STAGE THREE REPORT

CPSC 481 Fall 2020

Team P T04 Philmo Gu

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Portfolio: https://sophiango-uofc.github.io/Team-P-CPSC-481/

Repository: https://github.com/sophiango-uofc/Team-P-CPSC-481

PROJECT DESCRIPTION

Our idea for the project is a Virtual Closet mobile application. We expect the app to be used by anyone from clothing retailers, personal stylists, and social media influencers to your average joe user. The system will provide users with a virtual database to add clothes and accessories from their physical closet into their virtual one. It will also serve as a social platform of sorts, as users can share their wardrobe and outfit ideas with their friends/followers. It could also be used to plan outfits in advance for those days when you just don't know what to wear. The app will allow users to mix and match clothing items from their database of clothing, offering a solution to the age-old question, "What should I wear today?".

PROTOTYPED USER TASKS

HORIZONTALLY PROTOTYPED

- Users can login or register for a new account.
- Users can view and edit their own profile.
- Users can view a news feed of activity by users they follow.
- Users can view the profile of other users and follow/friend them.
- Users can search for other users by their username.

VERTICALLY PROTOTYPED

1. Users can add items to their virtual closet by uploading a picture and entering details of the item into their virtual closet. They can also categorize these items in a variety of meaningful ways (e.g., colour, article type, appropriate weather or occasion).
2. Users can view their full catalogue of uploaded clothing items and previously created outfits. They can specify what they'd like to see by applying filters to the results (e.g., the categories mentioned in the previous task).
3. Users can put together and save outfits on the app. They also have the option to create outfits for an upcoming event/special occasion and save it to a calendar date.
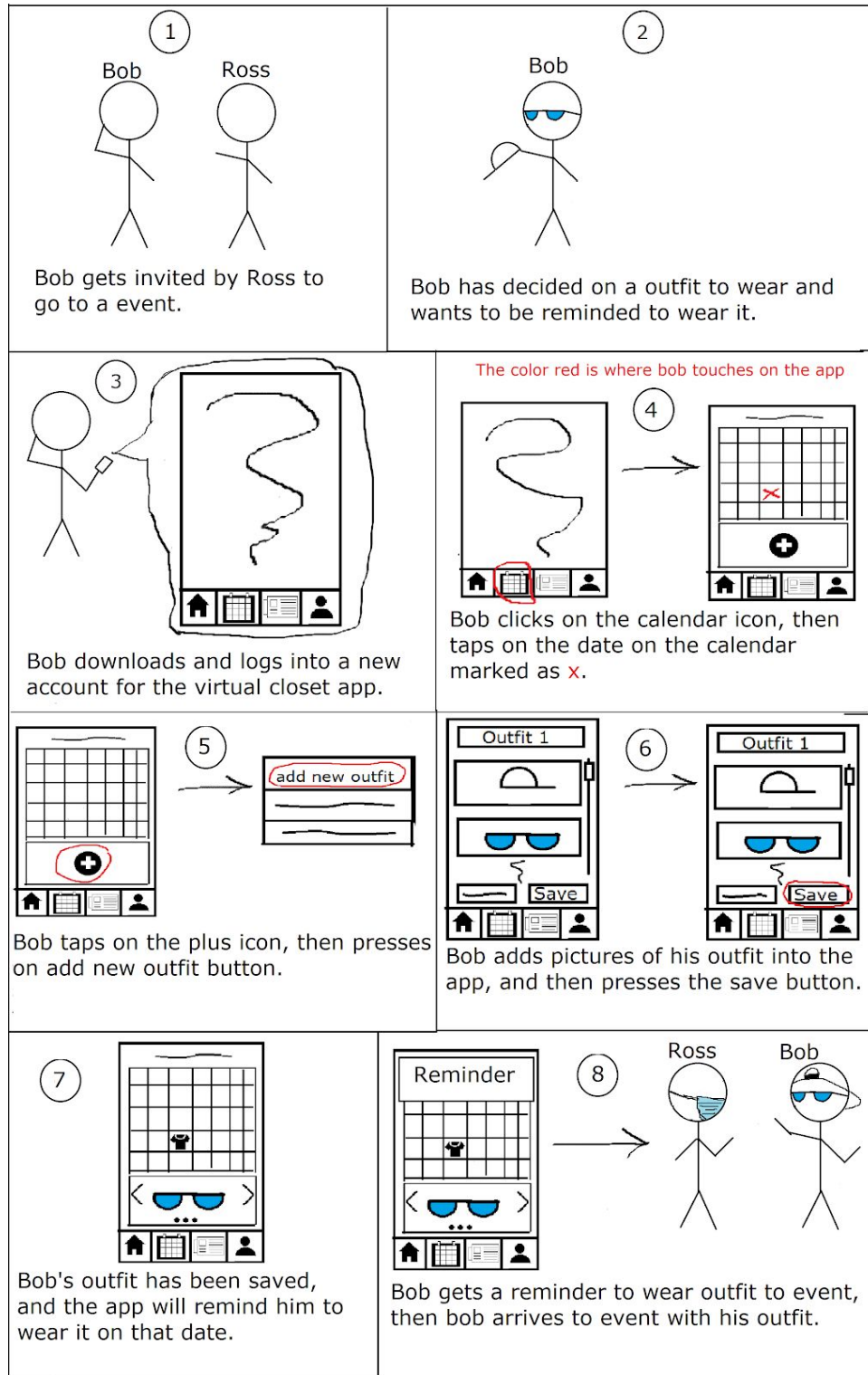
STORYBOARD

