Google UX Design Professional Certificate

"Design an e-commerce app for a boutique retailer in your hometown."

Case Study Project: The *Boutiquelee* eCommerce App

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December 2022

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Project Overview

The Product:

As part of the Google UX Design Professional Certificate, I designed *Boutiquelee* – an eCommerce shopping app for a fictitious retailer. Boutiquelee is a highly successful bricks and mortar store located in Hobart's Central Business District and is owned and operated by Lee. As part of *Boutiquelee's* transition online, this brief included app development for both its existing and expanding customer base.
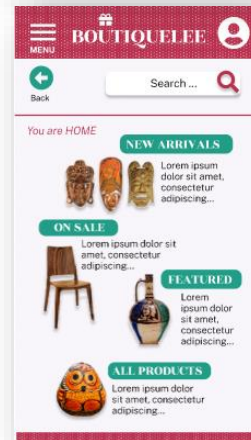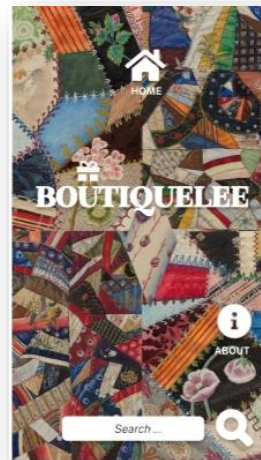
Tool:

Figma

Project Duration:

November – December 2022

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Project Overview

The Problem:

A significant number of *Boutiquelee's* loyal customer base finds it difficult to trek into its bricks and mortar location downtown for a range of reasons (e.g. time-poor, transport, mobility and caregiving obligations). As such, *Boutiquelee* requires an online presence. Because many of *Boutiquelee's* loyal customers span from novice tech. user to the outright technophobe, the app must be easy to use.

The Goal:

Develop an eCommerce shopping app that provides existing and new customers with an easy-to-use, fast and seamless shopping experience while still providing the unique look and feel that resembles the physical presence and spirit of *Boutiquelee*.

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Project Overview

My role:

UX researcher, UX designer, Information Architect, UX writer

Responsibilities:

Wireframe development (paper and digital), Prototype development (low fidelity and high-fidelity), User research, Competitor research

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Understanding the user

- User research
- Personas
- Problem statements
- User journey maps

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User Research: Summary

User Research (a fictional scenario):

- Foundational Research was conducted in order to answer the question "what should we build?" as *Boutiquelee* does not currently have an online presence.

- Qualitative interviews were conducted in order to understand prospective users and their pain points.

- Empathy maps were aggregated to represent a user segment and personas were developed based on patterns of common pain points.

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User Research: Pain Points

1

Time-poor

Repeat customer - time-poor professional with not enough time to make it to Boutiquelee's brick and mortar shop.

2

Transport Issues

Repeat customer - Elderly person who does not drive and public transport is limited. A trip to the brick and mortar shop is difficult.

3

Mobility Issues

Repeat customer – disability (wheelchair access / maneouvering) is a big barrier to visiting the shop and maneouvering about in shop.

4

24/7 Obligations

Care giving responsibilities make it difficult to visit the boutique retailer.

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Persona: **Patricia**

Problem statement:

Patricia is a retired pensioner and also caregiver to her disabled great-grandson. Because of her caregiving role, transport issues and mobility problems, it makes it difficult for her to travel to the boutique.

Patricia Simolev

Age:	67
Education:	High School
Hometown:	Sydney, Australia
Family:	4x Grandchildren, 2x Great-Grandchildren
Occupation:	Retired (pensioner) (Currently a carer for great-grandchildren)

"Family and making memories are the most important things in life."

Goals

- To connect with family as much as possible and watch her great-grandchildren grow up.
- To leave a legacy of love.
- To purchase beautiful products and trinkets as gifts for her family that become family heirlooms.

