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## Introduction

For our project, we decided to design an app. The app asks to take pictures of their clothes and based on them the AI would recommend which item suits the other and pairs them up in an aesthetic the user would like. It would also recommend clothing items which can be bought. The relationship between humans and AI would be that the AI would study users' preferences and make recommendations based on their choices.

## Needfinding

### Overview

Needfinding deals with the experiment part of the project. It determines what we need to find and what the goals of the application would be. The Style with us app is primarily designed for people who are interested in fashion, style, and organizing their wardrobe. Our primary goal is to help users find a style that fits the parameters of their preferences and give them a result that they like. To accomplish our goal, we designed a website that helps us accomplish this task by providing a number of ways the user can get their best style.

Needfinding is a critical aspect of designing an effective app that addresses the needs of potential users. For our Style with Us app, we have identified our target audience as individuals who are interested in fashion, style, and organizing their wardrobe. Through extensive research and user interviews, we have determined that many individuals struggle to find a style that fits their personal preferences and lifestyle. Our primary goal with the app is to provide users with personalized recommendations for clothing items and outfits that align with their specific preferences, while also taking into account factors such as their body type, occasion, and budget. To achieve this goal, our app will utilize advanced machine learning algorithms and image recognition technology to analyze the user's uploaded photos of their clothing items and provide personalized recommendations based on their style preferences. Additionally, our app will offer features such as outfit planning and wardrobe organization tools to help users better manage and utilize their existing clothing items. By providing a comprehensive and personalized solution for fashion and style needs, we aim to establish Style with Us as the go-to app for fashion-conscious individuals seeking a more efficient and effective approach to styling and organizing their wardrobe.

## Personas

### Overview

Personas are often given names, personalities, and other characteristics to make them more relatable and memorable. They may also include details about the user's age, education level, job, hobbies, and other demographic information. Additionally, personas

may include information about the user's goals, motivations, pain points, and preferred methods of interaction with the product or service.

The use of personas in the design process can help designers create products that better meet the needs of their target audience. By understanding the needs and behaviors of different user types, designers can create user interfaces, user flows, and other design elements that are optimized for each persona. Personas can also be used to test and validate designs, by having users interact with prototypes and providing feedback on their experience.

## Persona 1:

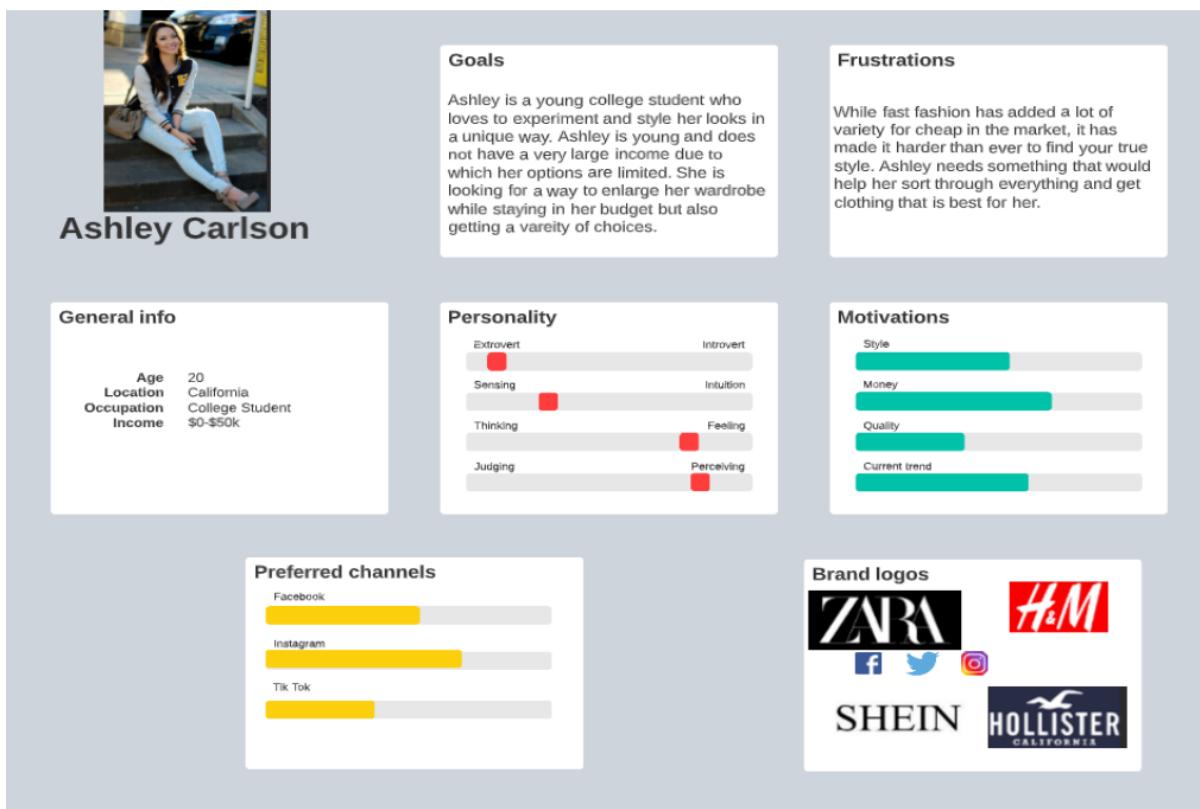


Figure 1: Persona 1 - Ashley Carlson

## Persona 2:



Empower yourself with Technology and style. "

Age	23 Years Old
Education	College Degree
Location	North Carolina, USA
Family	Single
Occupation	Student

Tech-savvy
Creative
Smart

Ambitious
Fashion-forward

**User Persona**

# Tulasi Arla

**About**

Tulasi is a tech-savvy and fashion-forward woman who loves to stay on top of the latest trends in both technology and fashion. As a software engineer, she has a keen eye for detail and appreciates how technology can be used to enhance the user experience. She also has a deep appreciation for fashion and enjoys experimenting with new styles and trends.

**Goals**

- Developing new software or technology that enhances the online shopping experience, specifically in the fashion industry.

**Frustrations**

- Security Concerns
- Limited payment Options

**Needs**

- Time Saving
- convenience
- personalization

**Personality**

Introvert
Extrovert

Social
Non-social

Analytical
Creative

Independent
Team player

Figure 2: Persona 2 -Tulasi Arla

### Persona 3:



" I want to explore the world and make new memories. "

Age	23 Years Old
Education	College Degree
Location	California, USA
Family	Single
Occupation	Software Engineer

Passionate
Creative
Smart

Ambitious
Adventurous

**User Persona**

# Radha Reddy

**About**

Radha is a newly graduated student who likes to explore new stuff yet stay in her comfort zone. She likes light colors and pastels and clothes which are comfortable on her.

**Goals**

- Like to find clothes of the same aesthetic.
- To find similar clothes that she owns.

**Motivation**

Style
Extrovert

Money
Social

Quality
Non-social

Current Trend
Creative

Independent
Team player

**Frustrations**

- Unable to search similar clothes from different brands.
- Finding clothes that match her style'

**Personality**

Figure 3: Persona 3 - Radha Reddy

### Persona 4 :



**USER PERSONA**

# Nisha Verma

**ABOUT**

Nisha is a 23-year-old student with a strong creative and artistic flair. She has a unique sense of style that reflects her personality, and she loves to express herself through her fashion choices. Nisha prefers clothes that are both stylish and comfortable, and she enjoys shopping online for a wider range of options and access to various brands.

**GOALS**

- To find clothes, accessories, and shoes that match her unique sense of style.
- To easily browse through a wide range of products online and discover new styles.
- To save time and effort by using efficient online shopping features such as image search.

**FRUSTRATIONS**

- Limited options for clothes that match her unique sense of style in physical stores.
- Spending too much time searching for products online due to the overwhelming amount of options.
- Difficulty finding recommended products that match her style and preferences.

**MOTIVATION**

- Nisha is motivated by the opportunity to express herself through her fashion choices.
- She enjoys the convenience of online shopping and appreciates the ability to discover new styles and brands.

**PERSONALITY**

- Nisha has a strong sense of individuality and self-expression in her fashion choices.
- She is detail-oriented and values efficient shopping features that save her time and effort.

PASSIONATE
ARTISTIC
CURIOS
ADVENTUROUS

Figure 4: Persona 4 - Nisha Verma

## Summary

Overall, personas are a valuable tool for designers and developers, helping them to create products and services that are tailored to the needs of their users. It helped us put a clear idea on who our users are and helped us create design goals based on that.

## Interviews and Focus Group

### Focus groups overview

#### Focus group 1:

The focus group consisted of people who were mainly our target users and a few nonusers.

Participants 1, 2, 3, 4, 5, and 6 were target users and 7 and 8 were part of the demographic we are targeting, however, they are non-users. Some of the main questions I focused on were the following: When did you last buy something or use a service from a fashion app such as shein? If yes, how often do you use it? What would it be if you could change one thing about how these apps work? What is the trust factor with these apps? If an app like ours comes to market, what do you envision it to look like?

### **Focus group participants**

The participants were divided into users and non users with 6 being users and 2 non users. Participants 1, 2, 3, 4, and 5 were female while 6, 7, and 8 were male. 7 participants are college students and between the ages of 18-22 and participant 8 was a 40 year old male. Most of the target users use an app similar to ours and were very open and excited about our platform while some non - users seemed more uninterested and reluctant to try it.

### **Discussion**

**How do the design goals appeal to the intended users? What do the participants of your focus group like or not like about the concept?**

The intended audience was excited about our design goals and seemed to agree with most of our ideas. They liked the idea that it would recommend clothing based on style and preference but also would give the opportunity to try out new things based on their preferences. Participants 7 and 8 raised concerns over the familiarity issue. Since it is a really new idea, it is hard to compare it to an app that is already in existence and the participants questioned how likely people would use it.

**Did the focus groups shed light on anything that you would not have thought of otherwise? Did the participants say anything surprising?**

I think one surprising thing that the participants unanimously agreed upon was how unwilling they would be to use the app if it was paid. The appeal of the app only works if it's a free service. Most participants raised points that it is not a service that they would pay for because our target audience seems to be mostly younger people and they are not willing to spend money unless it is necessary. I thought it was an age factor affecting the participants, however the older participant also agreed that the chances he would pay for this service is low but would be open to using it for free.

**When did you last buy something or use a service from a fashion app such as shein? If yes, how often do you use it?**

Participant 1 - last week and I use it pretty often.

Participant 2 - 3 weeks ago and I use it mainly when I don't find clothes in person.

Participant 3 - a month ago and I use it when I find something there that's lower prices than in stores.

Participant 4 - 7 weeks ago and I use it once every few months.

Participant 5 - two months ago and I use it a few times a year.

Participant 6 - I do not remember, I do not use it often.

Participant 7 - 4 months ago and I use it for events mainly.

Participant 8 - I do not use it.

**What would it be if you could change one thing about how these apps work?**

Participant 1 - I would make the delivery faster.

Participant 2 - I would make the quality a little better.

Participant 3 - I would make the prices lower.

Participant 4 - I would add more features and categories to make it more inclusive.

Participant 5 - I would like them to be more sustainable to the environment.

Participant 6 - I would like them to be more size inclusive.

Participant 7 - I would like them to work on their ethical issues.

Participant 8 - Make them more appealing to the general public.

**What is the trust factor with these apps? If an app like ours comes to market, what do you envision it to look like?**

There was an open discussion and below are the key takeaways from them.

The trust factor for fashion apps can vary depending on several factors such as the brand reputation, the app's privacy and security measures, and the quality of customer service. Some consumers may have concerns about the quality and fit of the clothing, as well as potential issues with returns or refunds. Therefore, it is essential for fashion apps to address these concerns and build trust with their customers by providing accurate product descriptions, easy returns and exchanges, and excellent customer service.

If an app like yours comes to the market, it would need to focus on building a strong brand identity and reputation, establishing trust with its target audience, and providing a seamless user experience. This could include features such as personalized recommendations, size and fit suggestions based on past purchases and reviews, and a wide range of options that cater to different styles, sizes, and budgets. The app would need to prioritize transparency and ethical practices, such as sustainable materials and fair labor standards, to appeal to consumers who value these factors. Additionally, it would be essential to implement strong privacy and security measures to protect user data and build trust with consumers.

## **Focus Group 2:**

There were 5 participants. Participants 1, 2, 3 were target users while 4 and 5 were non users.

### **How do you typically shop for clothes, and what are some challenges you face?**

Participant 1: I usually shop for clothes online because it's more convenient, but sometimes it's hard to know if something will fit well or look good in person.

Participant 2: I prefer shopping in physical stores because I like to try things on, but it can be overwhelming and time-consuming to navigate through all the options.

Participant 3: I like to shop for clothes both online and in stores. The main challenge I face is finding pieces that fit well and suit my personal style.

Participant 4: I typically shop for clothes in stores because I like to see and feel the fabric and try things on before making a purchase.

Participant 5: I enjoy shopping for clothes in boutique stores because they often have unique and trendy items that are hard to find elsewhere. However, they can be expensive.

### **Hypothetically, what would motivate you to start using Style With Us, and what features would you find most useful?**

Participant 1: I started using Style With Us because I was looking for a way to discover new styles and clothing items that fit my personal preferences. I find the personalized recommendations to be the most useful feature.

Participant 2: I was attracted to Style With Us because of its user-friendly interface and the ability to filter by style and budget. I find the style filter to be the most useful feature.

Participant 3: I started using Style With Us because I wanted to try something new in terms of online shopping. I find the feature that allows me to save my favorite items to a wishlist to be the most useful.

Participant 4: I was motivated to use Style With Us because of the range of brands and styles available. I find the feature that suggests outfits based on my style preferences to be the most useful.

Participant 5: I started using Style With Us because I liked the idea of having a personal stylist who could recommend items based on my style preferences. I find the feature that allows me to give feedback on items to improve future recommendations to be the most useful.

**What do you think of the Style With Us user interface, and how easy is it to use?**

Answer 1: I find the Style With Us user interface very intuitive and easy to use, with clear navigation and helpful filtering options.

Answer 2: The user interface is a little confusing and cluttered, making it difficult to find what I'm looking for.

Answer 3: I like the user interface, but the text can be a bit small and hard to read on some devices.

Answer 4: The user interface is easy to use, but I wish there were more customization options to make it feel more personal.

Answer 5: I love the user interface, especially the clean and modern design, and find it very easy to navigate.

**How helpful are the product images and descriptions on Style With Us, and do they provide enough information for you to make a purchase decision?**

Answer 1: The product images on Style With Us are very helpful, and I appreciate being able to see clothes on models with different body types. The descriptions are also detailed and provide enough information to make a purchase decision.

Answer 2: I find the product images and descriptions on Style With Us a bit lacking, as they don't always show clothes from different angles or provide enough detail on the fabric or fit.

Answer 3: The product images and descriptions on Style With Us are average, but I appreciate being able to see customer reviews and ratings to help me make a purchase decision.

Answer 4: I really like the product images and descriptions on Style With Us, as they provide enough information and detail for me to make an informed purchase decision.

Answer 5: The product images and descriptions on Style With Us are helpful, but I wish there were more user-generated content like photos or videos of customers wearing the clothes.

**How easy is it to save and organize your favorite items on Style With Us, and do you find the virtual closet feature useful?**

Answer 1: Saving and organizing my favorite items on Style With Us is very easy, and I find the virtual closet feature very useful for keeping track of clothes I'm interested in buying.

Answer 2: I find the process of saving and organizing my favorite items on Style With Us a bit confusing, and wish there were more options to customize my virtual closet.

Answer 3: The virtual closet feature on Style With Us is very useful, but I wish it were easier to search and filter my saved items.

Answer 4: I love the virtual closet feature on Style With Us, as it helps me keep track of items I'm interested in and makes it easy to come back and purchase them later.

Answer 5: The process of saving and organizing my favorite items on Style With Us is easy, but I wish there were more ways to share or export my virtual closet to other platforms or apps.

## **Summary**

From our needfinding activities and focus groups, we were able to learn what design goals we should have.. By bringing together a diverse group of people who have a stake in the product or service being developed, we gained a deeper understanding of the users' needs, motivations, and behaviors.

## **Design Goals**

### **Overview**

We created our design goals based on the focus groups and analysis. These goals will be our guidelines to creating the website. We used the interviews from the focus group to get a better understanding of what the user wants and how to aim to get the website that would be most user friendly.

