

Ecoceries

The eco-friendly grocery app to help you find healthy eats for cheap

Team member's name and role

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Problem and solution overview

As people begin to live busier lives, they are forced make trade-offs in their lives. One of which concerns their health. Many people may not be informed of their options to lead healthier lives. Sustainable foods offer people ecologically sound products that are beneficial to both their health and the environment. However, information about sustainable foods is not easily accessible. With the growth of ubiquitous computing, a mobile application that would allow users to access information about what foods are available and where would serve to benefit consumers and the community around them. Products can differ drastically across various stores. A product that provides users with the option to make eco-friendly decisions about food

The application would help users evaluate their current food purchase, learn about some better choices, and find where the best places to buy eco-conscious foods are in their area.

Contextual inquiry participants

We observed our contextual inquiry participants at two different locations to get a variety of backgrounds and awareness of sustainable foods. One of the locations was a local farmer's market, where many sustainable, organic products were sold. The other location was a local supermarket, where products came from places outside of our community and Washington state. Their age ranged anywhere from 20 to 50, with their knowledge of sustainable foods varying from a lot of knowledge to very little knowledge.

Participant A works as a researcher at the University of Washington. She frequents the farmer's market every week, and has regular vendors that she always goes to. She has developed a relationship with the farmers, and knows the quality of the products because they are always consistent. She feels that when she buys produce from the grocery store, it's very "hit or miss", but the farmers are consistent with their products and she knows that the quality will be good. Sustainable foods are very important to her, and she only shops at supermarkets for non-food items. When asked about her concern for the pricing of products, she mentioned that she is aware of the high quality of the food at

the farmer's market and she won't have to end up throwing them away, so she always gets a good value for the money. Though the products at farmer's markets are pricey, she knows that she is getting the best quality for the price.

Participant B is a current college student, majoring in design. She has taken several environmental science classes and as a result, she takes an interest in understanding where her food comes from. She frequents the local farmer's market and has built a personal relationship with many of the vendors. She notes that these are the vendors she goes back to repeatedly and trusts the quality of their products. She tries to get as much of her groceries as possible at the farmer's market and purchases the rest at grocery stores that sell organic food such as Trader Joes, Whole Foods, etc. The major factor in determining what this participant purchases is the price and affordability of the items. As a college student, she has set a budget of \$20 a week for groceries. When asked if she will use coupons at the farmer's market, she said that she would gladly use them if there were any available for the farmer's market since these coupons will give her the ability to purchase more without going over budget.

Participant C is unemployed and is in her late 50s to early 60s. She mainly goes out and buys groceries when she needs ingredients for specific recipes. When shopping for food, she considers price the most important factor. To her, purchasing high-quality products that are reasonably priced is the best. She also looks at the quality of the food, and makes sure that there is nothing wrong with the produce that she is buying. Although she knows the quality of the products at the farmer's markets are better, she is not always able to go to the markets because it is inconvenient and not within her proximity. It is also an ingrained habit to go to the grocery store for her, and to check prices between different grocery stores, not so much taking into consideration how sustainable the products are. When asked if she knows about sustainable foods, she mentioned that she knows that there are certain foods at the grocery stores that are locally grown because the grocery stores provide signs that inform customers with where the produce was grown.

All of our participants answered that they would definitely use our app to compare prices and sustainability of products across stores and markets in their region.

Contextual inquiry results

Quality

Based on results from the interviews conducted, all interviewees were aware of the superior quality of the eco-friendly produce from farmer's markets. Frequent shoppers at farmer's markets has compared their produce to those from normal grocery stores and noticed a consistently higher quality.

Budget

For many, the biggest deciding factor in determining what to buy are the prices of the items. The majority of our interviewees have a set weekly budget for groceries so they are pressured to stay within this budget in whatever way possible. This means that they are willing to give up quality if a non-

sustainable item is cheaper. Participant C mentioned that she goes from store to store comparing prices in order to find a high-quality product that is reasonably priced. This demonstrates her willingness to increase the work (due to the need to visit various grocery stores) for herself in order to find the best valued items.

Location and Distance

Participant C showed concern for the proximity of farmer's markets and other grocery stores that provide a variety of sustainable, local foods. A major factor that was not allowing her to frequent the market and sustainable grocery stores was how far these stores and markets were for her. The most geographically convenient grocery store was one that did not sell very many sustainable products. Had she lived somewhere that was closer to a farmer's market or sustainable grocery store, she would have frequented these stores and markets more often.

Awareness and Knowledge

There was a range of knowledge base on sustainable agriculture within our participants. It seemed that Participant A and B were more aware of the importance of sustainability and how it affects our environment. They seemed to feel more strongly about supporting local and sustainable farming than Participant C, who seemed to understand the gist of sustainable agriculture, but only in the sense that it is from the state she lives in, but nothing about the importance of sustainable agriculture, and *why* it is important to support local farmers.

