

Design Explanation

Home Screen

The first screen after logging in.

Summary

This screen offers a carousel of nearby books that the user may be interested in as well as an array of tags that allow for a quick search of individual categories.

Conventional search bar that almost all users will be familiar with.

Familiarity is a core HCI principle that gives users confidence to use the system. [3]

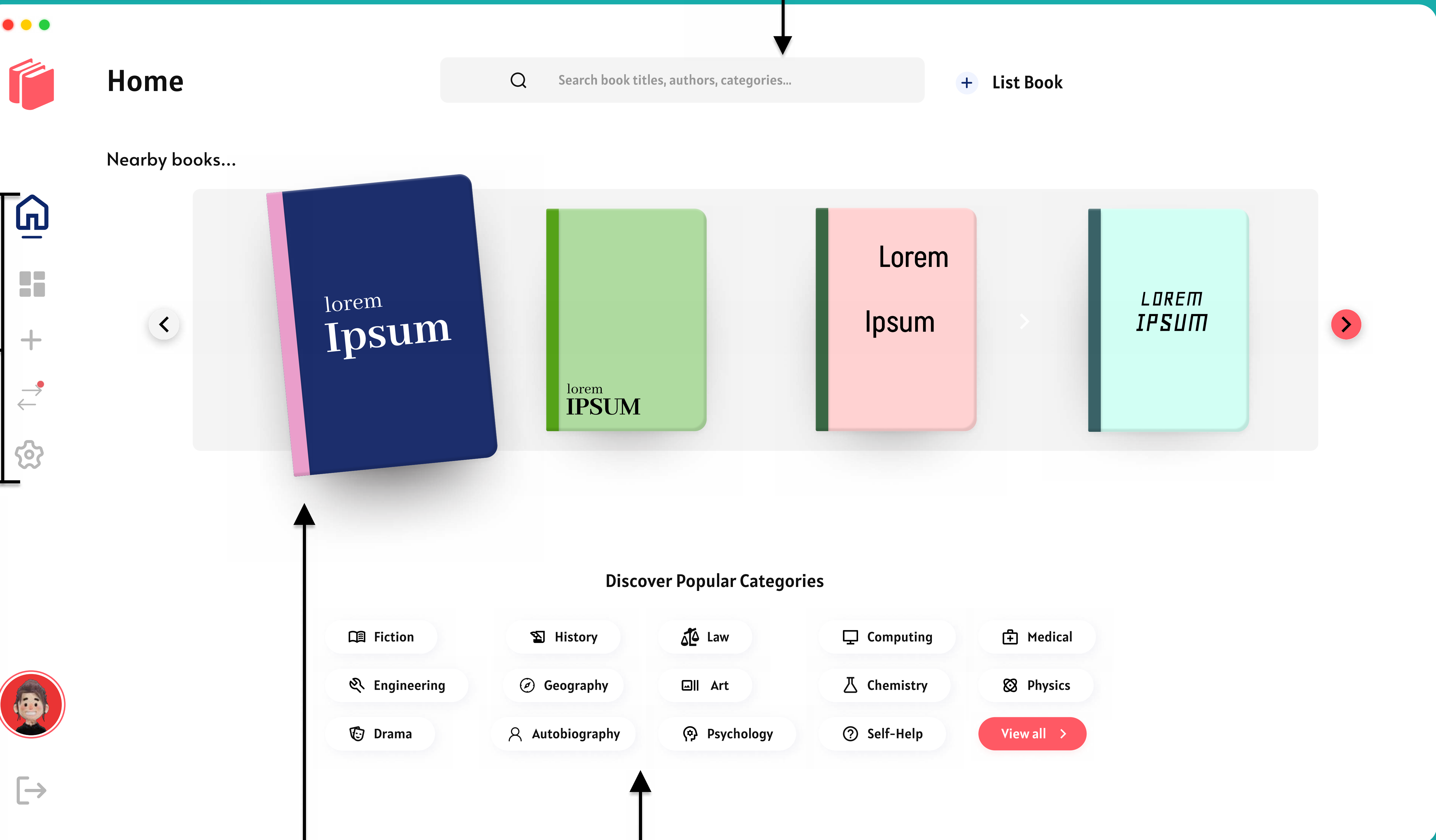
The fieldwork illustrated how important having a free and open ended search was important.