Frustrations

- "I don't drive and I have to take 3 buses to get the boutique retailer, so it's a hassle."
- "Sometimes I get to the shop and they don't have anything suitable. It's annoying and a wasted trip."
- "I also care for two of my great-grandchildren, one has a physical disability also, so difficult to get to the shop"
- Forced to purchase gifts online less favourite boutique retailers.

Patricia is very family oriented. She buys special, unique gifts at the boutique retailer, which she hopes will be passed down to future generations (heirlooms). She tries and visits the shop about once a month to look at new stock and buy gifts for her extended family. Not only does she not drive, but public transport is a nightmare and she is a caregiver to her disabled great grandchild – all of which prevents her from visiting the brick and mortar shop. She is often forced to purchase gifts online from competitors due to the boutique not having e-commerce.

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User Journey Map

Mapping Patricia's user journey revealed the need for a more convenient way to purchase products from *Boutiquelee* – that is, online through an eCommerce store.

Persona: Patricia

Goal: Travel to favorite boutique retailer to view new stock and purchase a special, one-off gift for niece's 50th birthday.

ACTION	Arrange carer for great-grandson	Walk to bus stop and catch another two buses	Walk to boutique retailer	Enter shop / shopping experience	Get daughter to pick her up
TASK LIST	A. Call daughter (can't come) B. Call grand-daughter C. Provide care instructions while away	A. Look at bus timetable on smartphone B. Put on raincoat and umbrella C. Walk to bus shelter	A. Signal to stop on bus B. Carefully exit bus – trip hazards C. Walk in rain to shop	A. Enter shop B. Talk for 15 minutes to owner C. Look at new stock D. Purchase gift using credit card. E. Leave	A. Text daughter to come and pick her up. B. Wait at bus shelter for daughter. C. Buy a cup of coffee from vendor. D. Daughter gives lift back to house.
FEELING ADJECTIVE	Grateful Frustrated Sad, Exhausted	Unhappy Anxious Worried	Anxious Worried	Happy Excited	Grateful Happy Relieved
IMPROVEMENT OPPORTUNITIES	-App - Carer service -Use tech - record activites so don't need to explain routine instructions everytime	-App - timetable - Alerts for bus - Tracking buses in real time -Use ride service App -Shop goes online / e-Commerce	- Ride service app - Shop goes online / e-Commerce - Visual accessibility bus stops signage	-Shop goes online / e-Commerce -Feature - talk to shop owner online (part of the experience) - Alternative payment methods -Tech – sends notifcations of new stock -Visual accessbility – reading product tags	-Ride service app -Shop goes online / e-Commerce

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Starting the design

- Paper wireframes
- Digital wireframes
- Low-fidelity prototype
- Usability studies

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Paper Wireframes

The Home Screen was designed with simplicity in mind and to immediately direct the user to their area of interest. Only four categories were intentionally included on the home screen in order to promote accessibility and facilitate user flow.

Originally, the *New Arrivals* category was the primary focus as interviews revealed that this was a main area of interest for loyal customers. After the first usability study, however, this layout was tweaked.
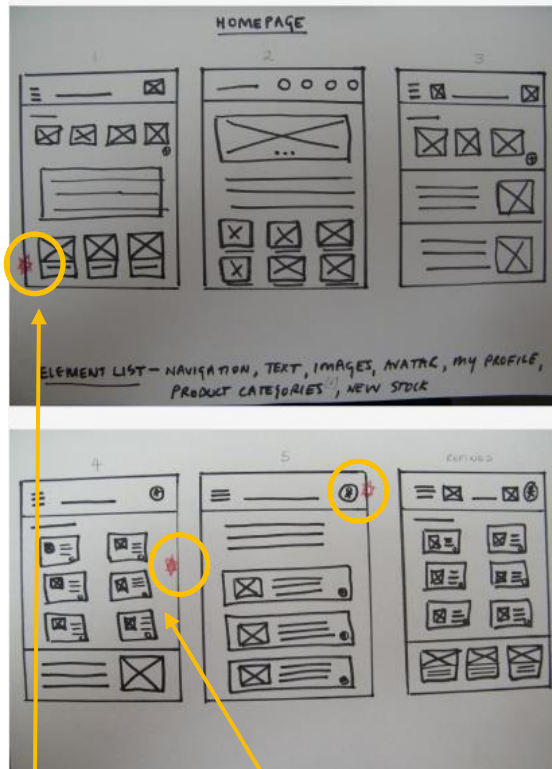
Simple tap gestures, large images and minimal text allow for an easy and intuitive user flow.

