NOOKSWAP

App Development

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ABSTRACT

Book exchanges are essential to the reading community as they enable users to encourage reading and exchange books with others for free. Book swapping leaves readers no longer needed for others to take and exchange. The idea of book swapping promotes community, higher literacy rates and sustainability.

These hotspots are typical in public spaces where people congregate or stop by, like cafes, stations and community centres. They provide a space for users to share loved books in an accessible and sustainable way. It allows books of all genres to be accessible to a broader group.

Book swapping can help bridge the gap between socioeconomic backgrounds and age groups to access books if they can't afford them otherwise. Book swapping can contribute to the democratisation of knowledge and cultural participation.NOOKSWAP, a book-swapping app, caters to readers who want to swap their loved books for another. The app allows users to connect by exchanging their favourite books. With NOOKSWAP, you can explore the local users wanting to book swap with other book readers.

USER PERSONAS

Micheal , 25

Micheal is a master's student and is new to London. He enjoys books and travelling.

Needs/Desires:
- Wants to explore London
- Explore new books and read great stories
- Would like to save money on books

How the product will benefit them:
NOOKSWAP will benefit them because it allows you to swap books all over London and find any genre of books. The app is cost-effective since it allows the user to swap and grab books for free.

Janet, 67

Janet is a retired social worker. In her free time, she enjoys reading at her local community centre. With her massive book collection, she loves to share her books.

Needs/Desires:
- A platform to share her preloved books
- She would like to find other books within her local area
- Prefers physical books over eBooks.

How the product will benefit them:
NOOKSWAP will help Janet by allowing users to find swaps within her area and share books with users. It gives her a platform to find free physical books.

Alice , 32

Alice is an ecologist. Her work schedule is busy. She wants to find a way to find books in a local place before work. She's also an environmentalist and cares about deforestation.

Needs/Desires:
- A sustainable way to get books.
- An easily accessible way to grab books on the go

How the product will benefit them: NOOKSWAP will help them because it focuses on finding preloved books for free. The local swaps are in hotspot areas; it'll be easy to drop and collect books, meet other users, and swap books.
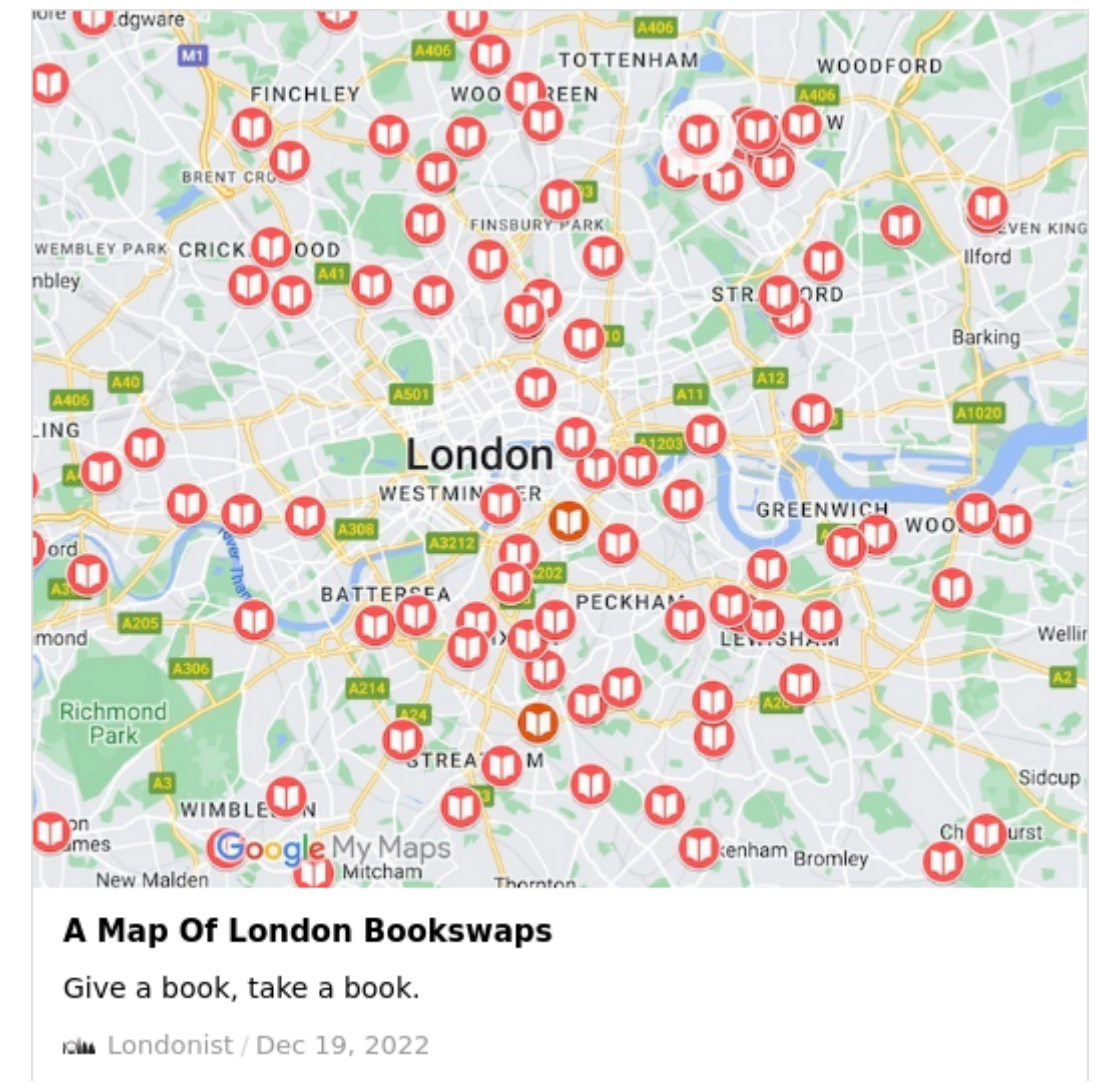
RESEARCH