Analysis of existing and new tasks, including three supported tasks

Existing Tasks

Lack of Access and Awareness

- The Internet currently provides social media mediums such as Facebook, Twitter, Instagram, etc that allows users to spread the word about things that interest them via status updates. However, these updates are not focused or categorized unless the user "tags" the items.
- Any information that is posted about sustainable products is rarely updated
- Users may feel discouraged to do research on sustainable foods themselves because they do not know what resources are available.

Checking on the availability of a particular item

- Information about local foods is not readily available to the public.
- Consumers have no way of checking on the availability of an item other than physically checking at the store. This could be troublesome because it would lead to wasted time and money spent on travel. Users would have to check each individual store to find out their availability of the product they are searching for.

Searching for items that are on sale

- Consumers are mailed weekly ads. Because these are tangible and printed on paper, they are costly, inconvenient, and not easily accessible. They can accumulate over time and add waste to the environment. Stores may carry similar items that are grown by different farmers and vary in quality and price.

New Tasks

Creating Personalized Accounts

- Users will be able to sign up for their own individual account. This account will hold information about their shopping habits, grocery lists, and alert the user when his or her items are on sale, their availability, and their location.

Retrieving Information Updates

- Users can alert their friends and other Ecoceries users about products that they might be interested in by tagging them and their location.
- Information about the item's origins are available for viewing
- Users are able to rate grocers and write reviews to share with the public
- Users can compare the prices of a particular grocery item across many stores
- A eco-friendly app news feed that features suggestions for healthy recipes, featured grocery items
- An eco-friendly community would benefit heavily from opinions and ideas of others about sustainable products

Price comparison

- Pricing was a main concern across all participants that were interviewed. They understood that purchasing sustainable food items would mean that they had to make trade-offs by seeing the value and quality of the foods they purchased.
- Users can scan an item at a particular item using their smartphone camera. The app would then compare the prices among the items available in the area. Users should be able to select which stores and items they want to compare and filter the results to their liking.

Location mapping

- Users mentioned that proximity of the market is important to them. The app should be able to utilize the GPS on the user's smartphone and identify the most convenient location for the user to purchase particular grocery items

Seasonal Produce Tracking

- Consumers generally always want the best tasting produce, and the best tasting produce is usually found when it is in season. Consumers we talked to mentioned quality and good-tasting produce, sometimes those factors being more of a priority than price.
- The app would have a feature that marks what produce is currently in season. Either a small image would appear next to in-season items, or there would be a list of them that could be accessed from the menu.
- The app might also feature an alert system that lets the user know upon start-up if a particular item is in season, and where they can get the best price on it.

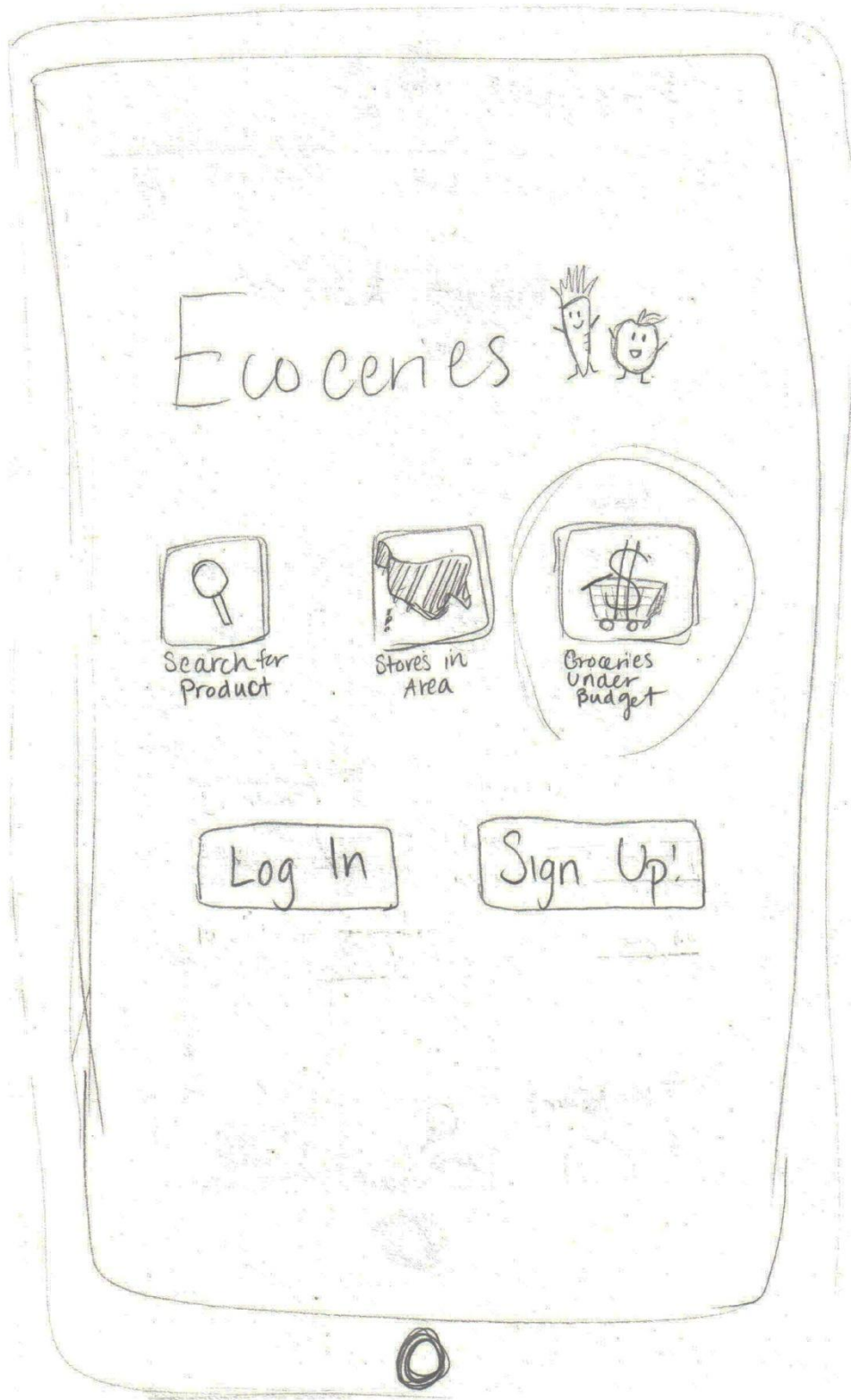
Software Requirements - Mobile OS with ability to run applications