Figure 1: Storyboard depicting usage of our virtual closet app.

COGNITIVE EVALUATION

For the task-centered system cognitive walkthrough, we used the provided cognitive walkthrough template to evaluate the tasks that we prototyped vertically. During the walkthrough, we went step by step to break down each of the user tasks into task steps. For each task step, we tried to think from the user's perspective as we answered each question. We also tried to keep in mind that users could be from any skill level, so we needed to accomodate for the possibility of users that are new to mobile apps in general.

We found that most of the issues with our prototype involved things potentially being unclear to the user. This included icons that users might not recognize, or certain tasks they can perform but are not aware of. The solutions we came up with are to clarify these by adding describing words to the UI or to try using icons that are familiar and easily recognizable by the majority of people. For example, we added the "+" signs to the plan outfit screen so that the user can easily understand that they can add an item by tapping the "+" sign. We also made the addition of an item name, outfit name and description optional when uploading items or creating outfits, such that the user isn't forced to enter these details if they don't want to. We also revised the confirmation process by making the confirm button (check mark) greyed out until all the required fields were filled.

Throughout the entire process, we also made multiple changes to the flow of our wireframes. This was to ensure that the user is able to access all the features of the app as easily as possible. For example, we had an earlier implementation that allowed the user to add an item from the plan outfit screen, but we realised that this could be problematic. For this reason, we decided that the user should only be able to create an outfit with items that they've previously uploaded to their closet. So to use a new item in an outfit, the user must first upload the item to their closet and then create an outfit with it. Most of the solutions were simple, but we would not have thought about them if not for the cognitive evaluation (see appendix A for full cognitive evaluation walkthrough).

REFLECTION OF IDEATION PROCESS

The entire ideation process went relatively smoothly. We bounced ideas and discussed the app which led us to come up with our own sketches to share with the group (see appendix C for sketches). After collecting the sketches, we discussed and reviewed them to get an idea for what we wanted in our app. We then organized the sketches and ideas into an affinity diagram. The process of organizing our ideas was confusing at first because there were multiple ways of creating different components. By analyzing the similarities and differences between the sketches and the ideas behind them, we eventually identified natural relationships between them and grouped the ideas based on those (see appendix B for affinity diagram). From there, we moved on to storyboarding. We had troubles figuring out what a storyboard should consist of, but after some discussion, we came to an understanding it should illustrate the usage of our app in relation to a task. Next, we moved on to the prototyping stage. We found that working with Balsamiq allowed for easy collaboration, as we could all work on certain screens of the app on our own time, and then link them together at a later time. We also thought that the cognitive walkthrough played a crucial role in helping us think about how the user would use the app and for us to identify potential issues and make changes to the prototype accordingly.