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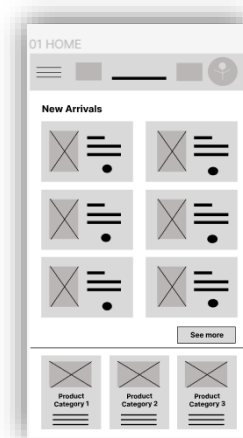
Paper Wireframes

Due to *Boutiquelee* being a shopping app, the goal was to ensure the product image was the focal point. Minimal text and a tap gesture were used to promote usability and a streamlined experience.

Simple, straightforward layout for the novice user and / or the technophobe to mitigate confusion and frustration.

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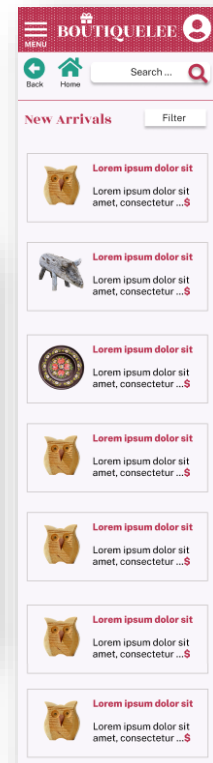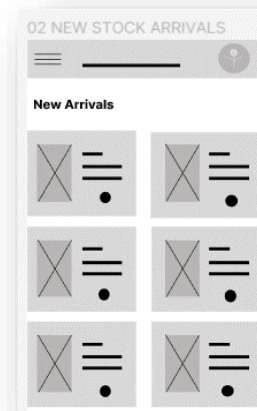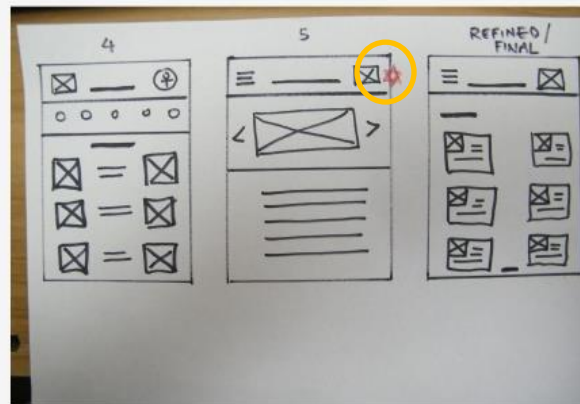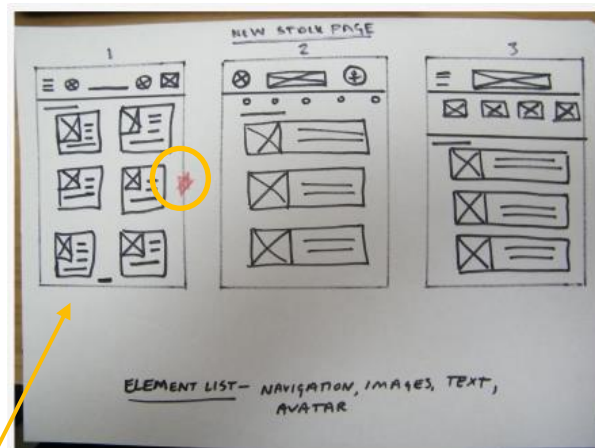
Digital Wireframes (Pre- and Post- Usability Study)