### **Goals:**

- Create a home page that gives an overview of the website and what we aim to accomplish.
- The app is mainly intended for females between the ages of 18 to 25.
- The motivation to use our app would be having an easy place to shop for a variety of clothes in one sophisticated app.
- Have a panel on all screens of the website that lets users go to certain pages.
- Use images to give users an idea of what they are looking at.
- Use signifiers to make the website more user friendly.
- Utilize white space in order to convey important information.
- Intuitive Navigation: The app should be easy to navigate, with clear categories and filters to help users find what they're looking for quickly.
- Personalization: The app should allow users to customize their shopping experience based on their preferences, including style, size, color, and brand.

- Social Media Integration: The app should integrate with popular social media platforms like Instagram and Pinterest, allowing users to discover new fashion trends and connect with other fashion enthusiasts.
- Easy Checkout: The app should have a simple and streamlined checkout process, with options for secure payment and easy returns.
- Personalized Recommendations: The app should provide personalized recommendations based on a user's browsing and purchase history, as well as other data points such as location, weather, and upcoming events.
- Interactive Features: The app should include interactive features such as virtual try-ons, augmented reality, and user-generated content to enhance the shopping experience.
- User-friendly interface: The app's design should be intuitive and easy to navigate, with clearly labeled buttons and signifiers that guide the user through each task.
- Personalization: The app should provide personalized clothing recommendations based on the user's uploaded photos and style preferences and allow users to favorite items of their choice.
- High-quality images: The app should provide high-quality images of clothing items and outfits, to allow users to see the details of each item.
- Consistent menu design: The app should use the same menu design for all screens, to create a sense of familiarity and consistency for the user.
- Image search: The app should include an image search feature that allows users to easily find specific clothing items and outfits.
- Effective use of white space: The app should use white space effectively, to create a clean and uncluttered design that is easy to read and navigate.
- Ensure app usability: The app should be easy to navigate, with clear instructions and visual cues that guide users through the various features and functions. This design goal reflects the need to ensure that users can use the app without difficulty, even if they are not tech-savvy.

## Storyboards

### Storyboard for style with us:

#### Storyboard for finding the Perfect Dress for a Wedding

1. Tulasi is a busy working woman who wants to buy a dress for a wedding.
2. She opens the style with us app on her phone while on her lunch break at work.
3. She selects "Shop for Women" and then chooses "Dresses."
4. The app asks Tulasi a few questions about her preferences, such as color and style.
5. style with us shows Tulasi a selection of dresses based on her preferences.
6. She selects one that she likes and enters her measurements and size.

7. The app shows her what the dress would look like on her body.
8. Tulasi decides to purchase the dress and checks out. The app provides an estimated delivery date.
9. She receives the dress in the mail and tries it on. It fits perfectly and she loves it.
10. Tulasi wears the dress to the wedding and receives many compliments. The storyboard can be accompanied by visual illustrations or sketches to better convey the user.

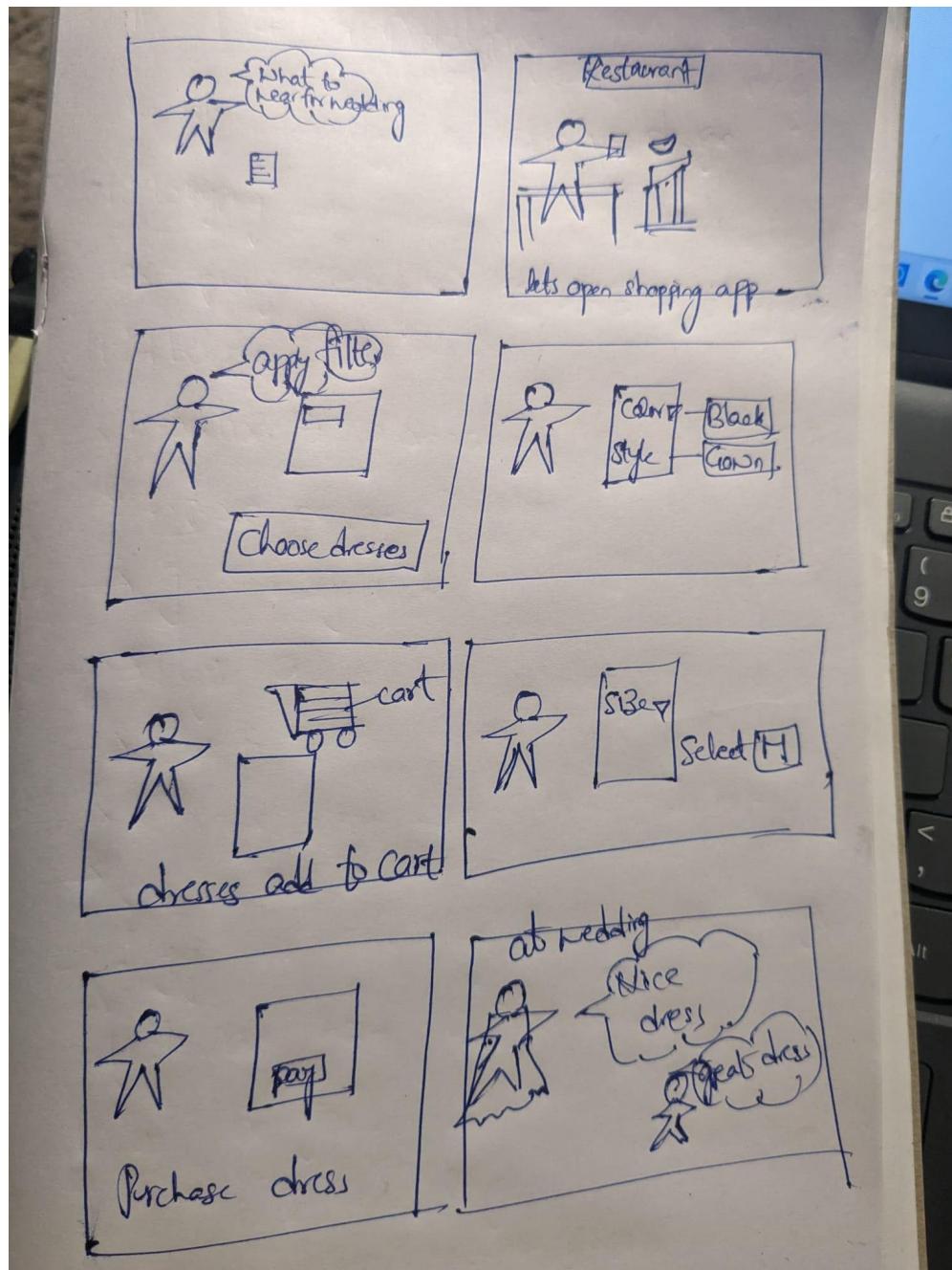


Figure 5: Storyboard 1

### Storyboard for image search functionality:

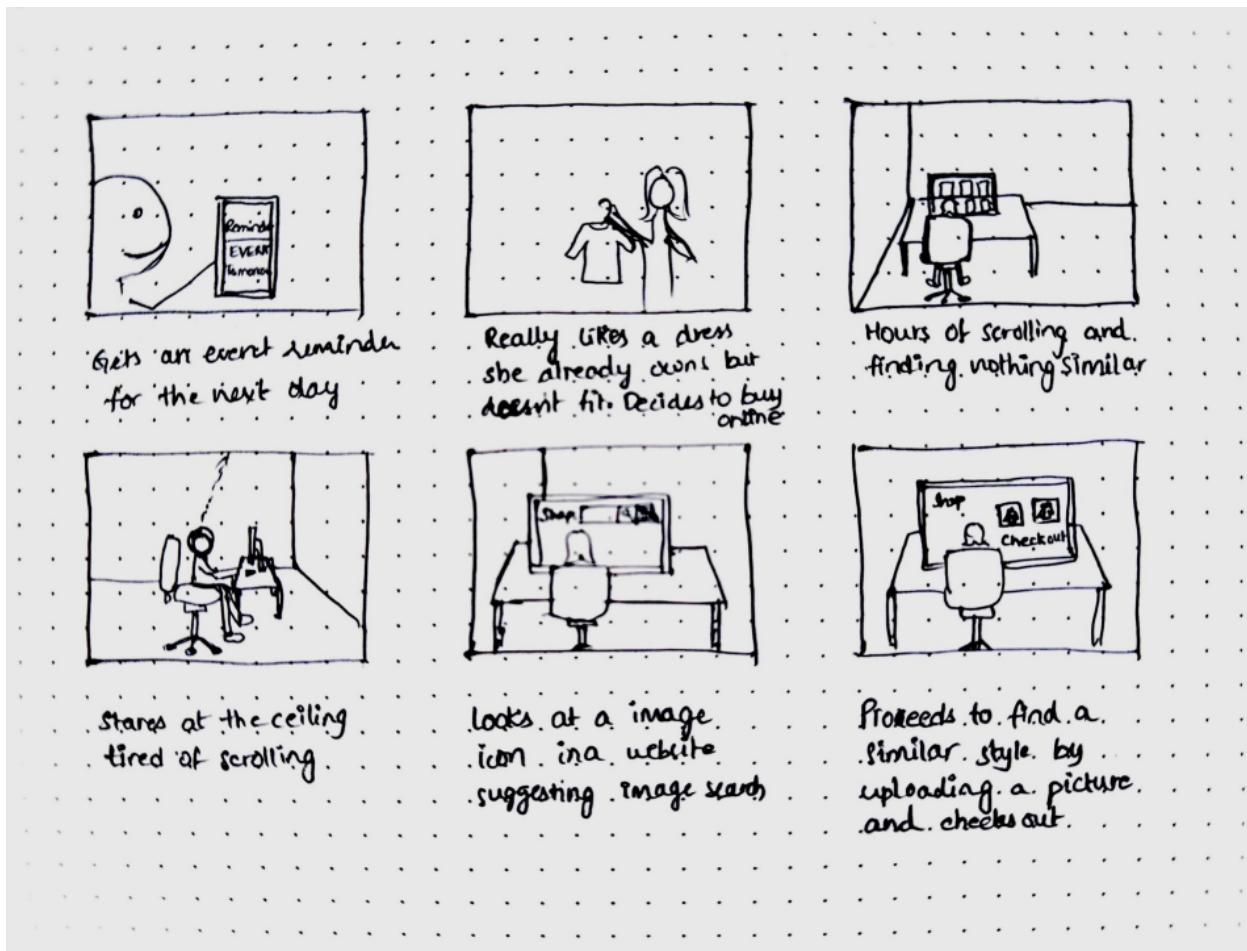


Figure 6: Storyboard 2

### Summary

Storyboarding was very useful for us and helped us visualize the idea. Storyboarding is an effective way to communicate design ideas to others. By using visuals, designers helped team members better understand the design concept and its intended user experience. It also helped us spot some user flow issues which we were able to address before we moved to high fidelity prototype.

## Design Description

### Low Fidelity Prototype (User Journey & Wireframe)

#### Overview:

A user journey is a crucial component of our application's design since it sheds light on the target audience for the product while it is being developed. Wireframes and user experiences are inextricably linked in HCI, particularly in our experimentation and

design processes. We're using this combo to demonstrate why a user may use our app, how the user might use it, and how they can finish their journey there while staying within the parameters of the path we've defined.

### Riya:

Ashley Carlson, a young college student who loves to experiment with her style. She is young and has limited income and wants to explore as many options as possible. Her motivations are style, money, quality, and current trends.