In Greece, book-swapping exchanges based in libraries were designed by architects and were started so that literature could be available to everyone. They used book-swapping facilities to create engagement and social interaction, allowing users to share their love for books. This creates a community of people interested in books and knowledge. Promoting these swaps decrease the need for buying new books and circulating loved books for other to read. It can also provide education and cultural preservation by allowing readers to read local authors and share learning with those who don't have access to literature at home. Traditional libraries can provide collections of books, but book swapping with individuals can create a casual, tight-knit local space for groups of people to share books (Bikos et al.,1970).

Another case I found focused on the number of students reading Latino literature. The book swaps worked on swapping books, reading and presenting their thoughts to the class. The book swap was conducted twice during the course and showed students reading more books relating to the course and creating a space for interaction and discussions with other students (Jans-Thomas, 2015)

The two case studies show the community that book swapping creates, helping sustainability and making reading accessible for everyone. Creating this app will start easier ways to find local swap areas and explore new books.

To research data I can use, I found a map on the Londonist that get updated recently for the map of London book swaps. It shows different areas as well as descriptions of the location. This is good data for the app and grabs the locations from.
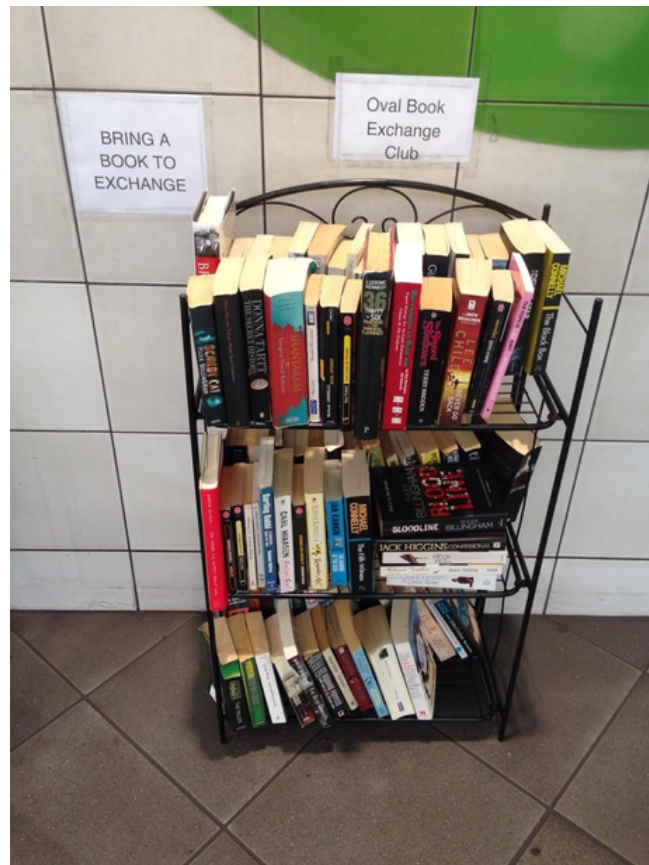

A Map Of London Bookswaps
Give a book, take a book.

Londonist / Dec 19, 2022

Bikos, G. and Papadimitriou, P., 2015, February. Book swapping and book exchange libraries: Aspects of the phenomenon and the case of Greece. In AIP Conference Proceedings (Vol. 1644, No. 1, pp. 295-302). American Institute of Physics.

