



## **MAPÚA MALAYAN COLLEGES MINDANAO**

### **Thriftee: An Online Application for Thrift Owners**

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A Research Synopsis in Partial Fulfillment of the Requirements for the CS152: Human  
Computer Interaction

Bachelor of Science in Information Systems

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## **Part 1: Understanding the Problem**

### Overview

Thrift store owners face significant challenges in today's digital age who lack an online platform presence. These business owners find it difficult to connect with more people and take advantage of the large online consumer base in the absence of a dedicated online presence. Relying solely on platforms like Facebook Marketplace or other social media channels simply reduces their visibility and makes it more difficult for them to successfully highlight their distinctive offers. Their total profitability and growth potential are impacted by this lack of accessibility, which limits their reach and impedes the ease and comfort that a specialized online platform can offer to both vendors and customers.

### Solving the Problem

By developing a user-friendly application, thrift owners can enhance the accessibility and comfort of their services, attracting a broader audience and increasing sales. Customers' purchasing experience can be greatly enhanced with an exclusive online platform that provides features like search filters, tailored suggestions, safe payment choices, and categorization. Adopting a specialized online platform helps thrift store owners reach a wider audience, build a more recognizable brand, gain the trust of their customers, and eventually increase revenue by offering a simple, convenient shopping experience that meets the needs of contemporary consumers.

### The Application: Thriftee

*Thriftee* is a user-friendly application that aims to transform the thrift store experience by providing thrift store owners with a seamless platform to display their unique items and reach a larger customer base.

## Features:

- Categorization - Organizing products into discrete categories to make it easier for people to navigate and locate particular items according to their preferences.
- Search Filter - improve buying experience by giving clients the option to filter search results based on particular criteria, guaranteeing that they locate goods that suit their needs and interests.
- Secure Payment Options - Provide a safe and trustworthy transaction environment, instilling confidence in customers to complete their purchases securely.
- Personalized recommendations - Employ user data to make personalized product recommendations that will match each user's interests and preferences. This will improve engagement and raise the chance of sales.

## Questions about the Application:

### Who are the potential users?

- The potential users of Thriftee, a user-friendly application for thrift store owners, are primarily people who frequently enjoy thrifting and purchasing secondhand items.

### What tasks do they seek to perform?

- Browsing a wide variety of distinctive thrift products, refining their search by area, price range, and category, and securely checking out the items they like.

## Functionality

- The system's capability revolves around facilitating seamless buying and selling experiences for users. It streamlines the application process, enabling users to swiftly start selling their products or services.

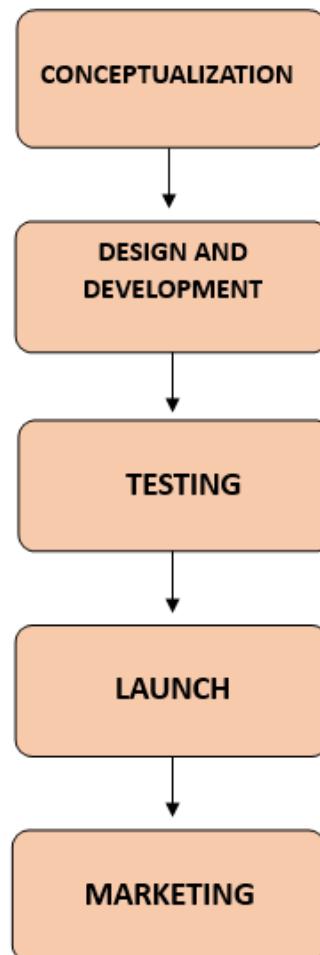
## Constraints

- The technical constraints for the Thriftee application involve ensuring compatibility across various devices and platforms, scalability to accommodate growing users and inventory, seamless integration with payment gateways for secure transactions, and optimizing performance for a smooth user experience.

## Criteria

- User adoption, positive user feedback, effective marketing and promotion, and seamless integration with third-party services indicate the application is meeting user needs, providing value, and enabling growth for thrift store. Considering these criteria ensures the Thriftee application offers a positive user experience tailored to its target audience while contributing to the success of thrift businesses.

## Approach:



## Part 2: Design Alternatives

### Scenario:

#### Scenario 1

Katie owns a small thrift store in a suburban area. Despite having unique and vintage items, her customer base is limited to local walk-ins and occasional buyers from Facebook Marketplace. This limited reach results in stagnant sales and missed opportunities to attract a larger, more diverse customer base.

#### Scenario 2

John manages a thrift store that relies heavily on social media for marketing. He spends a significant amount of time posting items on various social media platforms, but these posts often get lost in the feed due to algorithm changes and competition.

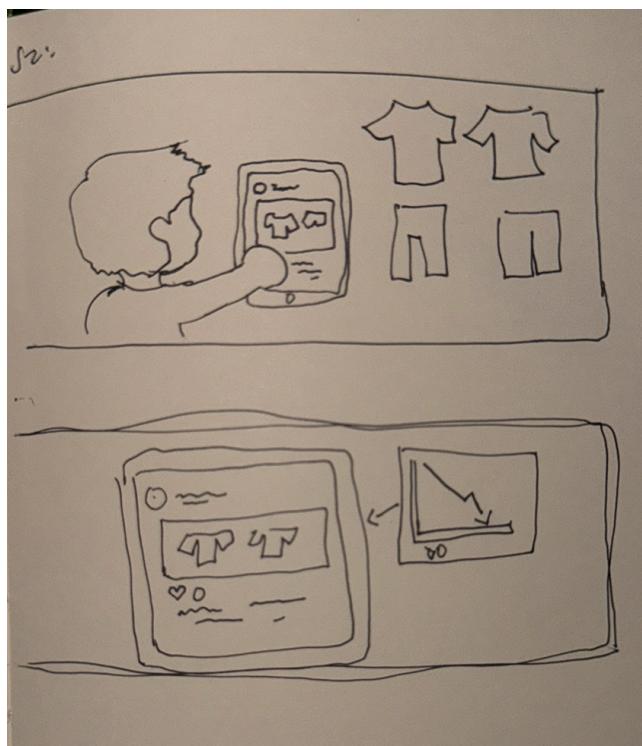
#### Scenario 3

Jamie runs a vintage clothing thrift store and notices that her competitors with dedicated online platforms are thriving. These competitors can easily update their inventory, offer online shopping experiences, and engage with customers through their websites. Jamie, however, lacks such a platform and relies solely on physical store visits and occasional social media sales.

