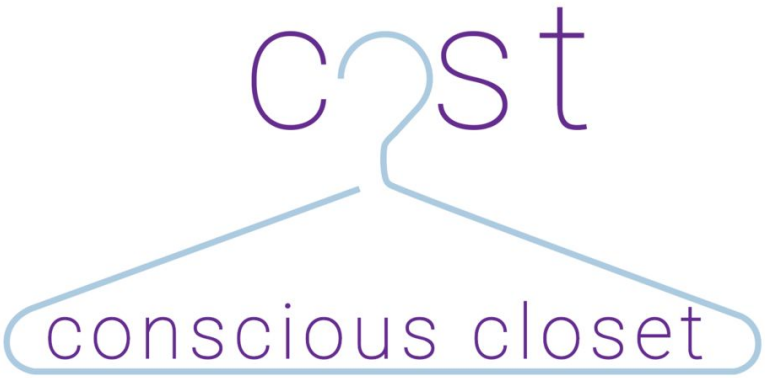


TEAM

Michelle Lee: Designer, Writer
Cathy Cao: Designer, Writer
Yadi Reyes: Designer, Project Manager
Raag Pokhrel: User Researcher, Writer

PROBLEM AND SOLUTION OVERVIEW

Consumerism is taking a toll on many families and their financial situations. Americans are constantly looking to purchase the next trendiest shoe or handbag, and yet, they still feel materially dissatisfied. According to a 2014 Gallup poll, 45% of Americans are spending more than they were a year ago, and only 18% say they are spending less. In fact, millennial are spending more on discretionary spending categories, such as clothing. As a result, individuals and families are left with a cluttered home with things they really don't need. Our closet is a common cluttered area, for example. We often forget about what clothes we already have, and spend more money, causing a cycle of cluttering and overspending. It is important to recognize these issues because overspending can result in a messy home, and a messy home can cause anxiety and stress. Thus, finding solutions to these issues will not only point us in the right direction financially, but also encourage a healthier lifestyle.

We decided to tackle this problem by designing a mobile application for college students or young professionals, busy people who are often "on the go". The main features include the ability to check your closet inventory before making a purchase and donating/trading unwanted clothes. We think that these tasks remain integral to fulfilling the core vision of our application. Our solution provides people with portable access to the contents of their closet. They perform a closet inventory at time of installation, then record personal purchases and cross-reference items that they are interested in buying with their current inventory to make sure they avoid duplicate purchases. The application alerts and reminds people to donate

clothes to a non profit or to trade clothes with other users via existing marketplaces such as Facebook Marketplace or Craigslist.

DESIGN RESEARCH GOALS, STAKEHOLDERS AND PARTICIPANTS

The goal of our design research was to find out how information on one's closet can help someone in closet organization and saving money from overspending on clothing. Our target audience is college-aged to young professionals. We conducted three contextual inquiries to get to know our target audience and understand their motivations in shopping for clothing and organizing (or not organizing) their closet.

Tiffany is our first participant and she is a junior at UW studying HCDE. The contextual inquiry took place at the University Village by the outdoor tables. Drawing from our conversation, she seems to know what she wants when she enters a store, but sometimes buys things impulsively. For example, she bought a sweater that she had planned to purchase, but also bought a shirt that was out of season because it was on sale. Nevertheless, she is not an overspender and buys most clothes out of necessity. Tiffany also says her closet is very organized, and she knows where most items are. However, she admits that she owns multiple sweaters that are very similar but still slightly different. Overall, she seems to be content with her closet and her purchases.

Amit is our second participant. He is in his early 30s and works in marketing for a biotech company. The contextual inquiry took place at Northgate Mall and his apartment. He had a set goal of purchasing clothes for work. He was a systematic shopper, who visited stores in a fixed order, going to more affordable places first. He did not check for deals or items online first. He also did not stray from his original goal too much, e.g., he did not visit other departments, but he did look at several different non work-related items of clothing as well. He purchased 3 work shirts, a pair of cotton trousers and a pair of jeans. His closet was very disorganized and he said that he organizes his clothes every four months or so. While putting away his new purchases, he discovered that he actually had another pair of jeans in his closet that looked exactly like the pair that he had bought. The pair of jeans he already owned had never been worn and had the tag still on them.