One of the things we would have done differently is to draw collaboratively. Most of the sketches were done individually and then ideas were discussed and combined later. Although this worked well for us, we think we could have had more live-time collaboration with each other while sketching. Due to this, we were not able to make multiple affinity diagrams and different variations of the app. We ended up deciding on a single design, which took ideas from all of our individual sketches. Although we ended up with something we all liked for our final idea, it is always best to come up with as many different variations of the same app as possible. Overall, we have gained an appreciation for the ideation process, as it allowed us to organize our ideas for the low-fi prototype in a methodical way.

APPENDIX A: Cognitive Walkthrough Document

Task Centered Design Walkthrough Template

Modify the design to suit your report formatting style if needed. Add as many pages as you need (you probably will need few pages for each task).
Add item

Description of task step	Does user have training or knowledge to do this step?	Is it believable that they would do it?	are they motivated?	Comments (including possible solutions)
Find home/closet screen	Yes	Yes	Yes	
Clicking on add	Yes	Yes	Yes	
Taking a picture	No	Yes	No	Not tech savvy Might not want to take out clothes from the closet Solution: Allow user to pick temporary picture from own or app library
Adding categories	No	Yes	No	Might not know they can add categories by typing Not creative to make up their own category Solution 1: Indicate that they can create own category Solution 2: App has pre-set categories to pick from
Selecting categories	Yes	Yes	Yes	
Entering the weather	Yes	Yes	Yes	
Enter title	Yes	No	No	Don't know what to name item Solution: Entering title is optional
Enter notes	Yes	No	No	Too much extra effort Solution: Entering notes is optional
Confirm add to closet	No	Yes	Yes	Must enter required fields Solution: Confirm button is greyed out

Figure 2: Cognitive Walkthrough for Adding an item to the virtual closet

Task Centered Design Walkthrough Template

Modify the design to suit your report formatting style if needed. Add as many pages as you need (you probably will need few pages for each task).
Viewing filtering

Description of task step	Does user have training or knowledge to do this step?	Is it believable that they would do it?	are they motivated?	Comments (including possible solutions)
Selecting search	Yes	Yes	Yes	
Search category	No	Yes	Yes	Not sure what they are able to search for Solution: Describe what can be searched
Search by item name	Yes	Yes	Yes	
Search outfit by name	Yes	Yes	Yes	
Selecting sort	No	No	Yes	Might not recognize the icon Don't care about sorting clothes Solution 1: Text describing what button is Solution 2: Can leave it unsorted
Selecting sort options	Yes	Yes	Yes	
Selecting categories	No	No	Yes	Might not recognize the icon Since search exists, might not care Solution 1: Text describing what button is Solution 2: Don't have to select any category
Choosing multiple categories	No	Yes	Yes	Might not be aware you can check multiple Solution: Show checks in boxes to indicate a checklist

Figure 3: Cognitive Walkthrough for Searching categories, items, outfits and Selecting sort option and categories

Task Centered Design Walkthrough Template

Modify the design to suit your report formatting style if needed. Add as many pages as you need (you probably will need few pages for each task).
Planning outfits

Description of task step	Does user have training or knowledge to do this step?	Is it believable that they would do it?	are they motivated?	Comments (including possible solutions)
Navigating to calendar	Yes	No	Yes	Not aware that the feature exists Solution: Icon shows a calendar
Interacting with calendar date	Yes	Yes	Yes	
Choosing to add or create new outfit	Yes	Yes	Yes	
Selecting existing outfit	Yes	Yes	Yes	
Creating new outfit	No	Yes	Yes	Not sure how it works Solution: Plus icons indicate adding of items
Saving outfit to calendar	Yes	Yes	Yes	
Deleting outfit from calendar	No	No	No	Don't recognize icon or know that's an option Users are motivated to plan and leave it Solution 1: When clicking icon, asks for confirmation Solution 2: It is optional to delete outfit

