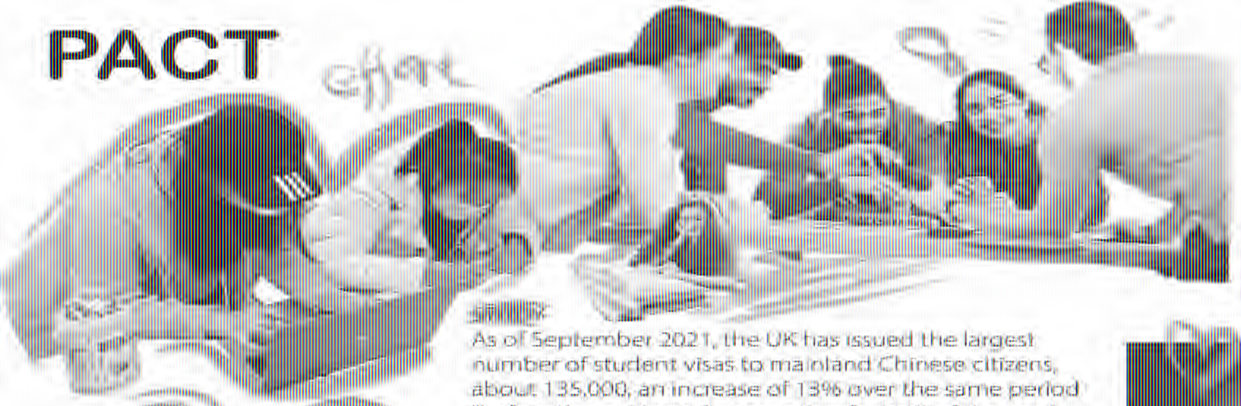
Bookin

Smart Connectivity for
Self-service Book Borrowing and Returning Machines

PAN GAO

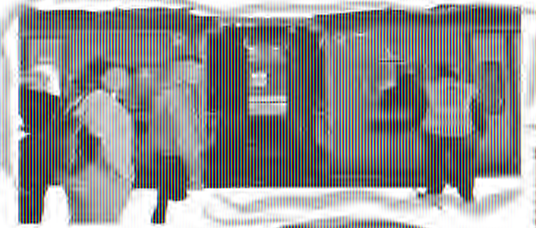
Compared with the huge volume of the self-service book borrowing and returning machine, its functions are too single. I hope to better develop and utilize its functions, improve its convenience, and meet the needs of students.
Use Bookin to learn and progress more efficiently.

PACT



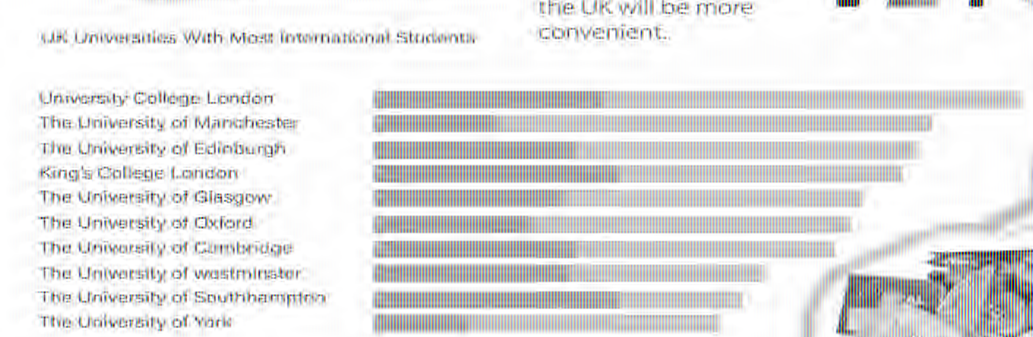
STUDY
As of September 2021, the UK has issued the largest number of student visas to mainland Chinese citizens, about 135,000, an increase of 13% over the same period "before the epidemic", accounting for 32% of the total number of UK student visas issued, but a low peaked at 43% for the year ended September 2019. However, judging from the rate of previous years, the growth rate has begun to slow down.