James is our third participant. The diary study took place at James' apartment in Capitol Hill. James shares an apartment with two other young professionals. He graduated from Economics last summer 2016 and got a job as a BI Analyst at Slalom. James admitted he has a very messy closet and sometimes considers himself as a reckless spender, but he has now been able to manage his income more efficiently. James usually picks his weekly outfits every Sunday, checking his calendar for any special meetings throughout the week. James has no idea how his closet is organized and recognizes that he has bought the same shirt multiple times unconsciously. His shopping decisions are either based on the durability of his clothes (1 year lifetime) or as he stated, "sometimes he just feels like buying clothes for no specific reason." Once James decides it is time for shopping, he prefers quantity over quality, and the main reason for overspending are the sales in the stores.

DESIGN RESEARCH RESULTS AND THEMES

Reviewing the data collected from these interviews and inquiries, it became apparent that closet organization played a huge role in how people shopped for clothes. Those with an organized closet tended to be more aware of their current wardrobe and were thus able to make more informed decisions when shopping and avoid duplicate purchases. One participant went even further and organized her closet by season, which allowed her to have even more thorough knowledge of her wardrobe. A participant whose closet was often in a state of disarray actually made a duplicate purchase during our contextual inquiry with him and seemed to own many items of clothing that closely resembled each other. Participants with more organized closets bought duplicate items (but with slight variations) only because they liked that particular type of clothing and consciously chose to purchase more of the same thing. It is clear that our design will need to make closet content accessibility a major priority and that we will need to explore ways to make application content updates efficient and intuitive.

Another key discovery was that shopping trips tended to be more focused and resulted in less extraneous purchases if the participant did some level of research before they arrived at the store. This research could be as simple as looking up a desired product on the store website or searching for coupons online. On the other hand, participants who went to the store without engaging in prior research tended to be more open to other purchases. We found this to be true even when the participant had a set agenda for shopping. One of our participants ended up purchasing a pair of jeans even though he was shopping for work clothes.

Our participants had a variety of reasons for why they wanted to go shopping. We discovered that need was not always the driving force behind a purchase. Participants also felt compelled to purchase items based on the existence of a discount or a sale. One of our participants overtly stated that he preferred “quantity over quality” and was an avid hunter of discounts. Another participant, however, did not focus on sales but still structured his entire shopping experience around cost, visiting stores with cheaper clothing first before venturing into more upscale places. Finding a way to incorporate these personal motivations into our design will prove to be a challenge, but will yield great benefits.

In summation, while the realm of behavior that drives the motivation and method of shopping for clothes is diverse and subjective to the participant, it was easy to see that organization and monitoring of clothes was a common theme through each of our participant interviews. In addition, finding a way to incorporate the consumer’s motivations into our design is sure to make our final product even more useful.

ANSWERS TO TASK ANALYSIS QUESTIONS

Who is going to use the design?

The design will be used by young professionals and college students who enjoy shopping but want to minimize spending money wastefully on unnecessary clothing. The design is for people who want organization in their clothing and a convenient full-view of their closet whenever they go shopping. Conscious shoppers will use our design to match potential purchases with clothing they already own.

What tasks do they now perform?

People typically go shopping for their own clothing with a purpose (having some kind of clothing they want to buy in mind), but in the process of shopping, they may buy other things impulsively. When there are sales on clothing, people are more likely to purchase those discounted items. If they like a certain type of clothing, they will buy more of the same kind of clothing but with some slight variations in the clothing. Some people will choose to organize their closets, but a lot of other people also do not.

What tasks are desired?

People want the ability to know if a clothing they want to buy will match with the clothing they own already. This can be achieved if they had access to a full-view of their clothing inventory right where they are shopping at. Closet content monitoring and organization will allow people to easily view their clothing and determine if something they want to buy fits well with the clothing they own. The ability to scan items while shopping or manually input items purchased will help them check if they own something similar and is an unnecessary purchase. Trading or donating unwanted or extra clothing items among other people will provide a cheaper option of acquiring something they want from other people or allow them to get rid of clothing they do not want anymore.

How are the tasks learned?