Jans-Thomas, S., 2015. SO MANY BOOKS, SO LITTLE TIME: HISPANIC AND LATINO LITERATURE" BOOK SWAPS" TO EXPAND STUDENT KNOWLEDGE BASE. In NAAAS Conference Proceedings (p. C169). National Association of African American Studies.
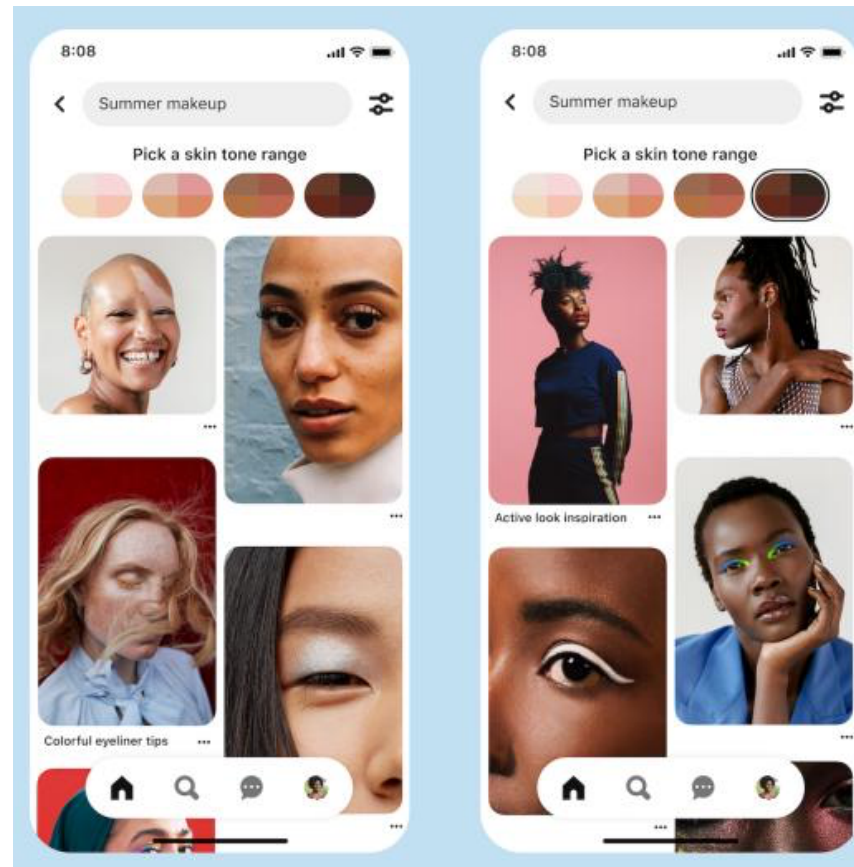
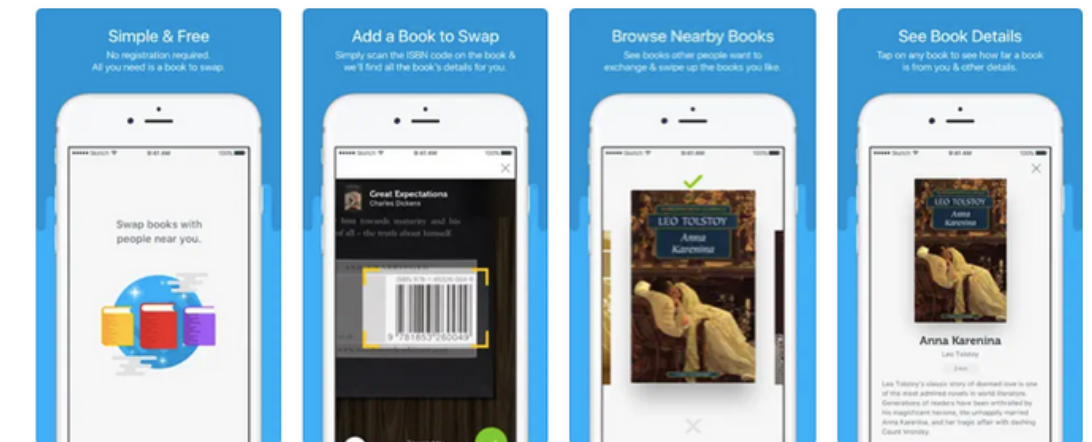# App Inspiration/Similar Apps

Oval Tube Station

The Oval books exchange club allows you to leave a book and swap one on the bookshelves when you go to a destination. It's a great way to leave readers for people who need more time to stop at a library and get rid of books they've already read for another person. This inspired me because it is a fast way to drop books at a dynamic place.