Therefore, users can search with numerous terms.

Side navigation menu that has current page highlighted.

Visibility of system status provides awareness to the user. [3]

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Likewise, 3D hover effect when mousing over books combines both an aesthetically pleasing design with a form of direct feedback to the user as to what they can interact with.

A second search method is possible on this page with the displayed category tags.

Pressing one will take the user to a page with filtered results of their chosen tag.

Flexibility is a key HCI heuristic principle that enabling users to interact however they prefer, thus improving overall efficiency.

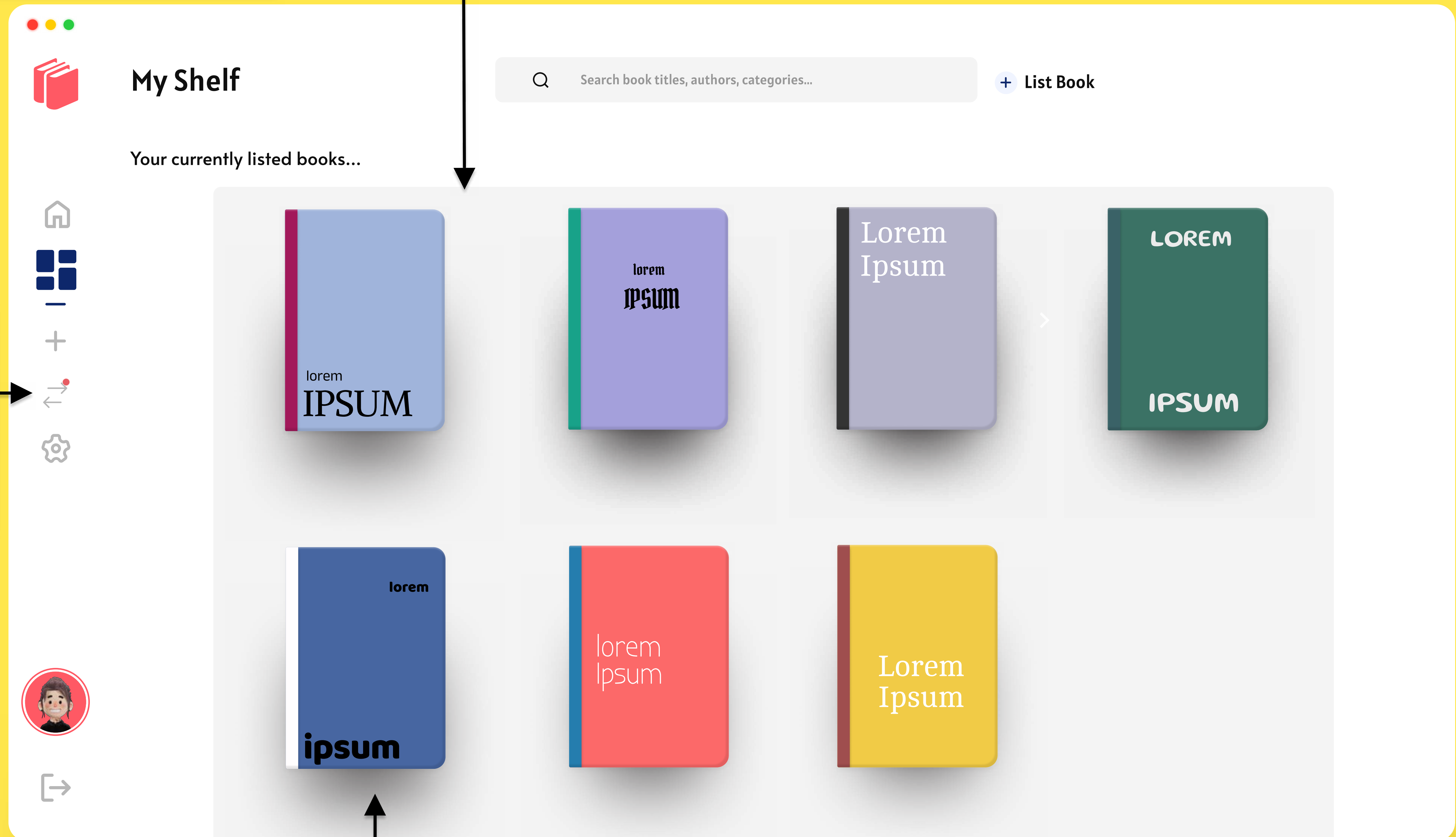
User's "Shelf"

Where the user can see the books they have listed.

