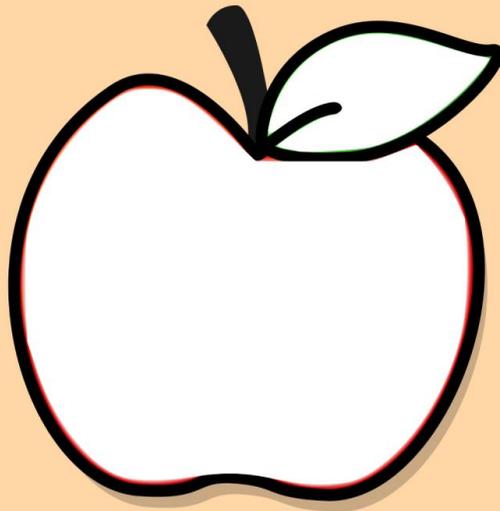


Compriceable

*Shopping Made Easy.
For Everyone.*



*Vine Bun, Siddhant Jain, Isabella Eriksen,
Cameron Sims, Ploy Pruekcharoen*

Compriceable

Vine Bun, Siddhant Jain, Isabella Eriksen, Cameron Sims, Ploy Pruekcharoen
INFO 200 | Section BA | Sai Ranganathan

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Compriceable's Team & Roles



Vine Bun, Senior, Foster School of Business:

Primary Feature, Annotated Wireframes, Usage Scenarios, and Proofreading



Isabella Eriksen, Sophomore, (Intended) Informatics:

Initial Wireframes, Usage Scenarios, Initial Solutions, Secondary Features, Description of Solution, High Fidelity Wireframe and Idea Contributor



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Initial Wireframes, Secondary Feature, Initial Solutions, Idea Contributor, and Final Wireframes



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Our Problem

For every person, grocery shopping is an important part of life. Whether it be a small local store or a huge supermarket, people always look for ways to obtain reasonably-priced groceries. However, not everyone has the same shopping privileges. Many low-income households are limited not only by their budget, but also by how far they can travel to shop and the different stores they can go to. A few organizations have sought solutions to this problem by creating applications that provide printable coupons and/or digital coupons or organize and keep track of items. Although these are great, they don't combine all the functionality one would like to see in a single app. We believe that can be changed and seek to make such an application a reality.

After discussing about existing solutions and stakeholders, our group did an online survey and interviewed a few stakeholders. Based on our results, we created personas representing user's needs and characteristics. We also discovered that only 43.3% of respondents are willing/able to go to more than one store in order to save money while shopping. This proves that our product can help its users by assisting them with shopping. However, we still need to find a solution for those who are not willing/able to go to various stores for various reasons, as these are still stakeholders who seek a solution from our application. Our results provided information and problems/suggestions from different groups of people, segmented by age, occupation, and income. Everyone wants to save money, yet currently there is no good application to help a wide variety of users. With this knowledge, we can find the best way to benefit all who will utilize our application.

View our In-Depth Problem Statement and Research:

[Problem Statement](#)

[Research Report](#)

[User Personas](#)

[Survey Results](#)

Solution 1

One solution tackles something on every shopper's mind: price. Every shopper wants to know when and where the best deal is for the items on their list, but often struggle to find this information. To fix this, an application could be created that takes a shopper's list, finds the nearest places where their items are cheapest, and presents this information to them, saving both time and money. The user could select a travel radius and pick a route based on the given information. This would not only save the user money, but also the anxiety of wondering if the items at their closest store are really the cheapest. One possible downside to this is that, if they can only visit their closest store each time, it might not provide much information. However, assuming the user can visit multiple locations, it would be a big help.

Solution 2

Another solution for users who are not able to go to several locations is a compilation of deals in each store. Some people appreciate the offer with the most convenient solution, and these deals will please stakeholders who try to find all necessary items for the cheapest price at a single store. This solution provides the users with the least amount of time that they can spend to complete other personal activities instead. The store can combine and present the deals in weekly ads, which make it easy for the users to catch up. However, prioritizing a value of time will trade with a loss of other store's deals. This solution is disadvantageous in terms of the possible cheaper prices that people can get from going to various stores.

Solution 3

When shopping for groceries, sometimes price is not the only deciding and limiting factor. For many of our stakeholders, there were other restrictions that affected how they shop, such as time, transportation, and where they can go. In this solution, we propose a personalization feature, allowing users to select all of these different restraints when looking for the best option that fits their needs. First, they will create a shopping list on the app. Then, depending on the amount of time they have and if they can go to multiple stores, we would either give them the cheapest items in each store or a single store (which can be sorted by distance for time and transportation restrictions) where their total bill of all their necessities will be lowest. One disadvantage is that this will be another step for shopper to take and their plans may change while shopping.

Solution 4

When going out and looking for groceries, it is almost never clearly labeled what brand is 'healthier' or what common allergies are contained within the product. Many of our stakeholders have young ones that they need to feed on a regular day basis and searching ingredient labels takes up a lot of their time and it is never guaranteed that the store has an allergy free version of the product. In order for our stakeholders to use their time efficiently, we propose a solution where inputted allergies will take away the products that contain them and conserve time going from store to store. If the stakeholders wish to find the healthiest option, or brand, to purchase, they would also be able to rank the healthiness of food products based upon a giving ranking system. One disadvantage would be if the user doesn't agree with the health ranking because they would be unable to change it.

	Solution 1	Solution 2	Solution 3	Solution 4
Description	Comparing prices across stores	Compiling deals and weekly ads of stores	Personalization of restrictions, trip can best fit the user's needs	Having the ability to easily show allergies and healthiest of choices
Advantages	Finds the lowest total shopping list price	The least amount of time needed	Allows users to shop based on their time and transportation restrictions	Reduce time spent looking for groceries and stores needed to go to
Disadvantages	Doesn't provide much information if the user can only visit their closest store	The prices might not be the cheapest comparing to going to various stores.	Changes can happen while shopping, another page to fill out	The scale of healthiness is based upon a set ranking, which may differ from the user's opinion

Selected Solution

To best fit the needs of our stakeholders, our selected solution incorporates aspects of all solutions. In order to reduce confusion, weekly store ads are not shown directly to the user. The two fundamental components of our mobile application will be

the ability to find the cheapest goods and allow personalization to fit the stakeholder's restrictions. The application will take a shopper's list, find the nearest places where their items are cheapest, and present this information to them, saving both time and money. The list can be edited both inside and out of the application through voice controls. If the user has any restrictions, such as time, transportation, or distance, we can recommend a single store. Then, the stores can be sorted by distance and transportation options, where the total bill of all their necessities will be lowest. Users can create an account as well to save these settings, while also being able to benefit from other unique secondary features including sorting foods based on allergies, a healthy food ranking, and a points reward system. This will save the stakeholders time and money trying to feed them, and their families, healthy options that they can all enjoy. Finally, once their store(s) is/are selected, we can provide directions to the user based on their mode of transportation to help them get shopping!