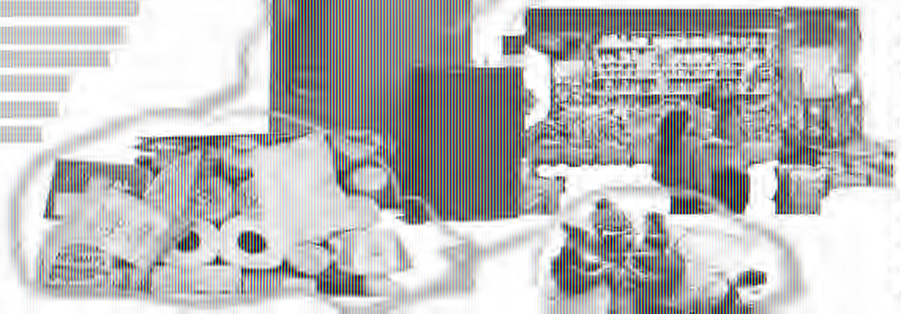
EXHIBITION
Visiting museums, art galleries and galleries in daily spare time is also an important part of life and study. Some excellent exhibitions at specific times allow students to broaden their horizons, improve their appreciation ability and enhance their thinking activity.



COMMUTE
There are a variety of modes of transportation available for commuting in the UK, each with its own advantages. As long as you understand their specific rules, your life in the UK will be more convenient.

TRAVEL
Summers in the UK are sunny and drier, with mild sunshine and a moderate climate. Going in this season, it will only get dark around ten o'clock in the evening, and the time to play during the day will also be extended accordingly.





DAILY
Purchasing daily necessities is also an important part of studying abroad. International students regularly go to supermarkets, markets and other places to buy various items, and occasionally to restaurants to experience local or foreign specialties.

PACT

The current state of the Winchester School of Art library

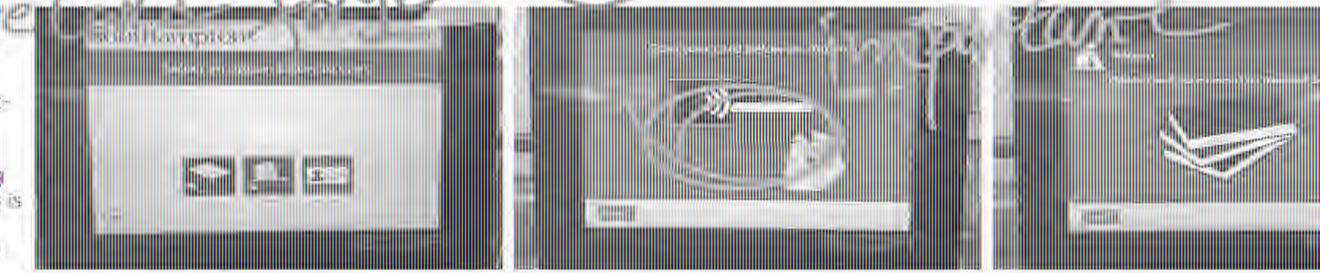
The Winchester School of Art library has two reading rooms with a large number of books. Art books cover a comprehensive and professional range. There are many electronic computer equipment and printing equipment in the reading room for students' study and use. Reading interior professional books cover a comprehensive range, ranging from art theory books, pictorial books, picture books, music appreciation books, photography collections, and various fashion magazines, architecture weekly, and design portfolios.

Self-service book lending

The Winchester School of
has a front desk and a self
book machine to meet an
the different needs of stu
borrowing and returning
equipped with sterilized f
the health and safety of st
staff into full consideration

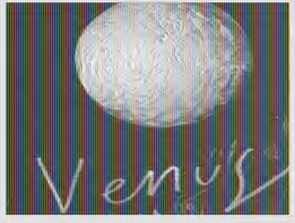
STUDY

A library refers to a facility that collects, organizes and preserves book information to serve the public or specific objects, and aims to build and maintain collections to meet their information, research, education, cultural or recreational needs. Libraries also have the task of educating places or improving readers' reading habits. The development direction of modern libraries is to provide readers with a collection of information, which is convenient for finding and using information and a place for readers to learn.



Interview & Key Findings & Insights

User 1



- **Basic Information**
- Name : Chang
- Age : 28
- Gender : Famale
- Work : Student
- Hobby : Photography,Travel

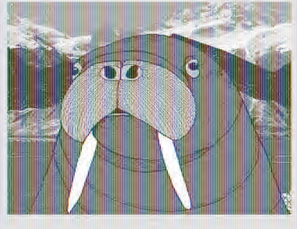
• Difficulties encountered in the process of studying in the library?
I live in the city center of Southampton. Every time I come to Winchester, I need to take a train and then go to the school library to study. Sometimes when I arrive, I will find that the books I want to borrow have been lent, and I feel like I have run for nothing. Once in a while, I get frustrated and I lose interest in learning.
• Features I would like to see in an app?
I want to be able to know in advance whether the book I want to borrow has been lent, and if there are similar related book recommendations.