Hardware Requirements - Any smartphone

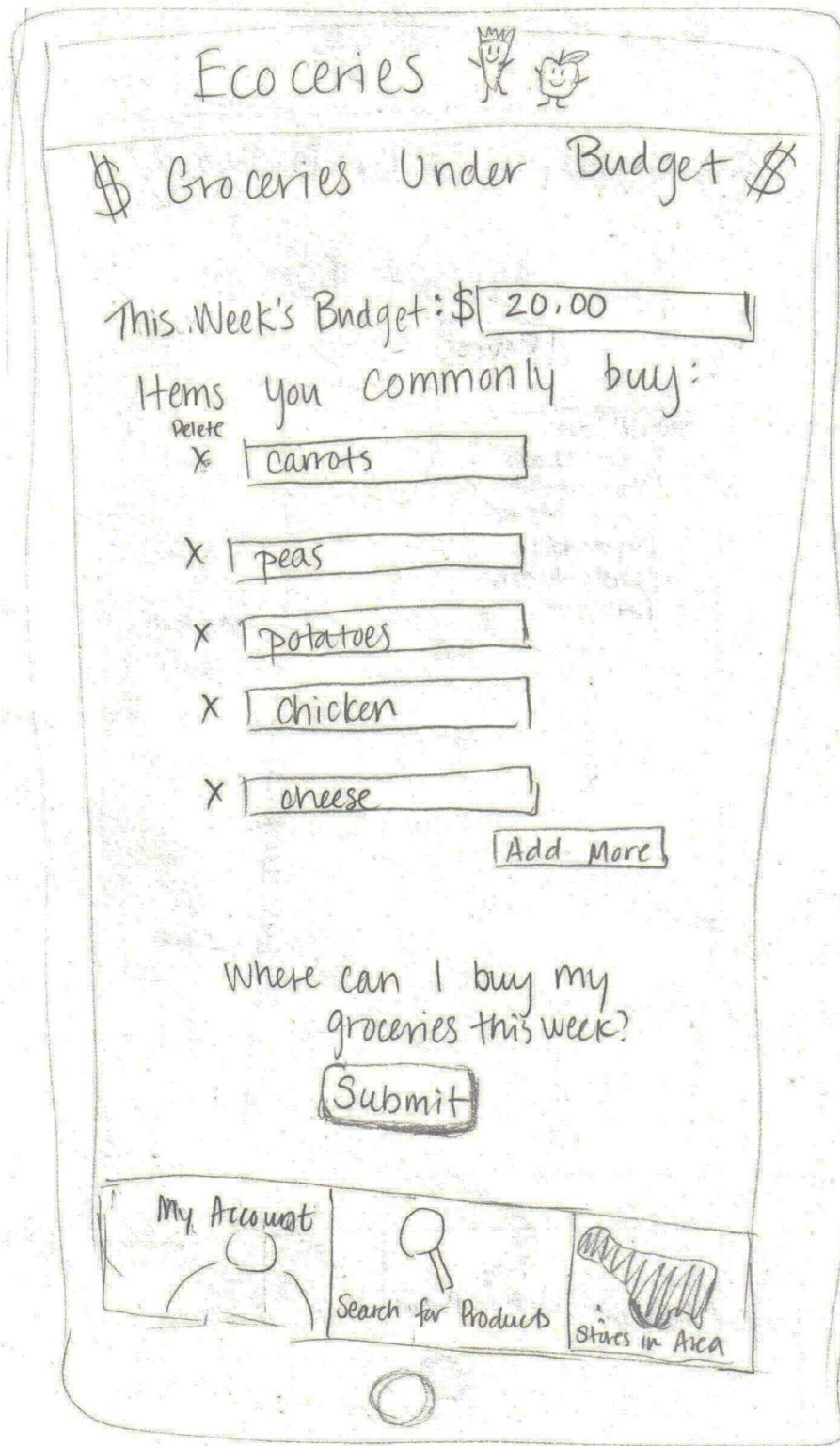
User Requirements - able to use a smartphone (and owns a smartphone), no visual or motor impairments