Description of Solution

Our final solution, Compriceable, gives the user a better shopping experience by saving them time and money. The user can either create an account or use the app as a guest, but the full functionality, including saved preferences and a rewards system, are only available to those with an account. After entering the app, the user is shown a home screen displaying the items currently in their cart and a list of stores. The user can then search for items to add to their cart, select variations of that item based on nutritional information, select personalization options to tailor their shopping experience, and select the route option they feel is best.

Once they've selected a route, the user is shown directions to the next store through Google Maps, which they can hide if they choose. Once in the store, a list of the items to purchase is presented, with checkboxes next to each item. Once they've checked out, they press the "Checked Out" button, then can take a picture and obtain rewards if they have an account. Finally, they're brought to a page congratulating them on saving time and money and are given the ability to rate the app.

The app features a unique color scheme and voice controls to help improve the user's experience and provide a universal design. Altogether, Compriceable offers unique functionality, is fun and easy to use, and saves the user both time and money, rewarding them while they do so.

Product Features

Primary Features

Comparing Prices: The primary feature of this app is comparing prices that automatically connect deals and add it to the items. Users don't have to manually find or even add the deal to their list. Once the users search for an item, the system will pair the item with the current deals and at the same time conducting price comparison. Therefore, the users would be able to save more than just comparing prices.

Personalized Shopping Trip: This feature will allow users to select different restraints (such as transportation and time) when looking for the best option that fits their needs. Depending on the amount of time they have and if they can go to multiple stores, we would either give them the cheapest items in each store or a single store where the total bill of all their necessities will be lowest.

Voice Controls: By pressing the microphone button within the app or activating their OS's default voice assistance, the user can add items to their cart using vocal commands. While it is not required at any stage, this feature improves all users' experiences with Compriceable. Along with other functionality, this contributes to the app's universal design.

Secondary Features

Health/Ingredients/Allergies: When setting preferences on Compriceable, the user is able to input their allergies which will automatically remove options when searching for items. The user is also able to sort searched items with an implemented health ranking system and view nutrition information and ingredients.

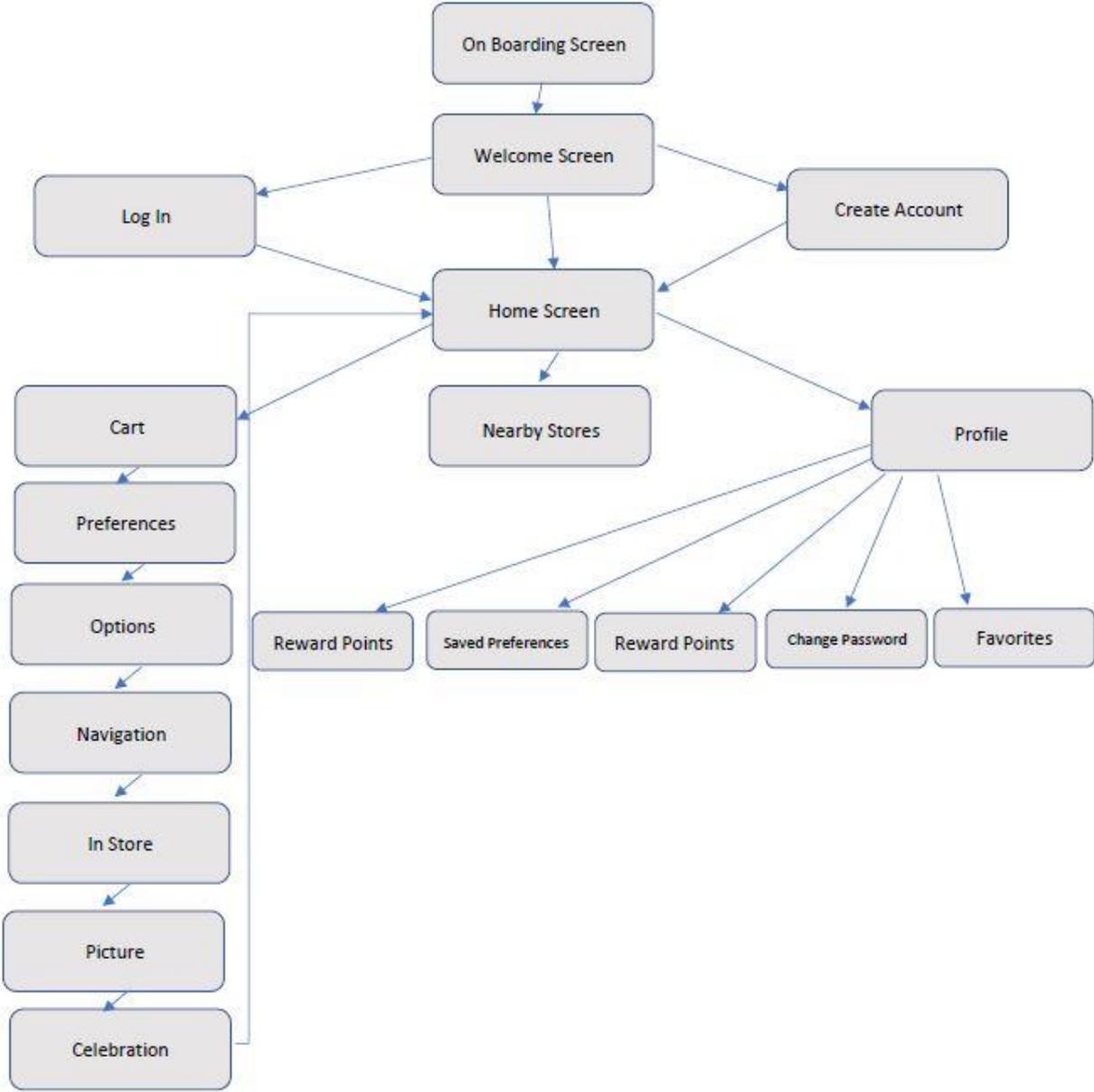
Map to Store: After selecting their route, the user will be provided a route to the next store via Google Maps or a similar API. This will help them easily navigate between locations as well as see other places of interest in their area.

Making an Account: The users can decide whether or not to make an account, which will provide them a storage to keep their search preferences, app suggestions, and the users' favorite items. In order to make an account, the users will be asked for their email.

Reward Points: After checking out from each location, users with accounts can take a picture of their receipt to confirm their purchase. Combining this with location services, the user will be awarded a point for using Compriceable, which can be redeemed for store gift certificates. This not only entices users to start and continue using this app for shopping, but also directly saves them money with enough usage.