User 2

- **Basic Information**
- Name : Luna
- Age : 22
- Gender : Famale
- Work : Student
- Hobby : Vlog shooting

• Difficulties encountered in the process of studying in the library?
The library of the Winchester School of Art has a large collection of books, but the existing book search function requires me to spend a lot of time in finding the books I want to read. I don't think this will help, and it will not improve the efficiency. And in terms of the completion of the learning progress, it is a drag.
• Features I would like to see in an app?
I hope this app can not only help people quickly borrow and return books, but also help us quickly find the books we want to read.

User 3



- **Basic Information**
- Name : Chun
- Age : 23
- Gender : Famale
- Work : Student
- Hobby : Model making, Cooking

• Difficulties encountered in the process of studying in the library?
The school's self-service book lending machine is very practical and convenient, but it feels a little monotonous, and sometimes I forget to bring my campus card. out. In addition, there is only one self-service book lending machine in the college, which sometimes requires long queues.
• Features I would like to see in an app?
I hope that I can borrow and return books by myself through my mobile phone. It is best to verify my student identity through the app on the mobile phone. I feel that this will be much more convenient, and if there are many people who need to use the machine at the same time, everyone can use the mobile phone instead. , you don't have to queue for a long time.

User 4

- **Basic Information**
- Name : Cheng
- Age : 26
- Gender : Male
- Work : Student
- Hobby : Painting, Photography

• Difficulties encountered in the process of studying in the library?
It stands to reason that the self-service book borrowing and returning machine should improve the efficiency of borrowing and returning books, but sometimes this machine is difficult to use, its interface is not flexible enough, and it only has basic functions, and if you want to use only one, you need to queue up.
• Features I would like to see in an app?
I hope that using the self-service book borrowing and returning machine can help me find the location of books, and save the trouble of queuing when there are many people, and it would be better if it can remind me of the time to return books.

Personas

I created user stories that I could use to better understand the potential needs of international students, help identify functional needs for Bookin, and I could review these stories throughout the project to stay focused.

Pay attention to what users do, not what they say.

Buck

BIO

Buck is a freshman at the Winchester School of Art campus of the University of Southampton in 2021, but his dormitory is located in the center of Southampton. He needs to take a train or a car to come to school every time. When he wants to go to the library to borrow related professional books, he always forgets to bring his campus card, and he often forgets the deadline for returning books.

MOTIVATION

- Learn more about interaction design
- Learn more about the history of design and art
- Get familiar with contemporary artists and their representative works

FRUSTRATIONS

- Always forget to bring student ID
- Can't remember the return date
- There is always a queue when borrowing and returning books

BACKGROUND

- Age 22
- Gender Male
- Work Student
- Location Southampton
- Major Communication design
- Place of birth China

PERSONALITY

Introvert — Extrovert

Analytic — Creative

Conservative — Liberal

Passive — Active

GOALS

- Borrow and return books more quickly
- Remind himself

CGARACTERISTICS

- Active person
- Loves to sport
- Meet new people
- Good thinking

I want to know the sources that are instant, reliable and effective.

Kelly

BIO

Kelly is a fashion design freshman class of 2021. She lives near the Winchester campus and has a lot of time to use the studio and library, but finding books in the library consumes a lot of her time and energy. Because of her professionalism, she needs to do a lot of research and production, as well as experiments. She felt that a lot of time was wasted in the process of searching for books, and he hoped that there would be a more efficient way of inquiring, and a more reasonable allocation of time to study.

MOTIVATION

- Borrow as much as you can from Fashion Weekly
- Learn about fashion, such as textiles or fabrics

FRUSTRATIONS

- It takes a lot of time to find books
- Sometimes needed books have been borrowed by others and feels like she is wasting her time

BACKGROUND

- Age 23
- Gender Famale
- Work Student
- Location Winchester
- Major Fashion design
- Place of birth Spain

PERSONALITY

Introvert — Extrovert

Analytic — Creative

Conservative — Liberal

Passive — Active

GOALS

- Quickly find relevant books
- Want to be recommended by professional books or magazines

CGARACTERISTICS

- Persistent person
- Loves to travel
- Feel the fashion
- Strong hands-on ability

Empa

Says:
- He loves design and wa
more
- He wants to make bette
timeis

Does:
- Forget to return books
- He gave up because he
self-service book machin
queue up

Says:
- It takes a lot of time to f
- She wants a more efficie
find books

Does:
- When she gets busy, sh
return the book
- Choose to read online,
easier to find

Journey Map

Pa

1

Buck

- Age 22
- Gender Male
- Work Student
- Location Southampton
- Major Communication design
- Place of birth China