Digital Wireframes –
Pre- First Usability Study

Digital Wireframes –
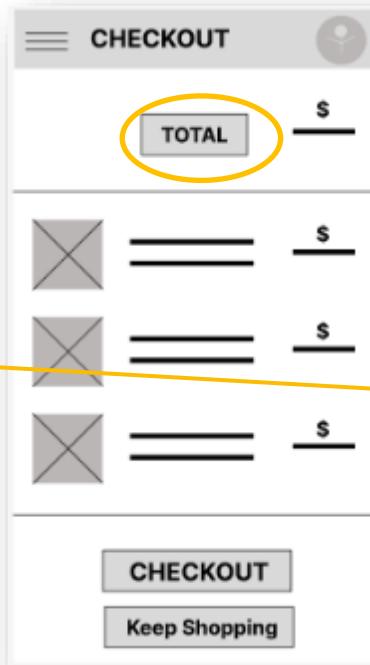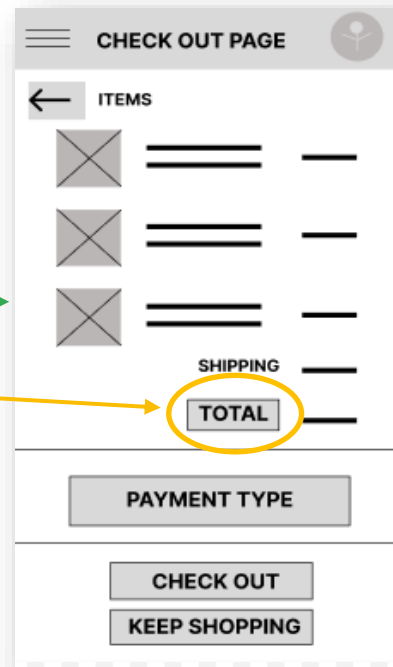*Post*- First Usability Study

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Digital Wireframes

The results of the user research (i.e. from the First Usability Study) informed the following Digital Wireframe redesign in the following ways:

- **Better / more intuitive placement of the key product categories on the home screen.** Descriptors used included "confused", "strange", "out of the way" and "unethical", suggesting that the sale items are deliberately being concealed from the customer. The reference to deceptive practice gave this redesign a P0 priority.

- **Uncluttering of the screen, more white space, and enlargement of images and font.** "Such a busy page" (Participant B).

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Digital Wireframes

The results of the user research (i.e. the First Usability Study) informed the following Digital Wireframe redesign in the following ways:

- Tweaks were made to the **layout of the checkout page** to assist user flow, as the existing layout was described as "illogical" and "disorienting".

- Specifically, the **total amount** was moved to the bottom of the page – a more intuitive position.

Design Pre- First Usability Study

Design Post- First Usability Study

Digital Wireframes

The results of the user research (i.e. the First Usability Study) informed the following Digital Wireframe redesign in the following ways:

- **Addition of a order review screen** so users are able to review their purchases prior to checking out.

- Users felt that the lack of such a feature was **deceptive** – that is, the inability to review or subtract items on a separate and dedicated screen prior to check out.

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Low-Fidelity Prototype

The low-fidelity prototype flow shows the user choosing a product category on the home screen, entering the product category page, selecting a product from this category (product card), buying the item, reviewing the order, checking out, and then confirming the order. The ability to track the order takes the user to the user profile / account page, which has an order history option.