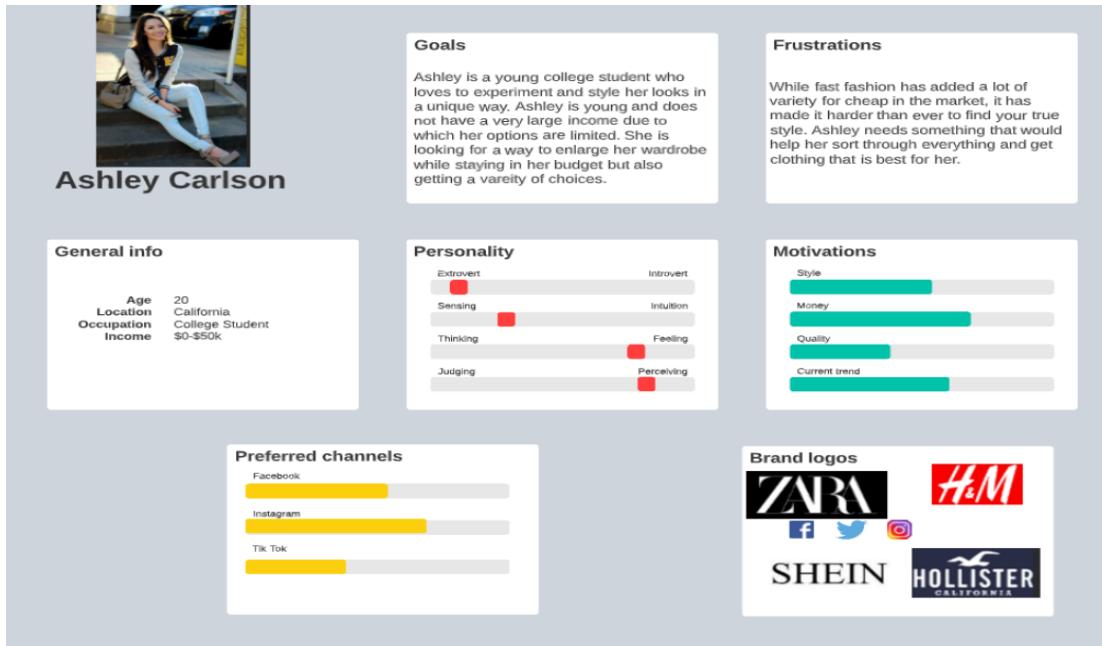


Figure 7

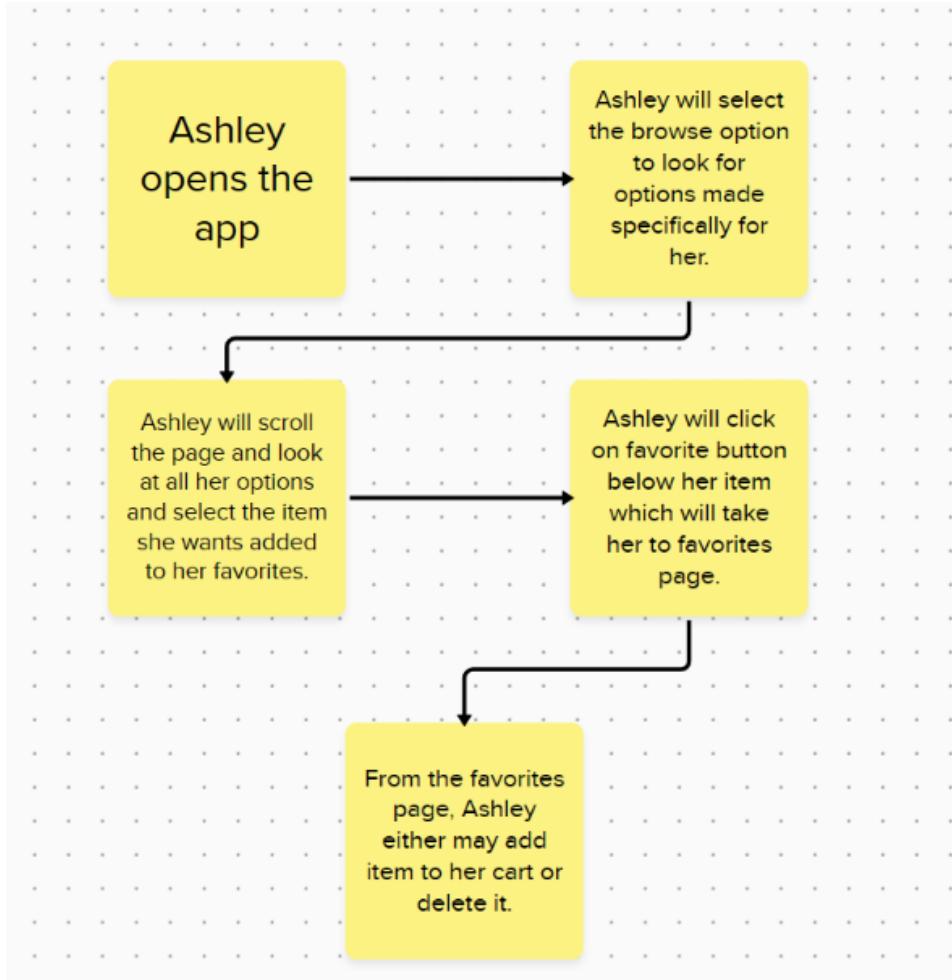


Figure 8

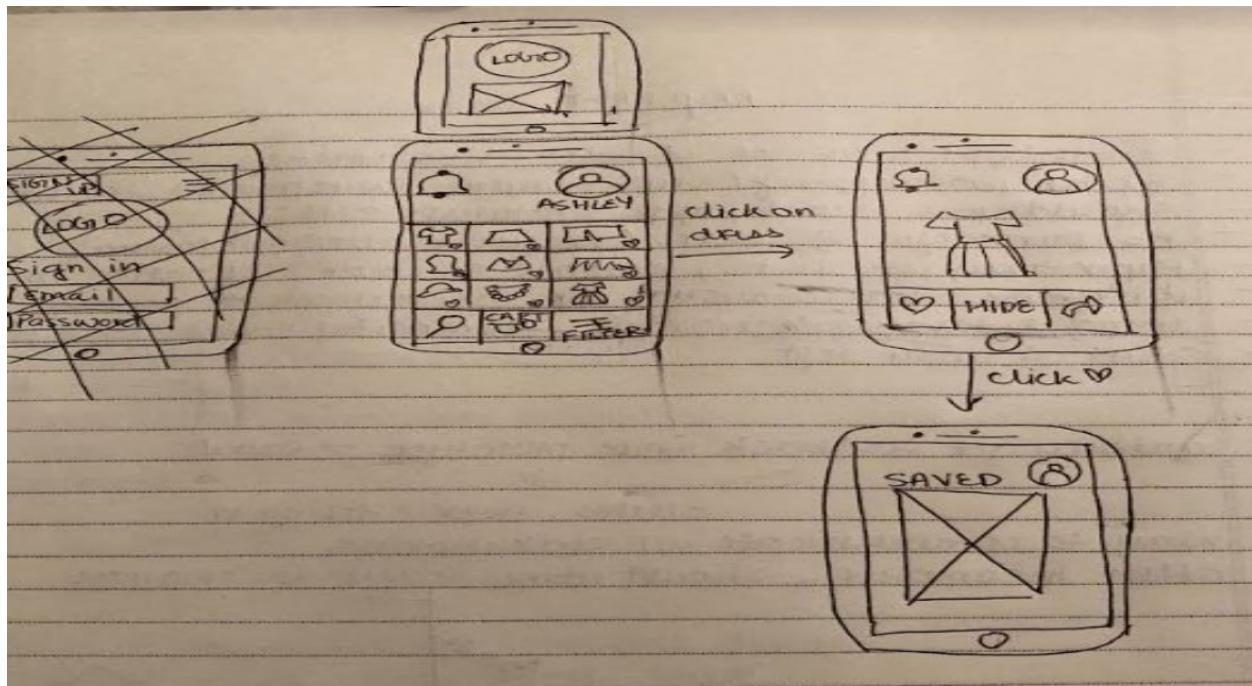


Figure 9

Tulasi, a tech-savvy individual, wants to find a dress quickly and easily, and values efficiency and personalization in her shopping experience. She uses the Style with Us app to shop for women's dresses and uses the "Try It On" feature to virtually try on dresses. She selects a dress, enters her measurements and size, checks out, and receives the dress in the mail, which fits perfectly. Throughout the journey, Tulasi is impressed by the app's personalized recommendations and the ability to virtually try on dresses, which saves her time and provides a convenient and enjoyable shopping experience.

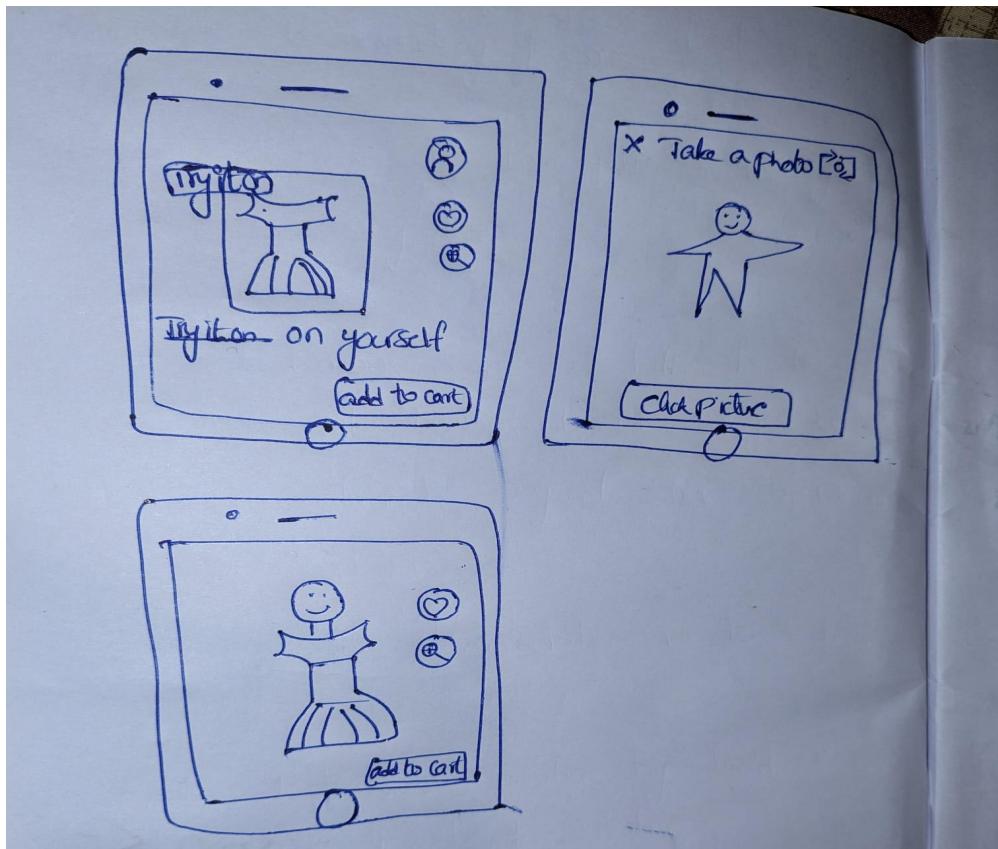


Figure 10

Radha loves to shop as much as she loves to dress up.. She is an Introvert who doesn't like to step out of her comfort zone. She likes to stick with an aesthetic she deemed suits herself. She loves clothes which are comfortable, light and everything pastel. Having clothes she already bought too small for her, she is willing to either return them or replace them with the correct sizes.

Task: Return or replace an order.

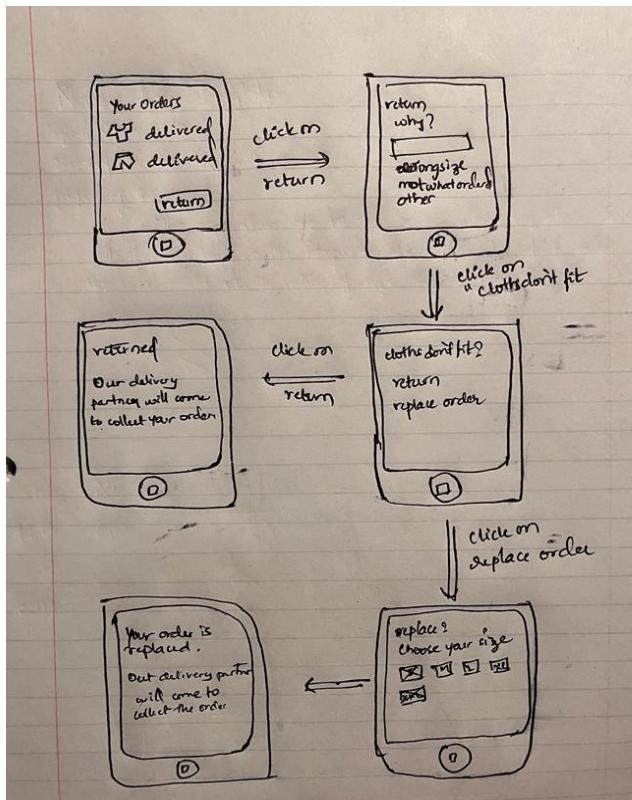


Figure 11

Nisha is a creative and artistic person who is passionate about fashion. She has a particular sense of style that is unique and comfy. She is confident in her choices and doesn't really enjoy experimenting with different looks. She loves to shop for clothes, accessories, and shoes online as it gives her access to a wider range of styles and brands. She appreciates sites that offer image search as she could recommend products that match her style and have multiple options before making a final decision.

Task: Image Search to find recommendations

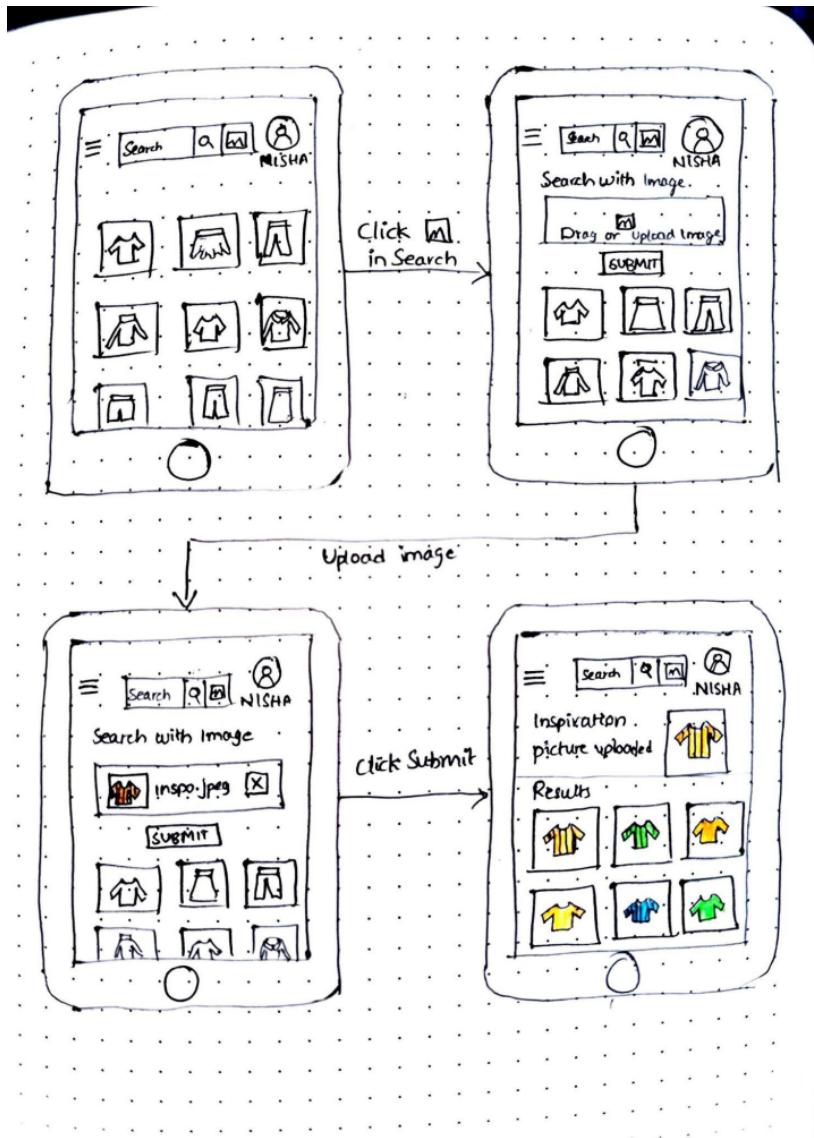


Figure 12

## Summary

Low-fidelity prototyping is a technique used in the design process to create a simple, rough, and quick version of a product or interface. Low-fidelity prototypes are used to gather early feedback from users or stakeholders. By presenting a rough prototype to users, we got a sense of what works and what doesn't, and make changes accordingly.

## High Fidelity Prototype

### Overview

High-fidelity prototyping is a design technique used to create a detailed, fully-functional version of a product or interface that closely resembles the final product. It is a more

advanced form of prototyping that uses more sophisticated tools and techniques to create a realistic and interactive experience. This stage of the design process serves as a checkpoint and typically denotes the impending completion of usability testing. In order to construct a prototype that includes relevant detail and addresses the requirements and desires of our target demographic, which we have set out with our personas, it is crucial to make use of all the data and information that has been obtained up to this point. We may develop the design to add features that may not have been previously thought of using the interviews and focus groups. Our design objectives heavily influence the design course we adopt with this particular prototype.

We used an application called Axure to design our high fidelity prototype. We used Axure because it had the ability to make the website interactive. Our main purpose was to test the flow and functionality of our application. It also allowed us to detail the website in the way we want.



*Figure 13: High Fidelity Prototype 1*

The home screen displays the dynamic panel that has options to go to the following Screens: Home, Browse, Filter, Search, Favorite, and Cart. This panel is available on all screens. There is also a description and name of the app.

Some signifiers are the button on the panels that indicates it's a button and clicking on it will redirect users and the scroll bar on descriptions that tells users they can learn more about us by scrolling.

Affordance: gets users on home screen and gives access to different screens.

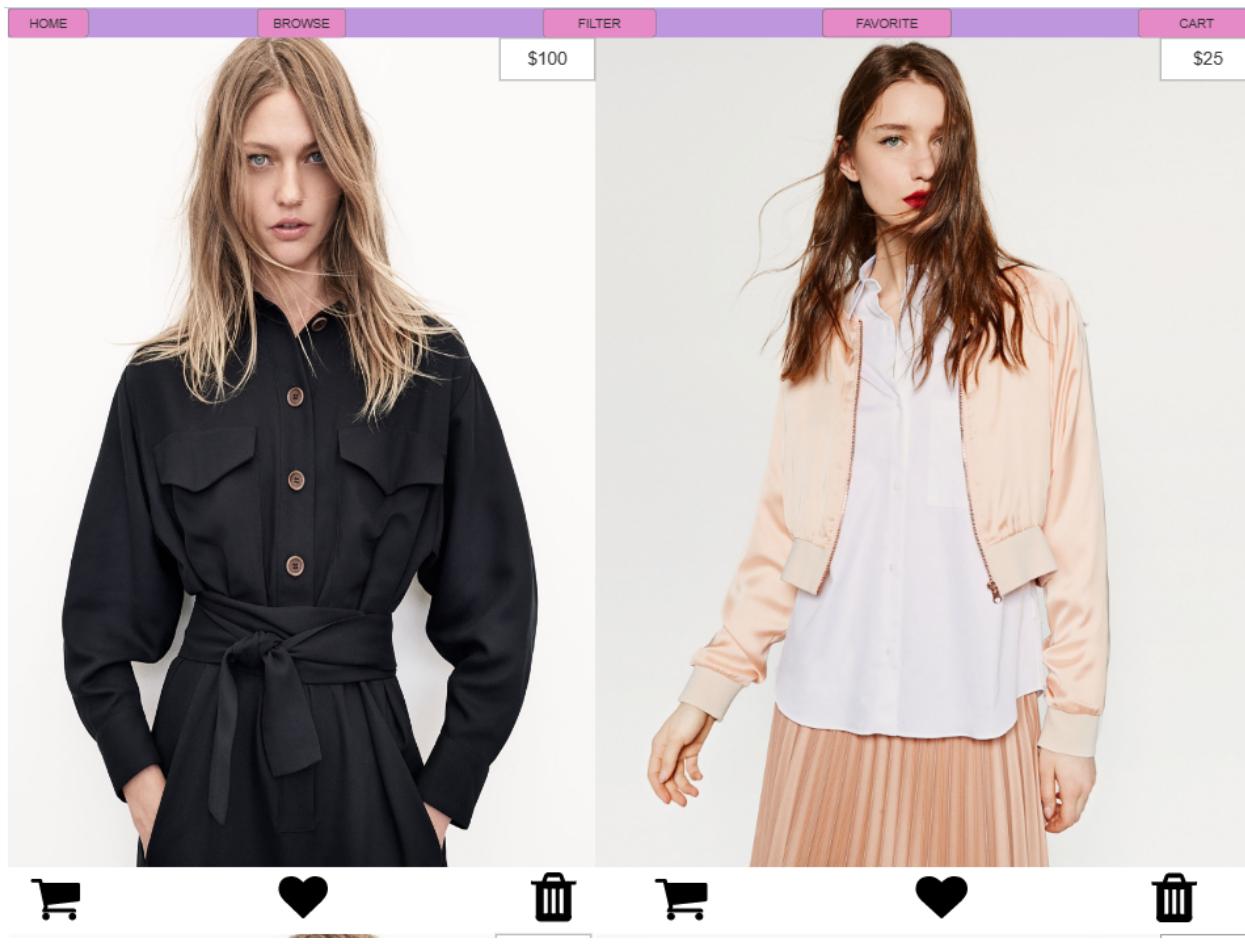
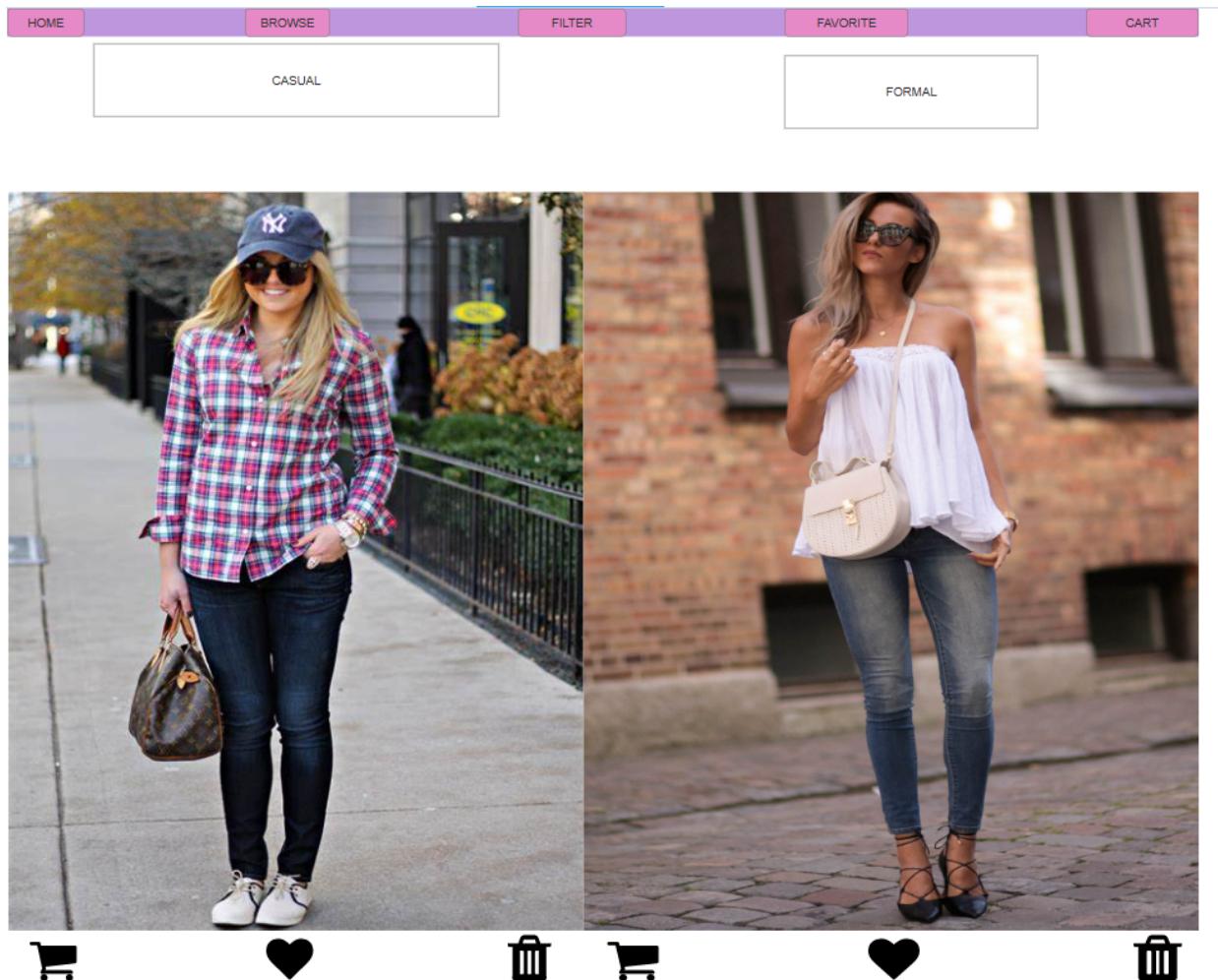


