



Collage of engineering

Department of software engineering

OSM collaboration project: Grocery list application

Section-C

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Abstract

This document outlines the challenges, modifications, and solutions implemented in the redevelopment of a grocery list application. It addresses prior project issues, the steps taken to enhance functionality, and the challenges faced during development, including issues with version control.

1. Introduction

1.1 Problem Statement

The initial iteration of the grocery list application faced several challenges:

1. Lack of intuitive UI design, leading to poor user engagement.
2. Limited functionality, such as no support for adding quantities or units for items.
3. Outdated visuals, including low-quality images instead of intuitive icons.

1.2 Objectives

The primary goals of the new iteration were:

1. To redesign the UI for better user experience.
2. To enhance functionality with features like adding quantities and units alongside items.
3. To replace outdated visuals with clear and consistent icons.

2. Methodology

2.1 Redesigning the UI

1. Updated CSS to create a visually appealing and responsive design.
2. Incorporated feedback to make navigation intuitive and improve accessibility.
3. Replaced low-resolution images with high-quality icons for better user clarity and reduced loading times.

2.2 Enhancing Functionality

1. Added options for users to specify quantities and units (e.g., 2 kg of apples, 1 liter of milk).
2. Implemented a pin functionality to prioritize specific items in the list for quick access.
3. Optimized item management to allow smooth editing and categorization.

3. Challenges Faced

3.1 Technical Challenges

UI Complexity: Balancing a modern design with functional simplicity.

- Resolved through iterative testing and user feedback.

CSS Styling: Ensuring consistency across different devices and screen sizes.

- Addressed using responsive design principles and thorough testing.

3.2 Functional Integration

Feature Implementation: Ensuring smooth integration of new functionalities without breaking existing features.

- Used rigorous testing and modular development practices.

Git Issues: Persistent problems with pushing updates and resolving conflicts.

- Addressed by reviewing tutorials and discussion among team members

3.3 Collaboration and Time Management

Balancing the demands of this project with academic commitments presented a significant challenge. The overlapping deadlines, coupled with the unpredictable nature of academic schedules, often caused delays in the development process. To manage these competing priorities, a structured project timeline was created, outlining key milestones and deliverables.

4. Results and Discussion

1. The updated CSS and use of icons improved the visual appeal and usability of the application.
2. The ability to add quantities and units enhanced the practical utility of the grocery list.
3. The pin functionality allowed users to manage their lists more effectively, prioritizing key items.

5. Conclusion

The redevelopment of the grocery list application successfully addressed the limitations of the initial version. By improving the UI, adding essential functionalities, and resolving version control challenges, the project achieved its objectives. Future improvements could include adding cloud synchronization, integrating voice command functionality, and further refining the user interface based on feedback.

6. References

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