Additional sketches of design 

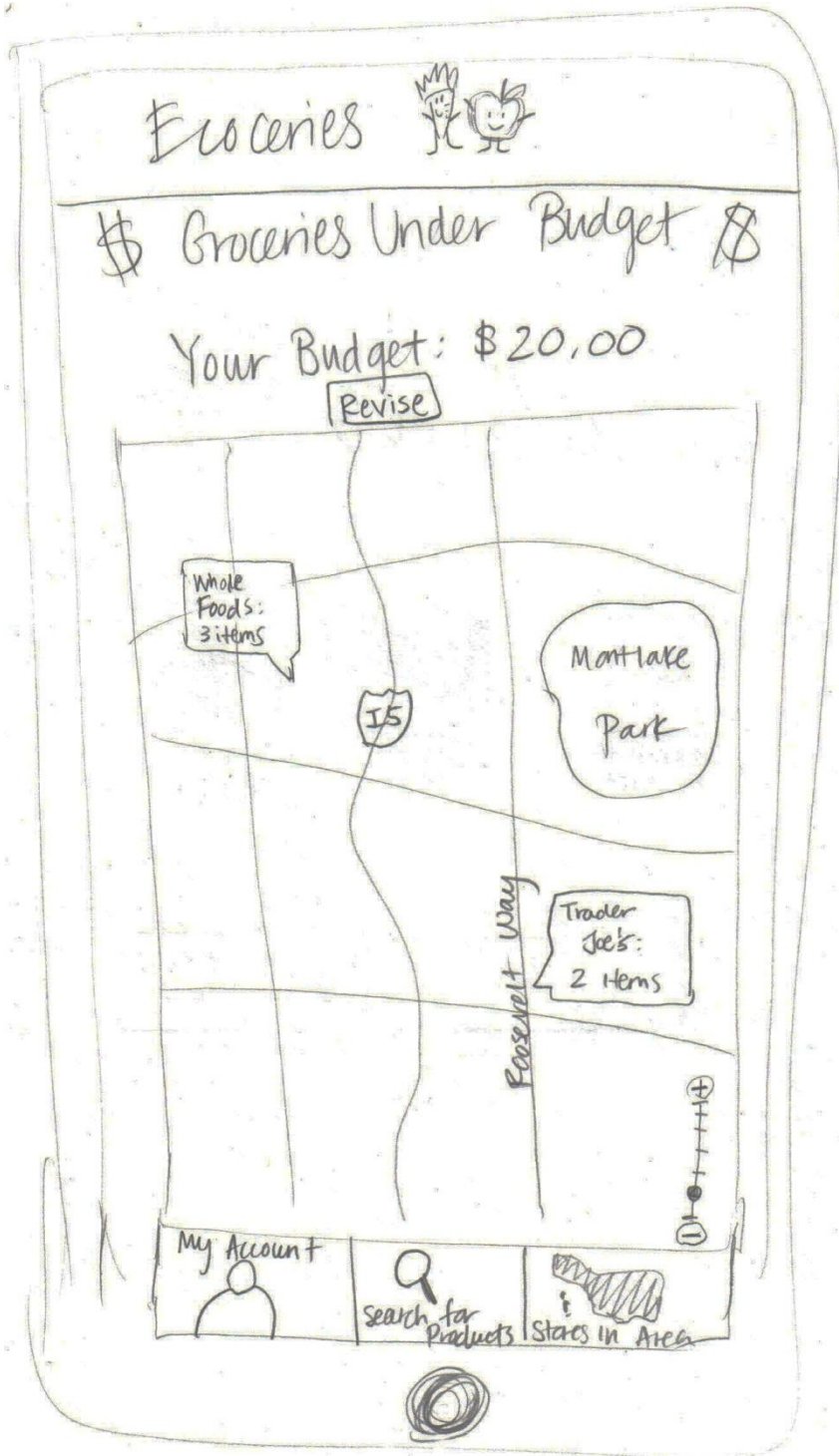
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