Site Map

Compriceable Flow Chart



Low-Fidelity Wireframing Stage

Brainstorming Stage

At our first meeting working on the project design draft, we brainstormed ideas on what our application could look like, coming up with our four selected divergent solutions. We came to these selected solutions based on what we believed our user personas would value in a shopping application.

As a group, we then discussed the different aspects of each solution. We talked about the pros and cons of each aspect while also keeping the app simple enough where it doesn't overwhelm our user. After our discussion, we ended our meeting with our selected version of Compriceable! The four of us decided that we would meet two days later and in the meantime, we would each come up with what we believed the selected solution to look at, giving us convergent ideas.

At our second meeting, we discussed and critiqued each others' design. As a group, we came up with the different features of each idea that we liked and quickly drew our ideas up on paper where we could make quick modifications and edits if something did not end up working. We also got critiques from possible users and our TA. We focused on the look of the application as well as the interaction design, trying to make the application as intuitive as possible while sticking to common design standards and making the application more accessible for different users.

Once we liked our design, we created our final low-fidelity wireframes on Basalmiq.

All of our Low Fidelity Wireframes: [Low Fidelity Wireframes](#)

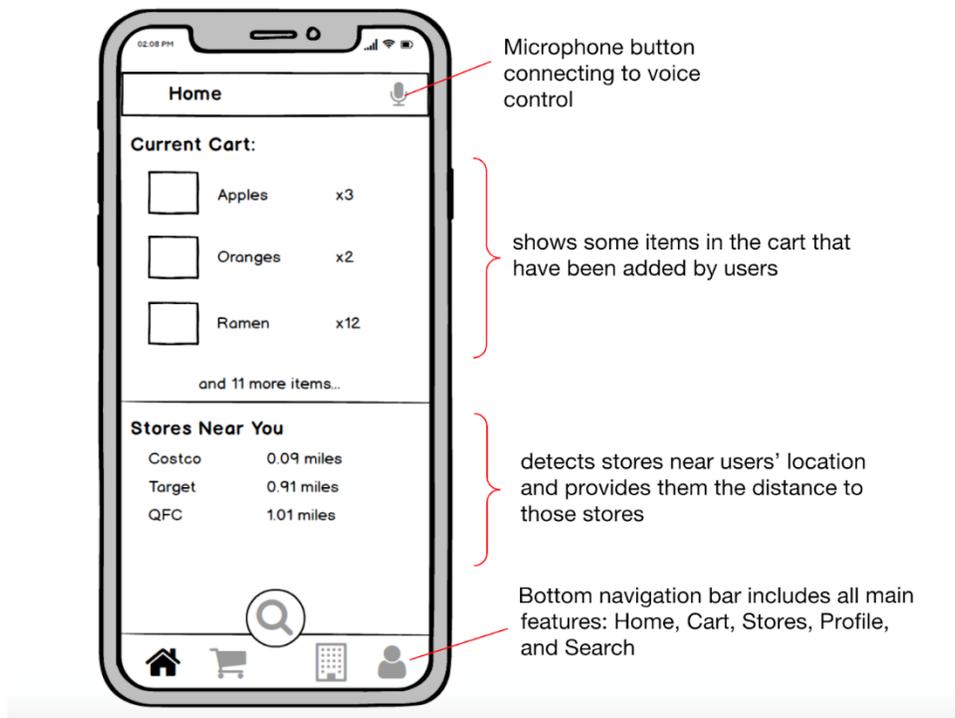
Final Low-Fidelity Wireframes

1.1 Home Screen

When users initially launch the app, they will be presented with a signup and login screen. After the login process, the home screen will be the first screen the users will see. This screen provides a combination of brief information within Compriceable app. The information comes from data that each member has saved including selected items in the cart, and the nearest stores analyzing by location.

To create consistency, we have standard features, such as our menu and voice control on each page as well as text at the top stating where they are in the app.

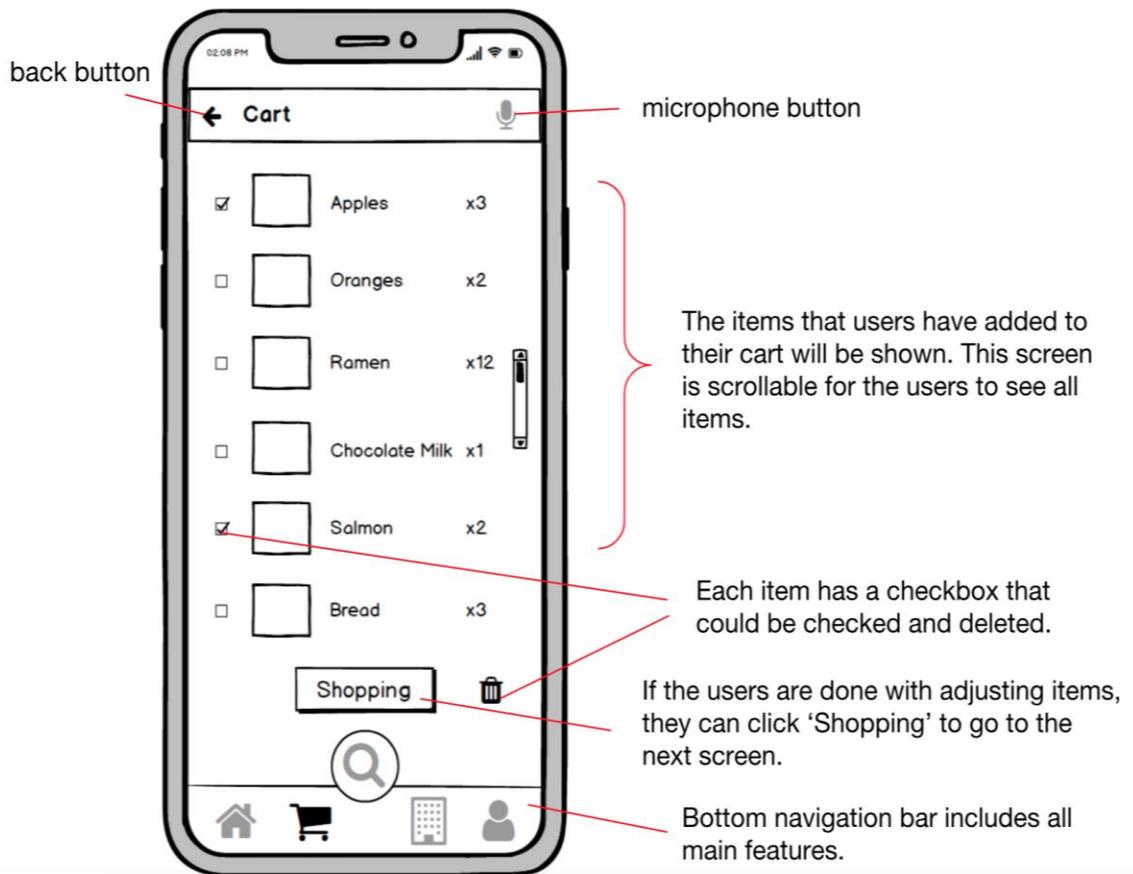
We design the home screen this way to inform the users about their previous actions with Compriceable app and to suggest them the solutions based on their information received. This home screen does not provide any interaction besides the buttons at the bottom to change the screen, as we would like to remind what the users initially have and encourage them to make another decision to complete their next step. Moreover, we consider about accessibility by including a microphone button in every screen to provide a voice control feature.