GOALS

- Borrow and return books more quickly
- Remind himself

Kelly

- Age 23
- Gender Famale
- Work Student
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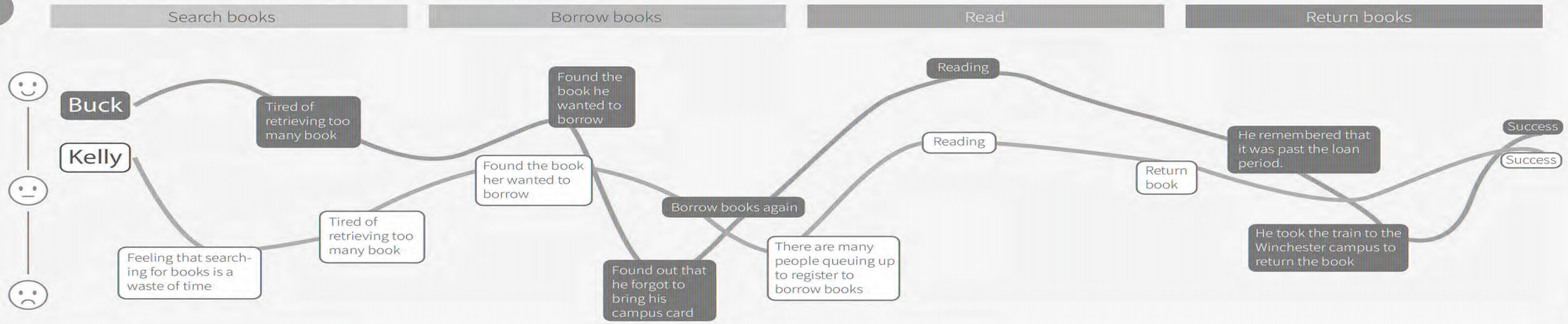
GOALS

- Quickly find relevant books
- Want to be recommended by professional books or magazines

2

The Experience : User Actions & Thought Process



3

The Opportunities

- Are there other ways to search for books?
- Can they locate books quickly?
- How can we help students locate books quickly?
- How can we help students save time?

- Is there a library voucher in lieu of a student ID?
- What should a student do if they spend a lot of time searching and find that the book has been loaned out?
- What should I do if the number of self-service book lending machines is not enough?

- How to help students improve their reading efficiency?
- How can students not miss the deadline for returning books?

- What should I do if the number of self-service book lending machines is not enough?

1

2

3

4

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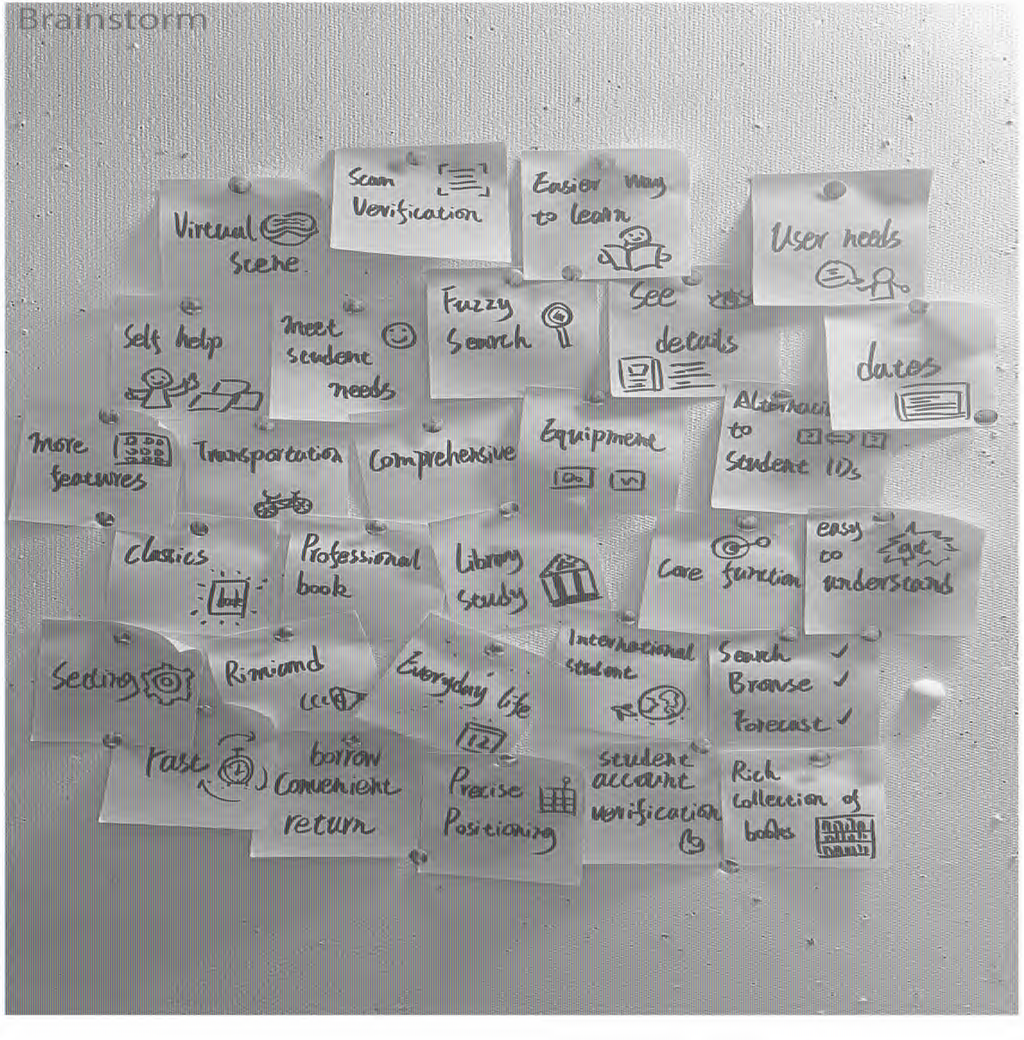
Ideate