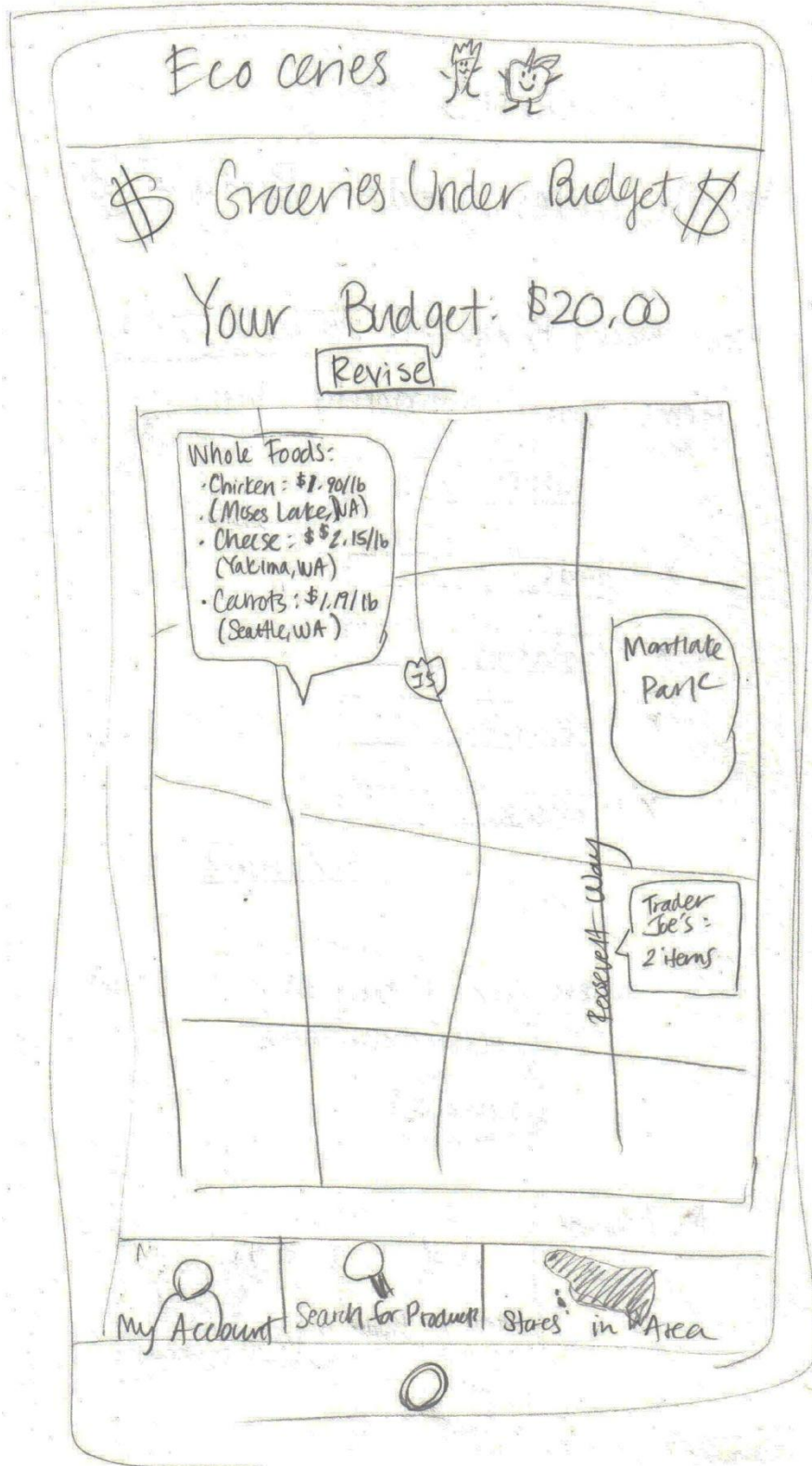
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