2.1 Cart Screen

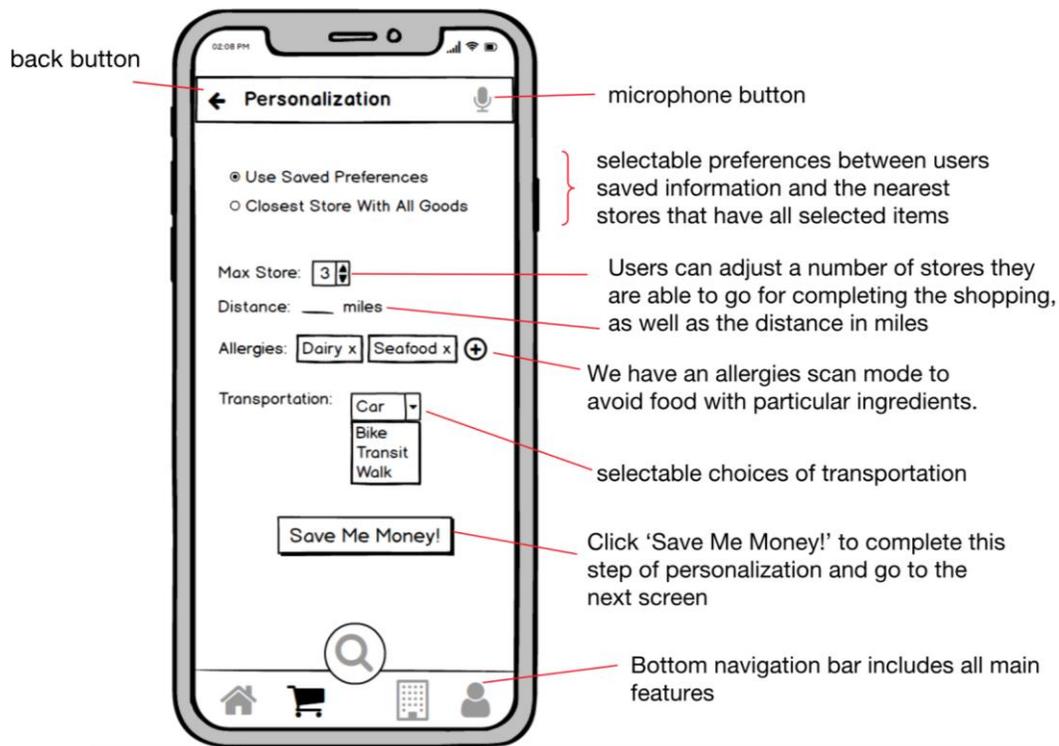
Clicking the cart icon at the bottom of the screen will bring the users to the cart screen, that will allow users to create a shopping list. The items that they have added will appear in this screen, where users can add, remove, and adjust the quantity on their list. To remove items, the users can easily check a box in the left side of each item to select, then click on the trash can icon to delete.

In a process of designing the cart screen, we prioritize users' convenience. Therefore, this screen looks simple and easy to use. We employ a long-established pattern such as the trash can icon to demonstrate a convention that become learned generally. From that reason, the users will not be overwhelmed by the design of our app.



2.2 Personalization

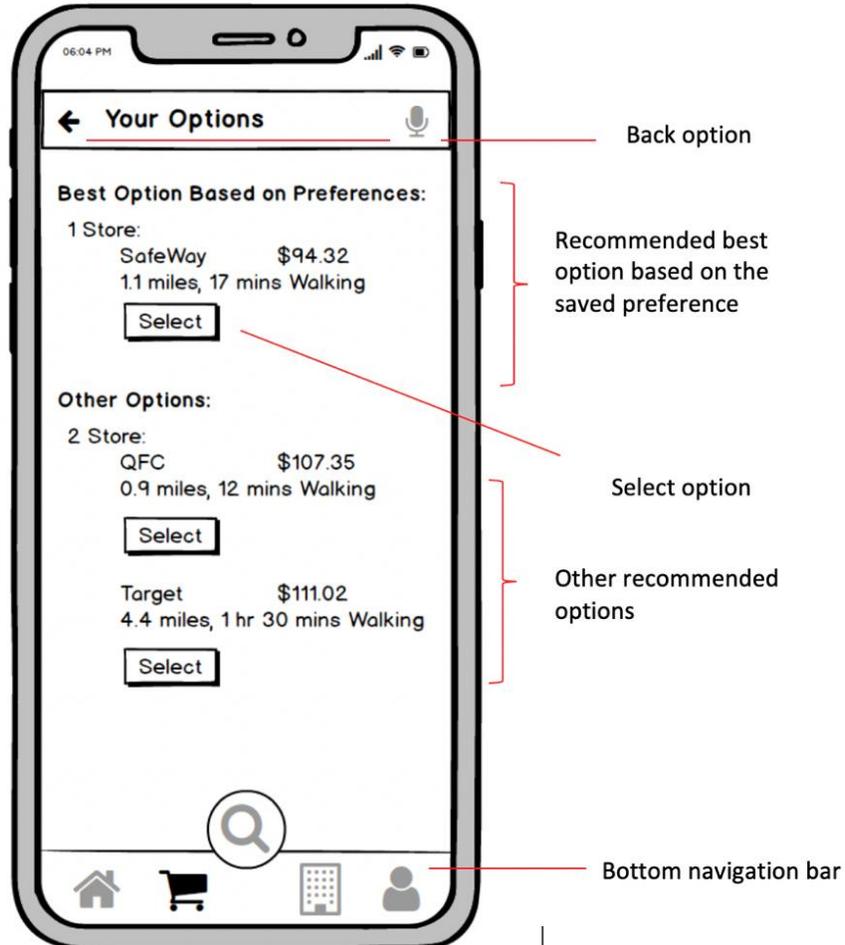
Users can personalize their shopping experiences to better suit their needs. such as save their preferences and choose the closest store with all the goods. They can even select the maximum store to be searched, distance, allergies, and transportation options. This will help users be able to shop the way they are able to while saving as much money as possible. When designing this screen, we used standard signifiers to show where to press, such as arrow keys, plus buttons, and empty lines. We wanted to make it clean and simple so that the user does not feel overwhelmed while still accurately understanding their needs.