The app will contain a click-through tutorial showing the person how to input closet's data, scan barcodes at stores and retrieve monthly expenses based on the person's income. If the person decides to skip the tutorial, the app layout should be intuitive enough for the person to use.

Where are the tasks performed?

The tasks are performed in either the home or the store in which the person is shopping at. People will input all their clothing information and inventory at home, and people can use the

design in the store to track new purchases and also view their closet to see if their potential purchase matches anything they own already.

What is the relationship between the person and data?

People input and track the clothing they own already. They can track the purchases they make and their prices and check spending against their monthly income (which s/he can set initially). The data gathered helps people know what they own already wherever they are and also build consciousness of how much they spend on clothing to avoid overspending.

What other tools does the person have?

Other tools the person may have are mobile apps to clothing companies and their websites, banking apps for tracking expenses, and social media platforms (i.e. Facebook) for buying and selling clothing.

How do people communicate with each other?

If the person is interested in trading clothes among other people, the app will connect directly with other platforms (i.e Facebook, OfferUp) and will allow communication between users for communication purposes.

How often are the tasks performed?

The person will check the app occasionally once he/she needs to monitor the items in the closet, wants to trade items among other people or wants to donate some clothing. Additionally, s/he will use the app while shopping to scan the products and compare with items already in the closet.

What are the time constraints on the tasks?

The initial setup of the application involves some time since the person has to manually input all his clothing items into the app (either by photographs or manual input). This is a one-time setting. Once the data is stored, s/he will scan the barcodes of clothing every time they purchase an item. This is an occasional input based on the customer's shopping habits.

What happens when things go wrong?

If there is something wrong in the application, the person can submit a bug report or feedback. If a purchase is made and entered into the application but the person later returns the item, the person needs to manually update the purchases they made and the closet inventory. Problems arise if the person does not actively use the application when shopping, such as not scanning the clothing purchased so the application is not current on the person's inventory.

PROPOSED DESIGN SKETCHES - “3x4”

First Design

The focus of the design is an app that provides: A closet inventory feature (figure 1.1) to keep track of all the items in the user’s closet, the user can either take pictures of his/her closet or manually add items by tags. A scan widget (figure 1.2) that scans new items to find all similar items preventing duplicate purchasing. A trade feature (figure 1.3) for an user to connect with other people interested in trading of items reducing the cost of buying clothes. Finally, a donation feature (figure 1.4) that let’s the user mark all the items she/he wants to donate and finds the nearest location to drop off. This design focus on closet decluttering and cost management of clothes.