Pinterest

Regarding visuals, Pinterest inspired me since it's a clean way to display images. The layout of Pinterest focuses on the photos only and doesn't have distracting elements on the app. I also like how the images are stacked and curved at different heights because it's playful and allows he user to se the images fullscreen.
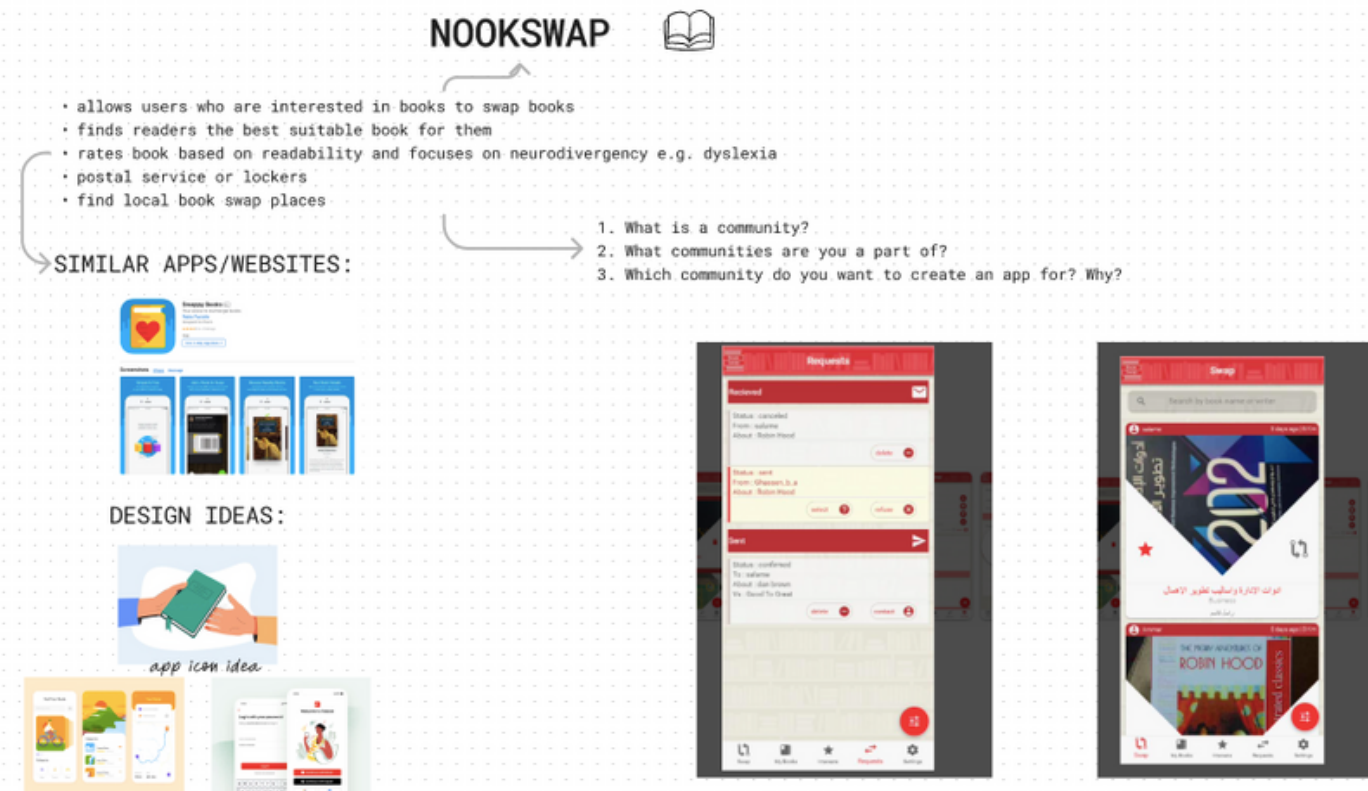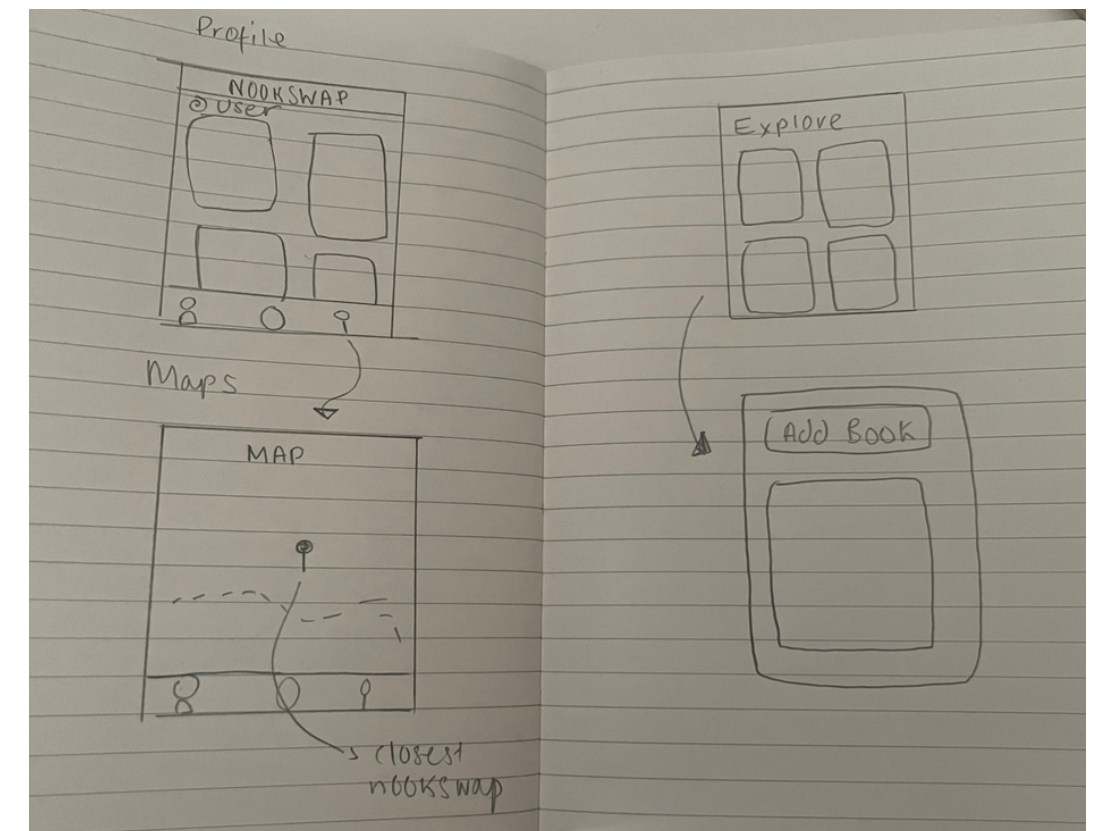