#### Storyboard (Scenario 1)



### Storyboard (Scenario 2)



### Storyboard (Scenario 3)



## **Problem Statement:**

- Thrift store owners can't reach a wider audience due to limited customer reach.
- Thrift store owners inefficient marketing and sales due to reliance on social media, particularly Facebook marketplace.
- Thrift store owners' competitive edge has reduced due to competitors with dedicated online platforms.

## **Application Size Comparison**

The icons displayed above illustrate the application's appearance in various sizes, highlighting how it will look in many different screen ratios.

## **Design**

The ThrifTee application aims to showcase a minimalist design. In order to achieve this design, the following will be identified: Color Palette, Font Style, and GUI.

### **Color Palettes**





## Color Palettes

The color palettes displayed above, along with their codes, have been selected for use in the application. While the final palette has not yet been decided, it will be finalized by the time the team reaches the prototyping stage.

## Font Style

ABCDEFGHIJKLMNOPQRSTUVWXYZ  
abcdefghijklmnopqrstuvwxyz  
abcdefghijklmnpq  
rstuvwxyz () & ?! @  
1234567890 .,:/→

The team selected the Inter font in Figma because of its modern, clean style, which improves reading and gives an expert appearance. Because of its simplicity, the text is always the main attraction and isn't overwhelmed by too complex types.

## Inter Font

## GUI

The GUI used for the interface of the applications is in iPhone Pro Max format, to emphasize the design of the interface. However, it is designed to be intuitive and user-friendly for every user in every type of phone as it will cater to android and iPhone type mobile phones. This includes features such as a clean and simple layout, easy-to-read typography, and clear visual hierarchy to help users navigate the app effectively

## **Sample Features Flows**

### **Open App**

When the user opens the application, they are taken to the main landing page or home screen of the app.

### **Profile**

From the home screen, the user can navigate to their personal profile page, where they can view and manage their account information, preferences, and settings.

### **Home**

The home screen provides the user with a centralized view of the app's main features and functionality, such as search, product browsing, and access to reviews and feedback.

### **Search**

The search feature allows the user to quickly find and explore products or services offered within the application.

### **Reviews and Feedback**

The user can access a section dedicated to reviews and feedback from other users, helping them make informed decisions about the products or services they are interested in.

### **Add to Cart**

The user can add selected products or services to their shopping cart for further consideration or to proceed with the purchase.

### **Order Information**

Once items are added to the cart, the user can view detailed information about their order, including the items, quantities, and total cost.

### **Payment**

The user can then proceed to the payment stage, where they can securely complete the transaction using their preferred payment method.

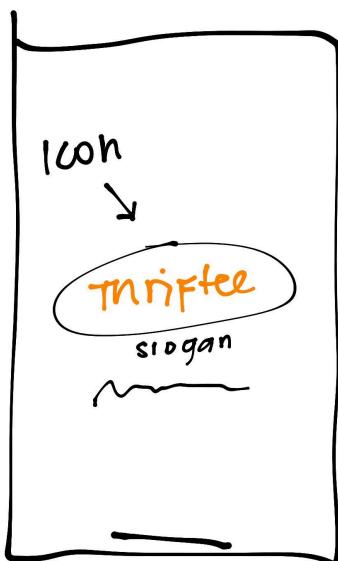
## **Successful Order**

Upon successful completion of the payment, the user is notified that their order has been placed and will be processed accordingly.

## **Design Sketches and Alternatives**

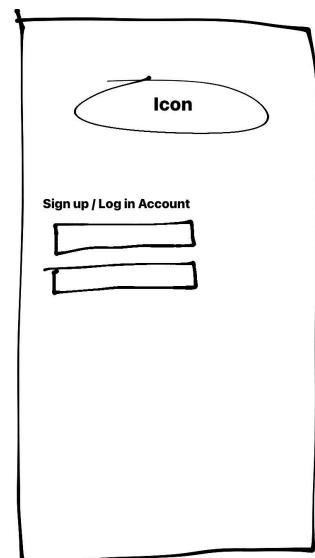
The design sketch for the application includes the welcome screen, which features the PPG logo and a slogan, followed by the home screen that provides a clean and visually appealing introduction to the app. The home screen can be customized using various design elements such as images, icons, and buttons, and can be designed to include features like search, product categories, and reviews, all while maintaining a user-friendly and engaging interface.

### **Welcome Screen:**



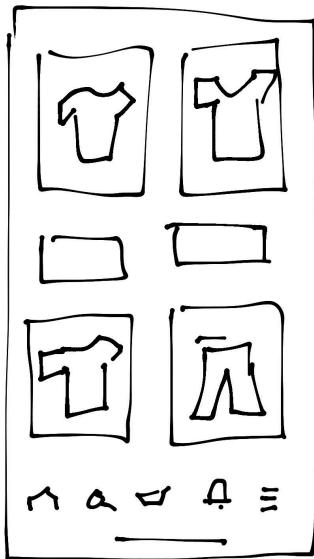
The welcome screen of the application features the PPG logo with the slogan "Make Your Moments" below it, providing a clean and visually appealing introduction to the app.

### **Sign-up / Log-in Screen:**



The sign-up and log-in screens of the app are designed to allow users to create and manage their accounts, with the log-in screen featuring an email input, and the sign-up screen providing fields for users to enter their details and create a new account.

