



LastCall

By: Taylor Smith & Daniela Ordaz





Introduction

Introducing our app, LastCall!

- Our solution to help combat this ongoing **issue of food waste** in grocery stores
- An integrative app that provides **active inventory** for grocery stores nationwide
- Primarily focuses on **discounted foods** that are not typically displayed on online grocery sites
- Ex. If food is near its sell-by date, a grocery store typically discounts these items
 - Often **hidden** on a rack in the back of the store somewhere
 - Typically not depicted as discounted online
- Our app would allow grocery stores to log their discounted inventory and allow users to **view discounted inventory** available at locations near them!
- **Goal:** Reduce food waste and **help our environment** flourish for future generations!





Problem Statement

Excessive food waste is a significant challenge faced by grocery stores nationwide. Large amounts of perishable goods such as fresh produce, baked goods, and frozen foods are thrown away once they pass their sell-by dates. To reduce waste, many stores offer discounts on these items before that date is reached. However, a lot of this food still goes unsold, leading to **financial losses** for stores and **harm to the environment**.



These discounts could help shoppers save money, but most people don't know about them because stores don't advertise them well. Since stores prefer selling items at full price, they don't put much effort into promoting discounted food. As a result, quality food is going to waste instead of being bought and eaten. Closing this gap between food waste reduction and **customer awareness** is key to cutting waste, helping shoppers save money, and making food use more sustainable.





Overview

Key Features & Interfaces:

- **Log-in/registration page**
 - Allows the user to create a new account or log-in to an existing account
 - **Searchable grocery stores in your area**
 - An alphabetical list of grocery stores in your area
 - **Location**
 - Allows the user to specify their location to show grocery stores that are nearby
 - A “Select Your Store” option will be available for any grocery store selected; this will show the user specific inventory at their preferred location
 - **Sort By functionality**
 - Allows the user to sort by various categories such as alphabetically, by full inventory, or discounted inventory only
 - **Available discounted inventory at a specific location**
 - Including upcoming sell-by/expiration dates, images, and inventory still available for each specific item
- 
- 



Background

Intended Users:

- People shopping on a tight budget or people interested in budgeted shopping options
- People who are interested in environmentally friendly shopping.

How is it done today, and what are the limits of current practice?

- Today, discounted groceries are typically not advertised
- They are only located in discount sections of stores
- DoorDash and other online ordering systems do not show discounted perishables on their online storefronts
- Other apps provide similar services but are **limited** to specific grocery retailers

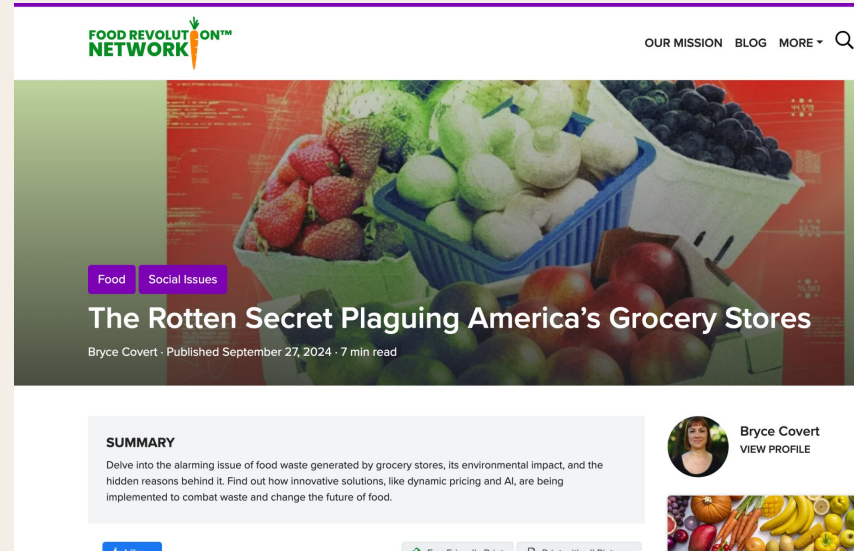
What's new in your approach, and why do you think it will be successful?

- Being able to purchase Last Call items online instead of having to go in-stores to view discounted inventory
- Extend our inventory services to **all** major grocery retailers nationwide



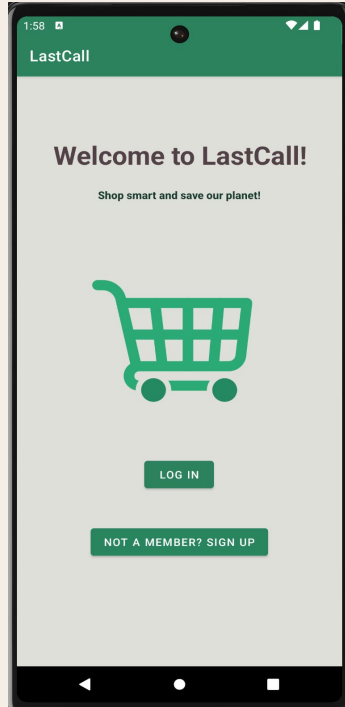
Statistics

- In 2022, grocery retailers in the United States generated about **five million tons of surplus food**, over one-third of which went to landfills or was incinerated (Covert, 2024).
- The profit margins on perishable foods are so high that stores often choose to **overstock**, preferring to **risk surplus** rather than miss a single sale.
- As a result, large quantities of food go uneaten and are discarded, even when still perfectly good.

