficiary trust

   - Difficulty demonstrating impact for fundraising

Consequences:

- Volunteer effort remains small-scale and unsustainable

- Waste of volunteer time and energy

- Impact remains marginal relative to actual food waste and hunger

- Donor interest diminishes due to disorganization

- Beneficiaries continue to face unreliable assistance

- Lost opportunity for systematic community-level change

Desired Outcome:
A system providing:

- Organized platform connecting donors with volunteers

- Clear procedures and training for all operations

- Technology enabling efficient logistics and coordination

- Measurable outcomes and impact documentation

- Sustainable operational model with funding

- Scalable infrastructure supporting growing operations

- Clear roles and responsibilities for volunteers

PROBLEM STATEMENT PS-4: FOOD DONOR (SAFETY CONSCIOUS) PERSPECTIVE

As a restaurant owner concerned about food safety and liability,

I am trying to **donate surplus food while ensuring no harm comes to recipients and avoiding legal risks,**

But **I lack clear protocols, verification systems, and legal protections for the donation process,**

Because **there is no standardized food safety system, no verification of recipient health status, and no clear legal framework protecting donors,**

Which makes me feel **anxious, cautious, and ultimately reluctant to donate despite wanting to contribute.**

Detailed Problem Description:

Current Situation:
Food donor aware of potential foodborne illness risks and legal consequences if something goes wrong. This fear prevents participation even when donor is willing to help.

Specific Challenges:

1. **Food Safety Uncertainty**:
   - No verification that collected food remains safe during transport
   - Uncertainty about storage temperature maintenance
   - No assurance of recipient ability to safely store food
   - Risk of food degradation before consumption

2. **Legal and Liability Concerns**:
   - No documented legal protections for donors
   - Unclear responsibility if recipient gets sick
   - Potential for lawsuits despite good intentions
   - Insurance coverage for food donation unclear
   - No Good Samaritan law protections

3. **Health Risk Factors**:
   - Recipients may have underlying conditions making them vulnerable
   - Allergies or dietary restrictions unknown
   - Immune system weakness in homeless or malnourished populations
   - No medical screening for recipients

4. **Quality Assurance Gaps**:
   - No standard inspection or approval process

- Subjective assessment of food safety

- No temperature monitoring during transport

- No documentation of food chain of custody

5. **Accountability Issues**:

- No traceability if problem occurs

- No way to verify collection and distribution happened correctly

- No follow-up to ensure recipient safety

- No incident reporting system

Consequences:

- Donor remains paralyzed by fear despite willingness

- Potential liability risk prevents program participation

- Lost opportunity for food redistribution

- Liability insurance costs may discourage participation

Desired Outcome:

A system providing:

- Clear food safety protocols and standards

- Temperature monitoring throughout process

- Staff and volunteer training in food safety

- Health screening or assessment of recipients

- Clear legal documentation and liability protections

- Insurance coverage for donation program

- Incident reporting and tracking system

- Regular audits and compliance verification

- Good Samaritan law advocacy and documentation

- Clear responsibility assignment for each step

PROBLEM STATEMENT PS-5: BENEFICIARY (DIGNITY CONSCIOUS) PERSPECTIVE

As a person in need receiving food assistance,

I am trying to **accept help while maintaining my dignity and self-respect,**

But **the food distribution process often feels humiliating, rushed, and disrespectful,**

Because **assistance systems are designed with efficiency in mind rather than preserving beneficiary dignity, and there's an inherent power imbalance in charity,**

Which makes me feel **embarrassed, ashamed, and reluctant to seek help even when desperately needed.**

Detailed Problem Description:

Current Situation:
Hungry individuals need food but dread the process of receiving it due to perception of being treated as "less than" or being looked down upon during distribution.

Specific Challenges:

1. **Perception and Stigma**:
   - Fear of being looked down upon by volunteers or donors
   - Concern about being recognized and judged by community
   - Embarrassment about visible need and dependence
   - Internalized shame about receiving charity

2. **Process Dignity Issues**:
   - Long public queues marking oneself as needy
   - Rushed, impersonal service without respect
   - Being treated as objects rather than individuals
   - No attention to individual needs or preferences

3. **Lack of Choice and Agency**:
   - No say in what food is provided
   - Forced to accept whatever is given
   - No consideration of preferences or dietary needs
   - Feeling powerless and infantilized

4. **Privacy and Confidentiality**:
   - Public revelation of food insecurity status
   - Worry about information being shared
   - Concern about being on registries or lists
   - Lack of privacy in registration process