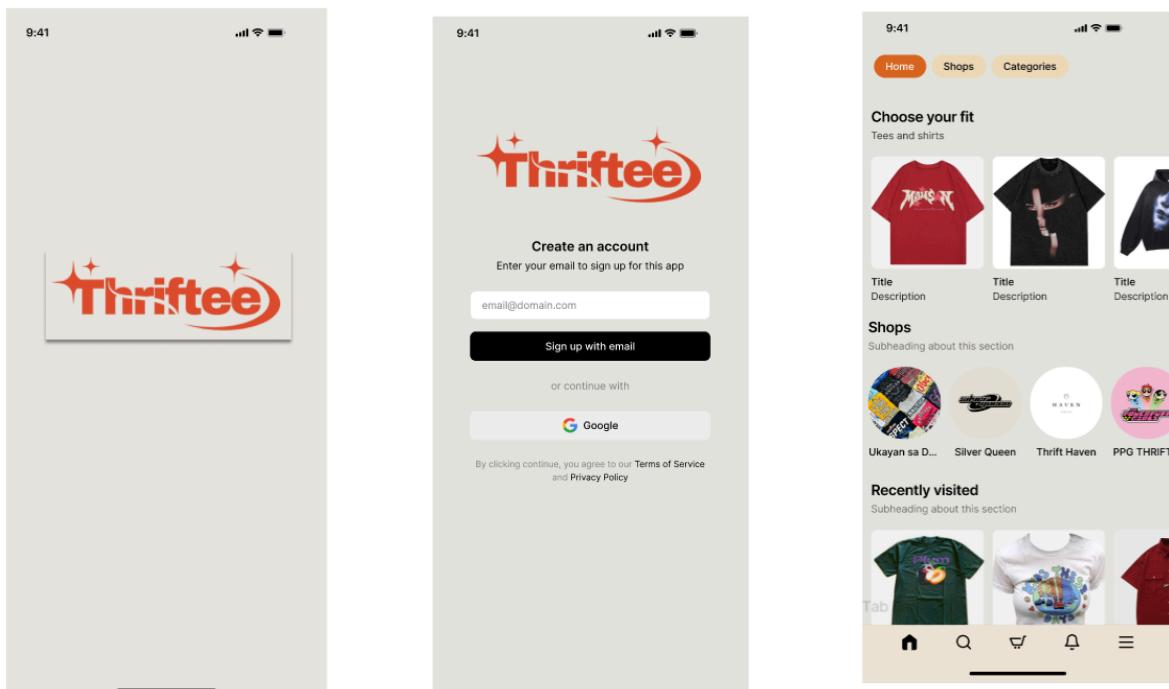
## Home Screen:



The home screen of the application showcases the home tab in the bottom for user navigation choices and the items and other information displayed in the home of the application.

## Mock-up/Prototype

The mock-up or prototype of the PPG application features an iPhone-style graphical user interface (GUI). The welcome screen displays the Thriftee logo with a slogan below it, providing a clean and visually appealing introduction to the app. The sign-up and log-in screens allow users to create and manage their accounts, with the log-in screen featuring a username and password input, and the sign-up screen providing fields for users to enter their details and create a new account.



## Part 3.1: System Prototype

### Project Description

Thriftee is a transformative solution designed to modernize thrift store operations by providing an exclusive online platform. This user-friendly application aims to bridge the gap between thrift store owners and a larger, digital-savvy customer base. By leveraging features such as home, profile, shops, categorization, search filters, notifications, and place order, Thriftee enhances the shopping experience for customers and streamlines the sales process for store owners. The project focuses on addressing the limitations of relying solely on social media for marketing and sales, thereby boosting visibility and profitability for thrift stores.

### Requirements Summary

<b>MINIMUM REQUIREMENTS</b>	Processor Cores	Single Core
	OS	Apple iOS 10 & Android 5.0
	RAM	2 GB
<b>RECOMMENDED REQUIREMENTS</b>	Processor Cores	Multi Core
	OS	Apple iOS 12 & Android 8.0
	RAM	4 GB
<b>OTHER REQUIREMENTS</b>	Permissions	Notifications and Storage

**Table 1: System Requirements**

The minimum requirement processor core for the application will be a single core to cater to low-end devices, ensuring compatibility with older devices. The application will support Apple iOS 10 and Android 5.0, which are older operating systems that are still widely used, particularly among low-end devices.

### Prototype Description

The Thriftee prototype showcases the application's main features and user flow. It includes a welcome screen with the Thriftee logo and slogan, a sign-up or log-in screen for account management, and a home screen that serves as the central hub for navigation. Users

can access their profile, search for products, view reviews, and add items to their cart. The prototype demonstrates the seamless transition between browsing, selecting, and purchasing products, emphasizing user-friendly design and intuitive navigation to enhance the overall shopping experience.

### **Thriftee Figma Link:**

<https://www.figma.com/proto/2S3UcOTFv2xWXNSWb30lic/HCI?node-id=0-1&t=QypjnC4vzKWDWfNp-1>

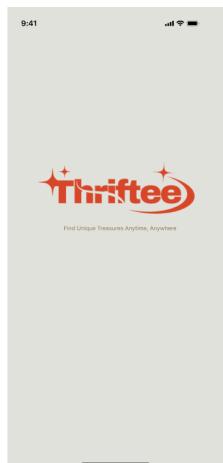
### **User Scenario**

Katie, a thrift store owner struggling to attract customers beyond her local community. By using Thriftee, Katie can easily upload her unique and vintage items, categorizing them for better visibility. Potential customers, like John and Jamie, can use search filters to find exactly what they need, secure in the knowledge that their payments are safe. The platform's personalized recommendations keep users engaged, increasing the likelihood of repeat visits and sales. Thriftee helps Katie reach a wider audience, boosting her store's visibility and sales without relying solely on social media.

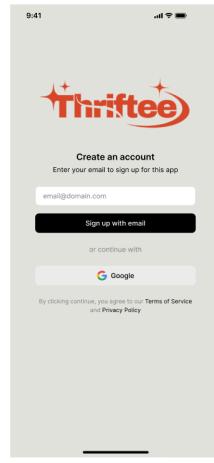
### **Mock up / Prototype**

The Thriftee mock-up features an iPhone-style GUI with a clean, visually appealing interface. The welcome screen introduces users to Thriftee with its logo and slogan. The sign-up screens are designed for easy account creation and management, featuring input fields for necessary details. The home screen serves as the app's central hub, providing access to product categories, search functions, and user profiles. This mock-up emphasizes a seamless, intuitive user experience, making it easy for users to navigate and utilize the platform's features.