2.3 Your Options

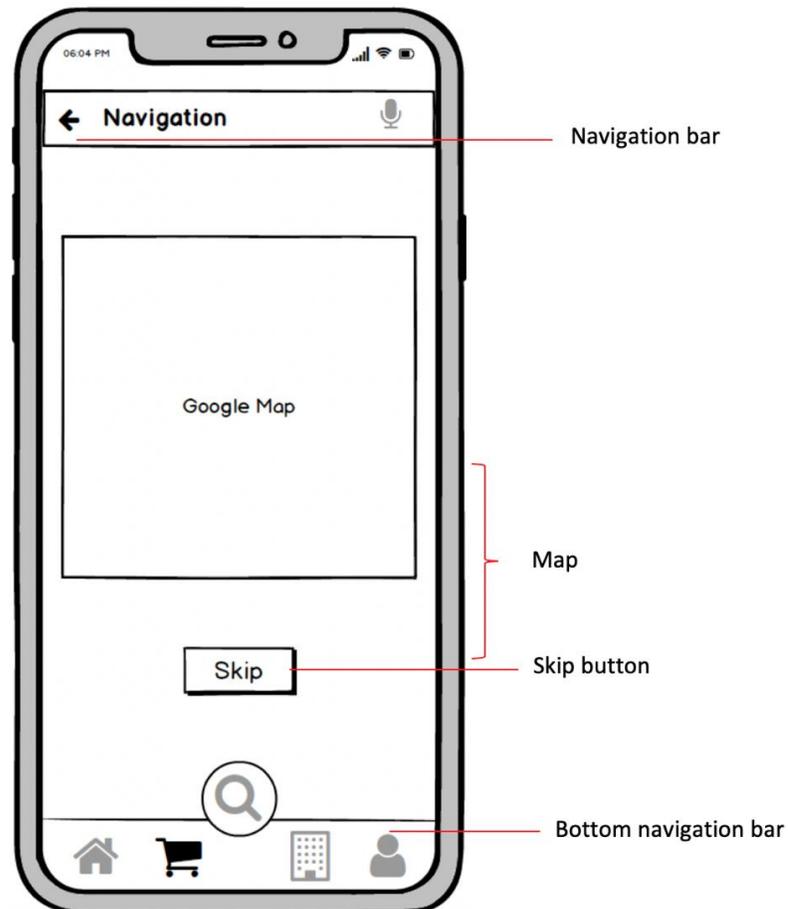
Based on the items that were added to their cart and their shopping preferences, users will be presented with the best option. For example, Safeway may be a bit further than where users are located than QFC, but the app suggested that it's the best option of price and user's preferences despite the distance. We also provide a few more options in case a user sees a significantly better deal elsewhere and decide that that is an option they can afford to do. By providing them the store, distance, price, and time it will take them to shop, we want to give the users all the information they need to make a shopping selection that works best for them. Once they have decided which option they want to pick, they will be able to hit select.

Once again, while we are providing the user with a lot of necessary information, we kept the page clean, organized, and consistent to not overwhelm the user.



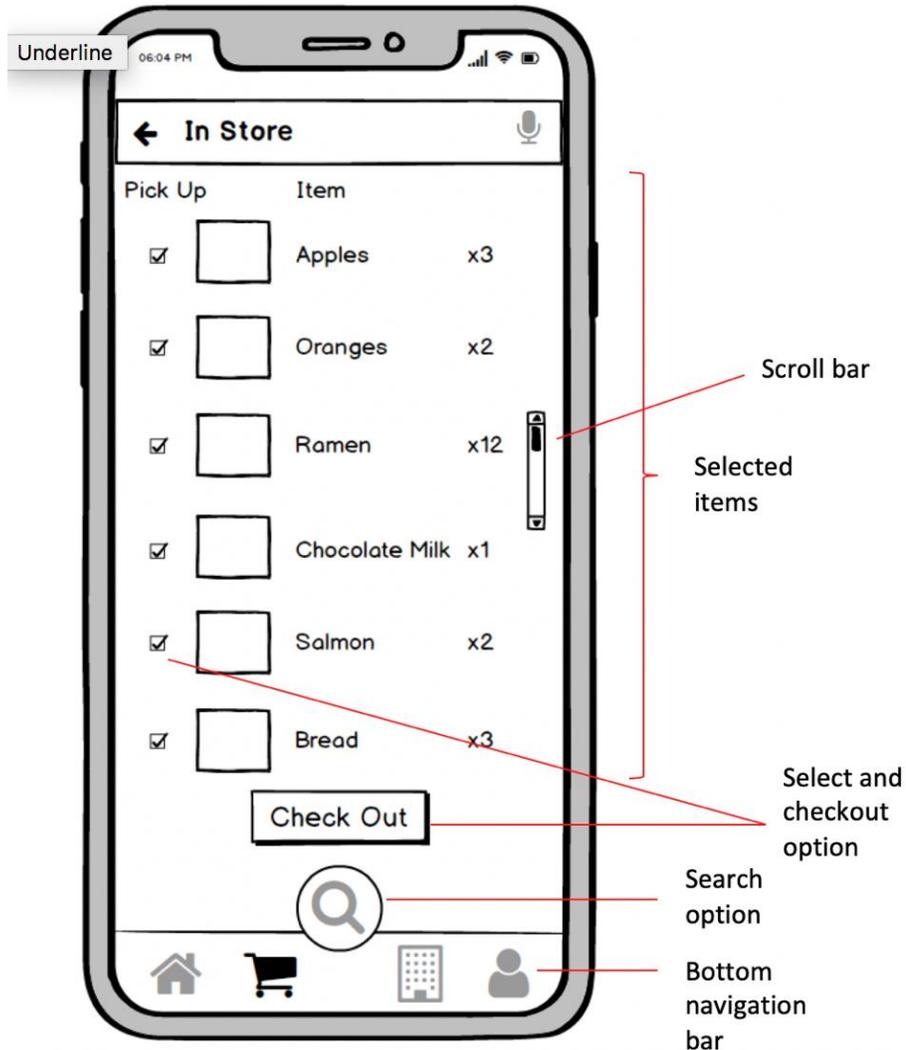
2.4 Navigation

When it comes to navigation, users can conduct voice searches and visually see to location of their desired store(s). The app will connect with Google Maps to give them step by step navigation to their store, eliminating the need to switch apps and making it easily available in one location. It also allowed them to skip this option if they know the way, which will take them straight to their shopping list. When designing the page, there was not a lot to do as the Google Map box will have all of the standard Google Map features, and we placed the skip button at the bottom for users to see.