5. **Respect and Equality Issues**:
   - Volunteers treating beneficiaries as inferior
   - Condescending language or tone
   - Being hurried or dismissed
   - Lack of eye contact or acknowledgment

6. **Service Quality Issues**:
   - Inconsistent treatment from different volunteers

- No formal grievance or feedback mechanism

- No option for respectful complaint if mistreated

- Service quality depends on individual volunteer's attitude

Consequences:

- Beneficiaries delay seeking help despite hunger

- Vulnerable individuals suffer longer before accepting assistance

- Children see parents humiliated affecting family well-being

- Reduces willingness to return for repeated assistance

- Psychological impact compounding poverty stress

Desired Outcome:

A system providing:

- Respectful, dignified treatment at all times

- Trained volunteers emphasizing respect and equality

- Privacy protection and confidentiality assurance

- Individual choice within available options

- No public identification or visible marking as poor

- Quick, efficient service without long waiting

- Professional, courteous interaction

- Grievance mechanism for mistreatment

- Consistent quality service regardless of volunteer

- Recognition of beneficiary as valued community member

SYNTHESIS OF PROBLEM STATEMENTS

Common Themes Across All Problem Statements:

1. **System Absence**: No organized system currently exists

2. **Efficiency Gaps**: Processes are inefficient and time-consuming

3. **Trust Issues**: Lack of confidence in safety and reliability

4. **Dignity Concerns**: Human respect needs are not addressed

5. **Sustainability Questions**: No clear path for long-term viability

Stakeholder Needs Hierarchy:

For Donors:

1. Safety and Legal Protection (primary concern)

2. Convenience and Simplicity (operational)

3. Impact Visibility (emotional satisfaction)

4. Recognition and Benefits (motivational)

For Beneficiaries:

1. Dignity and Respect (emotional)

2. Reliable Access (security)

3. Quality and Safety (health)

4. Choice and Agency (empowerment)

For Volunteers:

1. Organized Infrastructure (operational)

2. Clear Training and Procedures (support)

3. Technology and Tools (enablement)

4. Impact Measurement (motivation)

Common Success Factors Identified:

All problem statements converge on need for:

- **Clear Organization**: Systematic processes replacing ad-hoc efforts
- **Technology Enablement**: Digital tools coordinating across stakeholders
- **Trust Building**: Transparency and verification at each step
- **Dignity Preservation**: Human-centered design respecting all
- **Safety Assurance**: Protocols and standards ensuring food security
- **Sustainability**: Financial viability for long-term operations

IMPLICATIONS FOR PROJECT DESIGN

Must-Have Features:

Based on problem statements, the project MUST include:

1. **For Donors**:
   - One-click donation notification system
   - Legal protection documentation

- Food safety guidelines and training

- Impact tracking and reporting

- Tax deduction facilitation

2. **For Beneficiaries**:

- Respectful, dignified service protocols

- Privacy protection mechanisms

- Food choice options when possible

- Quick, efficient processes

- Complaint/feedback mechanism

3. **For Operations**:

- Organized collection coordination

- Reliable distribution schedule

- Temperature monitoring system

- Volunteer training program

- Impact measurement tools

Design Principles Derived:

1. **User-Centric**: Design around actual stakeholder needs, not assumptions

2. **Dignity-First**: Respect inherent in every interaction

3. **Safety-Critical**: Food safety and legal protection paramount

4. **Trust-Building**: Transparency at every step

5. **Inclusive**: Address concerns of all stakeholders equally

CONCLUSION

Five distinct problem statements reveal that while the surface problem is food waste and hunger, the deeper problems are:

- **For Donors**: Lack of safe, convenient, legally-protected giving mechanism

- **For Beneficiaries**: Lack of reliable, dignified, empowering assistance

- **For Volunteers**: Lack of organized infrastructure for coordination

- **For Everyone**: Absence of systematic solution despite abundant food and desperate need

A successful project must address all five problem dimensions simultaneously, not just collecting food and distributing it. The solution requires:

o **Operational systems** for logistics and coordination
o **Safety protocols** for food quality assurance
o **Legal frameworks** for donor protection

o **Dignity protocols** for beneficiary respect

o **Technology platform** enabling all above

o **Sustainable funding** for long-term viability

Understanding these distinct problem statements ensures the project solution truly addresses stakeholder needs, not just the surface issue of food mismatch.