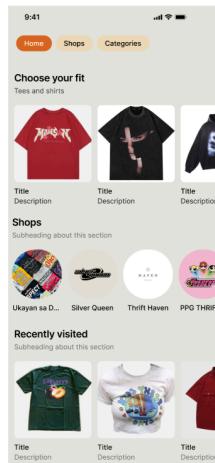
**Welcome Screen**

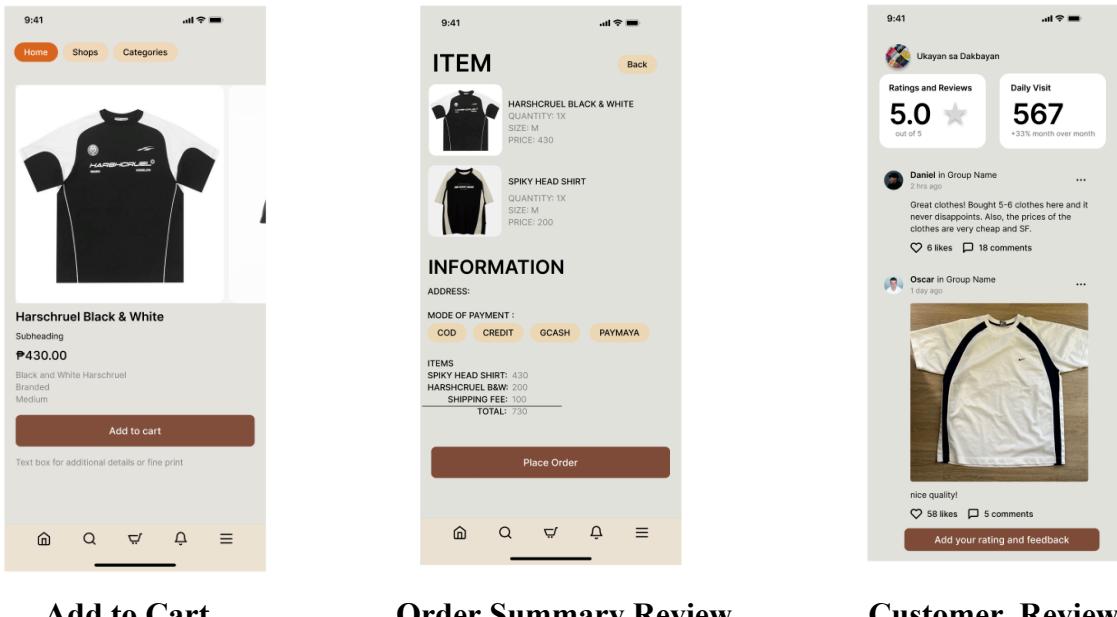


**Sign-up Screen**



**Home Screen**





Add to Cart

Order Summary Review

Customer Reviews

## Prototype Flow

### (PROTOTYPE PICTURES AND LABEL FIGURES)

#### Main Screen:

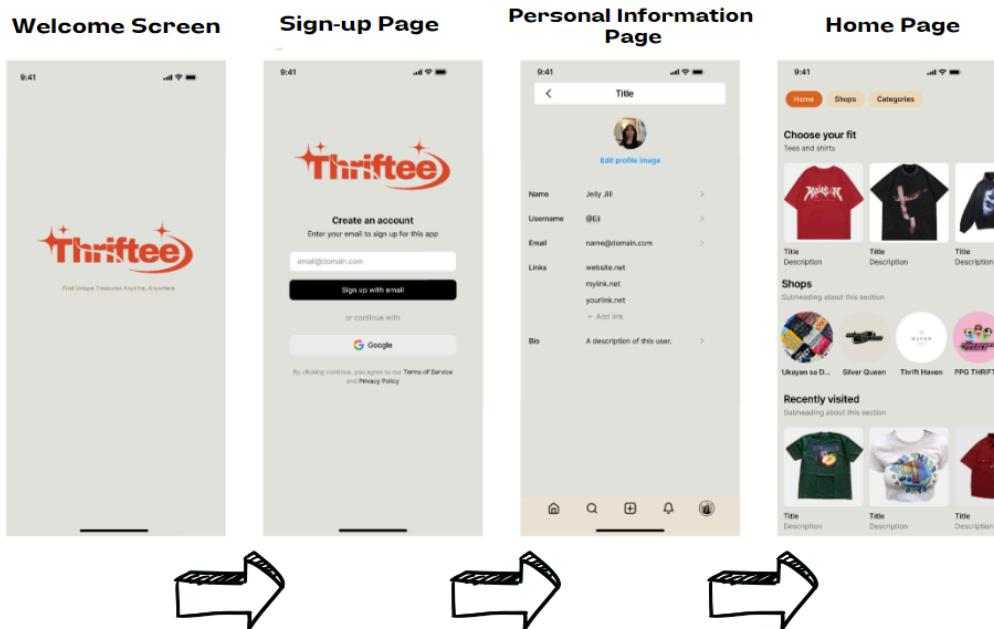


Figure 2. Welcome screen to home page

Shown in Figure 2, the application design flow starts with a welcome screen, which serves as the entry point for users. From the welcome screen, users are directed to the sign-up page. After completing the sign-up process, users are taken to the personal information input page, where they can provide additional details about themselves. Finally, users are directed to the home page, which serves as the main interface for the application.

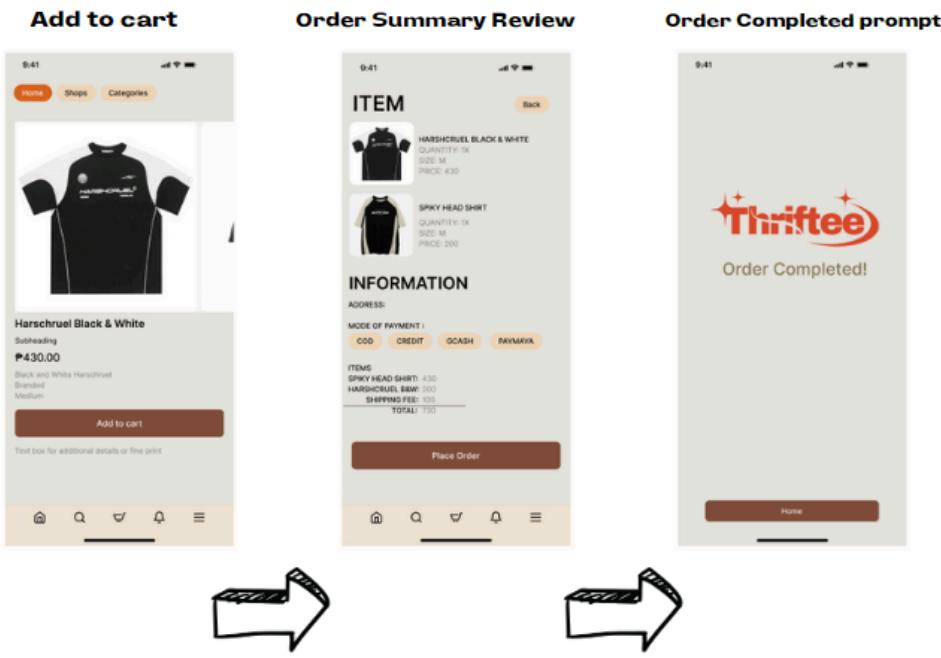


Figure 2.1 Purchasing order

Shown in Figure 2.1, after selecting items to purchase, users can add them to their cart. From the cart, users can review the order summary, which displays the items, quantities, and total cost. Once the user is satisfied with the order summary, they can proceed to complete the order, which marks the final step in the purchasing process.