Summary

The term "shelf" is used throughout the system as a means to build upon the user's mental model of a real-world bookshelf.

Each user's bookshelf will populate with the books they currently have listed for exchange.



A red dot will appear for unread notifications.

This is an exchange notification.

The shelf mental model works particularly well due to the added affordances working in tandem with it.

The shadow behind the books creates a 3D effect and the book is intended to pivot facing the user's cursor when hovering.

This creates an affordance that the books appear tangible and encourage the user to interact playfully with them.

This is developed further with how users complete an exchange by interacting with them. (See FIG 7)

When discussing affordances, Donald Norman mentions, "the art of the designer is to ensure that the desired, relevant actions are readily perceivable." [1]

This was exactly my intend by having a bold design in which the books jump out at the user. They are certainly making their presence known, enticing the user for interaction.

Offering Books

Where the user can list their book for other.

Summary

This is one of the key functional requirements stated in the brief. Here the user fills the form and publishes their book for others to see and interact with.

List A Book

List a new book...

Search book titles, authors, categories...

+ List Book

Title: Chemistry 101

Author: Dr. J. Smith

Condition: Like new

Category Tags: Chemistry

Upload images: Select a file or drag and drop here (JPG, PNG or IMG, file size no more than 10MB)

File added: BookPhoto1.jpeg (5.7MB)

Publish

Simple form used to offer a book to others.

'Condition' is set as a drop-down option for error prevention reasons as manual user input is unnecessary & promotes the likelihood of invalid data.

Ensuring the user knows what is required when uploading photos. (e.g. format and max file size)

The percentage loading bar acts as a visibility of system status too.