**Low Fidelity Design
Pre- First Usability Study**

**Low Fidelity Design
Post- First Usability Study**
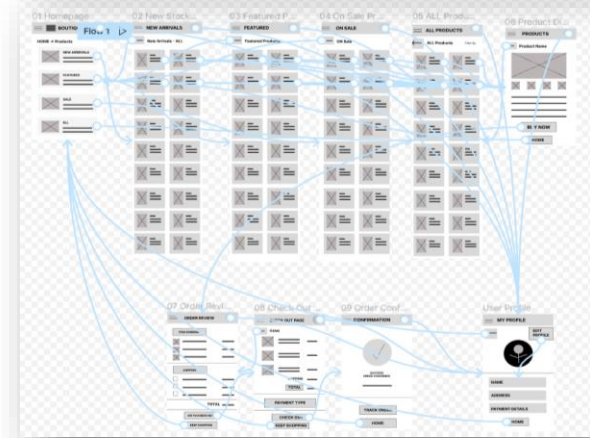
View Boutiquelee's redesign at: Low Fidelity Prototype

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Usability Study: Findings

Two Usability Studies were conducted:

- Round 1 / The First Usability Study was conducted on the Low Fidelity Prototype (findings were used to redesign the static digital wireframes).
- Round 2 / The Second Usability Study was conducted on the High-Fidelity Prototype (findings were used to redesign the static Mockups)

Round 1 Findings

1. Users need a more intuitive placement / redesign of the key product categories on the home screen.

2. Users need a feature to enable review / change / update their purchases prior to checkout.

3. Users need better cues or tweaks in the layout / design of the checkout page to assist user flow.

4. Some users need less content (images / text) on the page to enhance user flow and experience.

Round 2 Findings

1. The buttons throughout the app did not have enough colour contrast to guide users and obstructed user flow.

2. For novice users, the menu / hamburger icon created confusion / was an unknown icon and obstructed user flow.

3. Users found the images on the home page too small, thereby diminishing the user experience.

4. No price was given on the Product Card / Item
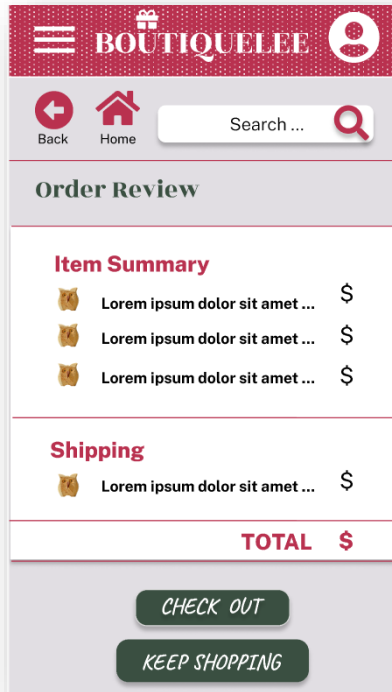
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Refining the design

- Mockups
- High-fidelity prototype
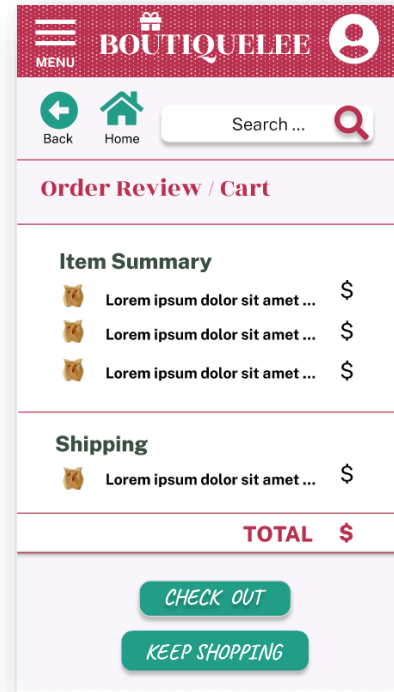- Accessibility

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Mockups

The results of the second Usability Study informed the redesign of the Mockups in the following ways:

- **Greater colour contrast on the buttons** was employed to assist user flow (i.e. to all items on the screen, not just the background colour). This redesign occurred because the second usabiity study revealed navigational confusion / obstruction, which directly linked to the buttons and icons.

Mockups

The results of the second Usability Study informed the redesign of the Mockups in the following ways:

- **Menu text was added underneath the hamburger icon.** The study revealed that novice users were unaware of the meaning of the icon, which obstructed user flow.