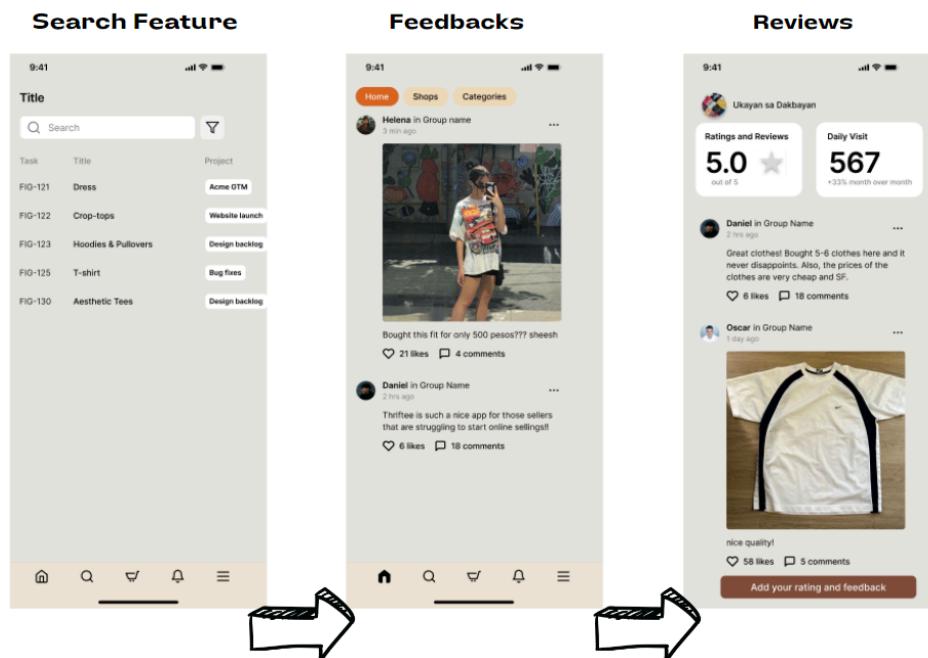


Figure 2.2 Search Feature, Feedbacks & Reviews

The application's search feature allows users to search for content and view detailed information, including user reviews and ratings. Users can provide feedback on the content they have interacted with, and this user-generated feedback is then aggregated and displayed as part of the search results.

## Rationale

The rationale behind Thriftee is to address the current challenges faced by thrift store owners in reaching a broader audience and increasing sales. By providing a dedicated online platform, Thriftee offers a solution that goes beyond the limitations of social media. The app's features are designed to enhance both the buying and selling experience, ensuring ease of use, security, and engagement. This approach not only benefits thrift store owners by expanding their customer base but also offers consumers a convenient and enjoyable shopping experience.

## Changes to the Requirements

Throughout the development of Thriftee, certain changes to the requirements may be necessary. These could include adding new features based on user feedback, enhancing existing functionalities for better performance, or addressing technical constraints as they arise. For example, if user feedback indicates a need for more advanced search filters or additional payment options, these requirements will be integrated into the development plan. Ensuring flexibility in requirements allows the project to adapt and improve, ultimately leading to a more robust and user-friendly application.

## Initial Evaluation Plan

The initial evaluation plan for Thriftee involves conducting usability tests with a sample group of potential users, including thrift store owners and customers. This will help identify any usability issues and gather feedback on the overall user experience. Metrics such as user adoption rates, task completion times, and user satisfaction scores will be collected and analyzed. The evaluation will also include monitoring the app's performance in terms of load times and transaction processing. This comprehensive approach ensures that Thriftee meets user needs and performs efficiently before its official launch.

## Usability Specifications

- **Easy Navigation:** Intuitive menu and navigation bar, clear and consistent layout, and easily accessible home, profile, and search functions.
- **Quick Load Times:** Optimized performance for fast page and feature loading with minimal delays when switching between sections.
- **Seamless Transitions:** Smooth transitions between product browsing, adding to cart, and checkout, ensuring a consistent user experience across different sections.
- **Clean and Visually Appealing Interface:** Simple and modern design with clear labels and instructions, featuring high-contrast text and buttons for readability.
- **Effective Search Filters and Categorization:** Easy-to-use search filters based on various criteria with logical and intuitive product categorization.
- **Secure and Straightforward Payment Processing:** Clear and simple checkout process, multiple secure payment options, and visible security assurances during transactions.
- **User Account Management:** Easy creation and management of user profiles with customizable account preferences and settings.
- **Responsive Design:** Compatibility with various devices ensuring a consistent user experience across different screen sizes.
- **Feedback Mechanism:** Easy access to user reviews and ratings, with the option for users to leave feedback and suggestions.

## Population

The primary population for Thriftee consists of thrift store owners and customers who enjoy purchasing second hand items. This includes a diverse range of users from various age groups and backgrounds who are tech-savvy and prefer shopping online. Thrift store owners who want to expand their reach and increase sales will benefit from the platform. Additionally, environmentally conscious consumers and bargain hunters looking for unique and vintage items will find Thriftee appealing. Understanding this population helps tailor the app's features and marketing strategies to effectively meet their needs.

## Prototype Tasks

Key prototype tasks for Thriftee include creating user profiles, browsing and searching for products, adding items to the cart, and completing secure transactions. Users should be able to easily navigate through product categories, use search filters to refine

results, and view detailed product descriptions and reviews. The process of adding items to the cart and proceeding to checkout should be straightforward and secure. Additionally, managing user accounts and preferences is an important task. Ensuring these tasks are intuitive and efficient is crucial for the success of the prototype.