Swappy books

Swappy Books is an app where you can find books in your local area and swap them. The app also has similarities like QR Scan and App implementation, but it doesn't have an explore page or a view on the app where you can add your community swap locations around you, e.g. oval book exchange club. The app also has a function where you can swipe based on books you like, but this limits users from finding great books out of their comfort zone.I decided to implement the QR scanner in my app as well so that it'll make it easier for the user to add their books instead of manually

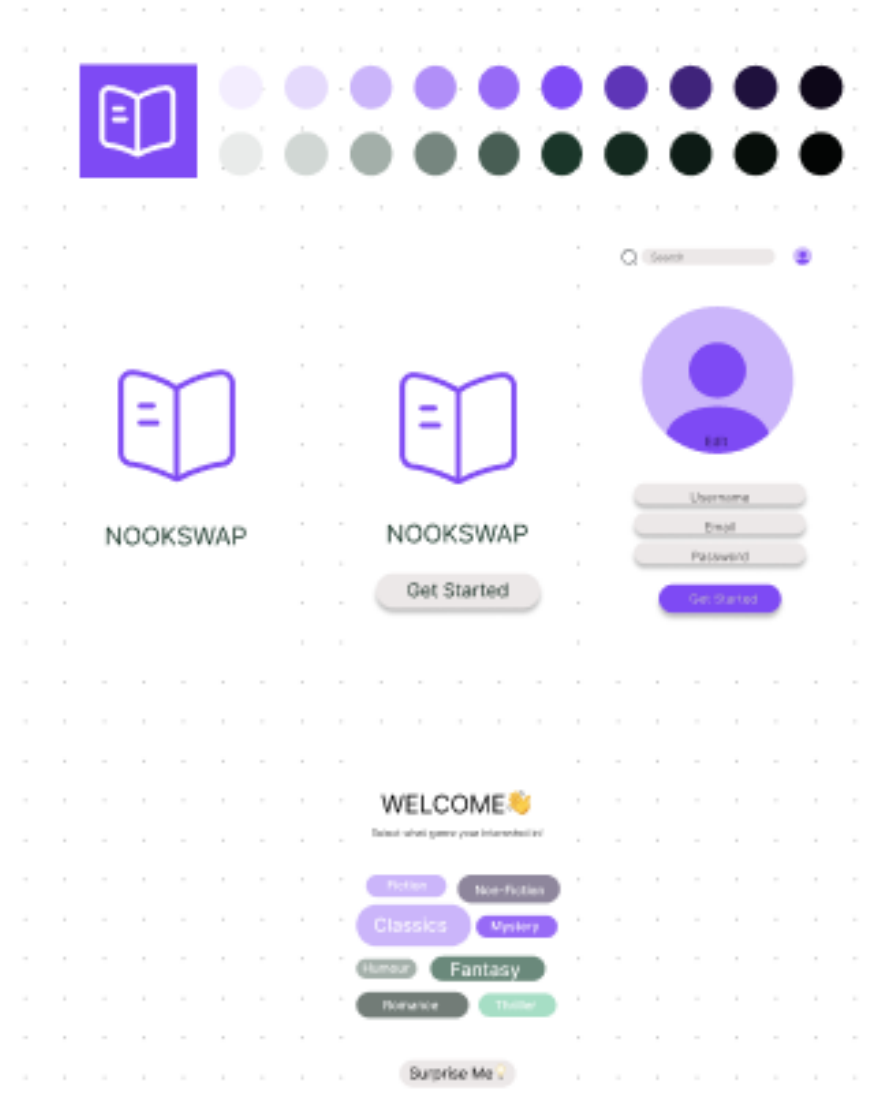# WIREFRAMING PROCESS

1.Writing down ideas

Firstly, I started planning my ideas on Figma. My initial thought was to create a book-swapping service that focused on neurodivergence and the readability of books, but I found out later that it'll take much work to measure a book's readability score. I also wanted to implement a feature where you can use postal lockers and service to send out the texts, but that didn't seem very easy, and another app was already doing that and was unsuccessful on the play store. So I scrapped the idea and focused on swapping books within the local area and leaving them at book-swapping locations within London..