- The **images on the home screen were scaled up** due to the study revealing that users found them too small.

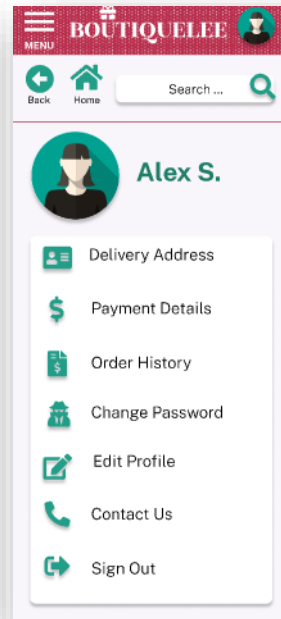- The **buttons and icon were colour contrasted** using 229E88 to maintain consistency across the app.
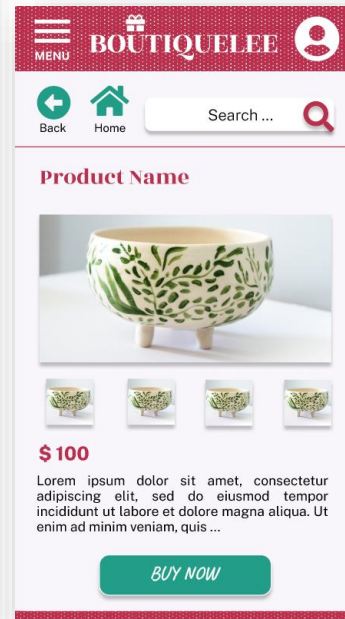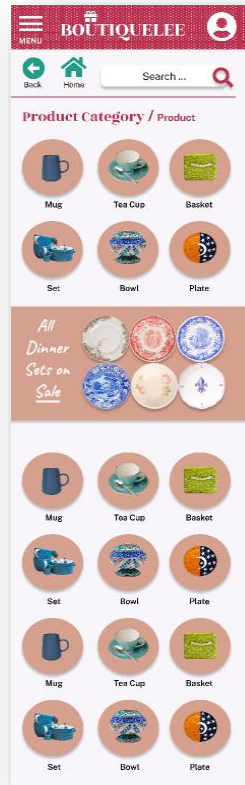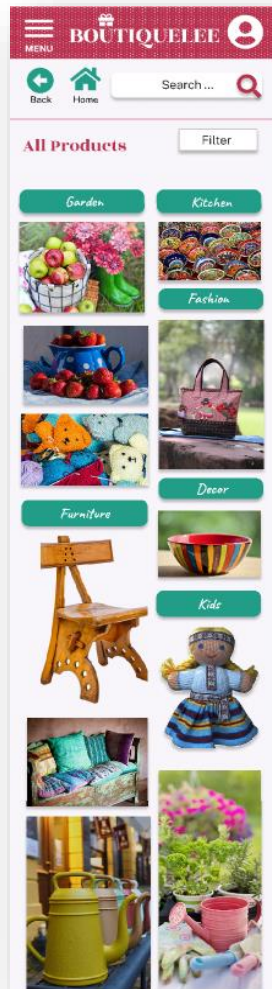
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Mockups