## **Roles**

When conducting this assessment, the team is planning to work with 5–10 participants. With this in mind, the team will divide people into groups with similar functions for the assessment.

<b>Developer / UI Design Members</b>	<b>Task(s)</b>
Forones, Marie Ivone C.	Take note of the participant / user's experience and observing how users interact with the search results, their satisfaction with the information provided, and any issues or difficulties they encounter.
Argallon, Nhowa O.	Take note of the participant / user's experience and observing how users interact with the search results, their satisfaction with the information provided, and any issues or difficulties they encounter.
Monterola, Sandara M.	Take note of the participant / user's experience and observing how users interact with the search results, their satisfaction with the information provided, and any issues or difficulties they encounter.

**Table 2. Team Members Task**

Welcome Screen	Within 1 minute or Below	Highly Acceptable	Successful
	Above 1 minute	Not Acceptable	Unsuccessful
Main Page	Within 5 minutes or Below	Highly Acceptable	Successful
	Above 5 minutes	Not Acceptable	Unsuccessful
Purchase Page	Within 5 minutes or Below	Highly Acceptable	Successful
	Above 5 minutes	Not Acceptable	Unsuccessful

**Table 3. Time Interpretation**

## **Heuristic Evaluation**

The ThrifTee prototype will be evaluated within each type of Heuristic Evaluation

### *Visibility of System Status*

The Thriftee prototype effectively informs users about the current state of the application. Notifications and feedback mechanisms are clearly visible, providing users with immediate updates on their actions, such as successful logins, added items to the cart, and completed purchases.

### *Match Between System and Real World*

The Thriftee application uses simple, straightforward language that is easy for users of all ages to understand. The terminology and icons used are familiar to users who are accustomed to online shopping, ensuring an intuitive experience.

### *User Control and Freedom*

Thriftee offers users control and freedom through features like “Cancel” and “Back” buttons, allowing them to easily correct mistakes or navigate back to previous screens. This prevents users from feeling trapped and enhances their confidence in using the app.

### *Consistency and Standards*

The application maintains a high level of consistency across different screens. Navigation elements, buttons, and labels are placed uniformly, helping users predict where to find functions and actions.

### *Error Prevention*

Thriftee includes several error prevention mechanisms, such as form validation to ensure all required fields are correctly filled before submission.

### *Recognition Rather than Recall*

The prototype ensures that options and actions are visible and easily accessible, reducing the need for users to remember information. Menus, search filters, and cart details are always displayed prominently, aiding users in navigating the application without relying on memory.

### *Flexibility and Efficiency of Use*

Thriftee caters to both novice and experienced users by providing shortcuts and streamlined processes. Features like personalized recommendations and quick-add to cart options improve efficiency for regular users, while clear instructions and intuitive design assist newcomers.

### *Aesthetic and Minimalist Design*

The design of Thriftee is sleek and minimalist, focusing on essential elements to avoid clutter. This aesthetic not only enhances visual appeal but also ensures that users are not overwhelmed with unnecessary information, creating a smooth and enjoyable user experience.

### *Help Users Recognize, Diagnose, and Recover from Errors*

While Thriftee indicates when users make mistakes, such as trying to add out-of-stock items to the cart, there is room for improvement in providing more detailed error messages and recovery options. Currently, generic alerts are used, and more specific guidance will be incorporated.

### *Help and Documentation*

The application includes a help section that users can easily access for assistance. Additionally, tooltips and guided tutorials are available to help new users understand the functionality of different features, ensuring they can use the app effectively without external support.

## **Participant Survey and Feedback**

<b>DATA GATHERING METHOD</b>	<b>DESCRIPTION</b>
Survey (Quantitative)	For the quantitative survey, the team will use a 5-point Likert scale to gather user feedback on the application's search and feedback features, allowing for a more nuanced understanding of user satisfaction and areas for improvement.
Feedback (Qualitative)	The qualitative feedback component of the survey will involve open-ended questions and prompts to gather rich, detailed, and subjective user insights about their experiences with the application's search and feedback features.

**Table 2. Data Gathering**

Question	Method of Answer
<b>Section 1</b>	
Participant Number	Short Answer
On a scale of 1 to 5 how would you rate your experience with Thriftee prototype	
On a scale of 1 to 5 how was the UI design of the prototype	
How satisfied are you with your overall experience using the search and feedback features in Thriftee?	
<b>Section 1</b>	<b>Section 2: Features of the prototype</b>
Search Filter	
Reviews and Feedback	
Add to Cart	
Order Information	
Payment	
<b>Section 3: Feedback Solution</b>	
Your Feedback	Short Answer

**Table 3. Survey Questionnaire**

The questions that will be included in the survey for this prototype are shown in the table above. After the test, participants will receive this survey via google forms link.

<https://forms.gle/Ux5EJgycQmAoYUxQ8>

Task	Time to Accomplish Tasks	Interpretation	Classification
Scale	Range Value	Interpretation	Classification
5	4.50-5.00	Highly Acceptable	Successful
4	3.50-4.49	Acceptable	
3	2.50-3.49	Moderately Acceptable	Neutral
2	1.50-2.49	Fairly Acceptable	Unsuccessful
1	1.00-1.49	Not Acceptable	

**Table 4. 5-Point Likert Scale Interpretation**

The survey questions employ a 5-point Likert scale, where 1 denotes the most negative opinion and 5 the most positive sentiment, to standardize the measurement of user replies. This scale, which indicates the degree of agreement or disagreement with the provided statements, enables a more detailed insight of user perceptions.

## Part 3.2: System Evaluation

### Project Description

Thriftee is a transformative solution designed to modernize thrift store operations by providing an exclusive online platform. This user-friendly application aims to bridge the gap between thrift store owners and a larger, digital-savvy customer base. By leveraging features such as home, profile, shops, categorization, search filters, notifications, and place order, Thriftee enhances the shopping experience for customers and streamlines the sales process for store owners. The project focuses on addressing the limitations of relying solely on social media for marketing and sales, thereby boosting visibility and profitability for thrift stores.

### Requirements Summary

<b>MINIMUM REQUIREMENTS</b>	Processor Cores	Single Core
	OS	Apple iOS 10 & Android 5.0
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	OS	Apple iOS 12 & Android 8.0
	RAM	4 GB
<b>OTHER REQUIREMENTS</b>	Permissions	Notifications and Storage

**Table 1. Requirements Summary**

The minimum requirement processor core for the application will be a single core to cater to low-end devices, ensuring compatibility with older devices. The application will support Apple iOS 10 and Android 5.0, which are older operating systems that are still widely used, particularly among low-end devices.