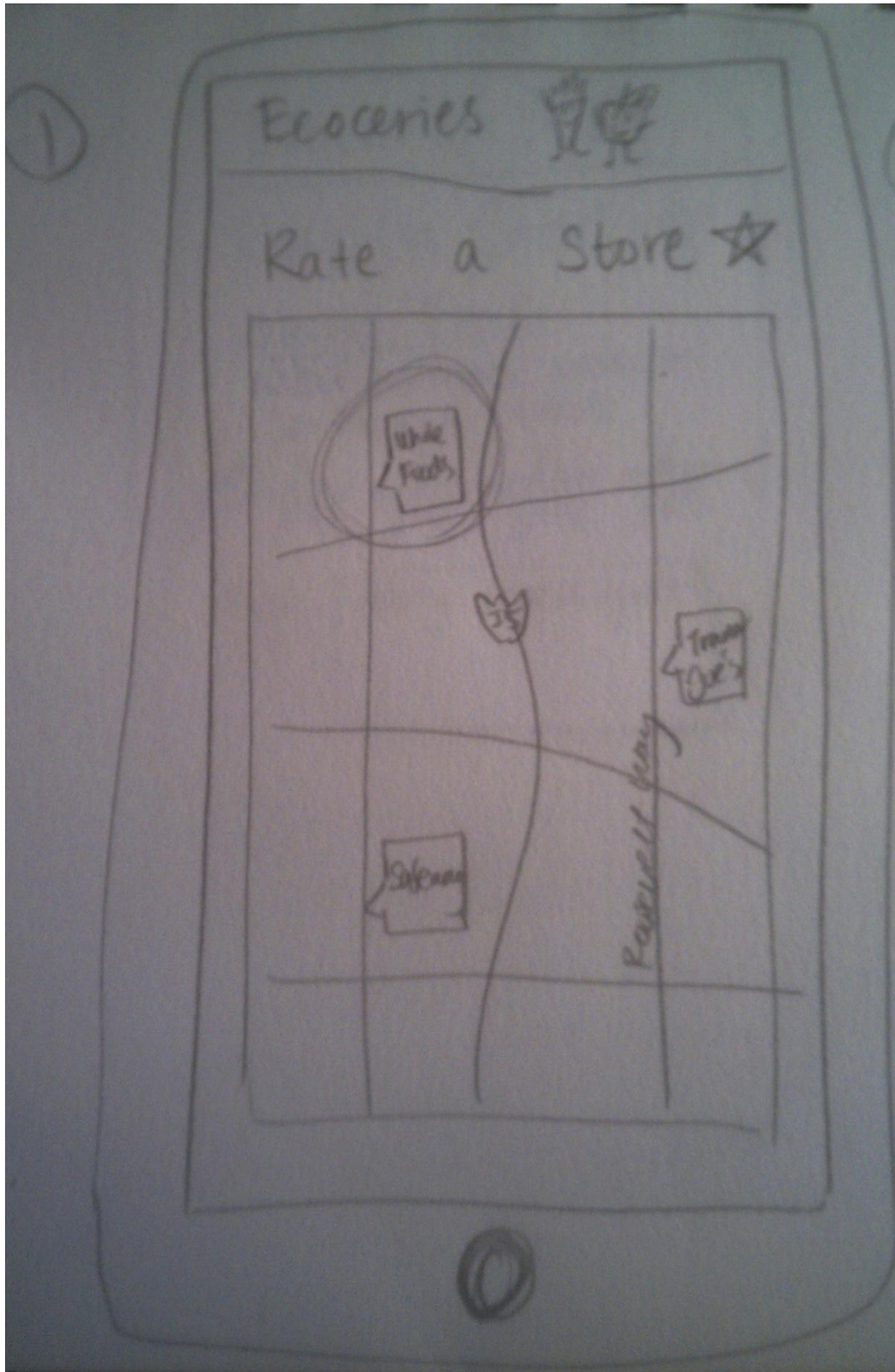
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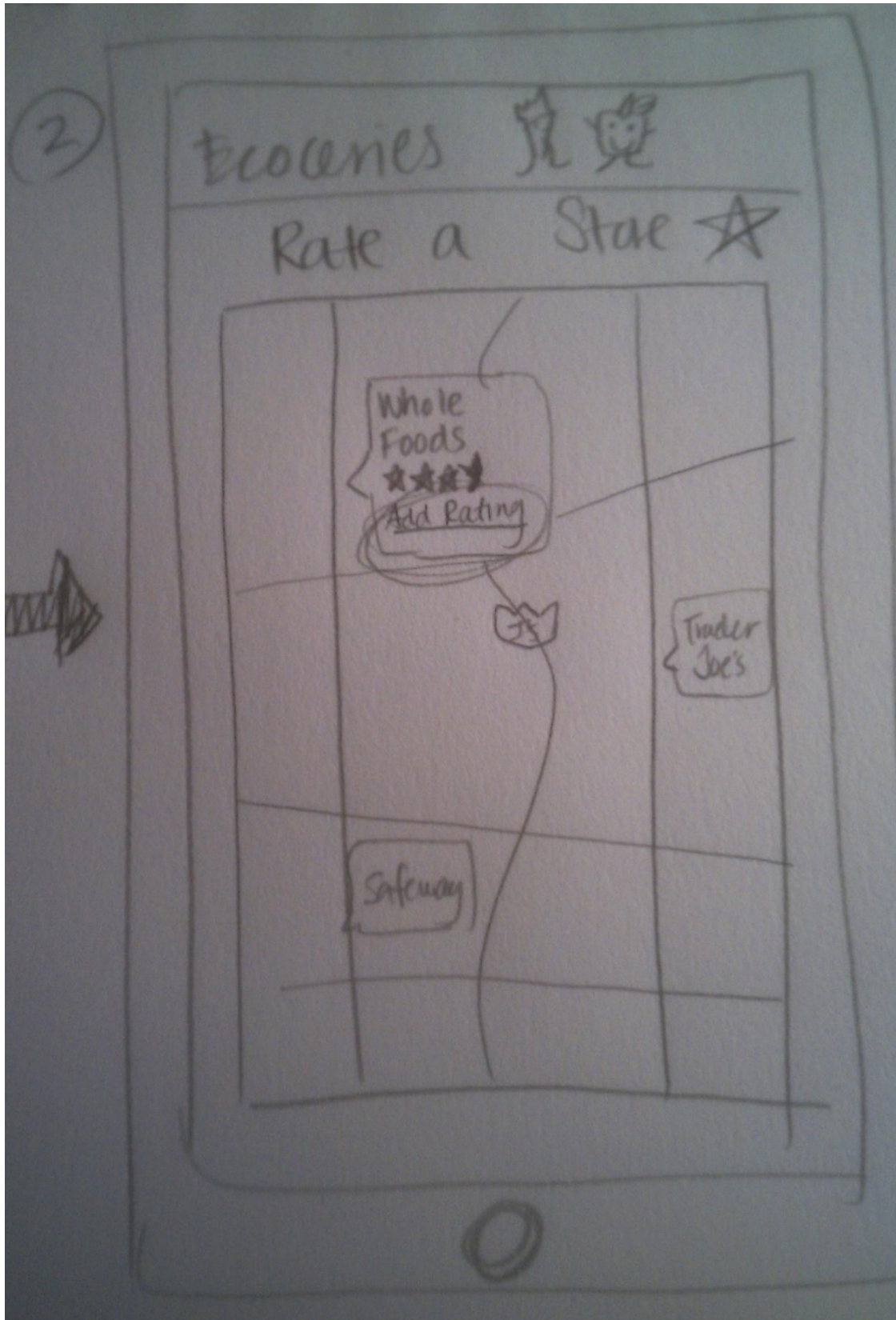