Figure 4: Cognitive Walkthrough for planning outfits

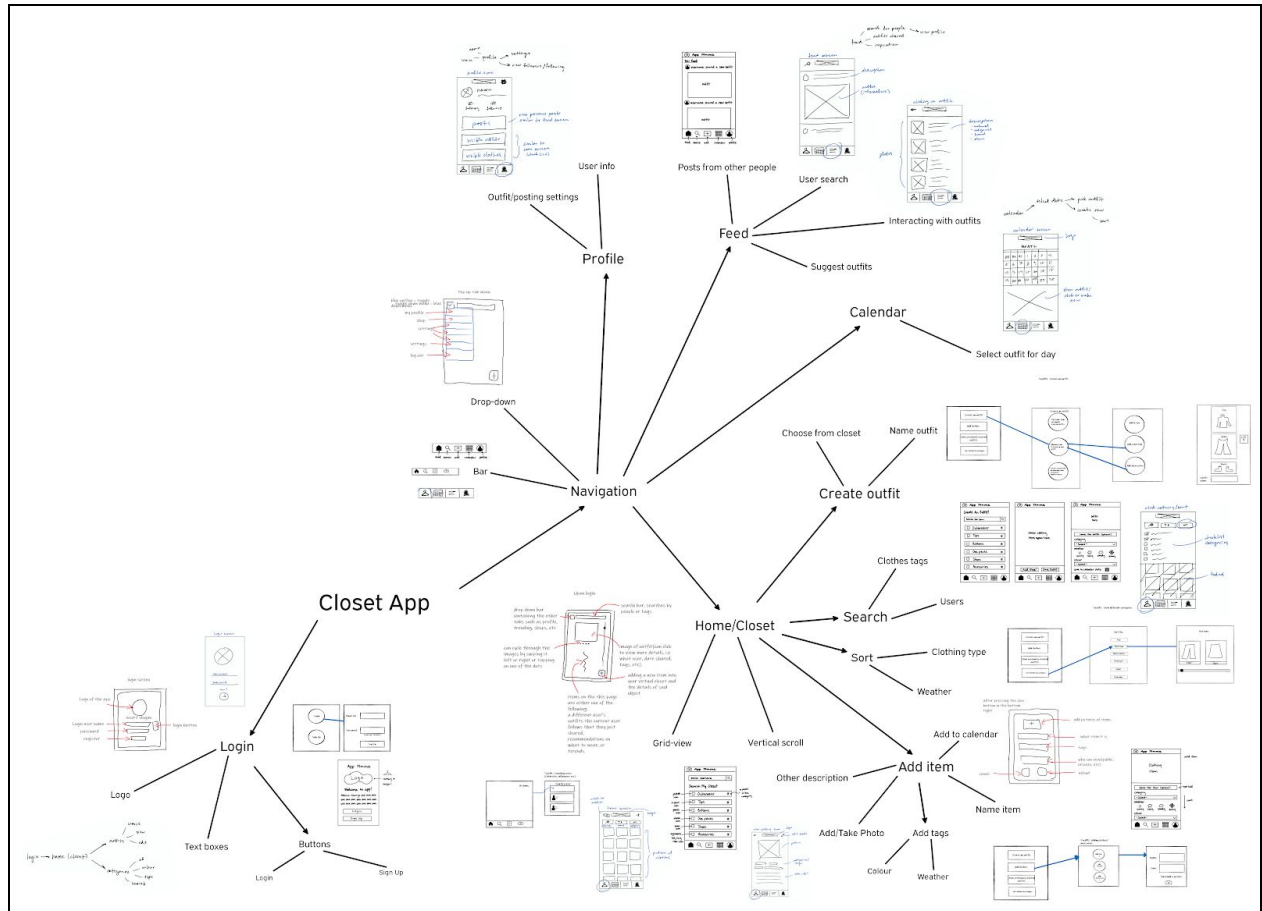# APPENDIX B: Affinity diagram

Figure 5: Affinity diagram for