Figure 14: High Fidelity Prototype 2

The browse screen lets users scroll through different clothes and add it to their cart, favorites, or hide it.

Some signifiers are the price tag signifying what the price is. The cart signifies it will add items to the cart. The heart signifies it will add an item to favorite. The trash bin signifies it will hide the item.

Affordances: Lets a user add an item to the cart, favorites, or hide it.

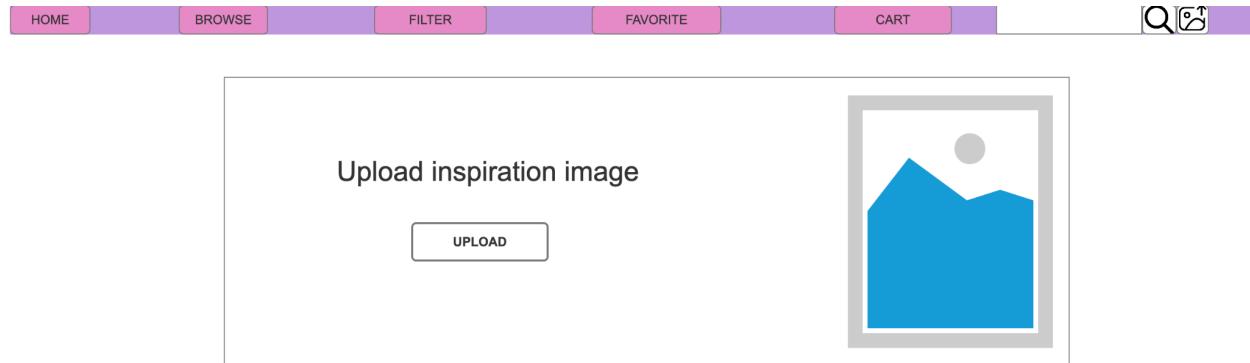


*Figure 15: High Fidelity Prototype 3*

The filter page lets users filter between casual or formal clothing.

Some signifiers are the price tag signifying what the price is. The cart signifies it will add an item to the cart. The heart signifies it will add an item to favorite. The trash bin signifies it will hide the item. There are casual and formal buttons as filters letting users know they can filter between casual and formal clothing.

Affordances: Clicking on casual will filter casual clothing for user and clicking on formal will filter formal clothes.



*Figure 16: High Fidelity Prototype 4*

The search page lets users find similar products in the website by uploading a picture as an inspiration which then will show relevant results. Some signifiers include a camera icon or "search by image" button prominently displayed on the search bar or home page, indicating that users can upload an image to search for products.

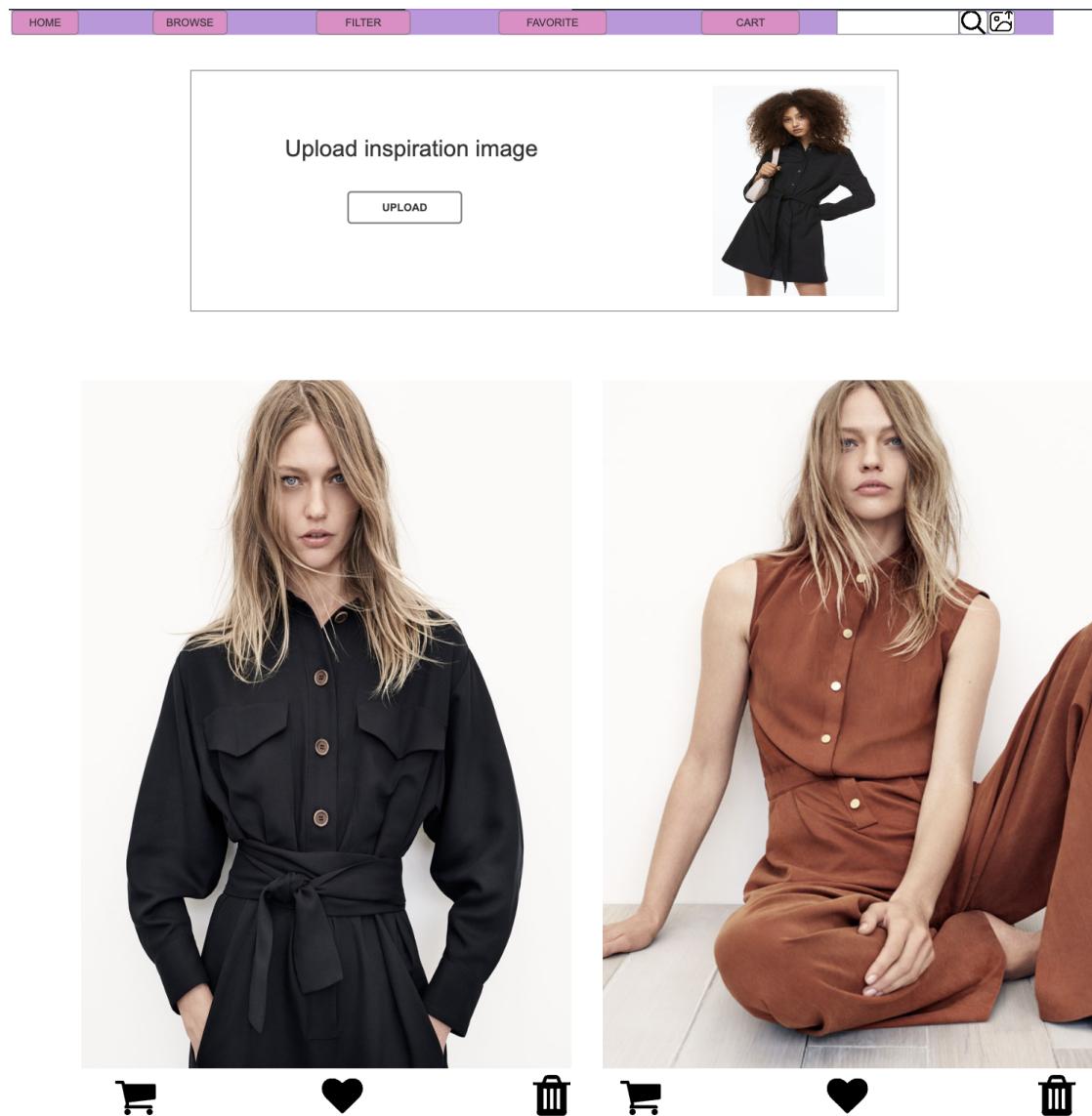


Figure 17: High Fidelity Prototype 5

A list of related products or visual recommendations that appear after the user has uploaded an image, helping them discover new products and encouraging further exploration.

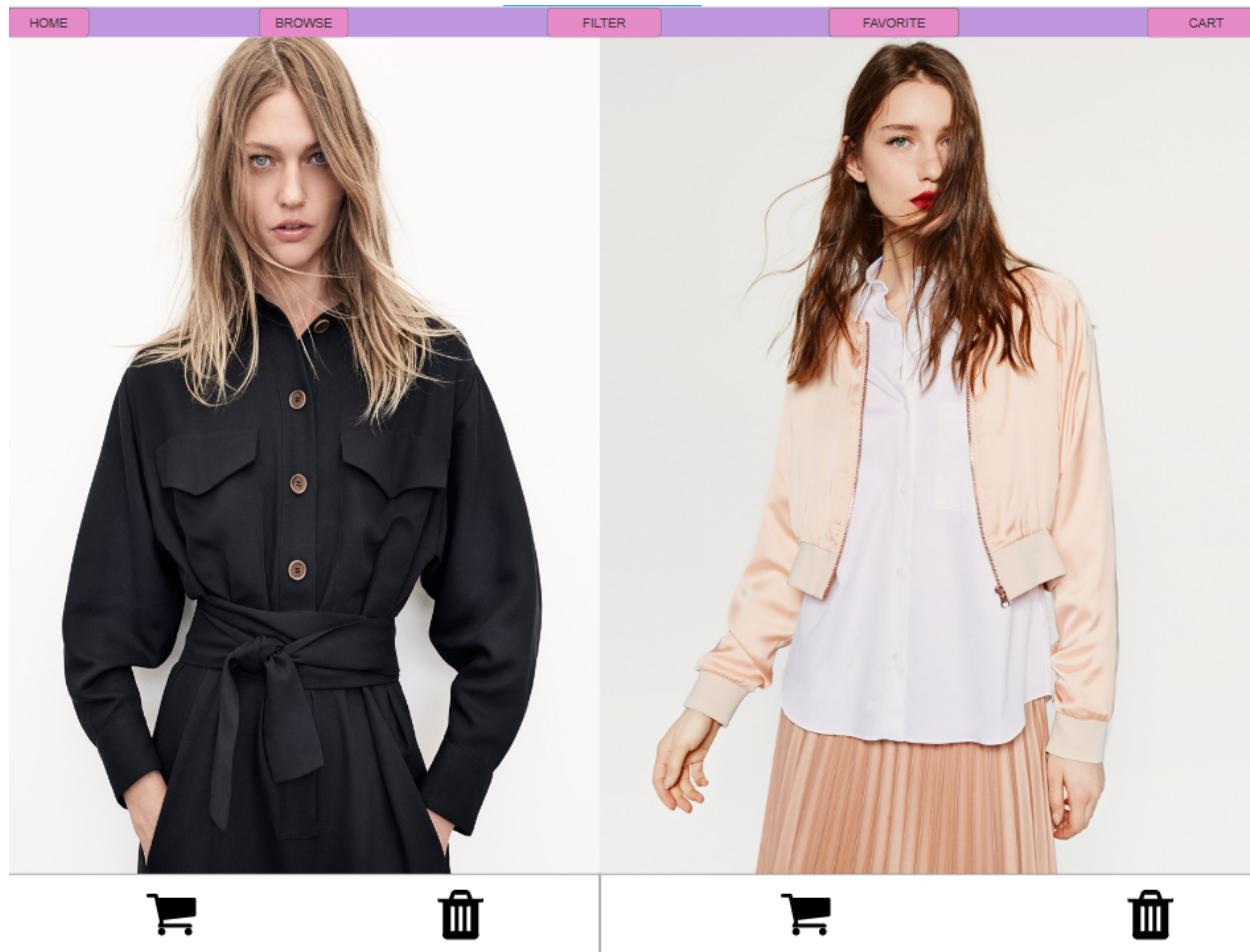


Figure 18: High Fidelity Prototype 6

The favorites page lets users see what they added to their favorites and view it as a list. Some signifiers are the price tag signifying what the price is. The cart signifies it will add an item to cart. The trash bin signifies it will hide the item.

Affordances: clicking on trash will hide the item and clicking cart will add the item to cart.

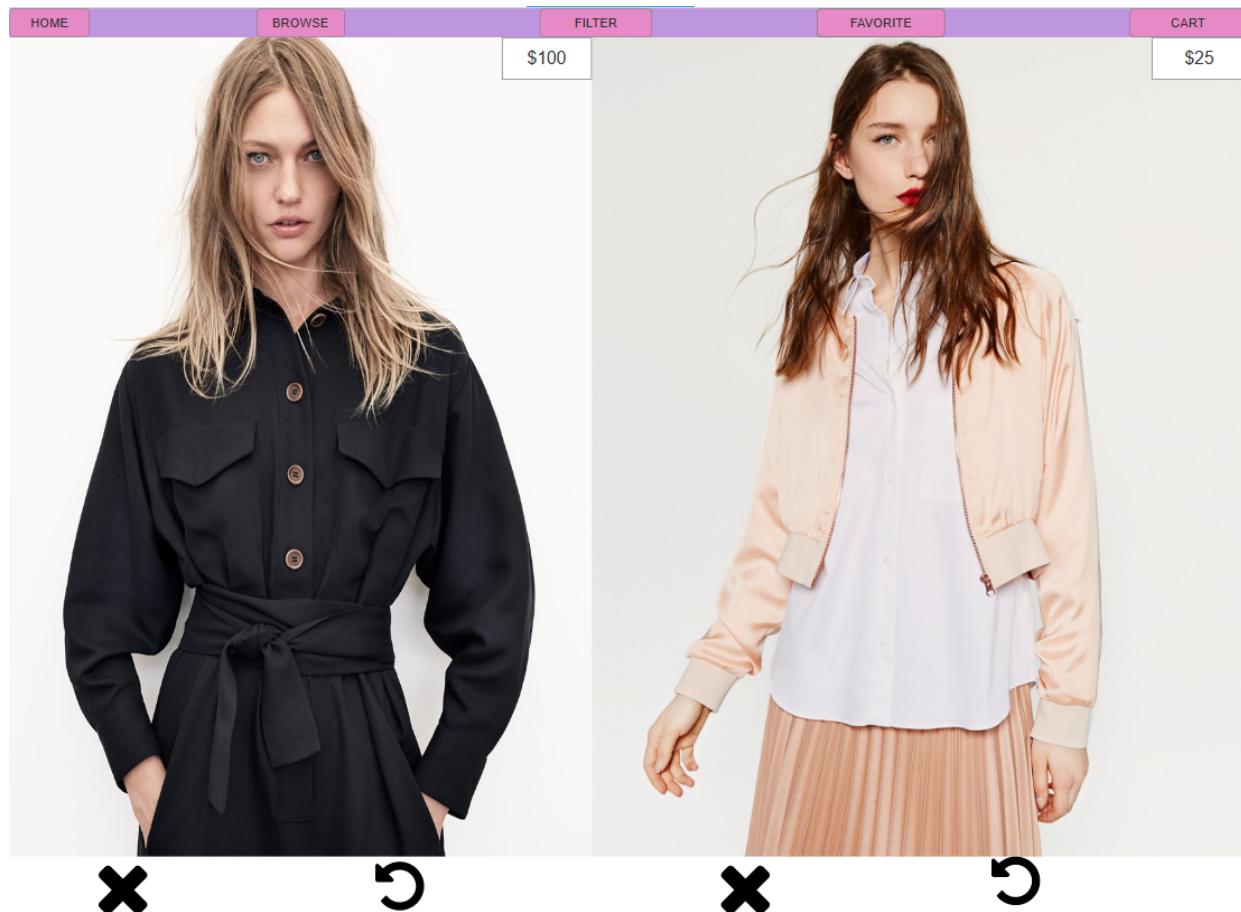


Figure 19: High Fidelity Prototype 7

The cart page lets users delete an item and undo that action.