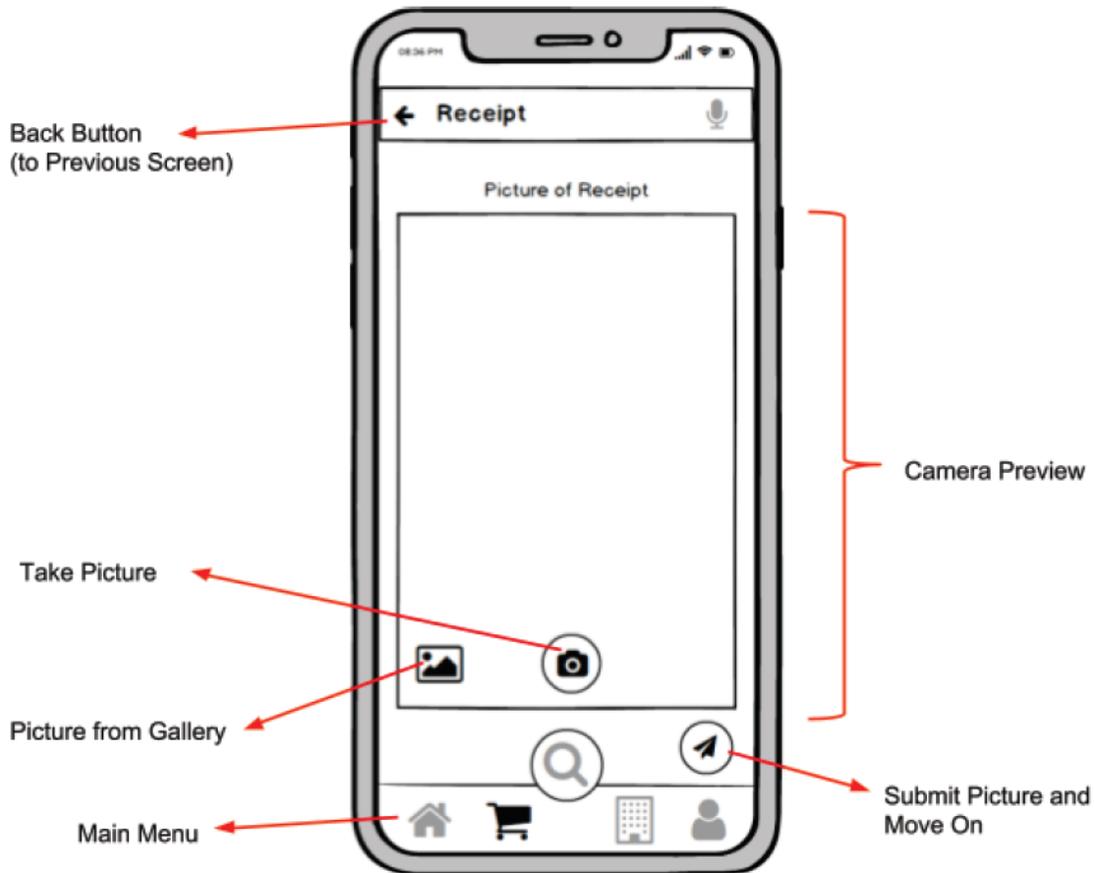
2.5 In Store

With in-store, users can place a check next to items they picked up off of their shopping list. Once they have picked up all of their items and have checked out, they will press Check Out to take them to our next page. When designing this page (and on a few other pages) we placed the natural next step (Check Out) at the bottom to show the users that that is where they should be heading next to simplify the process.



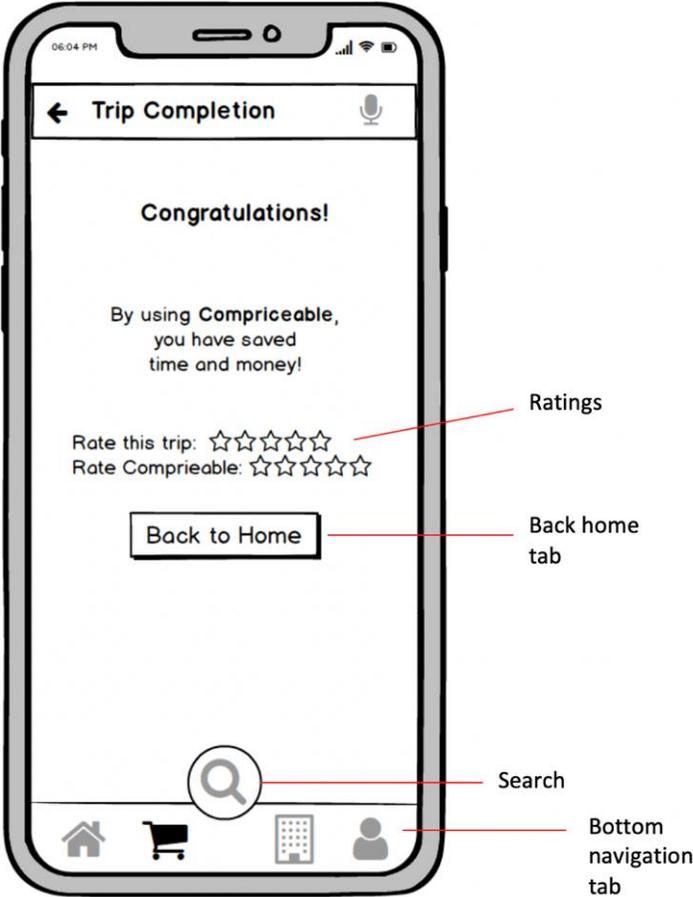
2.6 Picture of Receipt

Users will be asked to upload the receipt to confirm their shopping. This screen connects to camera for them to take a picture (using conventional picture buttons) and has another option for the users to select a photo from their gallery. They will be able to preview their picture before hitting send at the bottom of the screen. The receipt will be saved and checked for the reward while also using location services to see if they are near the store. Once users complete this step, Compriceable app will add a point which will be collected to redeem a reward.