Figure 1.1. Inventory Feature

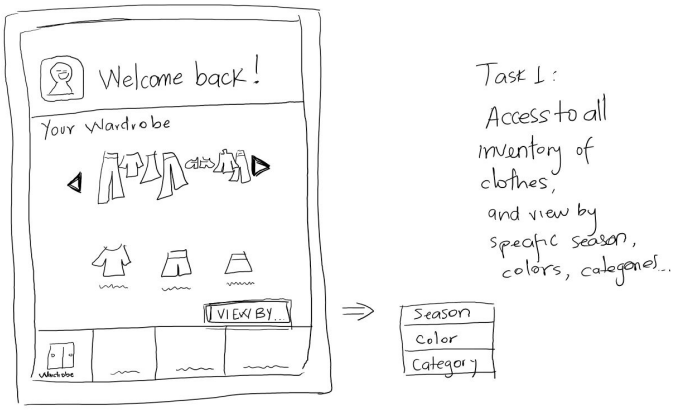


Figure 1.2. Scanning Feature

Figure 1.3. Trading feature

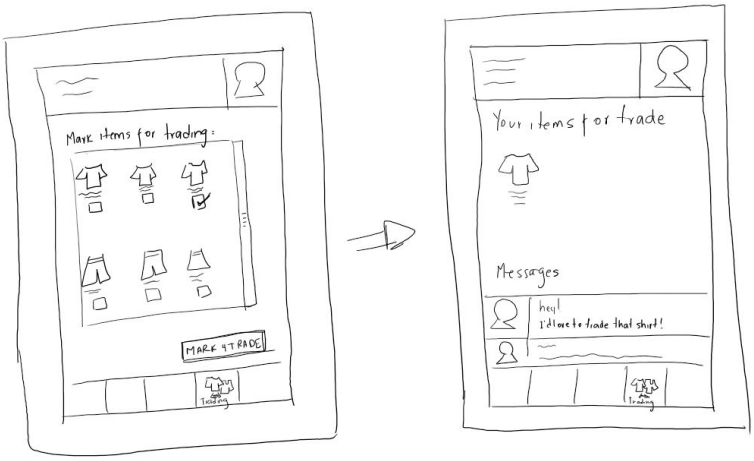
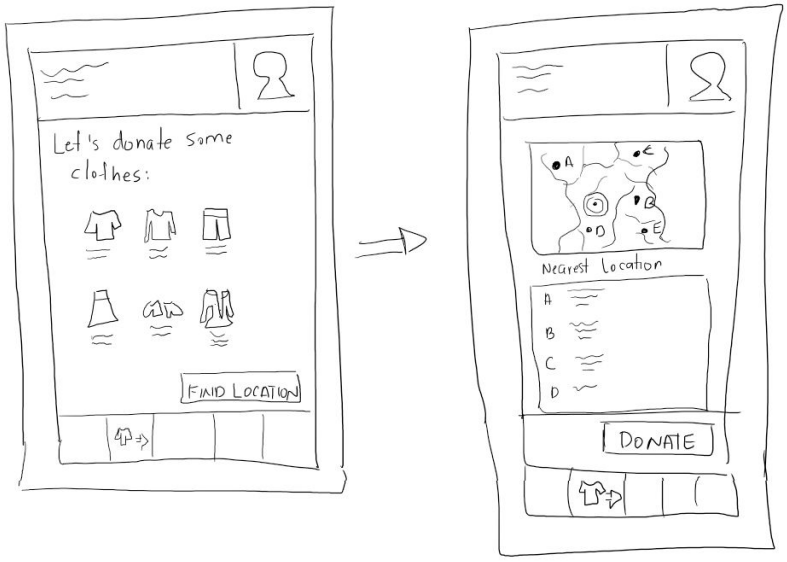


Figure 1.4. Donation feature



Second Design

The focus of the design is to provide people with a full view of their closet in an application. After closet setup, the application allows people to easily find pieces of clothing they own that correspond to certain tags like color and clothing type (figure 2.1). They can also view clothing that their friends are posting for trade and connect with them if interested in clothing exchange (figure 2.2). This design shows a different way of viewing a closet by displaying a full wardrobe view, where people can select different pieces in the wardrobe to focus on for a closer view (figure 2.3). When shopping, people can use this design to take a picture of a piece of clothing they are interested in buying, and the application shows pieces of clothing they already own that have matching tags to the tags the application assigns to the photographed piece (figure 2.4).