Some signifiers are cross for delete button, and undo button signifying undoing the action.

Affordances: let user delete item from cart and undo that action.

## Summary

High-fidelity prototypes provide a realistic experience that closely mimics the final product. It includes advanced functionality, realistic graphics, and interactive features, which can help us better understand how the final product will look and function.

## Evaluation

### Design Goals

- Develop a visually appealing home page that immediately communicates the app's value proposition and key features, using high-quality images and clear language.
- Cater to the target audience by creating a user interface that appeals to females between the ages of 18 to 25. This could include a sleek and modern design with vibrant colors and fonts.
- Position the app as a convenient and easy-to-use shopping platform that offers a wide range of clothing options. This could be achieved through a streamlined and intuitive interface that enables users to easily search for and purchase items.
- Implement a consistent panel across all screens of the app that enables users to quickly navigate to different sections and pages.
- Use images effectively to showcase clothing items and outfits, and include signifiers to make it easy for users to browse and filter items.
- Utilize white space to create a clean and uncluttered design that highlights important information and enhances the user's experience.
- Create an intuitive navigation system that enables users to quickly find what they're looking for, with clear categories and filters that facilitate browsing.
- Personalize the user experience by allowing users to customize their shopping preferences and receive personalized recommendations based on their browsing and purchase history.
- Integrate the app with popular social media platforms like Instagram and Pinterest, allowing users to discover new fashion trends and connect with other fashion enthusiasts.
- Streamline the checkout process to ensure a smooth and easy transaction, with secure payment options and an easy returns process.
- Provide interactive features such as virtual try-ons, augmented reality, and user-generated content to enhance the shopping experience and increase engagement.
- Create a user-friendly interface that makes it easy for users to favorite items of their choice and receive personalized clothing recommendations based on their uploaded photos and style preferences.
- Use high-quality images to showcase clothing items and outfits, with zoom and rotation features that allow users to see details up close.
- Ensure consistency in the menu design across all screens, to create a sense of familiarity and ease of use.
- Include an image search feature that allows users to easily find specific clothing items and outfits, making it easy for users to find what they are looking for.
- Use white space effectively to create a clean and uncluttered design that is easy to read and navigate.

- Ensure app usability by incorporating clear instructions and visual cues that guide users through the various features and functions, even if they are not tech-savvy.

## Wizard of Oz Study

**Riya Parasar:**

**User journey:**

Ashley Carlson. A young college student who loves to experiment with her style. She is young, has limited income, and wants to explore as many options as possible. Her motivations are style, money, quality, and current trends.

Task: add an item of clothing to your favorites.

Phase of journey	Stage 1	Stage 2	Stage 3
<b>Actions</b> What does the customer do?	User will open the app and we will assume an account already exists. The user will click on browse or search button and filter content depending on personal choice.	If a user chooses to filter, they will select the filter option and choose what filters to apply ranging from style, material and store. If they browse they will be given preselected options. Once they are done, they will click show. They will browse from sorted list and chose an option they like. Then she will click on the heart next to the listing which will redirect her to the favorites page.	Once the user is on the favorites page, they can look at all the items they added to favorites, exit the app, or go back to home screen.
<b>Touchpoint</b> What part of the service do they interact with?	The user will interact with home screen and select browse or filter.	User will interact with filters, they will scroll, next page, they will interact with favorite button.	They will interact with exit feature, home feature and can delete items from favorites.
<b>Customer Thought</b> What is the customer thinking?	The customer will think about the type of clothing they are looking for.	User will have to decide whether they want to filter or browse and will have to select an item to favorite.	The user will have to think whether to exit or stay on the app.
<b>Customer Feeling</b> What is the customer feeling?	Excitement	Excitement mixed with some confusion.	Satisfaction

Figure 20

## Task Description:

We appreciate your participation in our Style with Us usability research. This fashion app aids users in finding and purchasing apparel. We want your opinion on the early user interface design for the app, which is currently being tested. Please give a description of everything you are thinking about while interacting with the prototype.

Adding items to favorite.

- The user will enter as if they have an existing account.
- The user will click on browse to look for different items or filter items.
- The wizard will enter once the user has decided whether they will filter or browse.
- The wizard will instruct users to add filters depending on their choice.
- The wizard will apply the filters and show results.
- The user will browse and select an item to add to their favorite.
- Once communication is over, the user must have navigated to the favorites page.
- The user should then return to the home page, look at favorites, or exit the app.

### Think aloud summary

The user asked whether they have to filter asking “Is it necessary for me to filter”, which implies the browse option was not clear enough for them to see. The user found the filters a little confusing stating “I’m not sure what some of the options in the filter means.” The user liked how easy it was to add items to favorites and how easy it was to go back to the home page after adding an item to favorites.

#### Interview results

1. What kinds of apparel or accessories have you contemplated buying?

**Mostly dresses or tops.**

2. Are there any difficulties you usually encounter while online shopping?

**Not being able to find something my size and if I do, it's out of my budget. I also get scared that the material won't be as good when it arrives.**

3. Do you usually try returning the item you bought? Why?

**No, because the return process can be tricky and sometimes there isn't even an option to do so.**

4. Would you recommend this app to others looking for fashion recommendations? Why or why not?

**Yes, I think it's a great idea and the interface was easy to use. It provides me with options that are authentically for me which can be very helpful.**

5. How did you find the overall experience of using the shopping App?

**I think the features were good but the interface could be more clear.**

6. As you navigate through the website, please describe your thought process and what you are looking for.

**I think mainly I was thinking about what kind of results I would get that would be personalized for me.**

7. How easy or difficult is it to find the products you are interested in? Can you explain Why?

**I think using the filter option was easy but browsing confused me because there were many things at once which made it cluttered.**

### App changes

- Make buttons more visible.
- Make the colors match the aesthetic.
- Simplify the filters.
- Make the overall appearance less cluttered.

### User Journey

Radha loves to shop as much as she loves to dress up..She is an Introvert who doesn't like to step out of her comfort zone. She likes to stick with an aesthetic she deemed suits herself. She loves clothes which are comfortable, light and everything pastel.

Having clothes she already bought too small for her, she is willing to either return them or replace them with the correct sizes.

**TASK:** Return or replace an order.

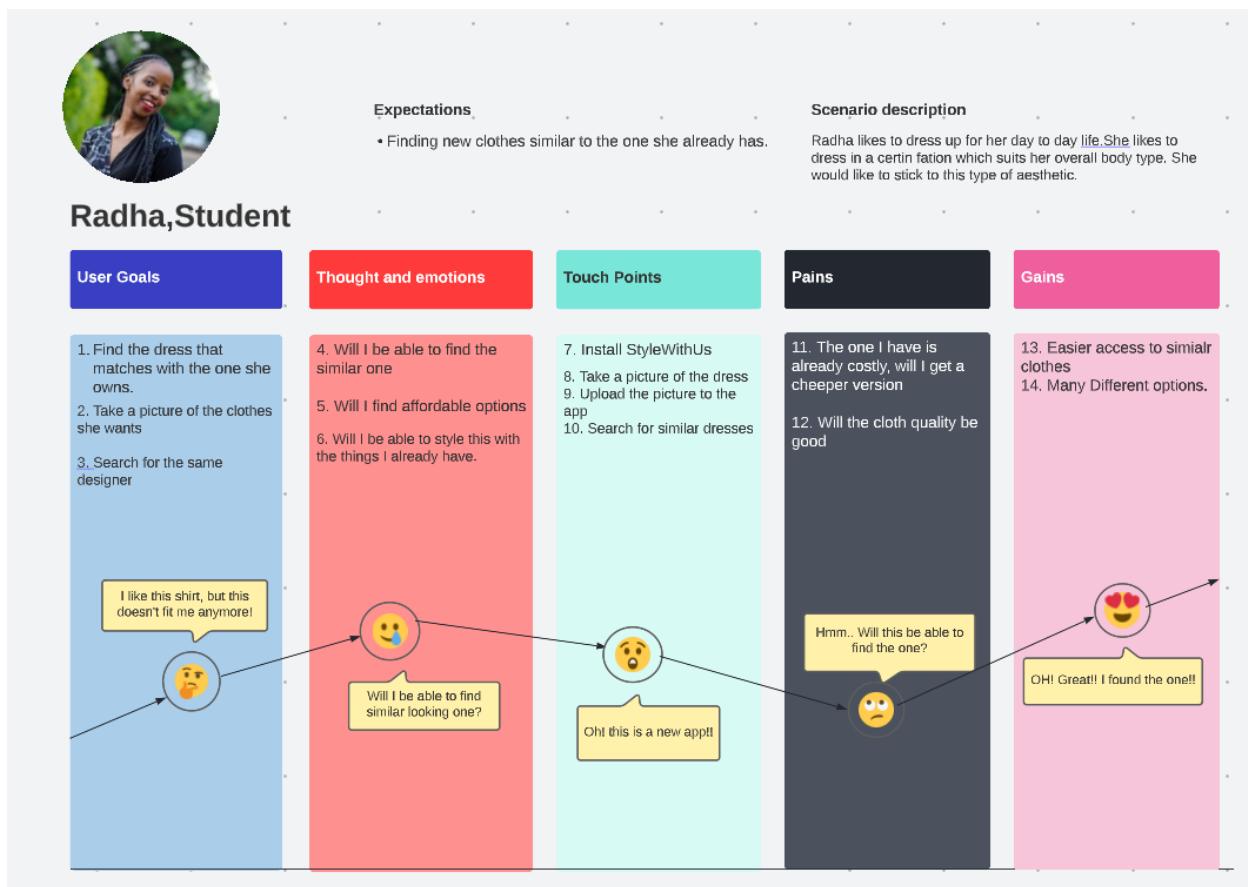


Figure 21

### Task Description:

We appreciate your participation in our Style with Us usability research. This fashion app aids users in finding and purchasing apparel. We want your opinion on the early user interface design for the app, which is currently being tested. Please give a description of everything you are thinking about while interacting with the prototype.

Replacing or returning an item.

- The user will first look for the item they ordered in "Orders".
- The user will then click on the return option available.
- The wizard will give the option to either return or replace the order.
- The user can choose one option.

- If the user would like to return the option, the wizard will ask the reason for their choice.
- If the user chooses to replace the order, the wizard will take them back to the browser item to replace it to the user's liking.
- Once the task is done, the user can go back to the browser to continue shopping.

### **Think aloud summary**

The user liked the concept of the app, comparing it to the virtual clothing which is currently sweeping the fashion market but making it more affordable and in real life. Having a try-on in the app helps find the clothes suitable for you more easily. The user found the return and replace usual and something which is commonly found in every shopping app.

#### **Interview results**

1. What kinds of apparel or accessories have you contemplated buying?
  - A. I like flowy clothes, pastels are lovely and also loose fitted. I find them flattering in my body. As for accessories, I like simple chains, earrings and finger rings. I also love finding cute nose rings too.
2. Are there any difficulties you usually encounter while online shopping?
  - A. There are times I waste too much time on shopping apps because there are too many choices and I can't find the one.
3. Do you usually try returning the item you bought? Why?
  - A. I'm very picky, so I usually only buy what I like. So, I rarely return stuff. If the clothes don't fit, I will just replace them.
4. Would you recommend this app to others looking for fashion recommendations? Why or why not?
  - A. I would definitely recommend this. It's new and fun. Finding the clothes for your taste is something kinda difficult while online shopping as there are too many options. This will make online shopping very efficient.
5. How did you find the overall experience of using the shopping App?
  - A. It's great. Had fun trying to pick something out of my closet and matching it to the recommendations. If I could buy them, I would.
6. As you navigate through the website, please describe your thought process and what you are looking for.
  - A. The operations are easy and understandable. Navigating through the app is a cakewalk. Just a bit rough looking. I think the final product would be amazing.
7. How easy or difficult is it to find the products you are interested in? Can you explain Why?

A. Normally, In a regular shopping app, finding a product needs prior knowledge about what the apparel is called. To get to the one you want it usually takes a lot of scrolling through stuff. So, having a choice of finding the clothes with just uploading a picture would make it extremely easy.

### **App changes**

- I like the overall outlook, but can you make it more aesthetic?
- Instead of a scrollbar maybe use a dropdown instead?

### **User journey:**

Tulasi is a tech-savvy individual who routinely utilizes her smartphone for both personal and professional purposes. She is at ease using mobile apps and is constantly searching for new technology that would make her life simpler. Tulasi wants to look stylish and keep up with the latest fashions, but she also values efficiency and ease in her purchasing. She is inspired by tailored recommendations and an easy-to-use interface that makes finding and buying products simple.

### **Step 1:**

<p>Tulasi opens the Style with Us app on her phone and sees a welcome message. She selects "Shop for Women" and then chooses "Dresses." She notices a "Try It On" button and selects it.</p>	
<b>Context</b>	Tulasi is on her lunch break at work, scrolling through her phone.
<b>Emotions</b>	Anxious, stressed
<b>Touchpoints</b>	Phone, app
<b>Pains</b>	Limited time, need to find a dress quickly
<b>Gains</b>	Convenience, personalized shopping experience, the ability to virtually try on dresses

### **Step 2:**

<p>The app asks Tulasi a few questions about her preferences, such as color and style, and prompts her to use the "Try It On" feature to see how the dresses look on her body.</p>	
<b>Context</b>	Tulasi is filling out a form on her phone and virtually trying on dresses.

<b>Thoughts</b>	"This 'Try It On' feature is amazing! I can see exactly how the dress looks on me without having to physically try it on."
<b>Emotions</b>	Impressed, curious
<b>Touchpoints</b>	Phone, app
<b>Pains</b>	Overwhelmed by too many choices
<b>Gains</b>	Personalized recommendations, the ability to virtually try on dresses, time saved

**Step 3:**

Style with Us shows Tulasi a selection of dresses based on her preferences. She virtually tries on several dresses until she finds one that she likes. Context: Tulasi is looking at pictures of dresses on her phone and virtually trying them on.	
<b>Context</b>	Tulasi is on her lunch break at work, scrolling through her phone.
<b>Thoughts</b>	"This one looks nice on me!"
<b>Emotions</b>	Interested, hopeful
<b>Touchpoints</b>	Phone, app
<b>Pains</b>	Worried that the dress won't fit
<b>Gains</b>	Convenience, personalized recommendations, the ability to virtually try on dresses

**Step 4:**

Tulasi enters her measurements and selects her size. The app shows her what the dress would look like on her body using the "Try It On" feature.	
<b>Context</b>	Tulasi is filling out a form on her phone and virtually trying on dresses.
<b>Emotions</b>	Hopeful, impressed
<b>Thoughts</b>	"This dress looks great on me! I love this feature."