2.Wireframing

After I started to understand what I wanted from my app, I began to draw a rough sketch of what views like profile, map, and explore page would be like. I wanted to keep the wireframe simple to understand so that I could add realistic features later using figma.
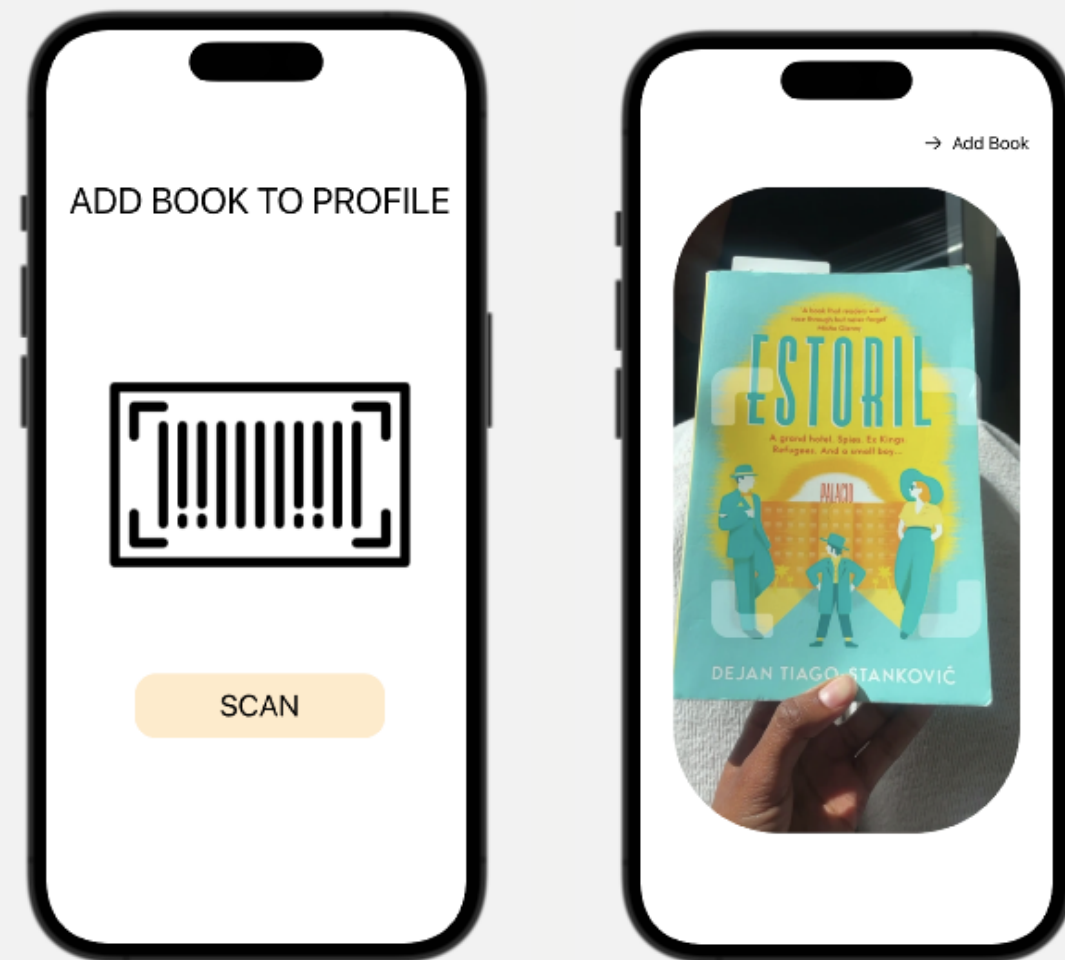
3. First Figma Draft