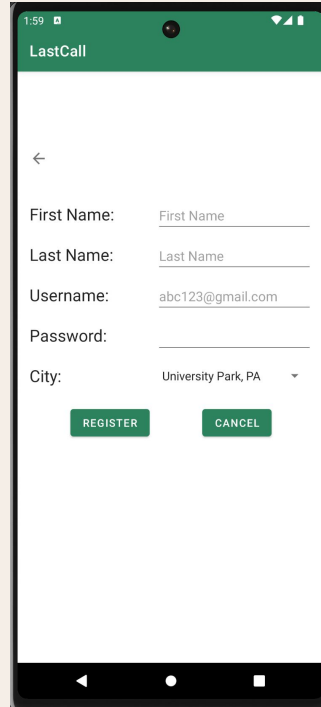


Design and Prototype

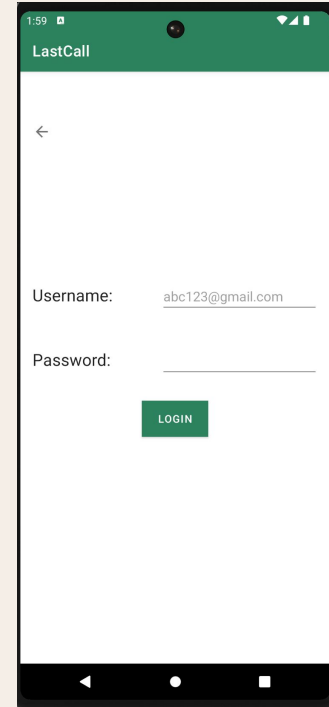
Opening Screen



Register Screen

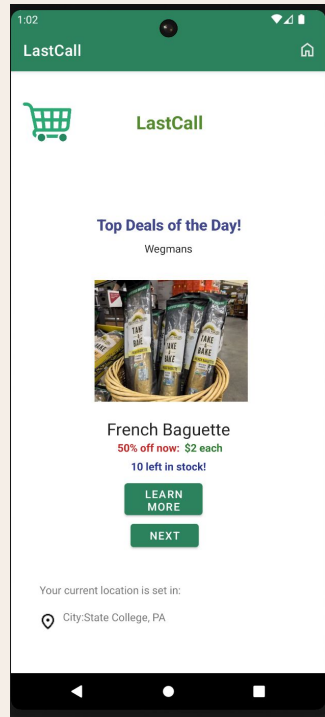


Log In Screen

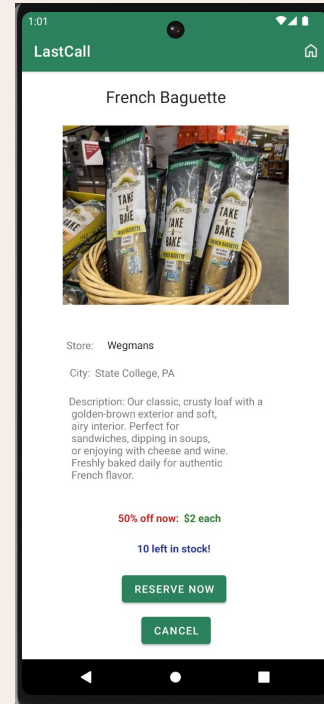


Design and Prototype

Home Page



Product Details Page





Implementation and Features

Required Features:

Menus:

- Displays menu item for switching to register on log in screen
- Titlebar for Home and Product Details pages have home button to either stay or switch to home page

Notifications:

- Snackbar notification appears when user presses “Reserve Now” button

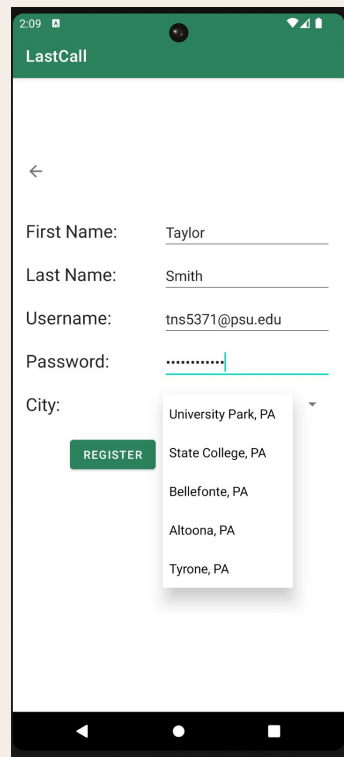
Persistent Data:

- When user registers, username and password is kept so you can then log in later using same info
- The location you select during registration will be kept and displayed on Home and Product pages



Bonus Features

- **Spinner**
 - Dropdown of locations is required as part of app registration
- **Snackbar**
 - Snackbar pops up when user reserves an item
- **Handles text inputs**
 - Register and Log in pages handle and store user text input
- **5+ screens**
 - Opening Page, Registration, Log In, Home Page, & Product Details Page





Future Directions

In the future I would like to make this a fully integrated app. I would start by implementing all the app features discussed in the project proposal.