<b>Touchpoints</b>	Phone, app
<b>Pains</b>	Worried about finding the right size
<b>Gains</b>	Clear understanding of fit, convenient sizing process, the ability to virtually try on dresses

**Step 5:**

Tulasi decides to purchase the dress and checks out. The app provides an estimated delivery date.	
<b>Context</b>	Tulasi is making a purchase on her phone.
<b>Emotions</b>	Satisfied, excited
<b>Thoughts</b>	"I'm so excited to wear this dress to the wedding!"
<b>Touchpoints</b>	Phone, app
<b>Pains</b>	None
<b>Gains</b>	Convenient shopping experience, found a dress she likes, the ability to virtually try on dresses

**Step 6:**

Tulasi receives the dress in the mail and tries it on. It fits perfectly, just as she saw it in the "Try It On" feature, and she loves it.	
<b>Context</b>	Tulasi is at home, trying on the dress.
<b>Emotions</b>	Excited, happy
<b>Thoughts</b>	"This dress is perfect for the wedding! I'm so glad I used the 'Try It On' feature to make sure it fits."
<b>Touchpoints</b>	Dress, phone, app
<b>Pains</b>	None
<b>Gains</b>	Found a dress she loves, convenient shopping experience, the ability to virtually try on dresses.

### **Task Description:**

Try it on :

- Open the shopping app and browse for a product that you want to try on.
- User selects the product and looks for a "try it on" button or option.
- The Wizard selects a dress from the app and activates the "try it on" feature. The user is prompted to allow the app to access the camera.
- The user agrees to allow the app to access the camera and is directed to hold the device up to their body.
- Wizard Actions: The Wizard uses augmented reality (AR) technology to overlay the dress onto the user's camera feed, creating the illusion that the user is trying on the dress.
- User Actions: The user sees the dress on their body in real-time and adjusts the angle of the device to get a better look. They can also choose different colors or styles of the same dress.
- Wizard Actions: The Wizard provides prompts and responses to the user's questions and comments to maintain the illusion that the user is using a real shopping clothes feature.

### **Think aloud summary:**

The user opened the shopping app and began browsing for a product they wanted to buy. They saw a 'Try It On' button or option, which sounded interesting, so they selected the product and activated the 'Try It On' feature. The app prompted them to allow camera access, which seemed reasonable for an AR-based feature.

Once they granted camera access, the user held the device up to their body as directed. The Wizard, which they assumed was some sort of AI-powered assistant, used AR technology to overlay the dress onto their camera feed, creating the illusion that they were trying it on in real-time. This was pretty cool, and they were able to adjust the angle of the device to get a better look at how the dress looked and fit.

The Wizard also provided prompts and responses to the user's questions or comments, which was helpful and added to the overall illusion that they were using a real shopping feature. They could see how this would reduce the likelihood of returns or exchanges and make for a better shopping experience overall.

### **Interview results:**

**Q: How did you find the overall experience of using the try it on feature in the shopping app?**

A: I found the try it on feature to be a great addition to the app. It helped me visualize how the clothing would look on me before making a purchase.

**Q: Was it easy to understand how to use the try it on feature, or did you need guidance?**

A: At first, I was a little confused on how to use the feature, but after a few moments of exploring the app, it became clear to me.

**Q: Did you feel that the try it on feature accurately represented how the clothing would look on your body?**

A: Yes, I felt that the try it on feature was accurate in representing how the clothing would look on my body. It helped me get a better idea of how the clothes would fit and look on me.

**Q: Were there any technical issues or glitches that you encountered while using the try it on feature?**

A: I didn't experience any technical issues or glitches while using the try it on feature. It worked seamlessly for me.

### **App changes:**

Here are some potential app changes that could enhance the stylewithus app:

1. Improve navigation: Some users may find the current navigation options confusing or overwhelming. Simplifying the menus and making it easier to browse and filter items could help improve the user experience.
2. Enhance search function: The current search function could be improved by adding auto-suggestions or predictive search to make it easier for users to find what they are looking for.
3. Add user reviews: Including reviews from other users can help build trust and improve the decision-making process for shoppers. Adding a rating and review system could be a valuable addition to the app.

### **User Journey:**

Nisha is a creative and artistic person who is passionate about fashion. She has a particular sense of style that is unique and comfy. She is confident in her choices and doesn't really enjoy experimenting with different looks. She loves to shop for clothes, accessories, and shoes online as it gives her access to a wider range of styles and brands. She appreciates sites that offer image search as she could recommend products that match her style and have multiple options before making a final decision.

Task: Image Search to find recommendations

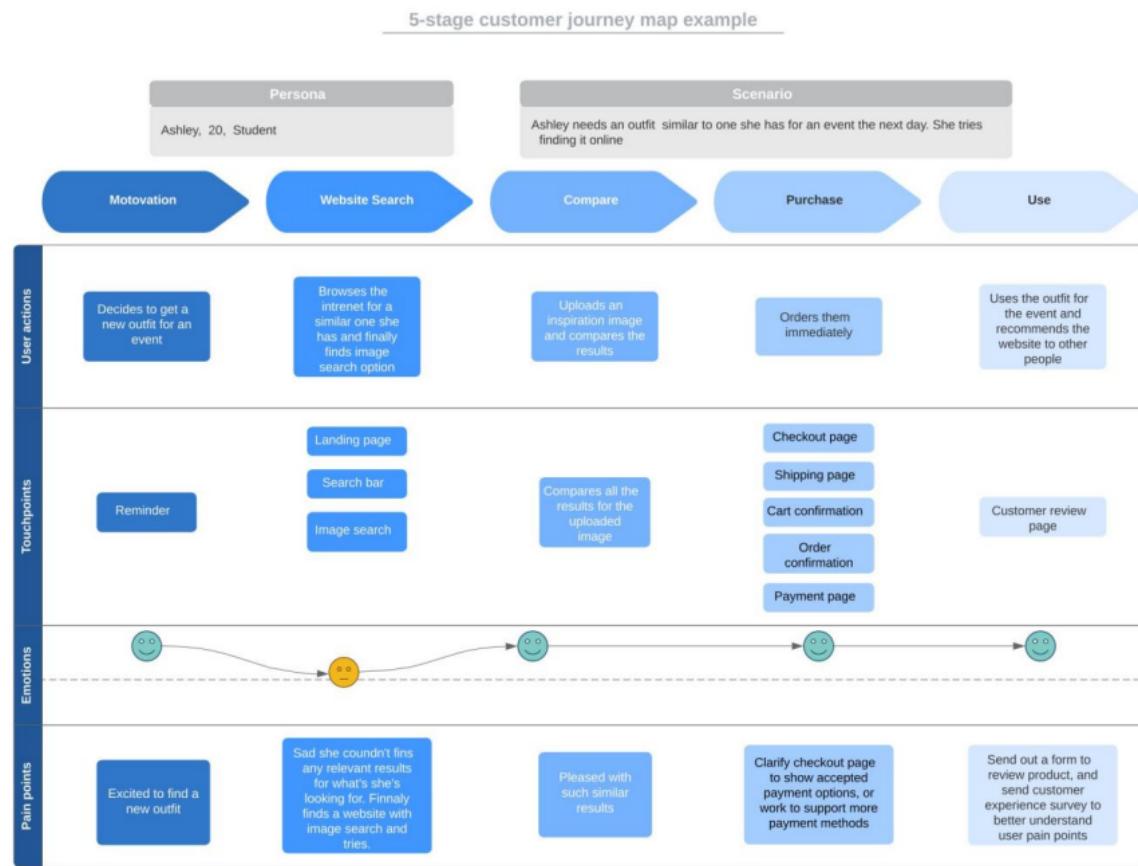


Figure 22

### Task Description:

We appreciate your participation in our Style with Us usability research. This fashion app aids users in finding and purchasing apparel. We want your opinion on the early user interface design for the app, which is currently being tested. Please give a description of everything you are thinking about while interacting with the prototype.

Using image search:

- The user will open the shopping app.
- From the search bar, when the image search icon is clicked, the wizard shows an image upload area for the user to upload their inspiration picture.
- Once the submit button is clicked, the image will be uploaded.
- The wizard shows all the products similar to the image uploaded and allows the user to continue shopping.

- The user can then browse through the results, return to the home page or exit the app.

### **Think aloud summary**

A user on an online shopping website is looking for a specific item, but is not sure how to describe it in words. They find an image search option on the website and click on the camera icon. They then upload an image of the item from their phone's gallery and the website displays a list of results that match the image, along with similar items. The user can then view more information about the item and make a purchase if satisfied. The image search option is a helpful tool for users who have a specific item in mind but are not sure how to describe it in words, allowing them to quickly and easily find what they are looking for and make a purchase with confidence.

### **Interview results**

1. What kinds of apparel or accessories have you contemplated buying?

Mostly dresses or tops.

2. Are there any difficulties you usually encounter while online shopping?

Not being able to find something my size and if I do, it's out of my budget. I also get scared that the material won't be as good when it arrives.

3. As you navigate through the website, please describe your thought process and what you are looking for.

As I navigate through the website, I am looking for a specific product that meets my needs. I am scanning through the different categories, filters, and search options to find what I am looking for. I am also examining product images and reading descriptions to determine if it's the right fit for me.

4. How easy or difficult is it to find the products you are interested in? Can you explain why?

It is relatively easy to find the products I am interested in on this website. The search and filter options are helpful in narrowing down my options. The option to search by image is greatly helpful. However, some of the categories and filters can be confusing to navigate, which can make it slightly more difficult to find exactly what I am looking for.

5. How accurate were the search results when using an image to search for a product? Did the results match your expectations?

The search results when using an image to search for a product were fairly accurate. The website displayed a range of products that were visually similar to the image I uploaded.

6. How does the image search feature compare to the traditional text-based search feature in terms of ease of use and accuracy?

The image search feature is more visually appealing and intuitive than the traditional text-based search feature. It's also easier to use when I have a specific product in mind but don't know how to describe it in words.

### **App changes**

- Simplify navigation by reducing the number of steps to perform a task
- Color palette could be matched to the aesthetic of the website

## **Experimental Usability Study**

**Riya Parasar**

### **Goal(s) of the experiment:**

This experiment aims to assess the usability of the website. I want to test how user friendly the website is and how easy it is to navigate. To do so, I have 2 participants and they are from different demographics. One is our target audience and the other is a non user. Both have similar experience in technology and I want to test if people from all backgrounds and not just a particular group can access and use our website.

### **Methodology:**

We will do a between-subject design. A between-subject design can aid in minimizing the bias that could develop if all participants go through each experiment condition. We can test several iterations of our fashion website with various user groups using a between-subject design. This can assist us in determining which design components are most helpful in accomplishing our objectives. Our main goal is to reduce the impacts of variables to get the most accurate results for our website and design goals.

### **Participants:**

Participant 1 (Katelyn Nicole) - 20 year old female college student

Participant 2 (Yezhou Yang) - 45 year old male banker

### **Protocol:**

Tasks:

Task 1: Search and add item to cart

Participants will be instructed to search for a specific item on the app (e.g. beige jacket). They will then be asked to add the item to their cart.

Participants will be timed while completing this task, and will be asked to complete a short survey after completing the task.

Task 2: Add and delete any item to the favorites list

Participants will be asked to select an item on the app.(e.g. Black top)

They will be asked to add the item to the favorites list and then will be asked to remove the item from the list.

They will be timed while completing this task, and will be asked to complete a short survey after completing the task.

**Counterbalancing:**

To counterbalance the effect of the order of tasks on the dependent variable, the experiment will be conducted using a within-subjects design. Half of the participants will complete Task 1 first and then Task 2, while the other half will complete Task 2 first and then Task 1.

**Instructions:**

Participants will be informed that the study is being conducted to evaluate the usability of an online shopping app. They will be instructed to search for a specific item on the app and add it to their cart, as well as add and remove an item from their favorites list. Participants will also be informed that their interaction with the app will be timed, and that they will be asked to complete a short survey after completing each task.

**Task 1:**

Participants will be instructed to search for a specific item on the app and add it to their cart. They will be asked to pay attention to the ease of finding the item, the clarity of the item description and pricing, and any issues encountered during the task. They will be timed while completing this task, and will be asked to complete a short survey after completing the task. The survey will include questions about the ease of use of the app, the clarity of the instructions, and any issues encountered during the task.

**Task 2:**

Participants will be instructed to complete the process of adding and removing an item from the favorites list. They will be asked to pay attention to the ease of navigation, the clarity of the instructions, and any issues encountered during the task. They will be timed while completing this task and will be asked to complete a short survey after completing the task. The survey will include questions about the ease of use of the app, the clarity of the instructions, and any issues encountered during the task.

**Debrief:**

After completing the tasks and surveys, participants will be debriefed about the purpose of the study and thanked for their participation. They will also be given the opportunity to ask any questions they may have about the study. Finally, they will be informed about the next steps of the study and how their data will be used.

**Data Collection:**

I collected data in 3 forms. Verbal Data, Time to complete, number of times participants got stuck.

### **Data Analysis:**

Time to Complete:

Nicole:

Task 1: 3 mins 7 sec

Task 2: 2 mins 3 sec

Yang:

Task 1: 2 mins 43 sec

Task 2: 1 min 58 sec

Number of times they got stuck:

Nicole:

Task 1: 1

Task 2: 0

Yang:

Task 1: 1

Task 2: 1

Overall, Yang was faster than Nicole but ran into more errors compared to Nicole.

### **Observations and Discussion:**

I think the website was very well organized and easy to navigate. Both participants had never seen the website before and were able to accomplish tasks with little to no help. The only issue they had was that not all functionalities were implemented and that confused them a little. They both had the same issue in task 1 where they weren't able to actually search but that was because of the search functionality not being implemented. I do not believe that the high fidelity prototype needs any changes.

**Would you recommend this app to others looking for fashion recommendations?**

**Why or**

**why not?**

**Nicole:** Yes, I think it's a great app and idea and the interface was eye-catching! Very easy to use.

**Yang:** Yes, it could be useful to those who need recommendations for style.

**How did you find the overall experience of using the shopping App?**

**Nicole:** It was great! Usability wise it was almost like most websites out there.

**Yang:** I think the interface looked great! I enjoyed the images used and the symbols that basically tell you what the buttons are for.

### **How easy or difficult was it to finish the tasks?**

**Nicole:** The tasks themselves were pretty easy and interesting but search not being implemented was confusing.

**Yang:** The tasks were a little confusing for me but that might be because I don't really use these kinds of websites.

### **Goal(s) of the experiment:**

This experiment aims to assess the usability of the website. I want to test how user friendly the website is and how easy it is to navigate. To do so, I have 2 participants and they are from different demographics. One is our target audience and the other is a non user. Both have similar experience in technology and I want to test if people from all backgrounds and not just a particular group can access and use our website.

### **Methodology:**

We will do a between-subject design. A between-subject design can aid in minimizing the bias that could develop if all participants go through each experiment condition. We can test several iterations of our fashion website with various user groups using a between-subject design. This can assist us in determining which design components are most helpful in accomplishing our objectives. Our main goal is to reduce the impacts of variables to get the most accurate results for our website and design goals.

### **Participants:**

Participant 1 (Aarushi Gupta) - 22 year old female college student

Participant 2 (Shalini Rao) - 38 year old female home-maker

### **Protocol:**

#### **Tasks:**

##### **Task 1: Search and add item to cart**

Participants will be instructed to search for a specific item on the app (e.g. beige jacket). They will then be asked to add the item to their cart.

Participants will be timed while completing this task, and will be asked to complete a short survey after completing the task.

##### **Task 2: Add and delete any item to the favorites list**

Participants will be asked to select an item on the app.(e.g. Black top)

They will be asked to add the item to the favorites list and then will be asked to remove the item from the list.

They will be timed while completing this task, and will be asked to complete a short survey after completing the task.

**Counterbalancing:**

To counterbalance the effect of the order of tasks on the dependent variable, the experiment will be conducted using a within-subjects design. Half of the participants will complete Task 1 first and then Task 2, while the other half will complete Task 2 first and then Task 1.

**Instructions:**

Participants will be informed that the study is being conducted to evaluate the usability of an online shopping app. They will be instructed to search for a specific item on the app and add it to their cart, as well as add and remove an item from their favorites list. Participants will also be informed that their interaction with the app will be timed, and that they will be asked to complete a short survey after completing each task.

**Task 1:**

Participants will be instructed to search for a specific item on the app and add it to their cart. They will be asked to pay attention to the ease of finding the item, the clarity of the item description and pricing, and any issues encountered during the task. They will be timed while completing this task, and will be asked to complete a short survey after completing the task. The survey will include questions about the ease of use of the app, the clarity of the instructions, and any issues encountered during the task.

**Task 2:**

Participants will be instructed to complete the process of adding and removing an item from the favorites list. They will be asked to pay attention to the ease of navigation, the clarity of the instructions, and any issues encountered during the task. They will be timed while completing this task and will be asked to complete a short survey after completing the task. The survey will include questions about the ease of use of the app, the clarity of the instructions, and any issues encountered during the task.

**Debrief:**

After completing the tasks and surveys, participants will be debriefed about the purpose of the study and thanked for their participation. They will also be given the opportunity to ask any questions they may have about the study. Finally, they will be informed about the next steps of the study and how their data will be used.