Brainstorm



Core features

With a better idea of my user and their needs, I identified three core features that I wanted to focus on for the product.

Scan

A "scan" function that allows users to borrow and return books using BOOKIN after passing authentication.

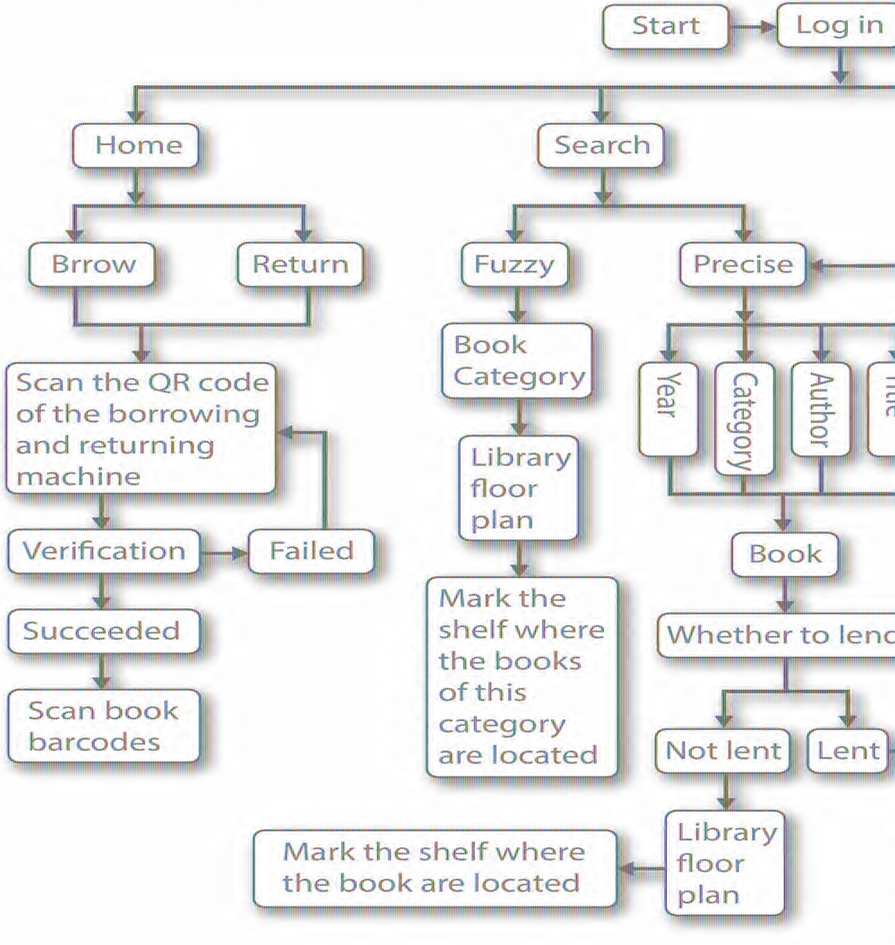
Search

A "Explore" feature that allows users to choose precise or fuzzy search to find the exact location of the book they want to read, and whether it is currently available for borrowing.