4. Second Draft

Figma

I focused on the design and colour palette for my first Figma draft. At first, I wanted vibrant colours to make the app look more distinctive, but I realised it could have looked more visually appealing by having more neutral colours connoting to nature, e.g. yellow and green. Also, on this first draft, my login page had a search bar which needed to be more apparent to the user, so I removed that from the login page. I also tried to implement a welcome page which would have allowed you to select the different genres you like and place them on your profile. Still, I decided it would shorten the choices of what the user can branch out to in books, so I decided to remove it from the planning process.
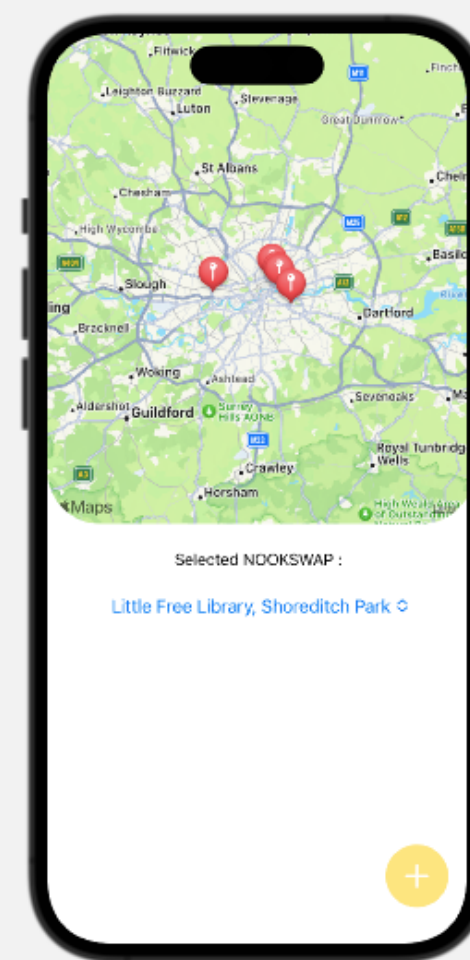
I changed the colour palette in my second draft and added features like the mock QR and maps. This draft made me realise they would look different when I input my designs into Xcode. I had many issues with images and shapes, so I decided not to include excessive shapes in the background and only add pictures if needed. I also had problems with the placement of objects within my view pages when I realised that depending on where you've placed it in your code, it moves up or down the view page, so I only used padding and position accordingly.

KEY APP FEATURES

QR SCAN

I implemented a QR scanner which allows you to scan the books without typing what book you'd like to add to your profile. I did this by adding a video of a "QR Scanner" to show how the scan would work.

MAPS

The maps will be used to find other local book-swapping areas around London. The user can click on the '+' button and add their own community swap places.

EXPLORE

The explore page is a hub where you can find other users' books that are reading to be swapped. When clicked, it shows you more description about the book and if you'd like to create a swap.
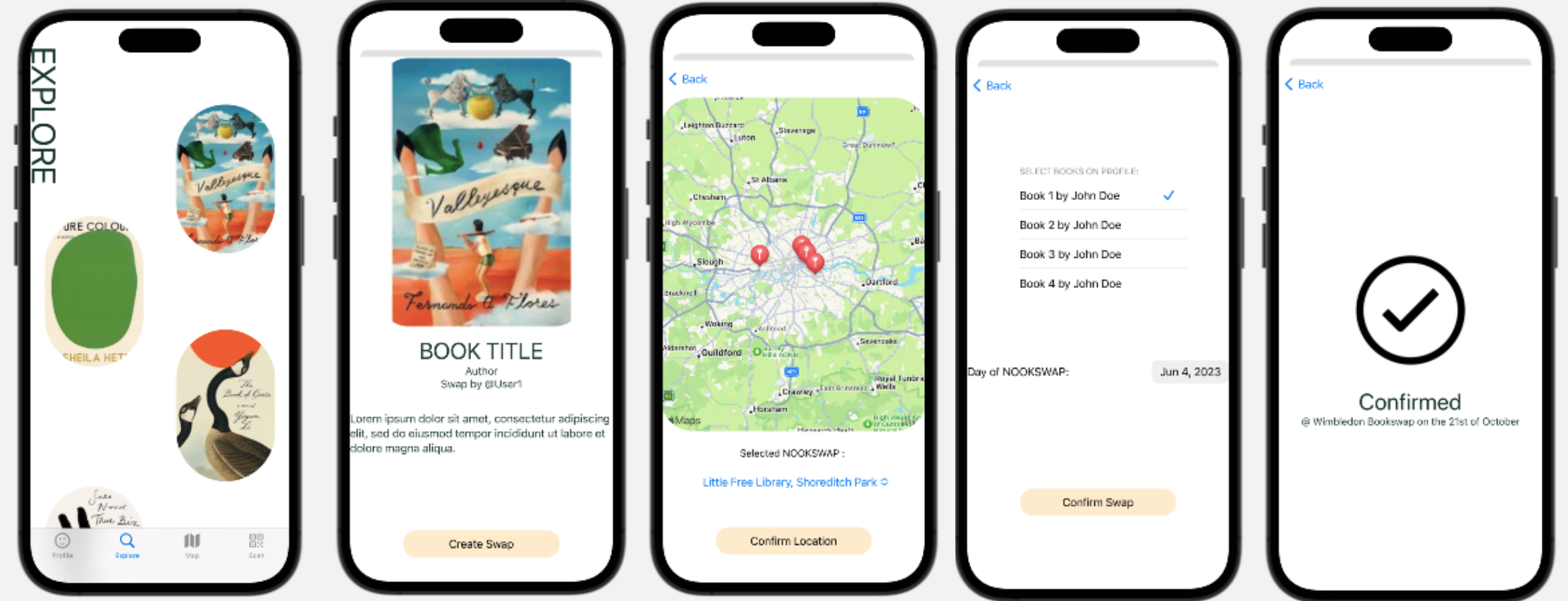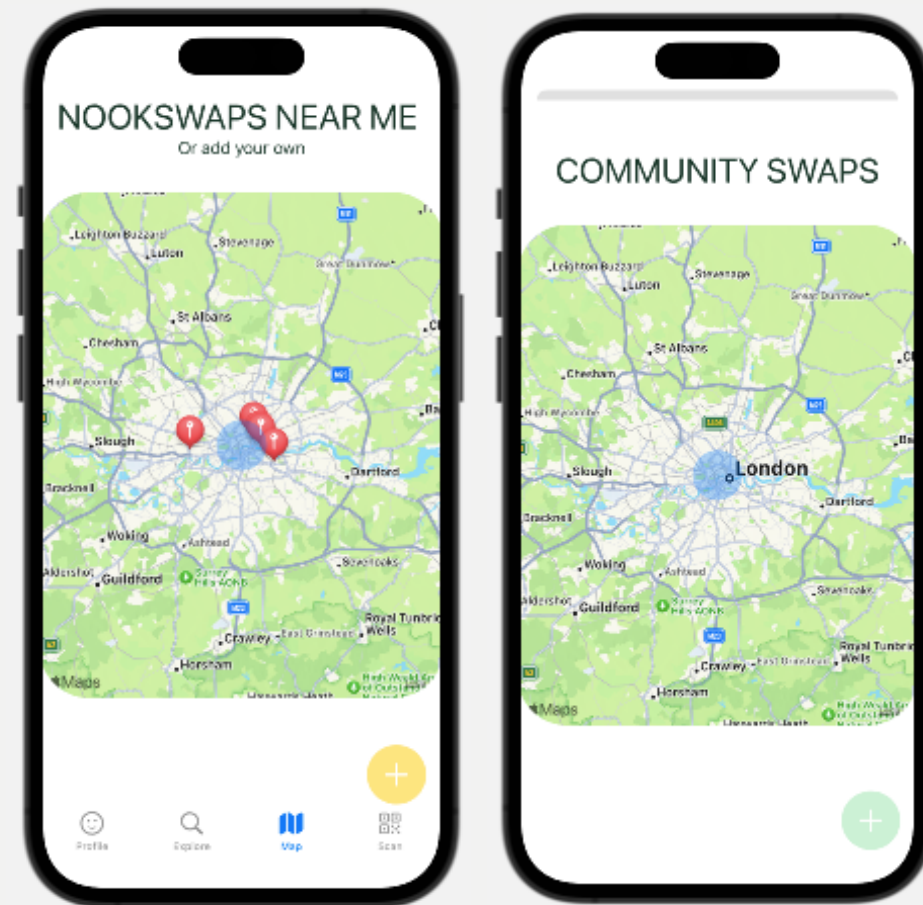
FINAL PRODUCT