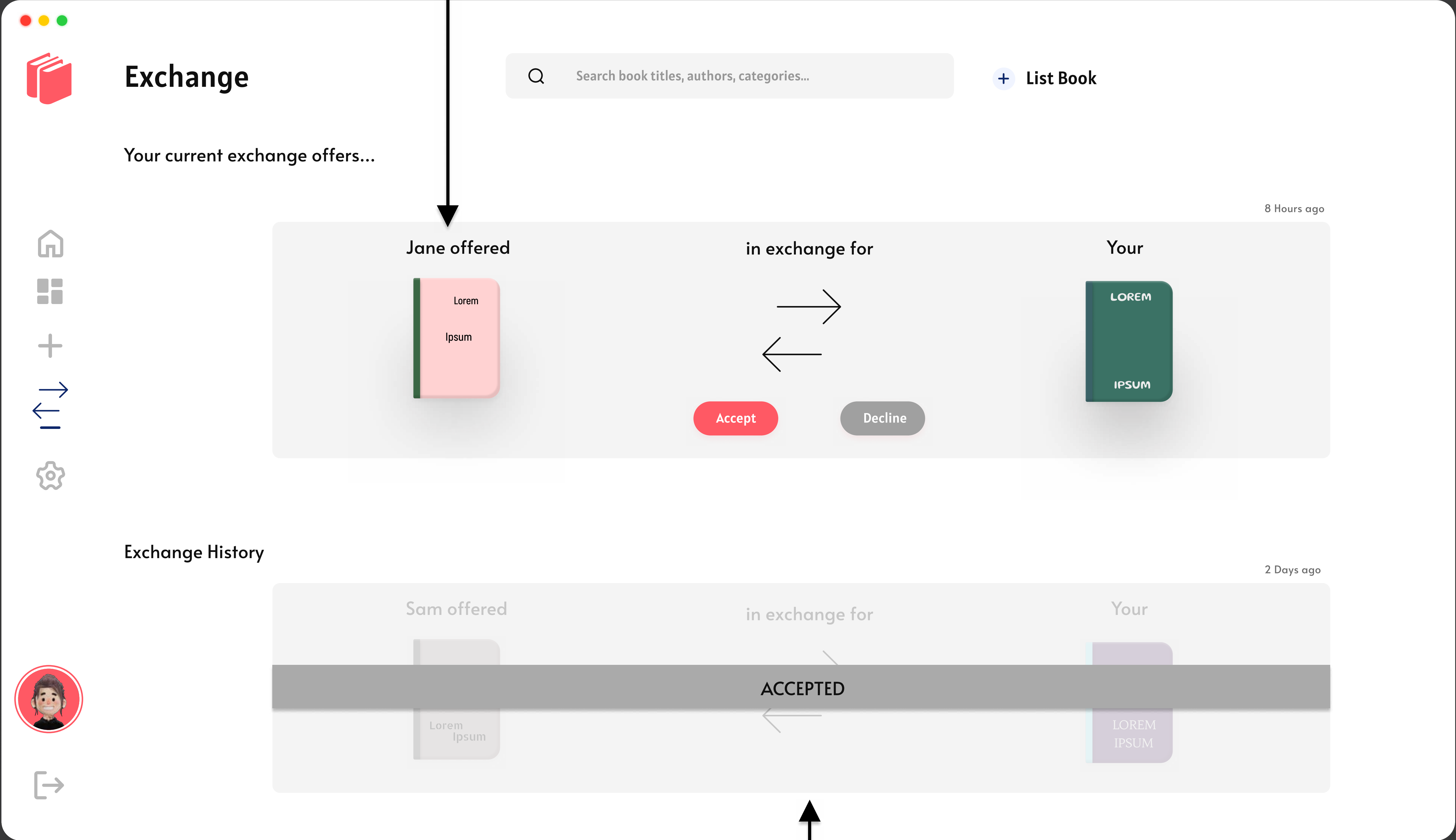
View Exchange Offers

Where the user can view all current and past offers.

Summary

A scrollable list view of the currently open offers, sent offers and a history of past offers and exchanges.

Users can click on any currently available book to be taken to more details about it. (See Figure 6)



Any past exchanges, accepted or declined, will be greyed out and no longer intractable.

After accepting an offer, the following options appear.

This page enables for the physical interaction of the book exchange. Only when a location is chosen and valid dates selected, may the user 'Submit' and move to a chat with the other user where the preferred time and location are noted.



Book Details

After selecting a book, it can be viewed in more detail.

Summary

Here users can see more details about the book including who it is listed by, the author, condition and category. The owner's bookshelf also appears along side.

The purpose of the bookshelf model is to add a level of social interaction. Seeing what people have in their own personal space adds some playfulness.