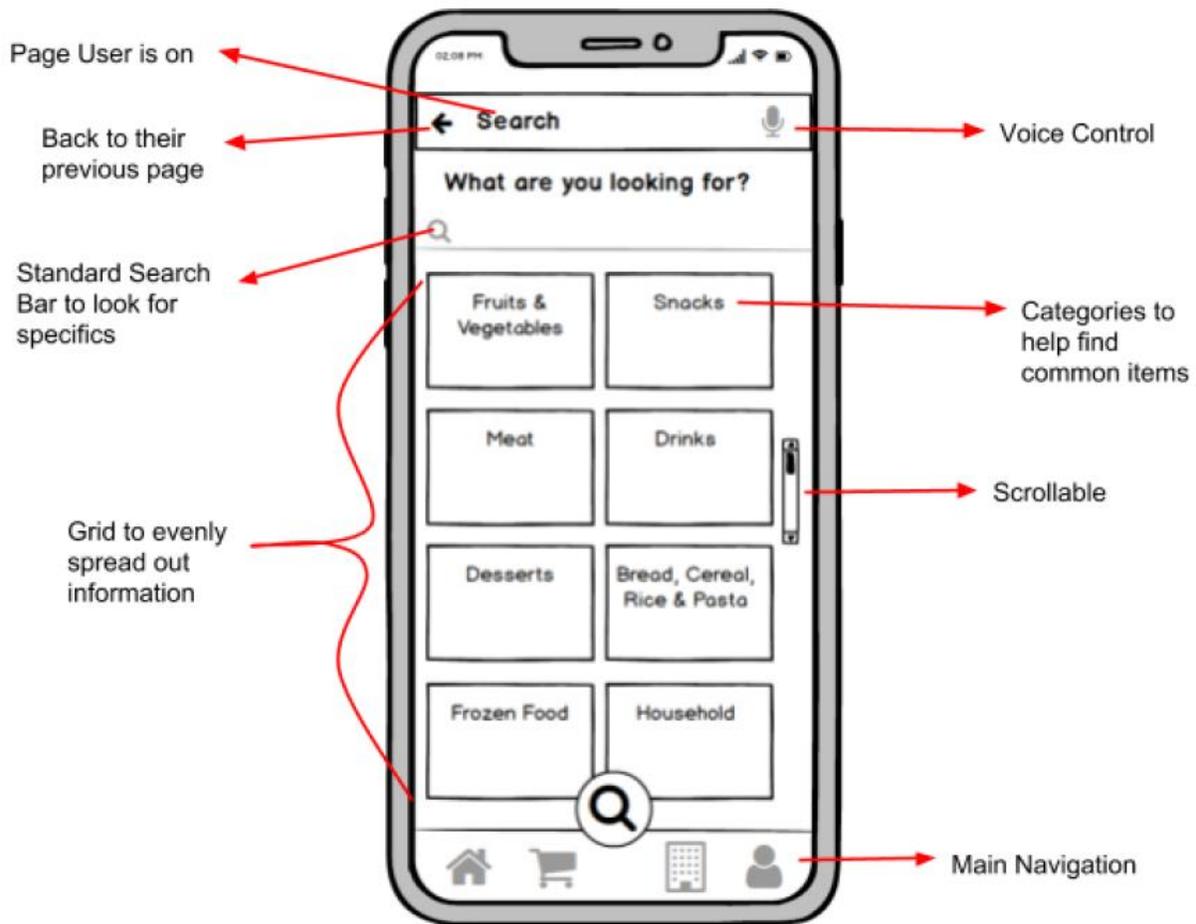
2.7 Trip Completion

Once the trip is completed, users are asked to rate their trip as well as the app itself. The only way that we can help improve the user experience is by listening to their feedback. We added our text mentioning about their savings (both time and money) to help remind the user why Compriceable is helpful so that they will be more likely to use us again. Once again, we placed the natural next step (returning to home) at the bottom of the screen to keep consistency. At this screen, the user has done one complete journey of the primary features of Compriceable!



3.1 Search Categories

If users have no idea what they want to purchase, there are different categories that allow them to navigate around and search for what they want to purchase. For instance, there are fruits and vegetables, snacks, meat, drinks, desserts, grains options, frozen food, and household items. There are a variety of options for users to search for what they need for their grocery and everyday items. We used the grid scheme to help make each of the options bigger for when users are clicking buttons as well as a way to present information in a clear and clean way, establish a visual hierarchy. If the user knows exactly what they are looking for, they will be able to type directly into the conventional search bar that most other applications use as well.



3.2 Search for items

With the search function, the options are limitless. Users can search for any item they need and then add it to their shopping cart. For our search line, we used the standard search box that is available on all major apps, following common convention and giving the users an intuitive feel for what they should be doing. Our options are in the common list view as users always tend to look at page initially in a F-shape. This shows the user the product picture (as pictures also help the user pick a place to focus on) and then shows the name of the object as well as a button to add it to their cart in each item's row. The text will be hyperlinked (new text color and underlined) to be able to show the user the Nutrition Facts.



All of our other pages' wireframes can be found [here](#).

Feedback:

After we submitted a draft of our Comprisable Project Report, our TA was able to provide us with feedback to better our overall project. In our report, we were told to emphasize the user centered value that we want our app to solve. This enabled us to help critically analyze the issue and giving the reader and clear picture of what we wanted to solve. We also expanded our explanations of our universal design and incentives to use our application, which will allow us to be able to reach more people and include traditionally forgotten groups in our idea! Even though we were told they were clear with great annotations, we decided to make changes to our final low-fidelity wireframes to make them even better. We made our new wireframes with an emphasis on button size (once again, to promote accessibility) as well as adding colors and pictures to make the application more welcoming for users!

Design Language / Style Guide

Google Material Design

When creating Compriceable, the team decided that it would be best to use the Google Material Design standards because it was the design language that our team had the most experience using throughout the process. Another factor in this design was the ease of access of popular icons through their open-sourced material design website and their pre-loaded file on Figma.

Font

The font we used for Compriceable was Roboto as it is the standard font when using Google Material Design. By using Roboto, we were able to have an application that will blend in font wise with other applications on a user's phone. By using a commonly used font, it will allow the user to focus more on our unique features and design rather than the font.

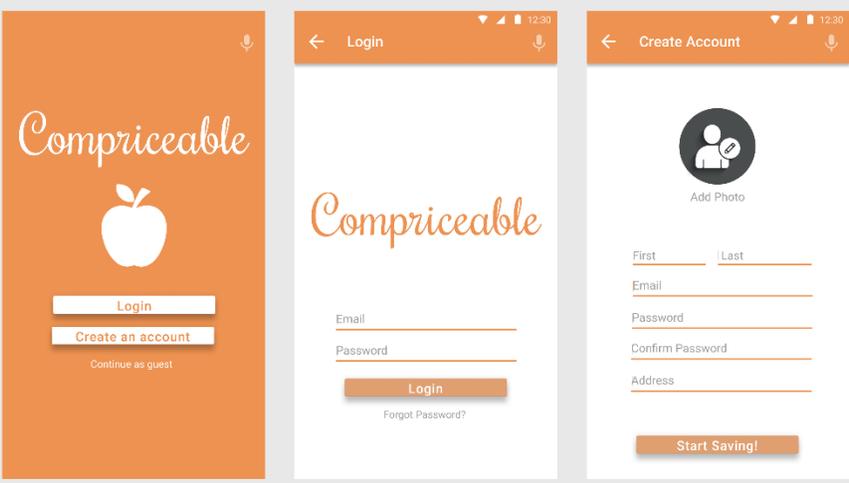
Colors

Our two primary colors for Compriceable are Orange (#ED9251) and White (#FFFFFF). We chose Orange for multiple reasons. In our research, we found out that Forbes Magazine considered Orange the color of cheap and economical products, which fits into our goal of providing users with cheap products (Morton, n.d.)! Orange also represents adventure, a fitting representation of what shopping can feel like. Finally, it also stands for excitement, and we hope by using our app, users will be excited about shopping and saving money! We decided that White would be a good contrasting color to our Orange.



