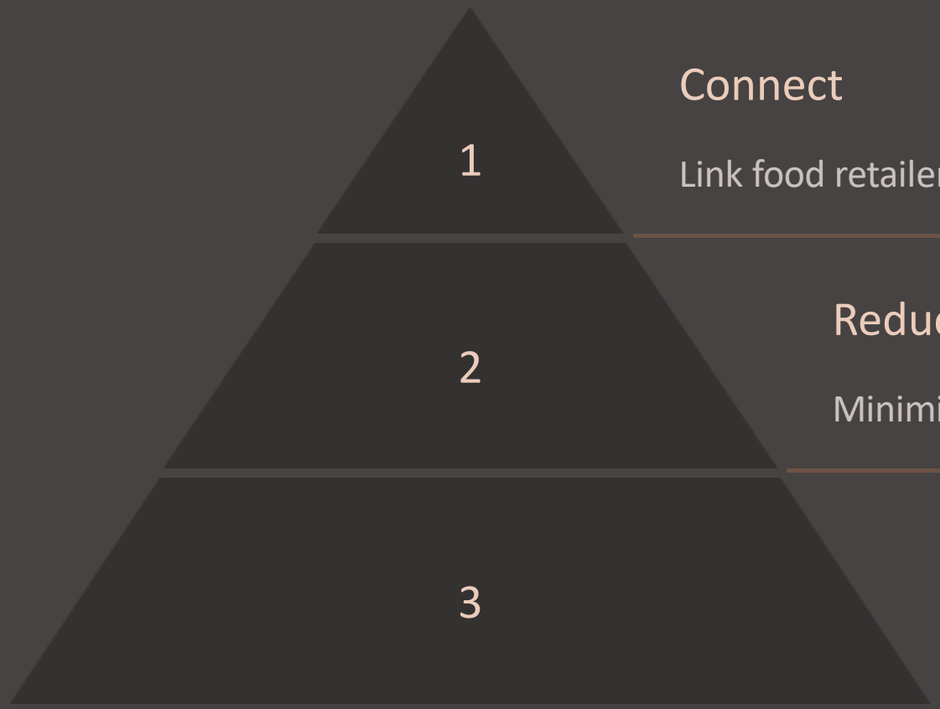
Final Project: Food Waste Reduction Platform

Group Members

- Gurminder Badwal (Team lead)
- Meet Maheta
- Parth Patel
- Aditya Hirpara

Project Overview



Connect

Link food retailers, consumers, and charitable organizations

Reduce Waste

Minimize surplus and optimize distribution

Sustainable Solution

Revolutionize food surplus management

Teamwork and Collaboration

Roles and Responsibilities

We had assigned specific roles for different tasks to ensure efficiency and accountability.

Meeting Frequency

We met twice a week to discuss progress, address challenges, and plan the next steps.

Collaboration Approach

We utilized project management tools and conducted regular check-ins to ensure seamless coordination.

Platform Architecture

1

Presentation Layer

Responsible for user interface and interaction.

2

Business Layer

Handles business logic and processing.

