

Sprint 1 Proposal – Team “APEX”

Project: Sustainable Grocery Tracker

1. Team Structure and Roles

Name	Role	Key Responsibilities
Bala Manikanta Chowdary Musunuri	Project Manager	Oversees coordination, sprint planning, and project sustainability goals..
Sravya Savirigam	Frontend Developer (React.js)	Develops user interface and data visualization dashboards using PUG.
Nandini Kadiyala	Backend Developer (Node.js & Express.js)	Implements APIs using Node.js and Express.js and connects to MySQL database.
Manju Uppe	UI/UX Designer	Designs intuitive layouts for tracking and comparing ecofriendly options.
Bala Manikanta Chowdary Musunuri	QA & Documentation	Tests features, ensures accuracy of sustainability metrics, and prepares documentation.

2. Introduction / Project Overview

The **Sustainable Grocery Tracker** is a smart, eco-conscious shopping assistant designed to promote environmentally responsible grocery shopping. In today's world, where climate change and sustainability have become global priorities, consumers are seeking ways to align their everyday choices with a greener lifestyle. This application aims to bridge the gap between convenience and environmental awareness by helping users understand the sustainability impact of their grocery purchases.

Through an intuitive and user-friendly interface, the system allows users to **track, analyze, and improve their grocery habits**. Each product is evaluated using **eco-scores** that measure environmental factors such as carbon footprint, packaging recyclability, and sourcing sustainability. Users can visualize trends in their purchasing patterns, receive insights on how to lower their environmental impact, and explore alternative products with better eco-ratings.

3. Application Idea and Purpose

The Sustainable Grocery Tracker empowers users to understand the environmental impact of their shopping habits. It integrates product barcode scanning, sustainability ratings, and budget tracking in one app. Users can track carbon impact, compare brands, and receive eco-tips that align with their dietary preferences and lifestyle goals.

This project is implemented as a CRUD web application:

1. **Create:** Users add new grocery purchases and sustainability notes.
2. **Read:** Display eco-scores and carbon footprint dashboards.
3. **Update:** Edit grocery entries and sustainability preferences.
4. **Delete:** Remove outdated or incorrect records.
5. The tech stack includes **PUG** for front-end templating, **Node.js** and **Express.js** for the back-end, a **MySQL** database for storage, and deployment via **Docker**. Version control is managed with **GitHub**.

4. Problem Statement / “How Might We” Questions

Consumers are becoming more environmentally conscious but lack the tools to make informed, sustainable choices while shopping. Existing grocery apps rarely provide insights into product sustainability or track the long-term impact of purchasing decisions.

- How might we help users identify sustainable grocery options easily?
- How might we encourage consumers to reduce food waste and carbon footprint?
- How might we provide real-time feedback on the sustainability of their purchases?
- How might we measure which categories contribute most to a user's overall footprint?

5. Code of Conduct

The team commits to collaboration, inclusivity, and professional conduct at all times. We will maintain open communication, respect deadlines, and ensure equal workload distribution.

Key principles include:


1. **Communication:** Weekly stand-ups and sprint meetings to track progress.
2. **Version Control:** Follow Git workflow using branches, pull requests, and clear commit messages.
3. **Attendance:** All members must attend sprint reviews unless excused with valid reasons.
4. **Conflict Resolution:** Issues will first be discussed within the team. If unresolved, the matter is escalated to the module delivery team.
5. **Respect & Inclusivity:** All members' opinions are valued, and respectful dialogue is maintained.
6. **Ethical Practice:** Data and sustainability metrics will be sourced and presented responsibly.

Trello Link: <https://trello.com/b/nVz9qrDj/apex-sustainable-grocery-tracker>

GitHub Repository URL: <https://github.com/Sravyass498/sustainable-grocery-tracker>

These platforms are used to manage development tasks, track progress, and ensure consistent version control.

6. Personas



Name: Priya Sharma

Demographics

Gender:	FEMALE
Age:	23
Location:	LONDON
Relationship Status:	SINGLE
Title:	Financial Controller
Education:	B.S. in Accounting

Goals

- Reduce her personal carbon footprint.
- Track grocery expenses while staying sustainable.
- Compare brands based on eco-scores and packaging waste. Learn easy ways to make greener daily choices.

Background Description

Priya Sharma is a busy mother who manages the family budget. While she believes in saving the planet, her primary motivation is saving money. She shops in bulk and batch-cooks to be efficient, but often loses track of items bought and stored in the freezer or deep pantry shelves.

Motivations

- Wants to contribute to environmental conservation.
- Feels good about making informed, ethical purchases.
- Appreciates gamified tracking (e.g., "You saved 10kg of CO₂ this month!").

Challenges

- Hard to identify which grocery products are sustainable.
- Finds eco-labels confusing or inconsistent across brands.
- Struggles to balance budget and sustainability goals.

Expectations:

- State your salary is negotiable. ...
- Emphasize your flexibility. ...
- Personalize your expectations for each job



Name: Bala Manikanta Chowdary

Demographics

Gender: MALE
Age: 23
Location: LONDON
Relationship Status: SINGLE
Title: Software engineer with a passion for sustainability and green technology.
Organization: Apex Team – Sustainable Grocery Tracker

Goals

- Build a tool that encourages sustainable consumer behavior.
- Ensure data accuracy and transparency in eco-scores.
- Promote long-term user engagement through meaningful insights. Expand the platform to partner with eco-certified brands and stores...

Background Description

Bala Manikanta Chowdary Musunuri, a passionate software engineer and product owner, envisions creating technology that promotes sustainable living. With a strong background in computing and project management, he leads the Apex team to develop impactful, user-friendly solutions. His goal is to make sustainability accessible and measurable through innovation.

Quote:

"Sustainability should be as convenient as shopping — our app bridges that gap."

Motivations

- Believes in leveraging technology for environmental good.
- Wants Apex to become a benchmark for sustainable tech startups.
- Seeks to educate consumers on responsible consumption patterns.

Challenges

- Gathering reliable sustainability data for diverse grocery products.
- Balancing usability with technical complexity.
- Maintaining motivation and alignment among the development team.

How Apex supports Bala's vision:

- Offers a practical tool with measurable sustainability impact.
- Encourages collaboration between developers, designers, and eco-experts.
- Positions Apex as a socially responsible, tech-driven initiative.