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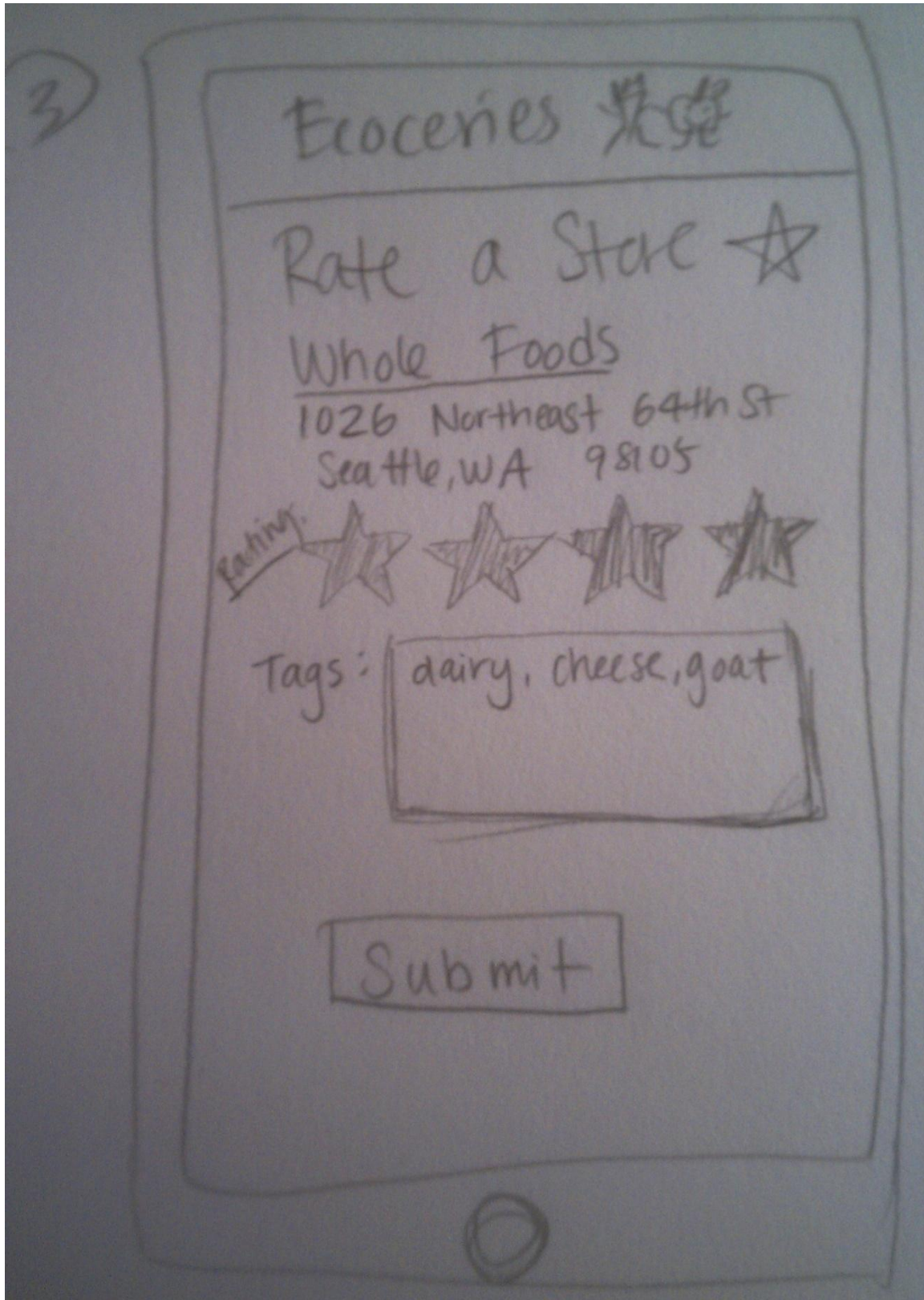