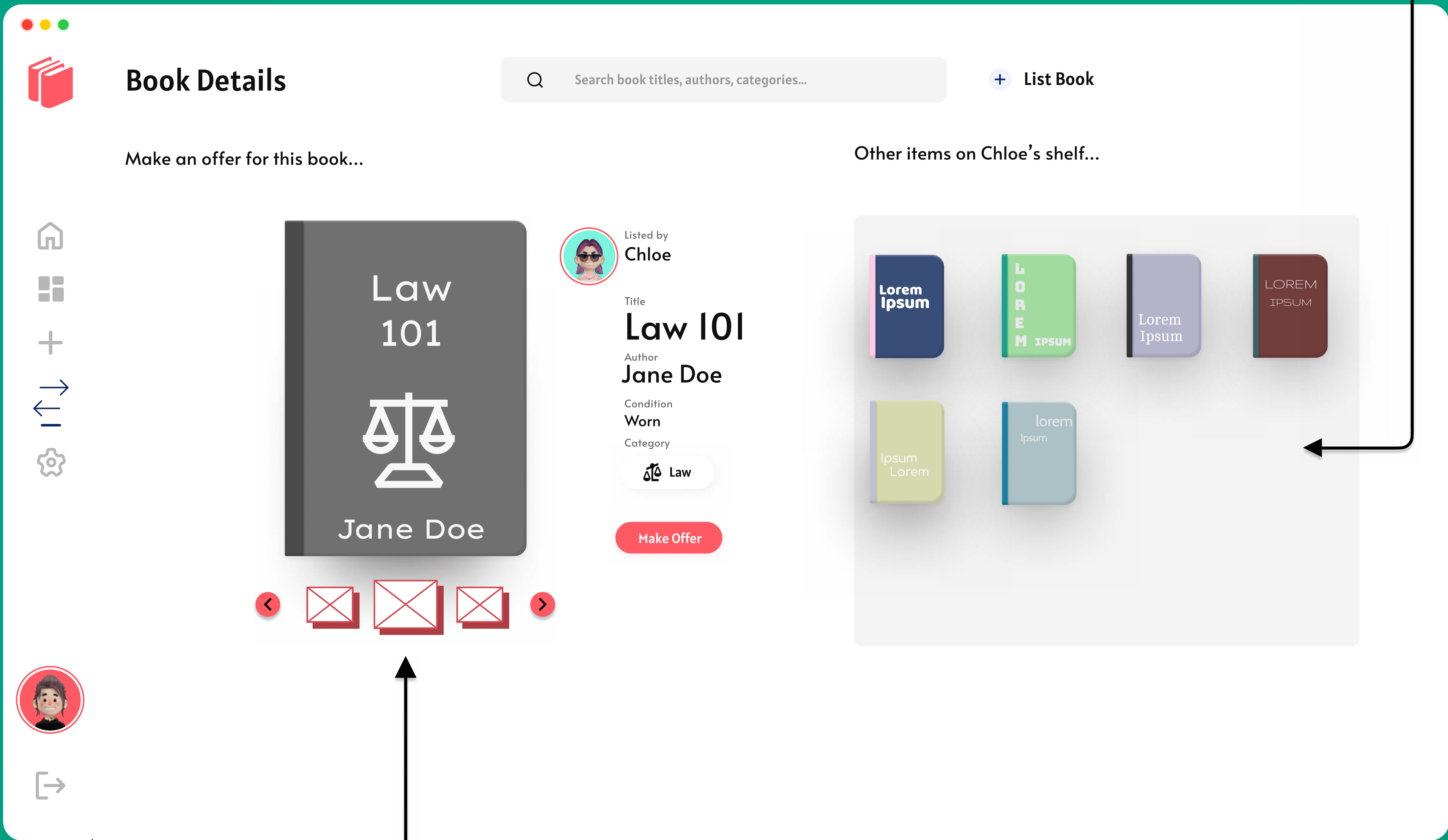


Image carousel of user uploaded images of this specific book listed for exchange.

Images also verify the condition the user chose when listing the book.

Verifying the books condition was a functional requirement brought up by survey participants.

Utilising photographs was their preferred format and is a standard feature in similar systems to this.

Exchange Process

This is how the user creates a desired exchange.