Reminder

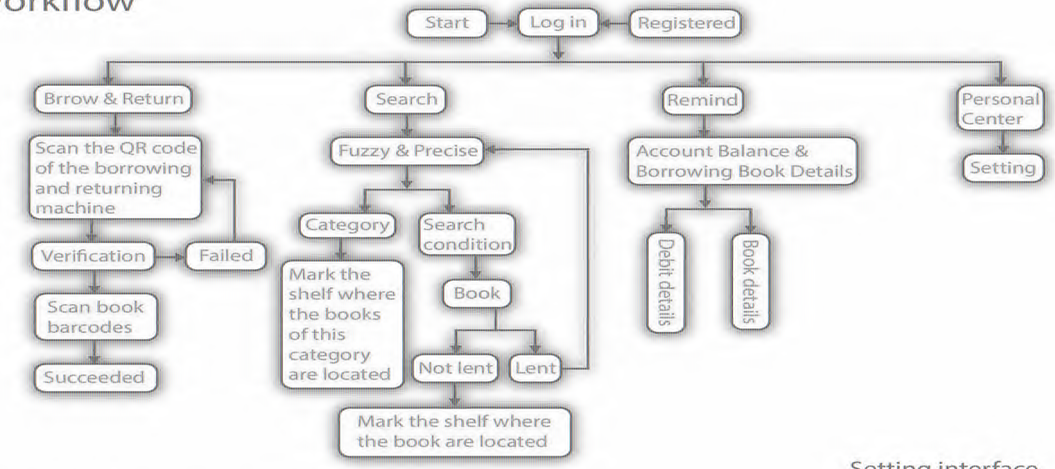
A "reminder" feature that lets users know when books will be returned.