Design 2 (page 1)

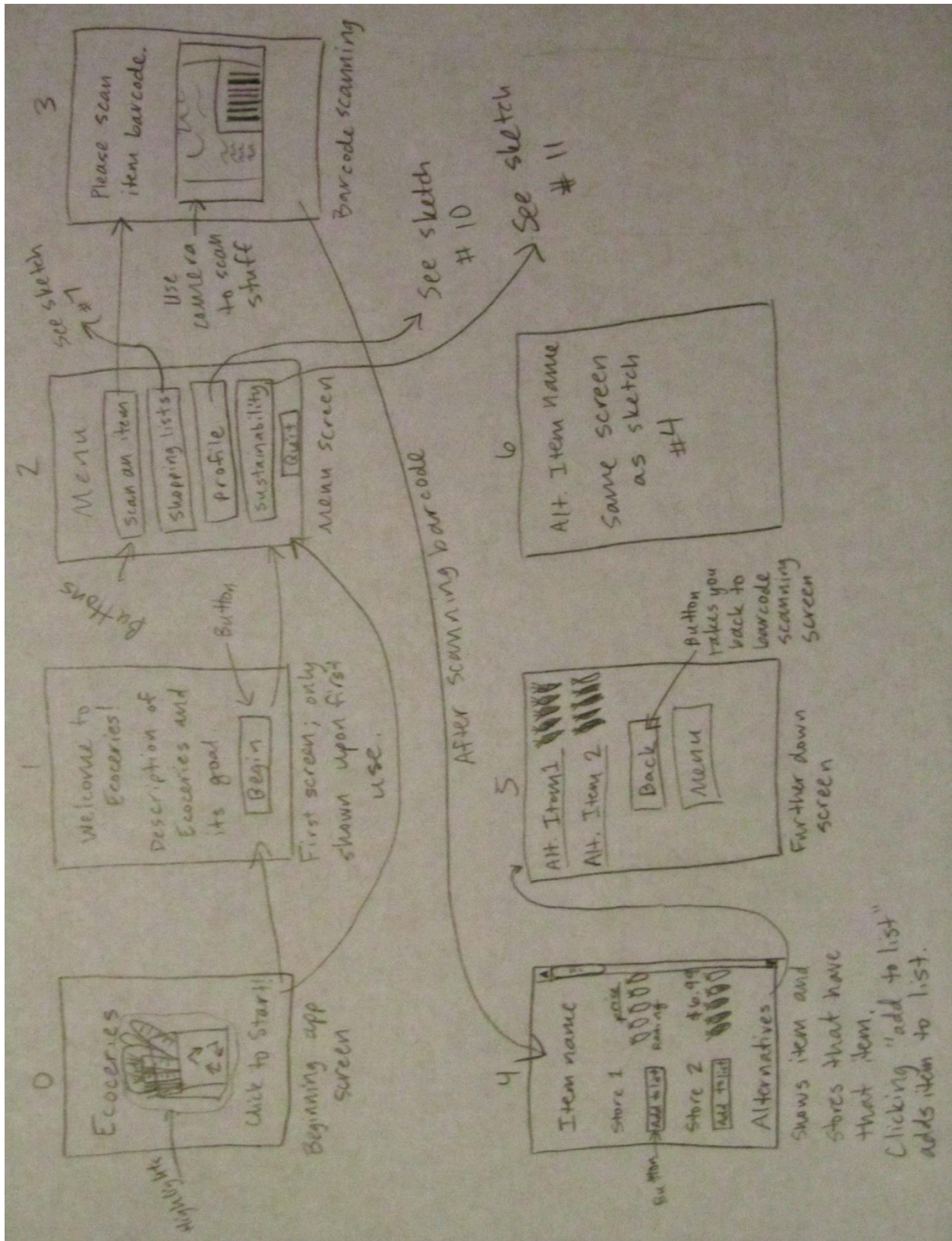


Design 2 (page 2)





Design 3 (page 1)



Design 3 (page 2)