Next steps include:

- 
- Making Grocery Stores Searchable
 - Showing full product inventories for each store
 - Making inventory sortable by category (e.g. A-Z, Z-A, Discounted Inventory Only, Full Inventory)
 - Implementing the checkout process
 - Adding a user profile/settings page accessible via the menu
- 



Live Demo





Conclusion

I am overall happy with the outcome of this final project based on the circumstances of being cut down to a 1-person team. Although I wish that I was able to get this prototype fully implemented or at least closer to what my group had envisioned at the start, I feel that I made reasonable progress towards the end goal.

Key Successes:

- Completed project requirements
- Implemented a few bonus features that enhance the overall experience





Research Poster



Name: Taylor Smith
Mentor name: Dhananjay Singh
**College of IST, Penn State
University, University Park**

LastCall

Discover discounted groceries near you



Abstract

Purpose and Key Objectives:

LastCall aims to reduce food waste in grocery stores by making discounted, near-expiration items easier for shoppers to find. The mobile app lets stores log discounted inventory in real time, giving users access to nearby deals that are often not advertised online or clearly marked in-store. The goal is to support budget-conscious and eco-friendly shoppers while helping stores reduce waste and losses. Unlike existing apps limited to specific retailers, our solution works across major grocery chains. By connecting surplus food with willing buyers, we promote sustainability, save money, and improve access to affordable groceries.

Introduction

Problem Statement:

Excessive food waste is a significant challenge faced by grocery stores nationwide. Large amounts of perishable goods are thrown away once they pass their sell-by dates. To reduce waste, many stores offer discounts on these items, but they are poorly advertised to encourage shoppers to buy items at full price.

Significance:

This project addresses the gap between discounted food availability and customer awareness. Reducing this gap can significantly cut food waste, lower store losses, help shoppers save money, and promote more sustainable food consumption.

Related Work

Similar apps such as Flashfood exist. Our goal is to build off of their limitations:

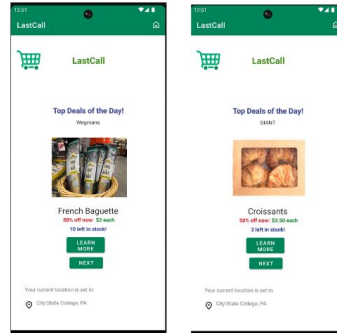
- Apps like Flashfood are limited to select grocery partners, restricts availability by region
- Flashfood focuses mostly on pre-packaged items, not the full range of perishables nearing expiration.



Methods

- **Started off using Figma for wireframes**
 - Used past slides and assignments as references
- **Implemented in Android Studio**
 - Create log in/register pages
 - Then the home page and product details page.
- **Work Flow:**
 - Use wireframes as basis for design implementation
 - Start with opening page with buttons to log in/register
 - Create log in/register pages
 - Then the home page and product details page.

Evaluation & Results



Discussion

Challenges & Limitations:

- Original group of 3 down to 1
- Left implementation, slides, and poster design all up to me
- With 1 person force, I was not able to reach all the goals my group had originally intended

Due to these limitations I was not able to fully implement all the features of LastCall than I originally expected. I was, however, able to complete enough screens in order to fulfill the project requirements and even add some additional bonus screens.

Future Work

Next steps include:

- Making Grocery Stores Searchable
- Showing full product inventories for each store
- Making inventory sortable by category (e.g. A-Z, Z-A, Discounted Inventory Only, Full Inventory)
- Implementing the checkout process
- Add Profile Settings

Conclusion

I am overall happy with the outcome of this final project based on the circumstances of being cut down to a 1-person team. Although I wish that I was able to get this prototype fully implemented or at least closer to what my group had envisioned at the start, I feel that I made reasonable progress towards the end goal:

References

<https://foodrevolution.org/blog/grocery-store-food-waste-secrets/>

Key Accomplishments

- 5 screens
- Registration page includes spinner
- Both log in and registration pages handle user text input and persist data
- Menu icons on title bar
- Home page displays changeable deals of the day



Questions?



References

Template by Slidesgo:

<https://slidesgo.com/theme/grocery-store-company-profile#search-grocery+store&position-2&results-32&rs=search>

<https://foodrevolution.org/blog/grocery-store-food-waste-secrets/>