Information architecture

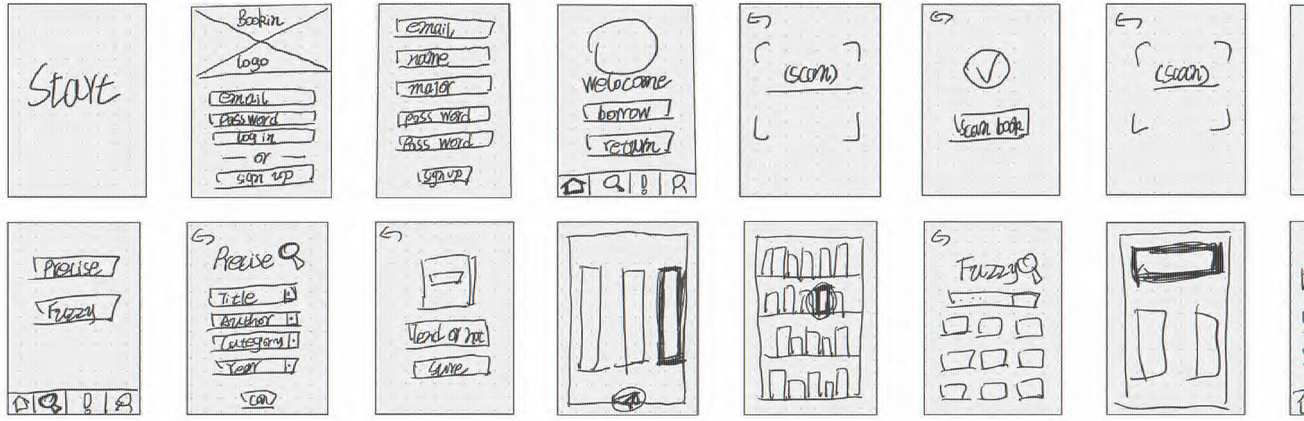


Prototype

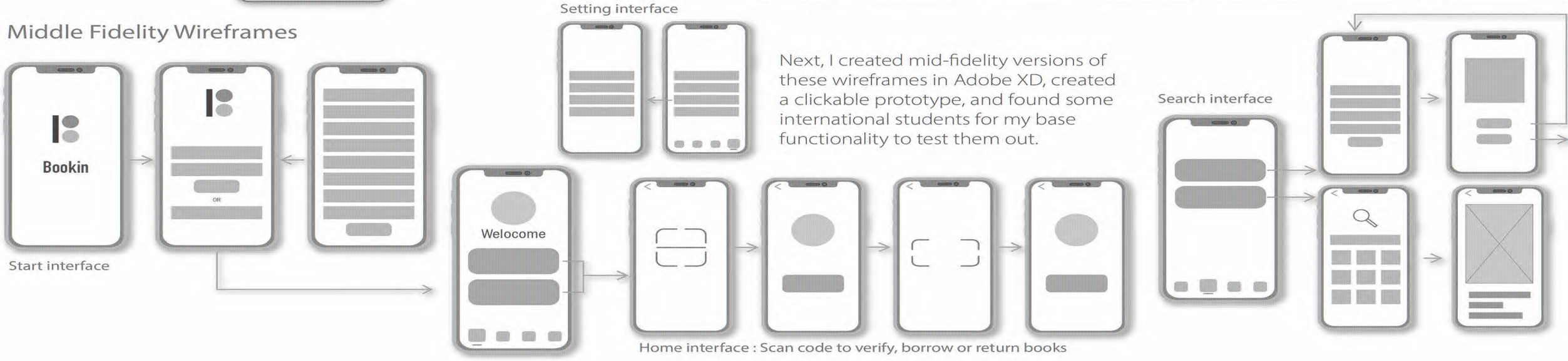
Workflow



Low Fidelity Wireframes



Middle Fidelity Wireframes

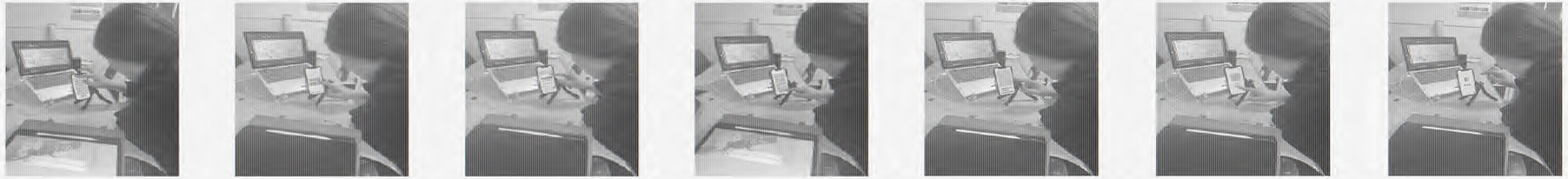


Next, I created mid-fidelity versions of these wireframes in Adobe XD, created a clickable prototype, and found some international students for my base functionality to test them out.

Testing

This stage was a game changer - by doing usability testing, I was able to improve what users found useful and overhaul what they didn't respond well to. Ask users to complete some scenario-based tasks to test the main functionality of the app and ask them how they feel about the app in general.

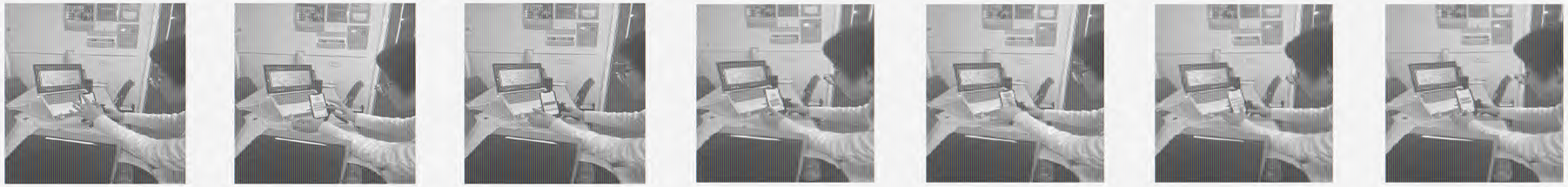
Middle Fidelity prototype testing video : https://youtu.be/9IEqvRHxFwY



- **Basic Information**
- Name : Luna
- Age : 22
- Gender : Famale
- Work : Student
- Hobby : Vlog shooting

- **Suggestions**

- Consider creating one with more white space, larger icons, and clearer text.
- The position of the back button is too close to the edge, making it inconvenient to click.
- The function of navigating the location of the book is very convenient, and the target book can be found more quickly.



- **Basic Information**
- Name : Chun
- Age : 23
- Gender : Famale
- Work : Student
- Hobby : Model making, Cooking

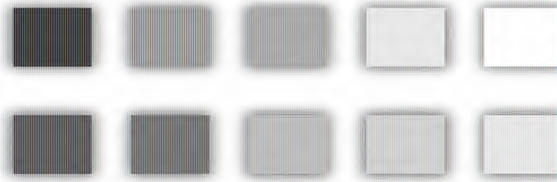
- **Suggestions**

- The reminder function of the deadline for returning books is very necessary, but you need to click to view each time to know the details. I hope it can be more convenient to view.
- The self-service book borrowing and returning function of mobile phones is indeed very practical.