**Data Collection:**

I collected data in 2 forms. Click and navigation data, Time on site.

**Data Analysis:**

Click and navigation data:

Aarushi Gupta:

Task1:

1. User clicks on the "Image Search" button located in the search bar.
2. Users are prompted to upload an image.
3. User selects an image and uploads it. (Couldn't be implemented in the high-fidelity prototype, so used a default image)
4. Website identifies the product in the image and displays relevant search results.
5. User clicks on the product that matches their desired dress and clicks on the "Add to Cart" button to add the item to their shopping cart.

Task2:

1. The user navigates to the product page of an item they are interested in.
2. They notice a "heart" icon below the product image and click on it to add the item to their favorites list.
3. The user navigates to their favorites list page to see the item they just added.
4. They decide they no longer want to keep the item in their favorites list and click on a "remove" button.
5. The item is removed from their favorites list and the page updates to reflect the change.

Shalini Rao:

Task1:

1. User clicks on the "Image Search" button located in the search bar.
2. Users are prompted to upload an image.
3. User selects an image and uploads it. (Couldn't be implemented in the high-fidelity prototype, so used a default image)
4. Website identifies the product in the image and displays relevant search results.
5. User clicks on the product that matches their desired dress and clicks on the "Add to Cart" button to add the item to their shopping cart.

Task2:

1. The user navigates to the product page of an item they are interested in.
2. They notice a "heart" icon below the product image and click on it to add the item to their favorites list.
3. The user navigates to their favorites list page to see the item they just added.
4. They decide they no longer want to keep the item in their favorites list and click on a "remove" button.
5. The item is removed from their favorites list and the page updates to reflect the change.

Time on site:

Aarushi Gupta:

Task 1: 1 min 12 sec

Task 2: 2 min 23 sec

Shalini Rao:

Task 1: 1 min 48 sec

Task 2: 3 min 52 sec

### **Observations and Discussion:**

In the usability test, both participants found the tasks on the website easy to find and navigate, but they commented on the cluttered appearance of the homepage. They felt that the color scheme was overwhelming and distracted from the content. Despite this, they were able to complete the tasks with ease. It was noted that the website's navigation was well-organized and the tasks were clearly labeled and easily accessible. However, it was recommended that the design team consider simplifying the homepage's color scheme to make it more user-friendly and less visually overwhelming, which may improve the overall user experience. I do not believe that the high fidelity prototype needs any changes other than the colors in home page

### **Would you recommend this app to others looking for fashion recommendations?**

**Why or**

**why not?**

**Aarushi Gupta:** Yes, I think it's a great idea to find what you're looking for using a picture instead of adding all the filters needed.

**Shalini Rao:** Yes, I think it would be pretty helpful for those who are looking for recommendations in a similar style.

### **How did you find the overall experience of using the shopping App?**

**Aarushi Gupta:** Yes, it's really easy to navigate and I really liked the user experience.

**Shalini Rao:** Yes, even not being a tech user, I find the app easy to understand.

### **How easy or difficult was it to finish the tasks?**

**Aarushi Gupta:**

It was relatively easy to finish both tasks. The image search was straightforward and I was able to find the image I was looking for quickly. Adding and removing an item from favorites was also easy and intuitive. The website was well-designed and easy to navigate, which made the tasks simple to accomplish.

**Shalini Rao:**

I found both tasks to be a bit challenging. The image search was especially difficult for me since I am not used to using online search engines. However, once I got the hang of

it, I was able to find the image I was looking for. Adding and removing an item from favorites was also a bit tricky, but I eventually figured it out. Overall, the website was easy to navigate, but some of the technical aspects were difficult for me to grasp.

### **Goal(s) of the experiment:**

This experiment aims to assess the usability of the website. I want to test how user friendly the website is and how easy it is to navigate. To do so, I have 2 participants and they are from different demographics. One is our target audience and the other is a non user. Both have similar experience in technology and I want to test if people from all backgrounds and not just a particular group can access and use our website.

### **Methodology:**

We will do a between-subject design. A between-subject design can aid in minimizing the bias that could develop if all participants go through each experiment condition. We can test several iterations of our fashion website with various user groups using a between-subject design. This can assist us in determining which design components are most helpful in accomplishing our objectives. Our main goal is to reduce the impacts of variables to get the most accurate results for our website and design goals.

### **Participants:**

Participant 1 (Sravani Nellutla) - 22 year old female Interior designer

Participant 2 (Venkata Abhram Chitty) - 22 year old male Data analyst

### **Protocol:**

#### Tasks:

Task 1: Search and add item to cart

Participants will be instructed to search for a specific item on the app (e.g. beige jacket). They will then be asked to add the item to their cart.

Participants will be timed while completing this task, and will be asked to complete a short survey after completing the task.

Task 2: Add and delete any item to the favorites list

Participants will be asked to select an item on the app.(e.g. Black top)

They will be asked to add the item to the favorites list and then will be asked to remove the item from the list.

They will be timed while completing this task, and will be asked to complete a short survey after completing the task.

### **Counterbalancing:**

To counterbalance the effect of the order of tasks on the dependent variable, the experiment will be conducted using a within-subjects design. Half of the participants will

complete Task 1 first and then Task 2, while the other half will complete Task 2 first and then Task 1.

**Instructions:**

Participants will be informed that the study is being conducted to evaluate the usability of an online shopping app. They will be instructed to search for a specific item on the app and add it to their cart, as well as add and remove an item from their favorites list. Participants will also be informed that their interaction with the app will be timed, and that they will be asked to complete a short survey after completing each task.

**Task 1:**

Participants will be instructed to search for a specific item on the app and add it to their cart. They will be asked to pay attention to the ease of finding the item, the clarity of the item description and pricing, and any issues encountered during the task. They will be timed while completing this task, and will be asked to complete a short survey after completing the task. The survey will include questions about the ease of use of the app, the clarity of the instructions, and any issues encountered during the task.

**Task 2:**

Participants will be instructed to complete the process of adding and removing an item from the favorites list. They will be asked to pay attention to the ease of navigation, the clarity of the instructions, and any issues encountered during the task. They will be timed while completing this task, and will be asked to complete a short survey after completing the task. The survey will include questions about the ease of use of the app, the clarity of the instructions, and any issues encountered during the task.

**Debrief:**

After completing the tasks and surveys, participants will be debriefed about the purpose of the study and thanked for their participation. They will also be given the opportunity to ask any questions they may have about the study. Finally, they will be informed about the next steps of the study and how their data will be used.

**Data Collection:**

I collected data in 2 forms. Click and navigation data, Time on site.

**Data Analysis:**

Click and navigation data:

Sravani Nellutla:

Task1:

1. User clicks on the "Image Search" button located in the search bar.

2. The user is prompted to upload an image.
3. User selects an image and uploads it. (Couldn't be implemented in the high-fidelity prototype, so used a default image)
4. Website identifies the product in the image and displays relevant search results.
5. User clicks on the product that matches their desired dress and clicks on the "Add to Cart" button to add the item to their shopping cart.

Task2:

1. The user navigates to the product page of an item they are interested in.
2. They notice a "heart" icon below the product image and click on it to add the item to their favorites list.
3. The user navigates to their favorites list page to see the item they just added.
4. They decide they no longer want to keep the item in their favorites list and click on a "remove" button.
5. The item is removed from their favorites list and the page updates to reflect the change.

Venkata Abhiram Chitty:

Task1:

1. The user navigates to the product page of an item they are interested in.
2. They notice a "heart" icon below the product image and click on it to add the item to their favorites list.
3. The user navigates to their favorites list page to see the item they just added.
4. They decide they no longer want to keep the item in their favorites list and click on a "remove" button.
5. The item is removed from their favorites list and the page updates to reflect the change.

Task2:

1. User clicks on the "Image Search" button located in the search bar.
2. The user is prompted to upload an image.
3. User selects an image and uploads it. (Couldn't be implemented in the high-fidelity prototype, so used a default image)
4. Website identifies the product in the image and displays relevant search results.
5. User clicks on the product that matches their desired dress and clicks on the "Add to Cart" button to add the item to their shopping cart.

Time on site:

Sravani Nellutla:

Task 1: 1 min 03 sec

Task 2: 2 min 36 sec

Venkata Abhiram Chitty:

Task 1: 3 min 02 sec

Task 2: 1 min 49 sec

### **Observations and Discussion:**

In this test, both the participants said it has been easy to work with and had it easy with the navigation and finding the items had been the easiest for both. But they found moving around the application not so appealing. They think the homepage is not aesthetically pleasing. They liked the spacing and said it was user friendly. They felt the webpage is neatly labeled and organized. I do not believe that the high fidelity prototype needs any changes other than the color scheme and sizing.

**Would you recommend this app to others looking for fashion recommendations?**

**Why or**

**why not?**

**Sravani Nellutla:** Yes, It is a decent online shopping app, the new features are great. It will be helpful to regular shoppers.

**Venkata Abhiram Chitty:** Yes, I think the camera option actually saves time rather than scrolling through the app.

**How did you find the overall experience of using the shopping App?**

**Sravani Nellutla:** Yes, the experience is cool. Really liked the features.

**Venkata Abhiram Chitty:** Yes, it's a great app, except for the movement, Loved the concept.

**How easy or difficult was it to finish the tasks?**

**Sravani Nellutla:**

They were really easy to understand and to implement. The navigation was easy to do so I could do the tasks in no time. The overall design is simple and I had a great time navigating through the app. It was well organized and the overall experience is for my liking.

**Venkata Abhiram Chitty:**

I found both tasks considerably easy to navigate through. It is easy to go through and understandable. I think the people who will have a problem at first will be able to do stuff comparatively faster. The overall experience was nice, I just had the moving through the app a bit of a hassle.

**Goal(s) of the experiment:**

This experiment aims to assess the usability of the website. I want to test how user friendly the website is and how easy it is to navigate. To do so, I have 2 participants and they are from different demographics. One is our target audience and the other is a non

user. Both have similar experience in technology and I want to test if people from all backgrounds and not just a particular group can access and use our website.

### **Methodology:**

We will do a between-subject design. A between-subject design can aid in minimizing the bias that could develop if all participants go through each experiment condition. We can test several iterations of our fashion website with various user groups using a between-subject design. This can assist us in determining which design components are most helpful in accomplishing our objectives. Our main goal is to reduce the impacts of variables to get the most accurate results for our website and design goals.

### **Participants:**

Participant 1 (Tulasi Aarla) - 22 year old female Biotech student

Participant 2 (Maneesha Veerla) - 22 year old female Software engineer

### **Protocol:**

Tasks:

Task 1: Search and add item to cart

Participants will be instructed to search for a specific item on the app (e.g. beige jacket). They will then be asked to add the item to their cart.

Participants will be timed while completing this task, and will be asked to complete a short survey after completing the task.

Task 2: Add and delete any item to the favorites list

Participants will be asked to select an item on the app.(e.g. Black top)

They will be asked to add the item to the favorites list and then will be asked to remove the item from the list.

They will be timed while completing this task, and will be asked to complete a short survey after completing the task.

### **Counterbalancing:**

To counterbalance the effect of the order of tasks on the dependent variable, the experiment will be conducted using a within-subjects design. Half of the participants will complete Task 1 first and then Task 2, while the other half will complete Task 2 first and then Task 1.

### **Instructions:**

Participants will be informed that the study is being conducted to evaluate the usability of an online shopping app. They will be instructed to search for a specific item on the app and add it to their cart, as well as add and remove an item from their favorites list.

Participants will also be informed that their interaction with the app will be timed, and that they will be asked to complete a short survey after completing each task.

**Task 1:**

Participants will be instructed to search for a specific item on the app and add it to their cart. They will be asked to pay attention to the ease of finding the item, the clarity of the item description and pricing, and any issues encountered during the task. They will be timed while completing this task, and will be asked to complete a short survey after completing the task. The survey will include questions about the ease of use of the app, the clarity of the instructions, and any issues encountered during the task.

**Task 2:**

Participants will be instructed to complete the process of adding and removing an item from the favorites list. They will be asked to pay attention to the ease of navigation, the clarity of the instructions, and any issues encountered during the task. They will be timed while completing this task, and will be asked to complete a short survey after completing the task. The survey will include questions about the ease of use of the app, the clarity of the instructions, and any issues encountered during the task.

**Debrief:**

After completing the tasks and surveys, participants will be debriefed about the purpose of the study and thanked for their participation. They will also be given the opportunity to ask any questions they may have about the study. Finally, they will be informed about the next steps of the study and how their data will be used.

**Data Collection:**

I collected data in 2 forms. Click and navigation data, Time on site.

**Data Analysis:**

Click and navigation data:

Tulasi Aarla:

Task1:

1. User clicks on the "Image Search" button located in the search bar.
2. The user is prompted to upload an image.
3. User selects an image and uploads it. (Couldn't be implemented in the high-fidelity prototype, so used a default image)
4. Website identifies the product in the image and displays relevant search results.
5. User clicks on the product that matches their desired dress and clicks on the "Add to Cart" button to add the item to their shopping cart.

Task2:

1. The user navigates to the product page of an item they are interested in.
2. They notice a "heart" icon below the product image and click on it to add the item to their favorites list.
3. The user navigates to their favorites list page to see the item they just added.
4. They decide they no longer want to keep the item in their favorites list and click on a "remove" button.
5. The item is removed from their favorites list and the page updates to reflect the change.

Maneesha Veerla:

Task1:

1. The user navigates to the product page of an item they are interested in.
2. They notice a "heart" icon below the product image and click on it to add the item to their favorites list.
3. The user navigates to their favorites list page to see the item they just added.
4. They decide they no longer want to keep the item in their favorites list and click on a "remove" button.
5. The item is removed from their favorites list and the page updates to reflect the change.

Task2:

1. User clicks on the "Image Search" button located in the search bar.
2. The user is prompted to upload an image.
3. User selects an image and uploads it. (Couldn't be implemented in the high-fidelity prototype, so used a default image)
4. Website identifies the product in the image and displays relevant search results.
5. User clicks on the product that matches their desired dress and clicks on the "Add to Cart" button to add the item to their shopping cart.

Time on site:

Tulasi Aarla:

Task 1: 1 min 28 sec

Task 2: 2 min 12 sec

Maneesha Veerla:

Task 1: 2 min 58 sec

Task 2: 1 min 36 sec

### **Observations and Discussion:**

The app's design for adding items to cart is effective, as both the users were able to quickly and easily find the product they wanted, and the "Add to Cart" button was clearly visible. The app also provided clear feedback that the item was added to the cart, which is important for users to have confidence in the app's functionality. Both the users liked

the application and said its navigation is easy and understandable. I do not believe that the high fidelity prototype needs any changes.

**Would you recommend this app to others looking for fashion recommendations?**

**Why or why not?**

**Tulasi Aarla:** Yes, The app is great and I had fun in it.

**Maneesh Veerla:** Yes, I think the features will really help people of all ages.

**How did you find the overall experience of using the shopping App?**

**Tulasi Aarla:** Yes, The overall experience was great. It was fun to navigate through.

**Maneesh Veerla:** Yes, I think the app is great. It does need a bit of fine tuning but everything else was great.

**How easy or difficult was it to finish the tasks?**

**Tulasi Aarla:**

The instructions and layout of the app were clear and straightforward, making it easy for me to complete the tasks quickly. The design is uncomplicated, and I enjoyed browsing the app. It was well-structured, and my overall experience was pleasant.

**Maneesha Veerla:**

I didn't have much trouble completing both tasks as they were straightforward and easy to navigate. Although some people might encounter initial difficulties, they should be able to get the hang of it pretty quickly. Overall, my experience was positive, but I did find moving through the app a bit cumbersome.

## **Summary**

From the four studies we conducted we came to the conclusion that our design was well structured for our target audience and the time took as long as we expected them. The results were pretty standard throughout. We consolidated our studies and made one graph that helps us better understand the results.