organising ideas presented in sketches
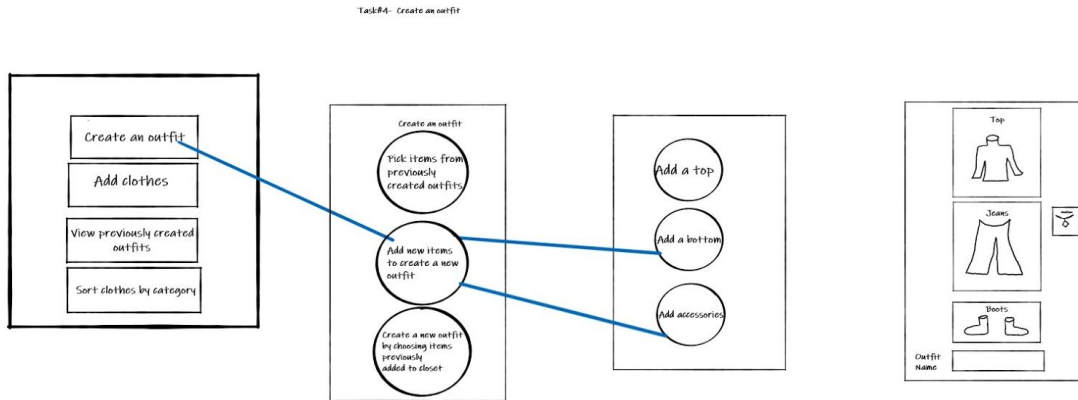
APPENDIX C: Sample of the sketches
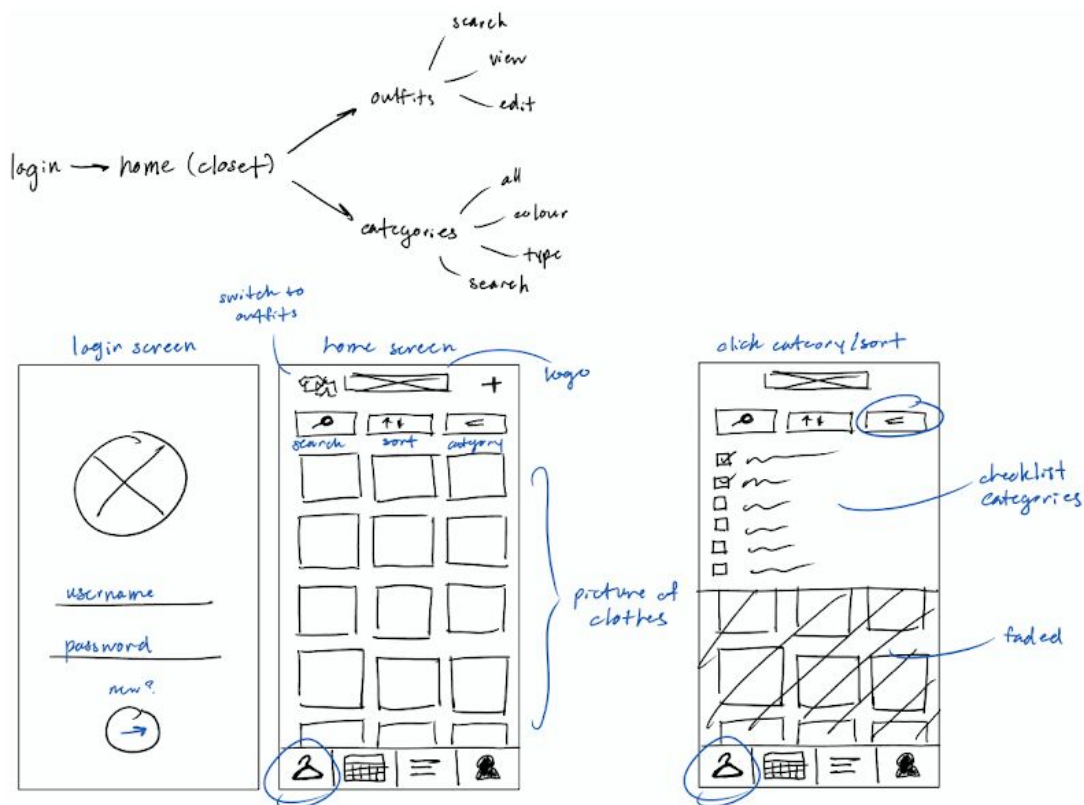