Figure 2.1. Easy Searching Through Closet

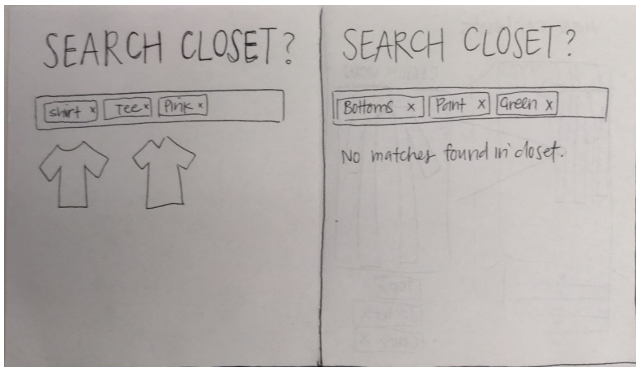


Figure 2.2. Trading Feature

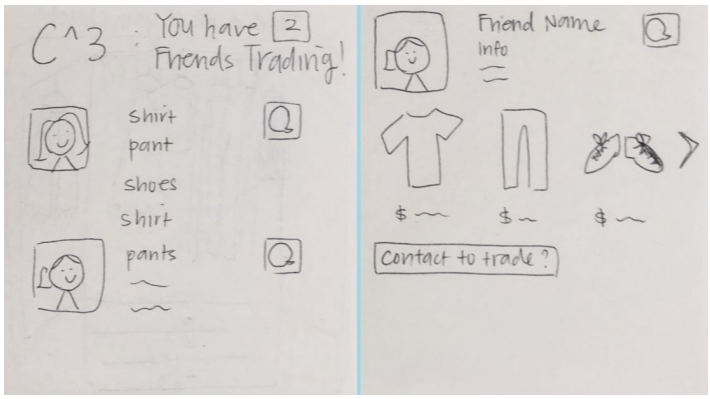


Figure 2.3. Full View of Closet

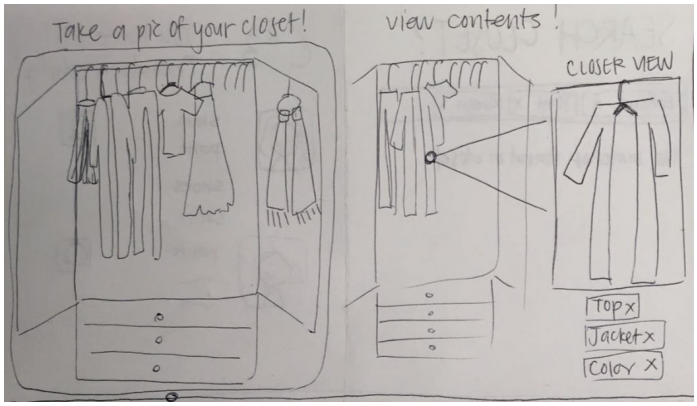
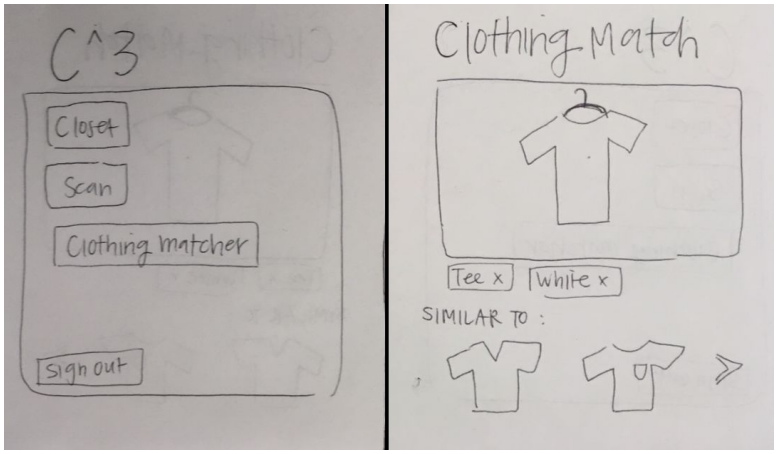


Figure 2.4. Finding Similar Clothing



Third Design

The focus of the design is to create a different way for the person to interact with his/her closet pictorially and categorically. The application sends the person two different types of notifications. The first is a suggestion for decluttering the person's closet, where the application lists out pieces of clothing that have been in the closet for a long period of time; the design is intended to motivate the person to donate unwanted clothing with ease by providing information on donation or clothing recycling locations that are closest to the person (figure 3.1). The second type of notification informs the person if his/her spending on clothing has exceeded a certain amount depending on their inputted monthly budget (figure 3.2). This design provides a full view of the person's closet via a system of tags based on categories like color and season (figure 3.3). The person can easily add new pieces of clothing into the closet for the application to track through taking a picture or manually inputting distinct qualities of the clothing (figure 3.4).

