

Sprint 2 Deliverables – FoodShare Green Tech

1. Project Information

Group Name: FoodShare Green Tech Team **Project Title:** FoodShare – Community Food Waste Reduction Platform **GitHub Repository:** [FoodShare-GreenTech](#) **Task Board:** [GitHub Project Board](#)

Team Members & Roles

1. **Sameer Chaudhary Tharu** (Lead Developer / Scrum Master)
 2. **Mahesh Batala** (Frontend Developer)
 3. **Dhiraj Yadav** (Backend Developer)
 4. **Prativa Rai** (Database Administrator / Tester)
 5. **Rupesh Shah** (DevOps / Documentation Lead)
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2. Refined Project Idea Summary

"Sharing, exchange and building community"

FoodShare is a dynamic, database-driven web application designed to combat food waste and address the cost-of-living crisis within local communities. Unlike commercial delivery apps, FoodShare focuses on **co-operative exchange** for mutual benefit rather than financial gain.

The platform allows individuals, households, and local businesses to list surplus, edible food that would otherwise go to waste. Community members can browse these listings, claim items, and arrange for collection. By facilitating the redistribution of excess food, the project supports climate change mitigation by reducing landfill waste and fosters a supportive local network.

3. Requirements Model - Use Case Diagram

The following diagram illustrates the primary interactions between our system actors and the core functionalities as defined for the MVP.

```
usecaseDiagram
    actor "Donor" as D
    actor "Recipient" as R
    actor "Guest" as G

    package "FoodShare System" {
        usecase "Register/Login" as UC1
        usecase "List surplus food" as UC2
        usecase "Browse food items" as UC3
        usecase "Filter by category" as UC4
        usecase "Claim food item" as UC5
        usecase "Manage personal listings" as UC6
    }
```

G --> UC1
G --> UC3
D --> UC1
D --> UC2
D --> UC6
R --> UC1
R --> UC3
R --> UC4
R --> UC5

4. Sprint 3 Specification (Requirements & Design)

This section contains the detailed specifications required to begin full-stack development in Sprint 3.

4.1 User Stories (Prioritized)

ID	User Story	Priority	Acceptance Criteria
US1	As a Donor , I want to list surplus food items with details so that they can be discovered.	High	- Form validation for required fields. - Success message after submission.
US2	As a Recipient , I want to browse available food items so that I can find food near me.	High	- Display items with titles and distances. - Filter items by category (e.g., Bakery).
US3	As a User , I want to register and log in securely so that my history is tracked.	High	- Secure password hashing. - Session management with Express-session.
US4	As a Recipient , I want to claim a food item so that it is no longer available.	Medium	- "Claim" button updates item status in DB.
US5	As a Donor , I want to see a dashboard of my listings so that I can manage them.	Medium	- View, Edit, and Delete options for own listings.

4.2 Wireframes (Core Screens)

These low-fidelity wireframes serve as the blueprint for our Sprint 3 development.

Home Page / Browse View

![FoodShare Homepage Wireframe]
(file:///d:/software_engineering/foodshare_green_tech/images/homepage_wireframe.png)

Add Donation Form

![[FoodShare Donation Form Wireframe]]
(file:///d:/software_engineering/foodshare_green_tech/images/donation_form_wireframe.png)

4.3 Activity Diagrams

Visual Donation Process

![[FoodShare Visual Flowchart]]
(file:///d:/software_engineering/foodshare_green_tech/images/visual_flowchart.png)

Technical Workflow (Mermaid)

Listing a Food Item (Donor Workflow)

```
flowchart TD
    A[Start] --> B[Login to System]
    B --> C[Navigate to 'Post Food']
    C --> D[Fill in food details & upload photo]
    D --> E{Details Valid?}
    E -- No --> F[Show Error Messages]
    F --> D
    E -- Yes --> G[Save to Database]
    G --> H[Display Success Message]
    H --> I[End]
```

Claiming a Food Item (Recipient Workflow)

```
flowchart TD
    A[Start] --> B[Browse Food List]
    B --> C[Select an Item]
    C --> D[Click 'Claim Item']
    D --> E{User Logged In?}
    E -- No --> F[Redirect to Login]
    F --> B
    E -- Yes --> G[Confirm Claim]
    G --> H[Update Item Status to 'Claimed']
    H --> I[Notify Donor via Dashboard]
    I --> J[End]
```

5. Technical Specifications (Other Artefacts)

5.1 ERD (Entity Relationship Diagram)

Visual Schema Overview

![[FoodShare Visual ERD]](file:///d:/software_engineering/foodshare_green_tech/images/visual_erd.png)