Figure 6: Outfit planning UI sketches

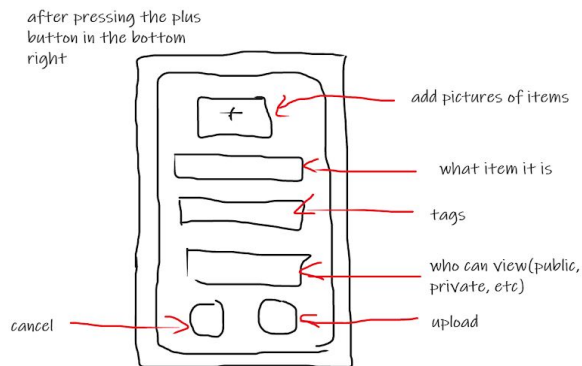Figure 7: Login to home screen flow and UI

after pressing the plus button in the bottom right

add pictures of items

what item it is

tags

who can view(public, private, etc)

cancel

upload

Figure 8: Adding item to closet UI

calendar screen

logo

MONTH

show outfit/ click to make new

Figure 9: Adding item to closet UI

App Name

Logo

clothing or hanger?

Welcome to app!

Welcome message blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah

Login

Sign Up

App Name

add item

Clothing item

name the item (optional)   text field

category

-Select-

weather

☀ sunny   🌧 rainy   ☁ cloudy   ❄ snowy

colour

-Select-
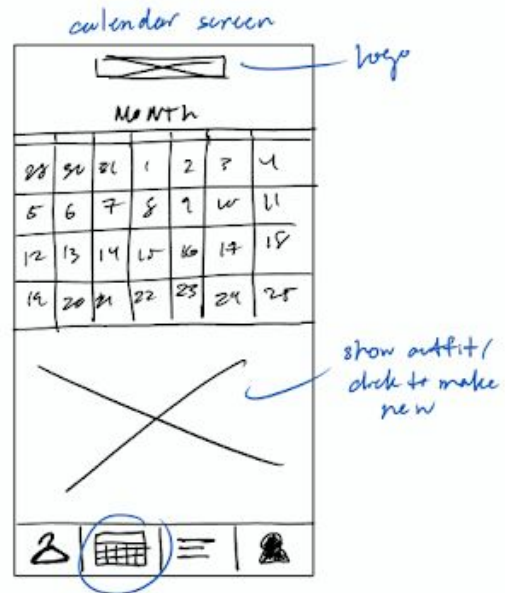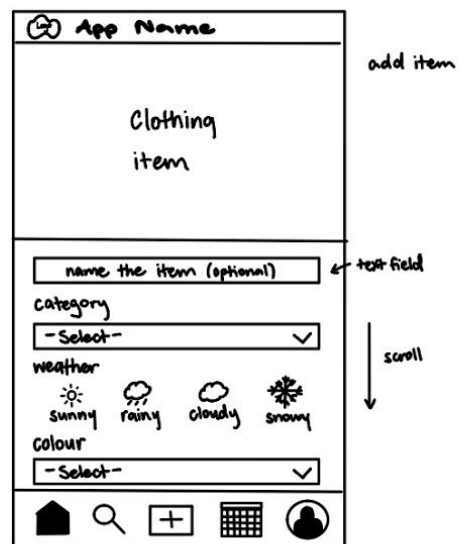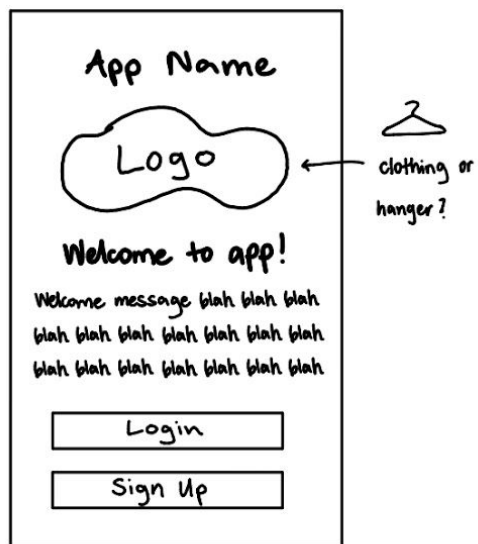
scroll

Figure 10: Login screen, adding item to closet variation UI