## **Appendix**

Time to Complete:

Nicole:

Task 1: 3 mins 7 sec

Task 2: 2 mins 3 sec

Yang:

Task 1: 2 mins 43 sec

Task 2: 1 min 58 sec

⋮

## Task 1 and Task 2

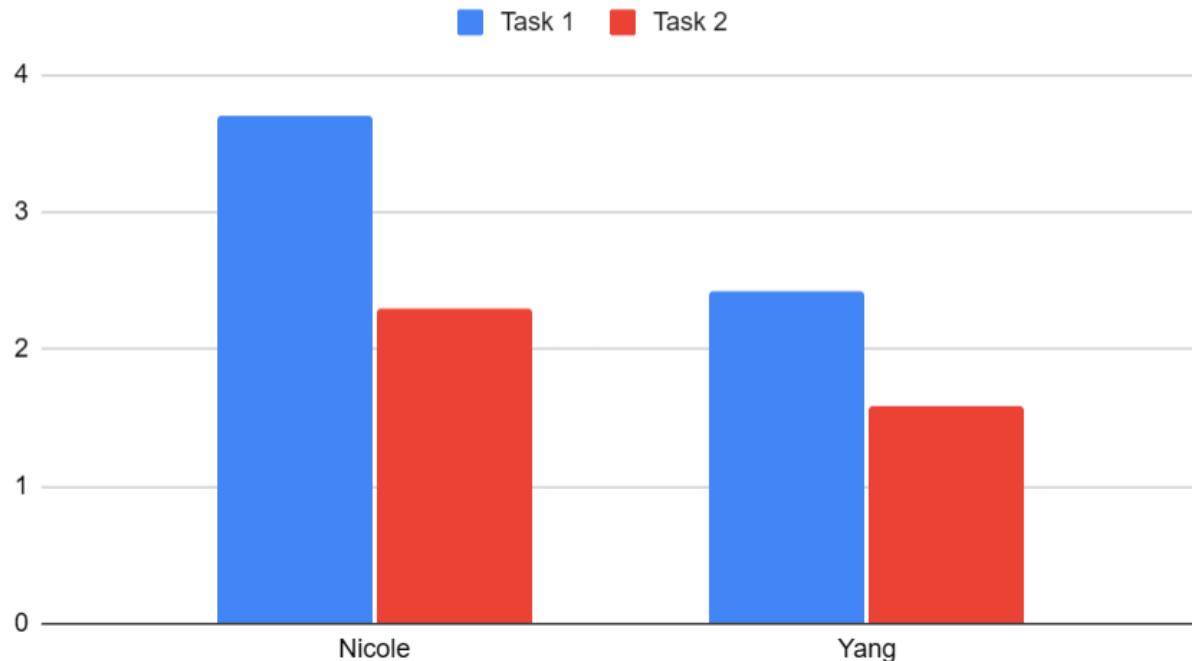


Figure 23

Number of times they got stuck:

Nicole:

Task 1: 1

Task 2: 0

Yang:

Task 1: 1

Task 2: 1

## Task 1 and Task 2

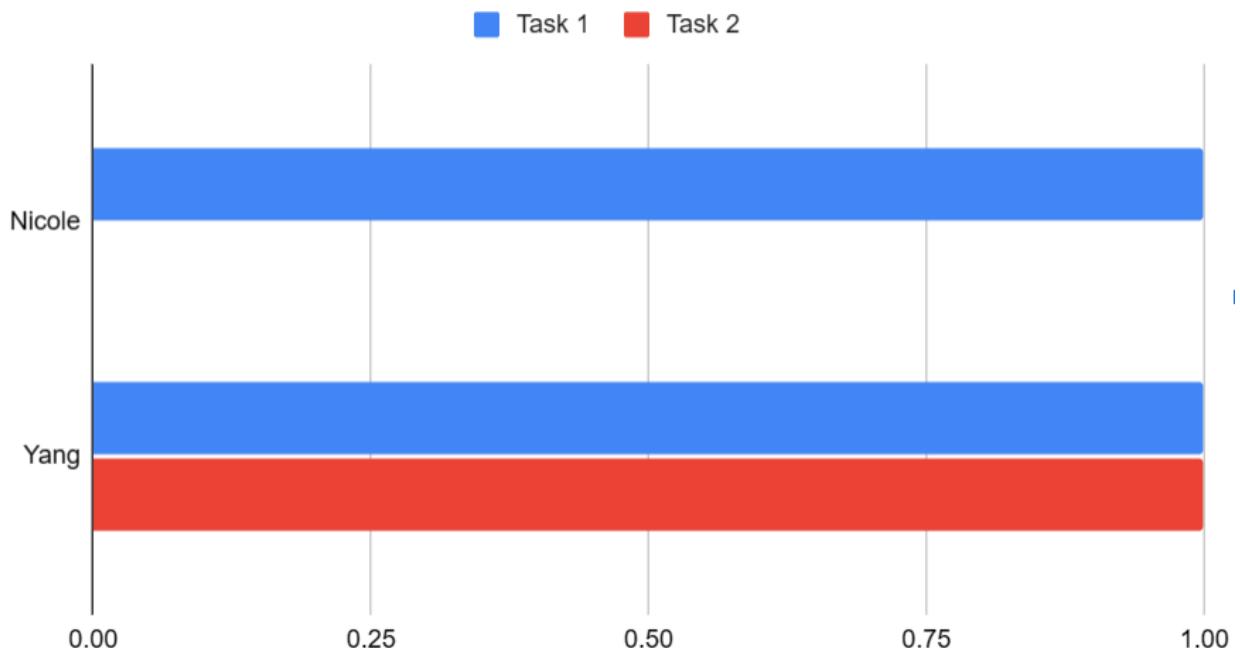


Figure 24

Time on site:

Aarushi Gupta:

Task 1: 1 min 12 sec

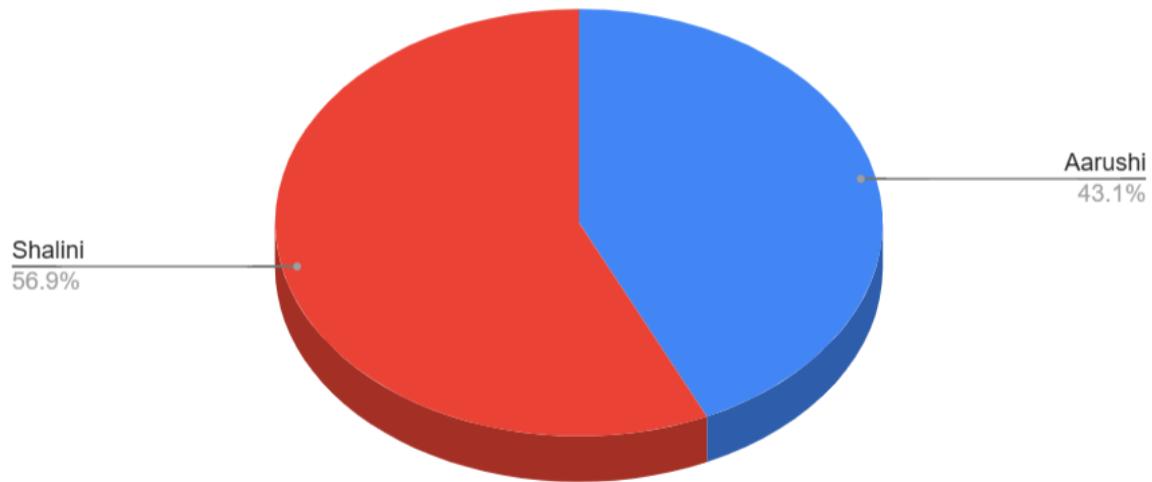
Task 2: 2 min 23 sec

Shalini Rao:

Task 1: 1 min 48 sec

Task 2: 3 min 52 sec

## Task 1 and Task 2



*Figure 25*

Time on site:

Sravani Nellutla:

Task 1: 1 min 03 sec

Task 2: 2 min 36 sec

Venkata Abhiram Chitty:

Task 1: 3 min 02 sec

Task 2: 1 min 49 sec

## Task 1 and Task 2

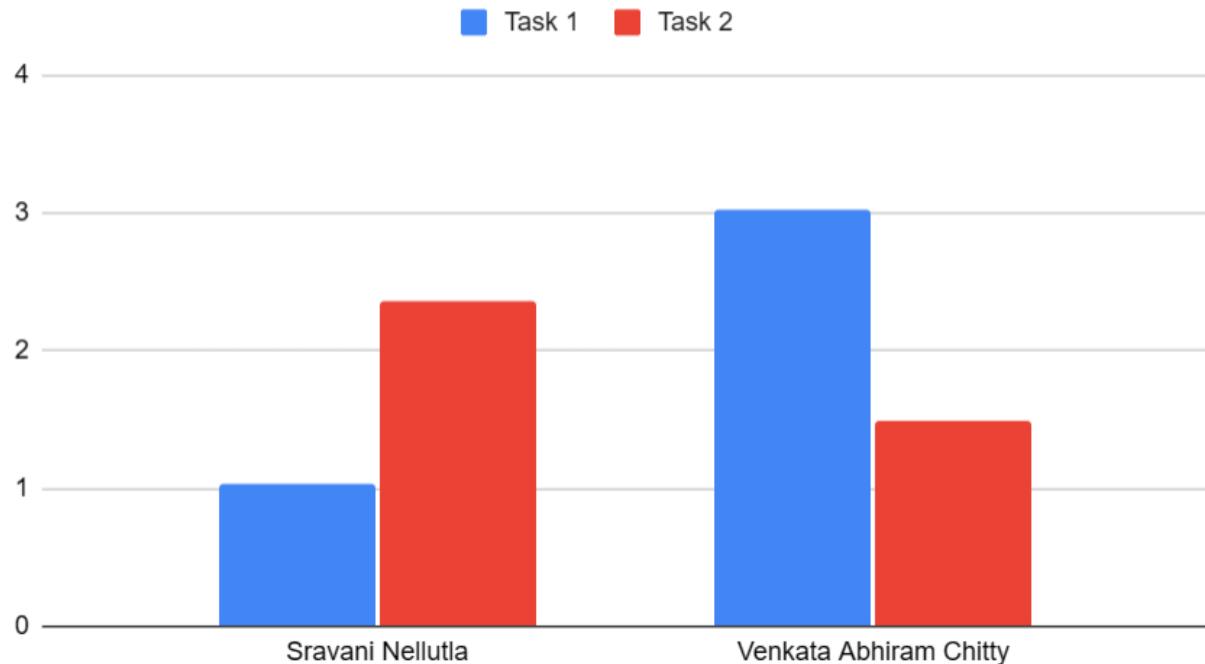


Figure 26

Time on site:

Tulasi Aarla:

Task 1: 1 min 28 sec

Task 2: 2 min 12 sec

Maneesha Veerla:

Task 1: 2 min 58 sec

Task 2: 1 min 36 sec

## Task 1 and Task 2

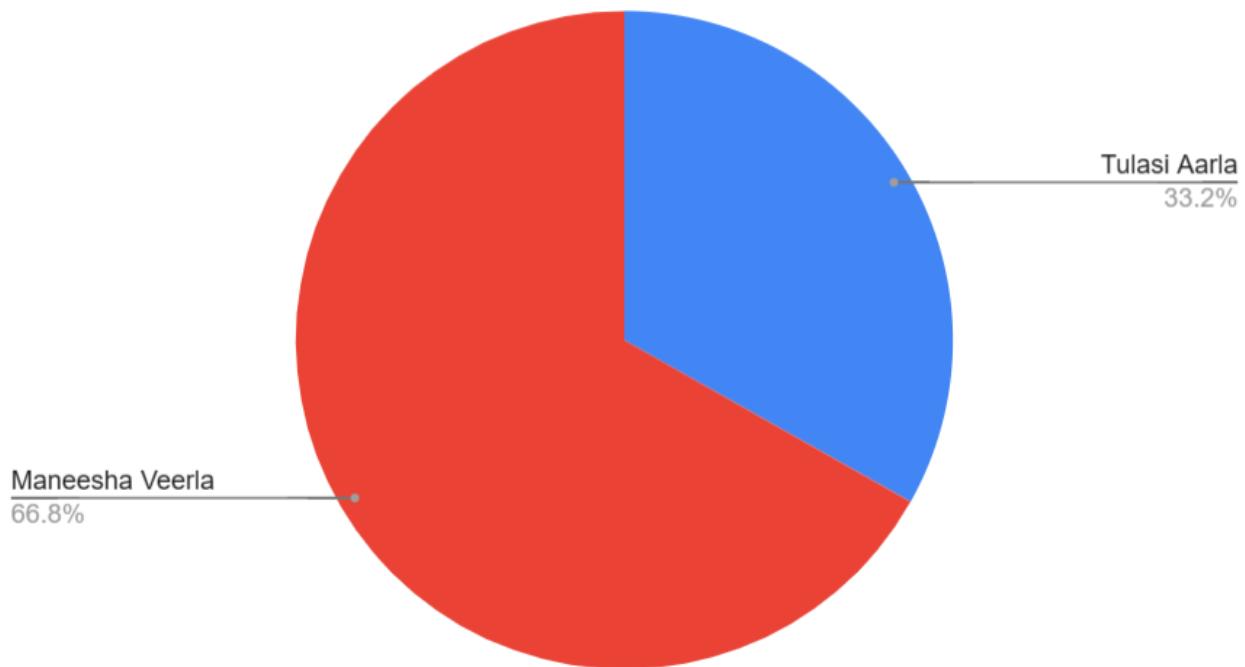


Figure 27

## Task 1 in sec and Task 2 in sec

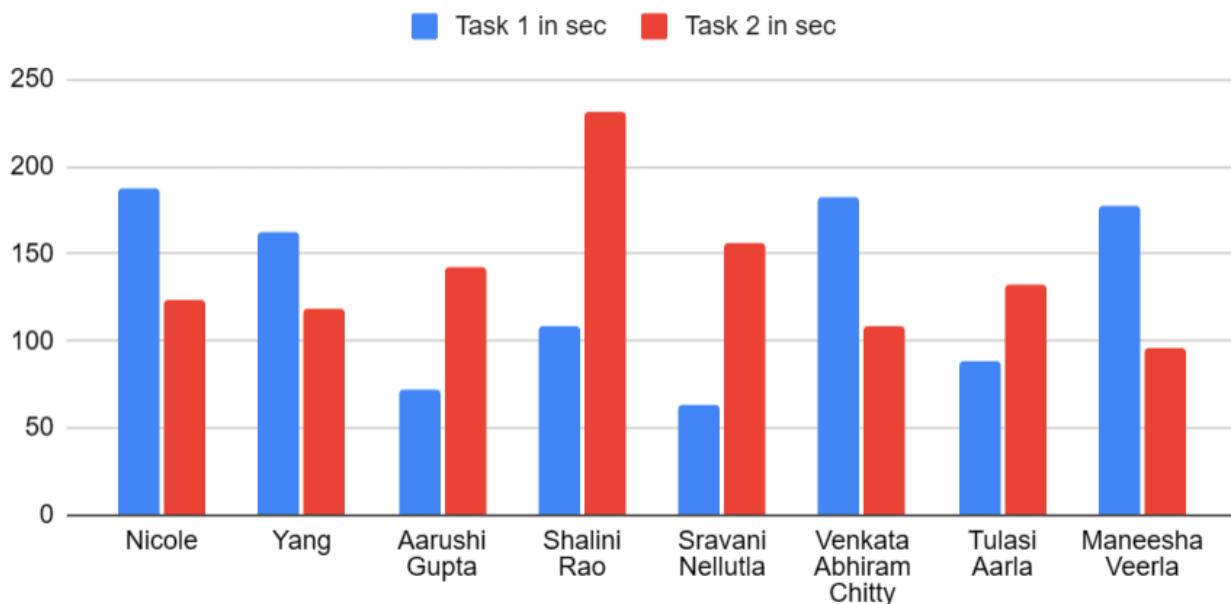


Figure 28

## Summary

Style with us is a fashion recommendation app that helps users pick an outfit in an easy and fun way. Because information about the target audience needs to be gathered, communication within the design team is essential during development. We created two detailed user personas to help us better understand these people, and we then tried to construct the "Style with us" application to meet their needs. We conducted needfinding exercises in the form of focus groups and interviews in order to create these personalities.

From our focus groups, we were able to find out that our initial analysis was correct and there was a certain demographic for this application which happens to be women between the ages of 18 and 25. This helped us make our design goals better and make sure our app caters to the right audience.

To provide our design team a starting point for the application's design, we used our personas to construct storyboards and user journeys; the application should be created to fulfill the demands of our personas, which should have needs that are comparable to those of actual users. We started creating our low fidelity and high fidelity prototypes with our design objectives in mind. Because it is easier to identify and correct fundamental flaws in the application design, it is crucial to start with low fidelity prototypes to test the flow of the design. Wireframing allowed us to replicate a user experience based on our profiles and design a user path for those people. It acted as our low fidelity prototype.

Our high fidelity prototype was created using Axure and once we were done, we tested it. We conducted four wizard of oz studies and four experimental and data analysis. Through our test we were able to get an idea of how people used our app and what they thought about it.

We found through the data we collected that our app provides a faster and more efficient way for people to shop. While there are changes that need to be made, we are content with the data we collected to keep improving and inventing Style with us.