High-Fidelity Wireframes

Welcome



The image displays three high-fidelity wireframes for the Compriceable app, arranged horizontally. The first wireframe is the Welcome screen, featuring the Compriceable logo and an apple icon. It has two buttons: 'Login' and 'Create an account', and a link for 'Continue as guest'. The second wireframe is the Login screen, with fields for 'Email' and 'Password', a 'Login' button, and a 'Forgot Password?' link. The third wireframe is the Create Account screen, with fields for 'First' and 'Last' names, 'Email', 'Password', 'Confirm Password', and 'Address', an 'Add Photo' button, and a 'Start Saving!' button.

Welcome

- Users can either Log-In or Create an Account to access all the benefits of the app
- If they would like to try the app once or not create an account, they can continue as a guest

Usage Scenario 1

The screenshots illustrate the following steps in the shopping trip:

- Home:** Shows the current shopping cart with items like Honey Crisp Apples, Top Ramen, and Baby Carrots. It also lists nearby stores such as QFC and Bartell Drugs.
- Shopping Cart:** A detailed view of the cart items with checkboxes and quantity adjusters. A "Let's Go Shopping!" button is at the bottom.
- Personalization:** Offers quick options like "Use Saved Preferences" and "Go to Closest Store". It allows personalization of the number of stores to visit and travel distance. A "Save Me Money!" button is present.
- Store Options:** Presents the best store option based on preferences (A: Safeway) and other alternatives (B: Z Stores) with their respective prices and distances.
- Navigation:** Displays a map with a route to the selected store, including a "SKIP / I'M HERE" button.
- In-Store:** Shows the items picked up in the store, matching the cart contents, with a "Checkout!" button.
- Picture of Receipt:** A camera preview screen for capturing the receipt, with a "SUBMIT" button.
- Trip Completion:** A congratulatory screen stating "Congratulations! Using Compriceable, you saved both time and money!" and offering a reward point. It includes a "Back to Home" button and a star rating system.

Full Shopping Trip

- The user will be able to go shopping in a way that is convenient for them
- Can select options based on how much time they have and how they can travel
- If needed, provides directions to the store(s)
- By completing a shopping trip, users can earn a reward point

Usage Scenario 2

The image displays six screenshots of a mobile application interface, arranged in a 2x3 grid. Each screenshot shows a different screen from the app, all featuring a consistent orange header and a bottom navigation bar with icons for Home, Shopping, Search, Favorites, and Profile. The top-left screenshot is the 'Profile' screen, showing a user profile for Joseph Edwards with account options like 'View Rewards', 'Shopping Preferences', 'Favorites', and 'Change Password'. The top-middle and top-right screenshots are 'Rewards' screens, showing redeemable points (17) and lifetime points (22), with options to redeem for gift cards (Target, Safeway, OFC, Barbell) and a 'Back to Profile' button. The bottom-left screenshot is the 'Shopping Preferences' screen, allowing users to set preferences for max stores, distance, allergies, and transportation. The bottom-middle screenshot is the 'Favorites' screen, displaying a list of items like Honey Crisp Apples, Top Ramen, Oatmeal, Spaghetti, Marinara Sauce, Cream Cheese, and Bagels 6 Pack, with a 'Back to Profile' button. The bottom-right screenshot is the 'Change Password' screen, showing a 'Password Change' section with fields for current, new, and confirm new passwords, and buttons for 'Update Password' and 'Back to Profile'.

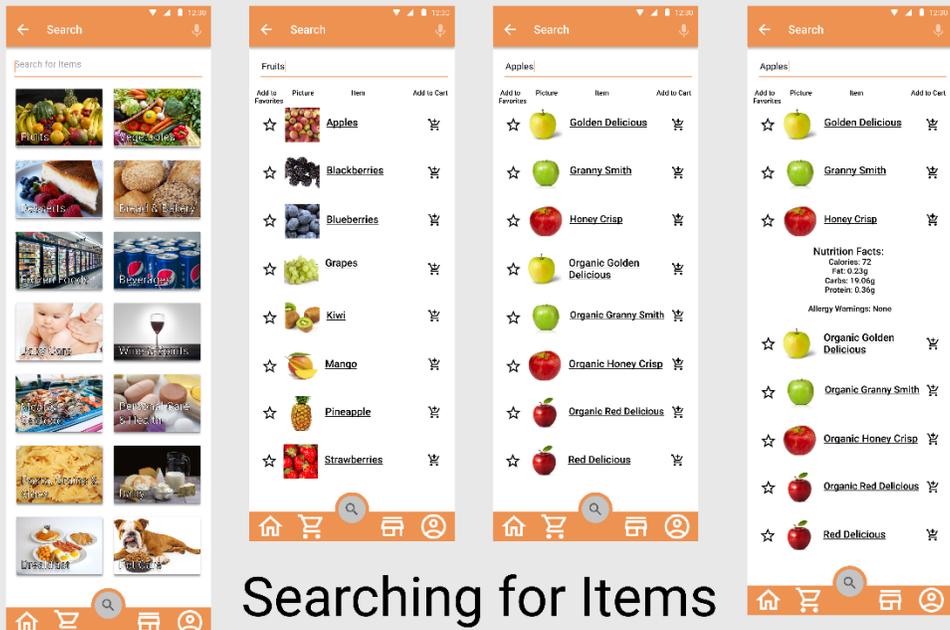
Profile

- Rewards the user for using our app with gift cards to common stores

- User can save their shopping preferences and add items to their favorites to allow them to use our app both faster and more efficiently

- Like any other app, user can change their password

Usage Scenario 3



Searching for Items

- Users can either search through categories to find items or directly search an item name
- By clicking on each item, the user can see quick nutrition facts
- User can add an item to cart or to their favorites

Interactive Prototype

To create our Interactive Prototype, we used inVision to make our Figma-designed screens interactive. We chose inVision because of our familiarity with it and because of its various presentation features.

[Compriceable Interactive Prototype](#)

Bibliography

Morton, Jill. "Orange." *Color Matters*, www.colormatters.com/the-meanings-of-colors/orange.

Appendix

- [Problem Statement](#)
- [Research Report](#)
- [User Research Survey](#)
- [User Personas](#)
- [Initial Low Fidelity Wireframes](#)
- [High Fidelity Wireframes](#)
- [Compriceable Interactive Prototype](#)