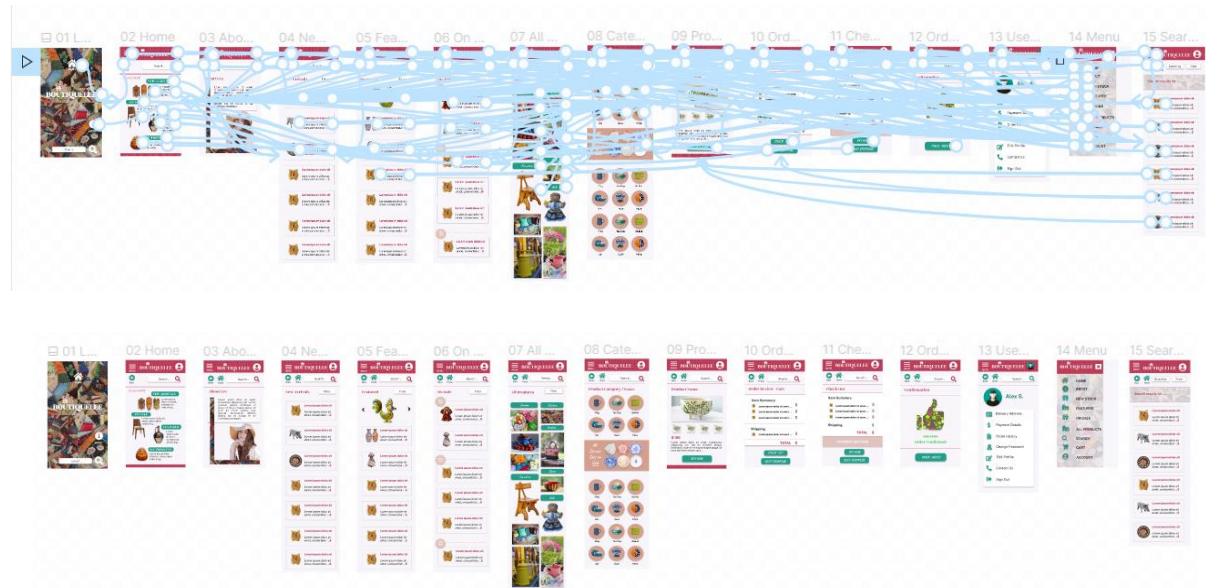# High-Fidelity Prototype

Due to *Boutiquelee* being an eCommerce app, all products are linked to the one Product Card in the high-fidelity prototype. This created a cluster of connections; however, as revealed in the second usability study, the revised design was more intuitive in terms of user flow and accessibility improved.

View Boutiquelee's High-Fidelity Prototype at: Hi-Fi Prototype

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Accessibility Considerations

1

Buttons and icons were changed to a unique colour, ensuring the contrast is WCAG compliant (>3.1). As it is a completely different colour to all others on the screen, it stands out for the user. This one colour is used throughout the app – consistency.

2

Text has been used next to icons for assistive technology users (e.g. screen reader) and novice users who are not aware of meanings.

3

Navigation – is consistent across the app. In most pages, more than one method of website navigation is present (e.g. overlay menu as well as on-page icons / buttons).

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Going forward

- Takeaways
- Next steps

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Takeaways

Impact:

Designed for a fictional retailer without an online presence, the impact of this app from a usability perspective would focus upon existing customer retention (convenience of shopping from home / ease of use), new customer generation (geographically broadening the customer base) and purchasing patterns / behaviour (ease of use). Quantitative data would support this, such as app downloads by existing v. new customers, purchase data by existing and new customers, and purchase patterns of existing customers pre- and post- app usage. Qualitative data could support the quantitative data and provide further insights (e.g. motivations for app usage and user's thoughts of the app).

What I learned:

I learnt that even novice technology users and technophobes will pick up a mobile device and use an app if it provides them convenience and time savings in order to access their favorite retailer – especially if it provides a similar look/feel and spirit to the bricks and mortar shop.

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Next Steps

1

Investigate / research potential eCommerce Integrations to automate core business activities and increase productivity – *ensuring that top priority remains customer usability* (e.g. CRM, email/text marketing, inventory management).

2

Present ideas to stakeholders, obtain feedback, and conduct a redesign to incorporate integration – bringing a multidisciplinary team together to achieve these objectives.

3

Conduct a Usability Study following the redesign – *this would include the users and the Boutiquelee team* – and would potentially require a further iteration of the app.

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Let's connect!

Insert a brief sentence or two about contacting you and/or reviewing more of your work.

Feel free to contact me at annagralton@gmail.com or to browse other projects in my portfolio at annagralton.com

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Acknowledgement
and
Thank you!