Design Syste

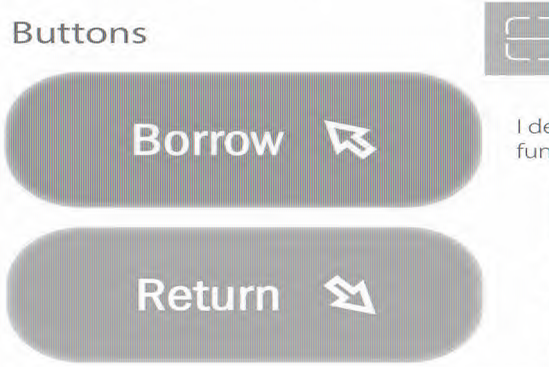
Color Palette

Bookin uses colors to make it easier for users to distinguish and use different functions. In terms of color matching, choose more vibrant colors such as orange and aqua blue, so that international students can study efficiently and help them activate their spirits .



Iconography

Buttons

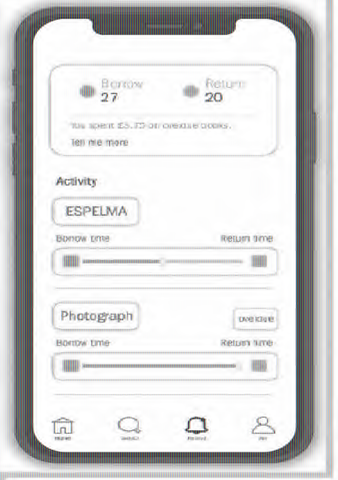


Final Output

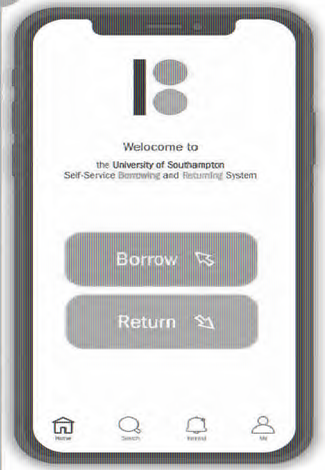
I'm developing a prototype model of a smart-phone app, the purpose of which is to interact with the library's self-checkout machine to help international students borrow and return books more efficiently and conveniently, this video shows me Created high-fidelity versions with clickable prototypes.

Video demo of the app: https://youtu.be/lt_B-FEDhNKA

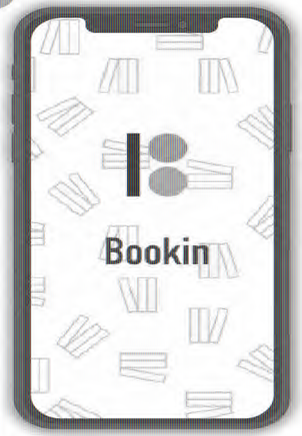
In this interface, users can view the details of their accounts, such as books that have been borrowed, whether there are any books that are overdue, account balance, debit details, and other information related to borrowing and returning books, and users can also use the recharge function of the page.

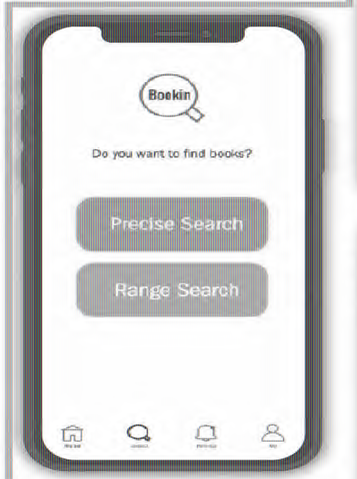


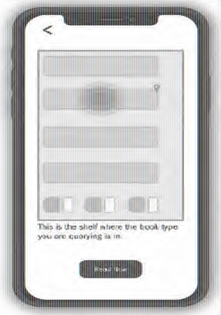
This is the main function of this app. By verifying and connecting to the self-service book borrowing and returning machine closest to the user in the library, users can use their mobile phones to return books and borrow books. This function can effectively help users save money The waiting time in line also ensures the safe return of books.



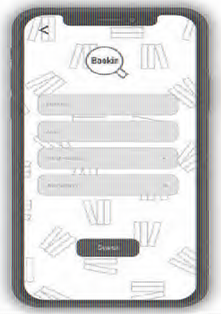
The first is the login interface, where users need to use their own student email addresses to verify their identity and facilitate the use of subsequent functions.

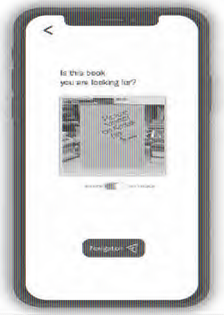






The main function of this interface is to solve the problem that users need to spend a lot of time on book retrieval before borrowing books. Through the precise search function of this interface, users can quickly locate the books they want to borrow. Borrowing targets, they can use the scoped search function to find the book category they are interested in.





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function set
can set pers
and persona
settings.