1. Profile

The profile displays the user's previous swaps as well as new ones. It also shows the location since the app is locally based in London. I wanted big displays of the books on the profile, almost like a digital bookshelf. I also added a profile icon so that it'll be possible for the user to add their photo.

2. Explore

The explore page consists of books that are already placed on the app. When you decide what book you'd like to swap with the user, you can select the locations from which you want to collect it. After confirming the book you'd like to swap, you can pick a day that you can exchange books and finally takes to the confirmed page where you'd leave the book at the NOOKSWAP book hubs.

3. Maps

The maps display all the location near me that facilitates book swaps. When the user clicks the yellow plus button, you can add the coordinates of exchanges you've found around London. This is a way for users to find areas where they find new books without needing to buy one. I used Mapkit to implement the two maps shown . The circle is also centered so that as you drag, you can see what is the center or highlight the location you are looking for.

4. QR Scan

The QR Scanner allows you to scan any books and place them onto your profile so others can see what you've put up for book swapping. I implemented this because it'll be easier for the user to scan it than manually typing the title and the author. I used AVFoundation to implement the video of the scan.

CHALLENGES

- The positioning and padding were challenging because I had issues moving an object and moving the rest of the view, so I resolved it using less positioning and padding as possible.
- I also had issues with closing brackets of the views and having my view pages mixed up. I resolved this by reviewing my code and seeing if any brackets were not supposed to be there.
- Another issue I had was inputting the video of the QR scan. I resolved this by removing the video from the assets folder and placing it outside of that folder so it can detect the video.

TO IMPROVE FURTHER:

- To further improve, I could allow users to filter their explore page and add in search of users and specific books.
- I would also add ways to implement messaging others, such as groups that can be formed as book clubs or fans of a specific genre.
- For community swaps, I would find a way for users to add a location description.
- Lastly, I would make the QR scanner function.

BIBLIOGRAPHY

Bikos, G. and Papadimitriou, P., 2015, February. Book swapping and book exchange libraries: Aspects of the phenomenon and the case of Greece. In AIP Conference Proceedings (Vol. 1644, No. 1, pp. 295-302). American Institute of Physics.

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