Figure 3.1. Tracking Older Clothing & Motivating Donation

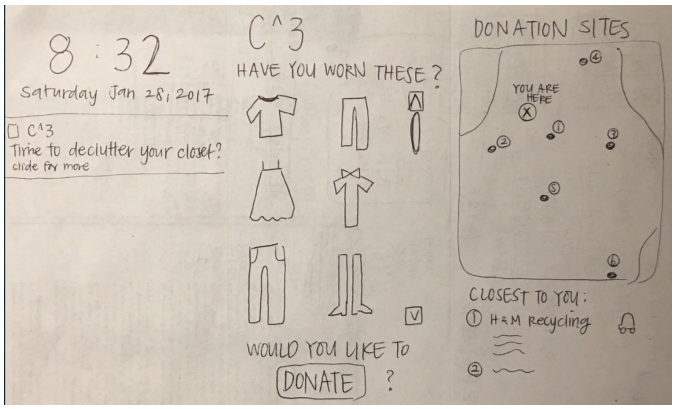


Figure 3.2. Spending Tracking Feature

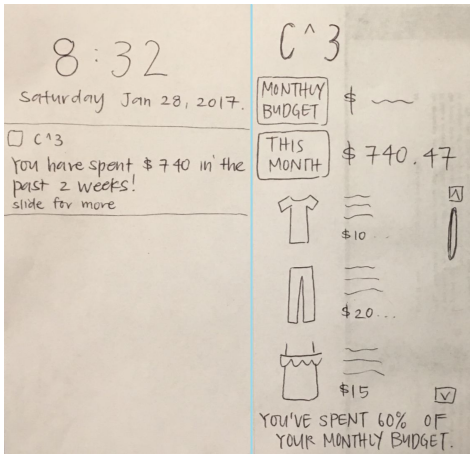
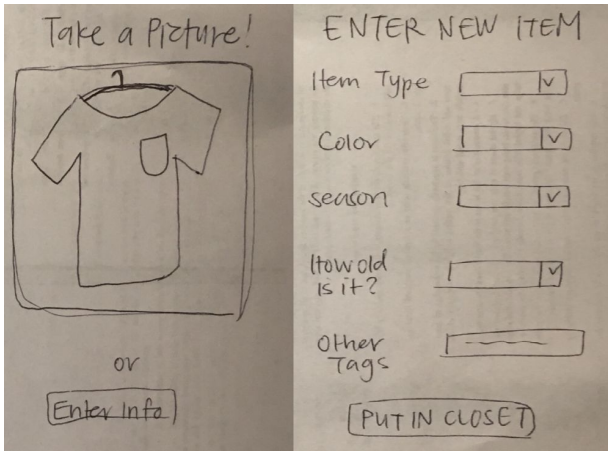


Figure 3.3. Closet Organization by Tags

Figure 3.4. Convenient Adding to Closet Inventory



CHOICE OF DESIGN AND TASKS

Our group decided to choose the tasks of “Scanning items to prevent duplicate or unnecessary purchasing” and “Trading or donating to help with closet decluttering” because we think that these tasks remain integral to fulfilling the core vision of our application , which is to help people cut down on unnecessary clothing purchases and minimize closet clutter. Because a big part of using the application is scanning possible purchases during a shopping trip, we needed to make the application intuitive and easy to use. We wanted there to be minimal instructions required and for users to avoid having to refer to a help tab or an FAQ. The designs that we have chosen for the current tasks take full advantage of the intuitive nature of interactions with modern touchscreen devices, such as swiping, in order to accomplish desired tasks. Another task we plan on working on in the future is the “Building the original inventory of current closet contents” task, which is the main database of someone’s personal closet against which all incoming new purchases will be referenced.

WRITTEN SCENARIOS - “1x2”

Task 1 (First Storyboard)

Laura is a student at the University of Washington. Over the weekend, Laura decides to go shopping to her favorite store downtown, GAP. Once Laura gets into the store, she sees a pretty blue shirt that catches her attention. Laura impulsively thinks of buying the shirt, but she isn't sure if she already owns similar shirts like this one. Laura pulls out her phone, opens the app and scans the barcode of the blue shirt. Once Laura scans the shirt, she finds out very similar blue shirts in her closet. Laura decides that she already owns too many blue shirts and buying another one is just an extra unnecessary expense. Laura puts the shirt away and walks out of the store, she saves money today.