3

Database Layer

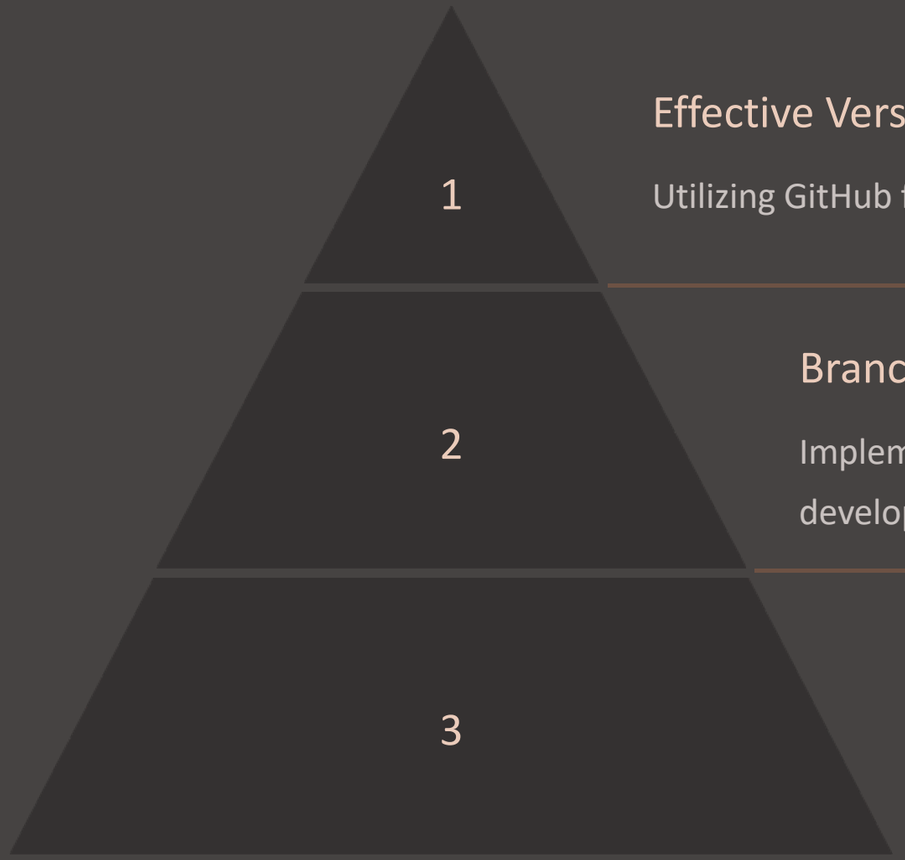
Manages data storage and retrieval.

Technical Solution

The architectural design of the platform is based on the 3-Tier architecture, comprising the Presentation, Business, and Database layers. Java/J2EE, GitHub, JUnit, and other external libraries were instrumental in the implementation. Design patterns were strategically applied to contribute to the robust solution.

The project's testing strategy focused on JUnit tests and comprehensive code coverage metrics to ensure the reliability and effectiveness of the software.

GitHub Utilization



Effective Version Control

Utilizing GitHub for streamlined version management.

Branching Strategy

Implementing structured branching for organized development.

Pull Request Management

Managing contributions through effective pull request processes.

GitHub played a pivotal role in our project, ensuring effective version control. The branching strategy was crucial to organized development and pull request management facilitated quality contributions from all team members.

Challenges and Demo Highlights

Key challenges were addressed through dynamic coding and deployment strategies in a bustling tech workspace.

The demo showcased innovative functionalities, including augmented reality features and interactive data visualization.

Bonus functionalities, such as real-time updates, were successfully implemented. Future enhancements focus on AI integration and blockchain technology.

Conclusion & Moving Forward

Successful Achievement

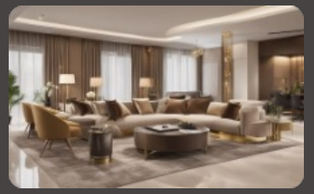
Our team celebrates the successful development of the Food Waste Reduction Platform, marking a significant milestone in addressing global food waste.

Enhanced Collaboration

Effective collaboration and use of GitHub enhanced our teamwork and problem-solving skills, fostering a unified and supportive work environment.

Technology & Innovation

The implementation of a 3-tier architecture in Java/J2EE, adoption of best software development practices, and introduction of innovative features have ensured improved functionality and user experience.



Overcoming Challenges

Our team faced and resolved numerous challenges, strengthening our project and team dynamics, showcasing resilience and growth.

Future Vision

We plan to further enhance the platform with AI for surplus food prediction and expand our global impact on reducing food waste, embracing a vision of sustainability and positive environmental contribution.

Gratitude

A heartfelt thank you to all team members, instructors, and everyone who supported us on this journey towards making a significant contribution to sustainability and food security.