## Overview

Thrift store owners face challenges in reaching a wider audience and effectively marketing their products online. The reliance on platforms like Facebook Marketplace limits their visibility and growth potential. Developing a dedicated online platform like Thriftee can address these issues by providing a seamless shopping experience that includes search filters, secure payments, and personalized recommendations. This will help thrift store owners expand their customer base, build a recognizable brand, and ultimately increase their revenue.

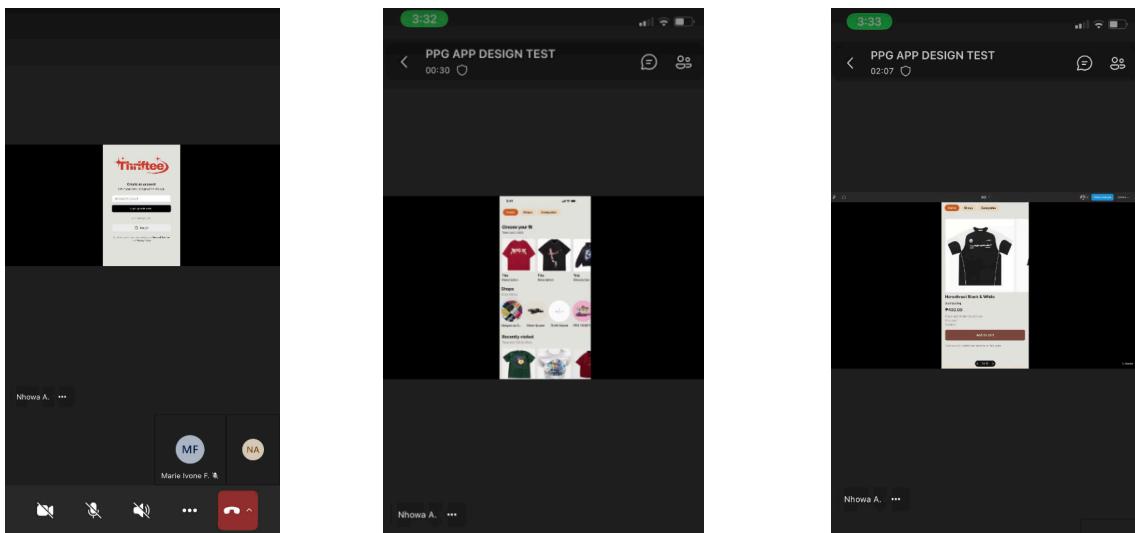
Moreover, the evaluation plan is divided into three distinct sections: Usability Specifications, Heuristics Evaluation, and Participant Survey and Feedback. The table that follows describes each method.

Technique	Description
Usability Specifications	The usability evaluation plan for the Thriftee design application will include the usability specifications. These criteria will provide a comprehensive framework to measure the application's overall usability and identify areas for improvement.
Heuristic Evaluation	A heuristic evaluation involves usability experts evaluating a product against a set of predetermined usability guidelines, known as heuristics, to identify usability issues and provide feedback on how to improve the user experience.
Participant Survey and Feedback	During the usability testing, participants will be asked to complete a survey and provide feedback on their experience using the Thriftee design application, providing valuable insights into the usability and effectiveness of the interface and identifying areas for improvement.

**Table 2. Evaluation Plan Methods**

The tasks for this Prototype were split into three (3) different Sections: Welcome Screen Tasks, Main Page Tasks, and Purchase Page Tasks. The selected participants were asked to perform the following tasks for each Section to showcase the Prototype's functionality.

## Method of conducting Online Tests:



## MICROSOFT TEAMS

As shown above, Microsoft Teams were used in conducting the online tests for this evaluation.

## Data Presentation

### Data Analysis

#### *Usability Specifications*

The Thriftee app's navigation and information structure were found to be intuitive and easy to use, with a clear and logical organization of sections. The app's performance was optimized for fast page and feature loading, with minimal delays when switching between sections. The visual design was clean and modern, featuring clear labels, instructions, and high-contrast text and buttons for optimal readability. Overall, the app's usability was deemed satisfactory, with participants able to complete all tasks with ease and minimal issues.

Task	Mean	Interpretation	Classification
Welcome Screen	0.30 minutes	Highly Acceptable	Successful
Main Page	2 minutes and 30 seconds	Highly Acceptable	Successful
Purchase Page	3 minutes and 10 seconds	Highly Acceptable	Successful

**Table 3. Task Time**

The results of the timed tasks during the Online Testing indicate that participants were able to complete each task section with impressive speeds. This outcome suggests that the prototype was successful in all three task sections.

### ***Heuristic Evaluation***

The ThrifTee prototype will be evaluated within each type of Heuristic Evaluation

#### *Visibility of System Status*

The Thriftee prototype effectively informs users about the current state of the application. Notifications and feedback mechanisms are clearly visible, providing users with immediate updates on their actions, such as successful logins, added items to the cart, and completed purchases.

#### *Match Between System and Real World*

The Thriftee application uses simple, straightforward language that is easy for users of all ages to understand. The terminology and icons used are familiar to users who are accustomed to online shopping, ensuring an intuitive experience.

#### *User Control and Freedom*

Thriftee offers users control and freedom through features like “Cancel” and “Back” buttons, allowing them to easily correct mistakes or navigate back to previous screens. This prevents users from feeling trapped and enhances their confidence in using the app.

#### *Consistency and Standards*

The application maintains a high level of consistency across different screens. Navigation elements, buttons, and labels are placed uniformly, helping users predict where to find functions and actions.

#### *Error Prevention*

Thriftee includes several error prevention mechanisms, such as form validation to ensure all required fields are correctly filled before submission.

### *Recognition Rather than Recall*

The prototype ensures that options and actions are visible and easily accessible, reducing the need for users to remember information. Menus, search filters, and cart details are always displayed prominently, aiding users in navigating the application without relying on memory.

### *Flexibility and Efficiency of Use*

Thriftee caters to both novice and experienced users by providing shortcuts and streamlined processes. Features like personalized recommendations and quick-add to cart options improve efficiency for regular users, while clear instructions and intuitive design assist newcomers.