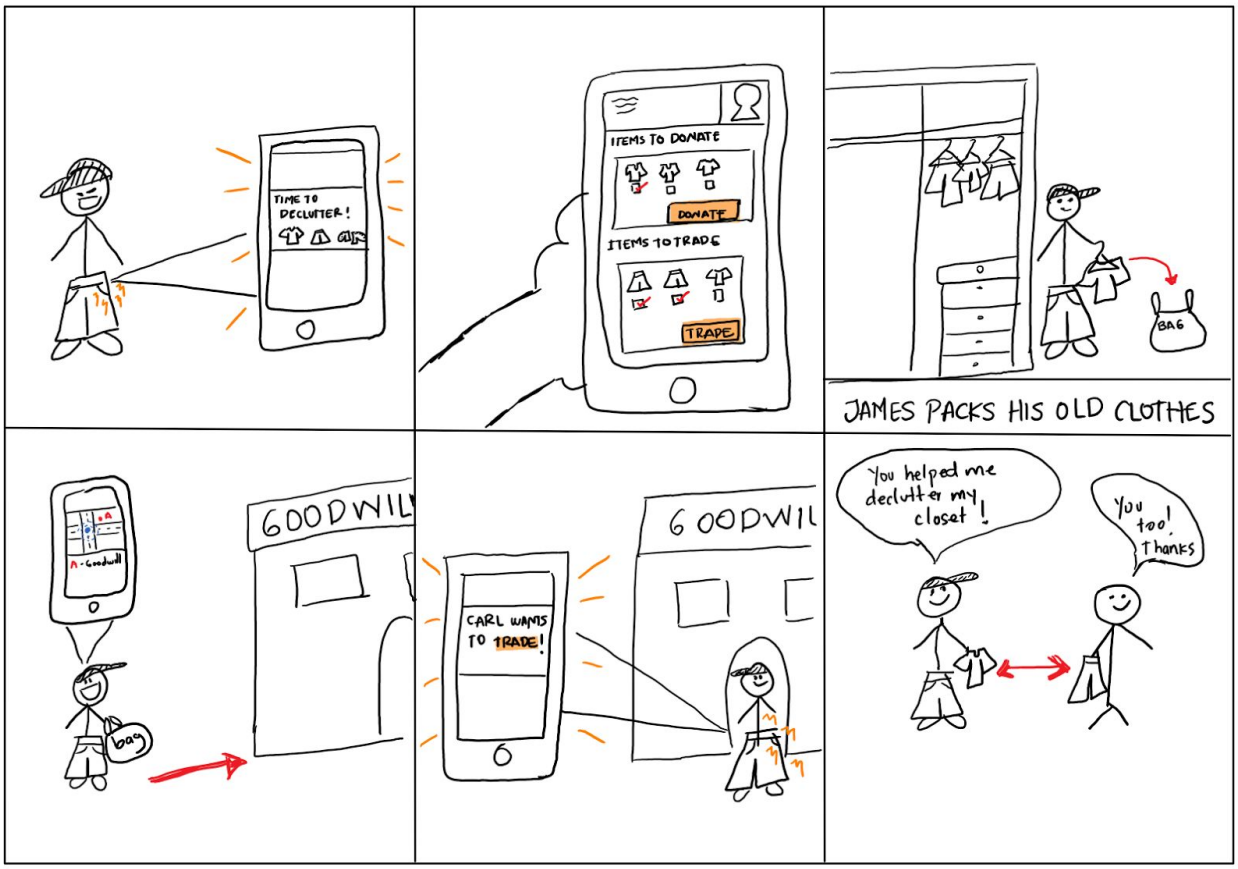
Task 2 (Second Storyboard)

Carlos has just graduated from Seattle University and is currently working at Zillow as a Software Engineer. Over the weekend, Carlos receives a message from the app that suggests him to declutter his closet. Having nothing else to do, Carlos decides it's time to get rid of some unused clothes and launches the app to decide which items in his closet he wants to donate or trade. Carlos marks some items for donation and trade, packs all the clothes he decides to donate and via app, selects the closest donation location near him to drop off his clothes. Carlos drops off his clothes to Goodwill feeling relieved he decluttered his closet. Getting out of Goodwill, Carlos receives a notification that one of his friends is willing to trade some of his clothing items. He meets up with his friend and exchange some items, feeling very satisfied of his decisions.

STORYBOARDS OF THE SELECTED DESIGN

Task 1 (First Storyboard)

Task 2 (Second Storyboard)


TIME TO DECLUTTER!
ITEMS TO DONATE
DONATE
ITEMS TO TRADE
TRADE
BAG
JAMES PACKS HIS OLD CLOTHES
GOODWIL
bag
GOODWIL
CARL WANTS TO TRADE!
You helped me declutter my closet!
You too! Thanks