Summary

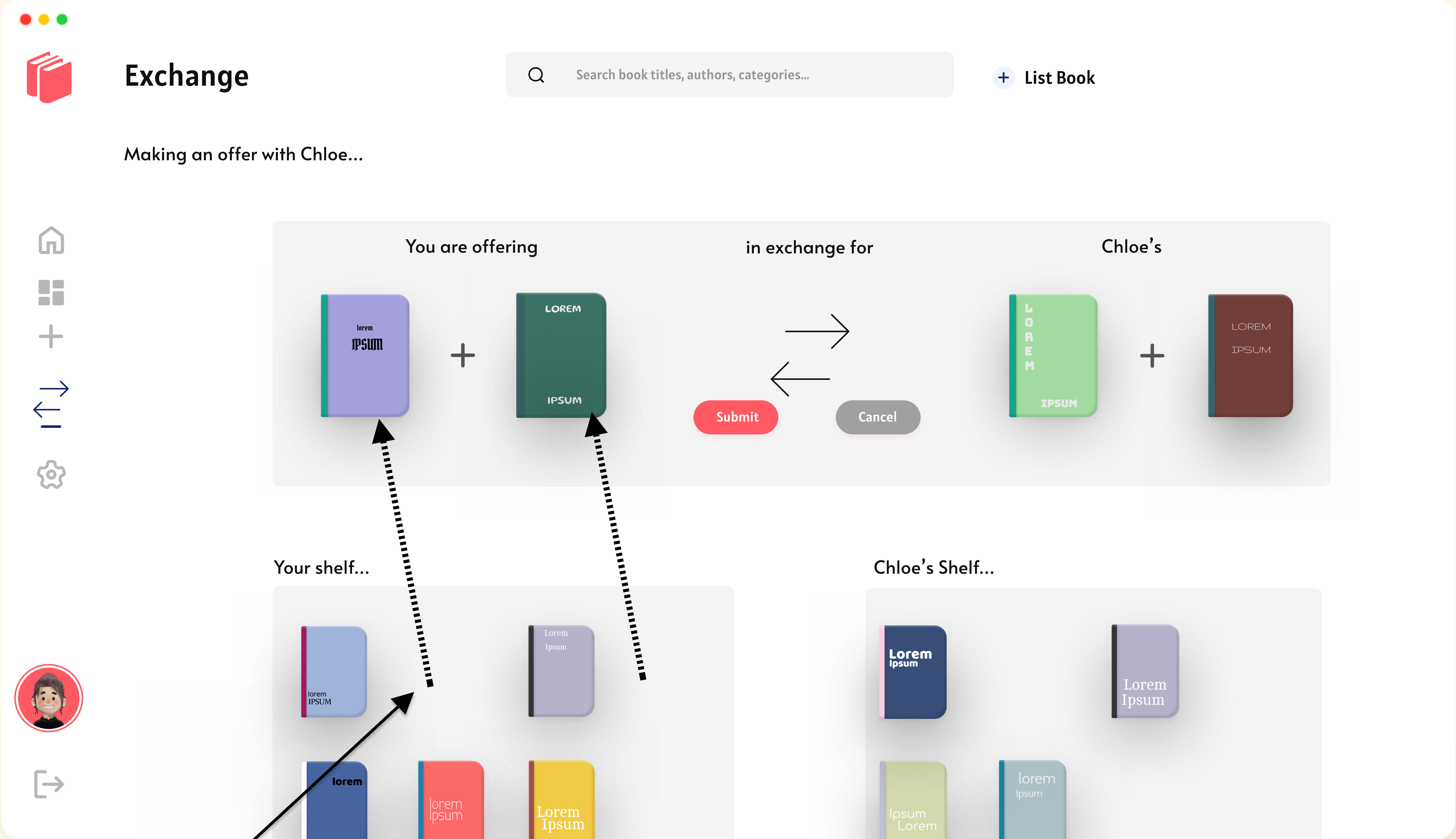
The user is able to drag the book from either their or their trade partner's bookshelf onto the current offer above. This slightly gamifies the process while also plays towards a mental model of shifting books around a bookshelf.

One general point worth mentioning is my deliberate attempt at maintaining a consistent design, both visually and interactively.

Although it seems like common sense and most designers do it instinctively, I wanted a deeper and more substantial reasoning for it.

“The designer provides a good conceptual model for the user, with consistency in the presentation of operations and results in a coherent, consistent system image.”
- Donald A. Norman [5]

I interpret the meaning to be that consistency from the designer results in a predictable system for the user.



Dragging multiple books across from the bookshelf to the offer will combine them into the same exchange.

This saves having to complete multiple separate trades of single books.

References

- [1] Tidwell, J. (2011). Designing Interfaces (2nd ed.). O'Reilly Media.
- [2] Moggridge, Bill. (2006). Designing Interactions. MIT Press.
- [3] Nielsen, J. (1994). Enhancing the explanatory power of usability heuristics. In Conference companion on Human factors in computing systems - CHI '94 [Preprint]. doi:10.1145/259963.260333.
- [4] Norman, D. (1999). Affordance, Conventions and Design. Interactions, pp. 38-43.
- [5] Norman, Donald A. (2013). The Design of Everyday Things. Cambridge, MA: The MIT Press.