Technical Schema (Mermaid)

```

erDiagram
    USER ||--o{ FOOD_ITEM : "posts"
    USER ||--o{ CLAIM : "makes"
    FOOD_ITEM ||--o{ CLAIM : "is subject of"
    CATEGORY ||--o{ FOOD_ITEM : "classifies"

    USER {
        int id PK
        string full_name
        string email
        string password
    }
    FOOD_ITEM {
        int id PK
        string title
        datetime expiry_date
        string status
    }
    CLAIM {
        int id PK
        int item_id FK
        datetime claim_date
    }

```

5.2 Sequence Diagram (Claiming Process)

```

sequenceDiagram
    participant R as Recipient
    participant S as System/Server
    participant DB as MySQL Database
    R->>S: Request Claim
    S->>DB: Check Availability
    DB-->>S: Available
    S->>DB: Update Status to Claimed
    S->>R: Confirm Success

```

5.3 Class Diagram (Backend Structure)

```

classDiagram
    class User { +login() +register() }
    class FoodItem { +create() +update() }
    class Claim { +process() }
    User "1" -- "*" FoodItem
    User "1" -- "*" Claim

```

6. Ethical, Security & Usability Considerations

Ethical Considerations

- **Food Safety:** Mandatory checkbox for donors to confirm correct storage temperatures.
- **Inclusivity:** WCAG AA contrast standards (Forest Green on Light Mint).
- **Privacy:** Phone numbers masked until claim confirmation.

Security Implementation

- **Data Protection:** `bcrypt` password hashing.
- **Session Security:** `express-session` with secure flags.
- **Validation:** Server-side input sanitization.

Usability (UX)

- **Responsive Layout:** Mobile-first CSS for browsing on-the-go.
- **Visual Cues:** Progress indicators for multi-step processes.

7. Design System & Visual Identity

![FoodShare Visual Identity](file:///d:/software_engineering/foodshare_green_tech/images/visual_identity.png)

- **Primary Colors:** Forest Green (#2D6A4F), Seafoam Green (#52B788).
- **Typography:** Outfit (Headlines), Inter (Body).


8. Sprint 3 Kanban Board Status

Our team uses a unified GitHub Project board.




!!IMPORTANT!! REPLACE THE IMAGE BELOW WITH YOUR ACTUAL KANBAN SCREENSHOT !!

Board Screenshot

9. Meeting Records & Sprint Logs

 Meeting Record: #01 (Vision Setting)

Meeting Minutes	Details
Date and Time	18/02/2026 10:00 AM
Project Name	FoodShare Green Tech
Meeting Goal	Establish project vision and community scope.
Note taker	Rupesh Shah
Discussion points	Focused on food waste reduction for low-income students.

Meeting Minutes	Details
Actions	FS-01: Competitor Research (Done)
 Meeting Record: #02 (Technical Setup)	
Meeting Minutes	Details
Date and Time	20/02/2026 01:30 PM
Project Name	FoodShare Green Tech
Meeting Goal	Finalize Database Schema and Auth strategy.
Note taker	Prativa Rai
Discussion points	Confirmed MySQL and Express-sessions.
Actions	FS-02: SQL Script Creation (Done)
 Meeting Record: #03 (UI/UX Approval)	
Meeting Minutes	Details
Date and Time	23/02/2026 03:00 PM
Project Name	FoodShare Green Tech
Meeting Goal	Approve final UI design and color palette.
Note taker	Sameer Chaudhary Tharu
Discussion points	Approved Forest Green palette and card-based layout.
Actions	FS-03: Finalize CSS Tokens (Done)
 Meeting Record: #04 (Submission Review)	
Meeting Minutes	Details
Date and Time	25/02/2026 10:00 AM
Project Name	FoodShare Green Tech
Meeting Goal	Finalize Sprint 2 deliverables for submission.
Note taker	Rupesh Shah
Discussion points	Verified all Mermaid diagrams and specification details.
Actions	FS-04: Submit Sprint 2 Report (In Progress)

10. Student Readiness Statement

All team members (**Sameer, Mahesh, Dhiraj, Prativa, Rupesh**) are up to date with lab work and have Docker configured. The team is fully prepared to start development of Sprint 3 features immediately.

11. Project Links

- **GitHub Repository:** <https://github.com/Sameercdytharoo/FoodShare-GreenTech>
- **Task Board:** <https://github.com/users/maheshbatala/projects/1>