### *Aesthetic and Minimalist Design*

The design of Thriftee is sleek and minimalist, focusing on essential elements to avoid clutter. This aesthetic not only enhances visual appeal but also ensures that users are not overwhelmed with unnecessary information, creating a smooth and enjoyable user experience.

### *Help Users Recognize, Diagnose, and Recover from Errors*

While Thriftee indicates when users make mistakes, such as trying to add out-of-stock items to the cart, there is room for improvement in providing more detailed error messages and recovery options. Currently, generic alerts are used, and more specific guidance will be incorporated.

### *Help and Documentation*

The application includes a help section that users can easily access for assistance. Additionally, tooltips and guided tutorials are available to help new users understand the functionality of different features, ensuring they can use the app effectively without external support.

### *Heuristics Conclusion Overall*

Thriftee adheres to most heuristic principles effectively, providing a user-friendly and intuitive experience. While there are some areas for improvement, such as more detailed error messages and enhanced consistency, the current prototype performs well in facilitating a seamless online thrift shopping experience. These insights will guide the final adjustments before the official launch.

### **Participant Survey and Feedback**

<b>SECTION 1: User Experience</b>			
Question	Mean	Interpretation	Classification
On a scale of 1 to 5 how would you rate your experience with Thriftee prototype	4.6	Highly Acceptable	Successful
On a scale of 1 to 5 how was the UI design of the prototype	4.8	Highly Acceptable	Successful
How satisfied are you with your overall experience using the search and feedback features in Thriftee?	4.6	Highly Acceptable	Successful
<b>SECTION 2: Features of the Prototype</b>			
Search Filter	4	Acceptable	Successful
Reviews and Feedback	4.4	Acceptable	Successful
Add to Cart	4.6	Highly Acceptable	Successful
Order Information	4.4	Acceptable	Successful
Payment	4.4	Acceptable	Successful
<b>Average</b>	<b>4.47</b>	<b>Acceptable</b>	<b>Successful</b>

**Table 4. Survey Data Interpretation**

According to the survey findings displayed in Table 4, most participants considered the prototype's features and design were excellent and highly acceptable. The majority of the participants expressed satisfaction with the prototype's functionality and ease of use, and their experience testing it was overwhelmingly positive. This result implies that the prototype's features and design were successful in satisfying the needs and expectations of the users, and that the testing process was productive.

Additionally, the feedback provided in Section 3 overwhelmingly stated that the prototype was excellent/good. However, there are some suggestions that indicate the lack of features of the design prototype. Nevertheless, the given feedback further reinforces the success of the prototype in delivering a satisfactory user experience.

### **Design Implications:**

- **Does your prototype need to be altered in order to address the results of the analysis, or was it completely successful?**

- The results of the analysis indicate that the Thriftee prototype was successful in addressing the limitations of thrift store operations by providing an exclusive online platform. The prototype showcased the application's main features and user flow, including a welcome screen, sign-up or log-in screen, and home screen that served as the central hub for navigation. Users could access their profile, search for products, view reviews, and add items to their cart, demonstrating a seamless transition between browsing, selecting, and purchasing products.

- **What improvements could be made to the design to address any shortcomings?**

- To address any shortcomings, several improvements could be made to the design:

**Enhanced Search Filters:** Adding more advanced search filters to help users quickly find specific products based on categories, brands, or keywords.

**Additional Payment Options:** Integrating additional payment options, such as mobile payment methods or cryptocurrencies, to cater to a broader range of customers.

**Technical Enhancements:** Addressing technical constraints by optimizing the application's performance, improving load times, and ensuring compatibility across different devices and browsers.

- Did you discover any major flaws that would suggest a completely different type of design?

- While the prototype was successful, there were no major flaws that suggested a completely different type of design. However, if significant issues were identified, alternative designs could include:

**Gamification:** Adding components to a platform, like tasks or incentives, to entice users to interact with it more frequently.

**Social Sharing:** Including tools for users to share their favorite products or purchases on social media sites.

**Customized Product Suggestions:** Using past browsing and purchase information to provide users with customized product recommendations.

**Improved Customer service:** Ensuring prompt resolution of user inquiries by offering improved customer service by phone, email, or live chat.

These enhancements and substitute designs would contribute to the Thriftee application's improvement, guaranteeing that it stays user-friendly and efficient in augmenting the clients' buying experience.

## Critique and Summary

### What were the advantages and disadvantages of your evaluation?

- Several advantages were determined in the Thriftee design application's evaluation. The comprehensive usability standards offered a foundation for evaluating the overall usability of the program and pinpointing areas in need of development. Experts in usability conducted a heuristic review that made it possible to identify certain usability problems and yielded insightful recommendations for improving the user experience. The evaluation's findings showed that users found the Thriftee app's performance, visual design, information structure, and navigation to be user-friendly, effective, and intuitive. However, the usability evaluation also had some limitations. The evaluation may have involved a relatively small number of participants, which

could limit the generalizability of the findings and the ability to identify less common usability issues.

**What would you have done differently knowing what you know now (both designwise and evaluation-wise)? Given more resources, what could you have done that would have produced significantly more insightful evaluation results (again, whether this is an improved prototype or a different evaluation path).**

- To improve the Thriftee prototype and evaluation, several design and evaluation enhancements could have been implemented. Design-wise, the application could have incorporated advanced search filters, personalized recommendations, social integration, and expanded payment options to enhance the user experience. Evaluation-wise, a larger and more diverse participant pool, longitudinal testing, A/B testing, user journey mapping, and feedback integration could have provided more comprehensive insights and addressed long-term usability challenges. By addressing these areas, the Thriftee application could have been further refined to deliver a more user-centric and successful solution for the thrift store industry.

## **Summary of the Project**

In conclusion, the Thriftee project aimed to modernize thrift store operations by providing an exclusive online platform. The prototype, designed using Figma, showcased the application's main features and user flow, emphasizing user-friendly design and intuitive navigation. The survey findings indicated that most participants considered the prototype's features and design to be excellent and highly acceptable, with the majority expressing satisfaction with the prototype's functionality and ease of use. The overwhelmingly positive feedback suggests that the prototype was successful in satisfying the needs and expectations of the users, and that the testing process was productive. Overall, the Thriftee project demonstrates a transformative solution for thrift store operations, enhancing the shopping experience for customers and streamlining the sales process for store owners.