

The background is a light orange color with wavy, abstract shapes in darker orange and blue. There are several stylized blue books floating around, some open and some closed. There are also blue leaves and small white and blue geometric shapes scattered throughout.

# Booked

CS 410 | Team Gold | 30 November 2022

# Our Team



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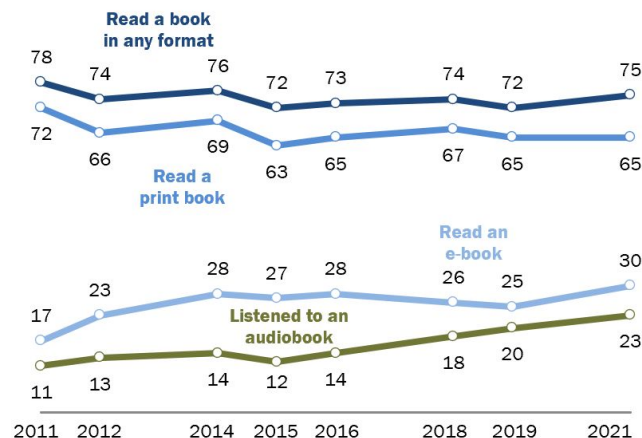
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# Problem Background

- In 2021, 75% of U.S. adults say they have read a book in any format in the previous 12 months.
  - 65% say they read a print book in the last year.
  - 30% say they read an e-book in the last year.

## Print books continue to be more popular than e-books or audiobooks

% of U.S. adults who say they have \_\_\_\_ in the previous 12 months



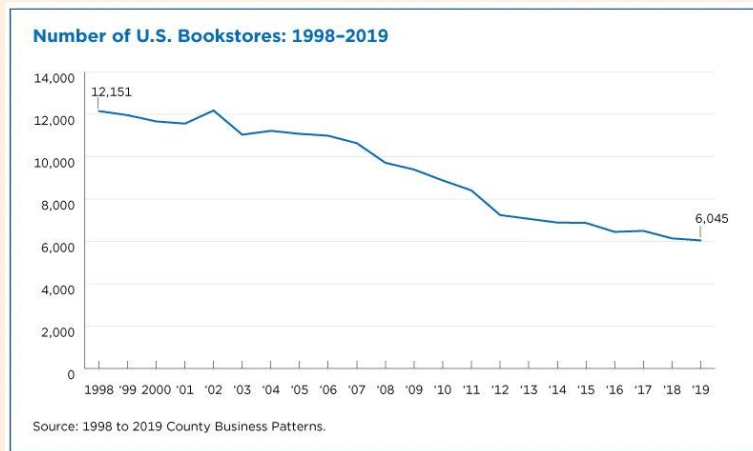
Note: Those who did not give an answer are not shown.

Source: Survey conducted Jan. 25-Feb. 8, 2021.

PEW RESEARCH CENTER

# Problem Background *cont.*

- Decrease in physical bookstores and increase in online bookstores<sup>[1][5]</sup>
  - Amazon dominates the market<sup>[6]</sup>
- Not all booksellers list the same criteria
  - Type, edition, condition, etc.
- Hard to find the lowest cost when buying books online
  - Book collecting can be expensive

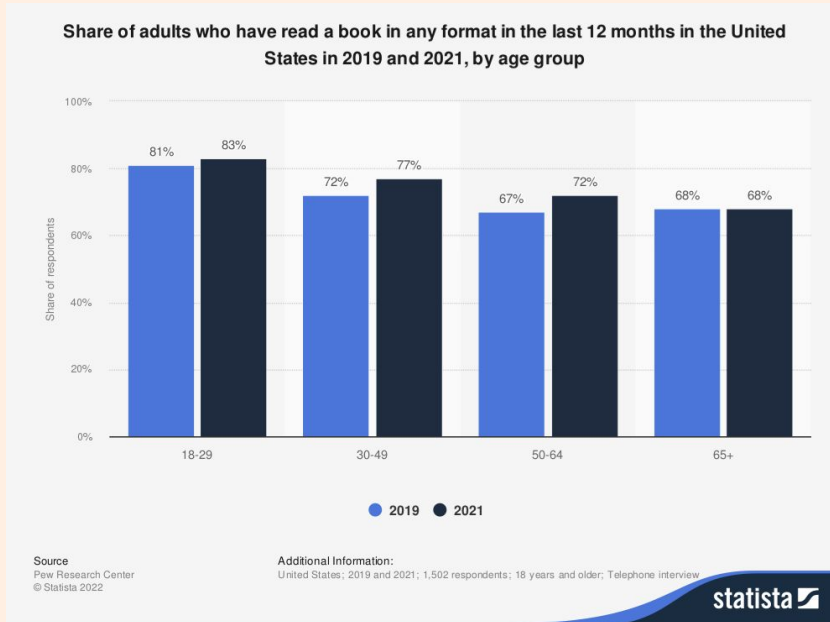


# Problem Statement

There exists no platform that allows a user to search for a book based on its type (physical or electronic), edition (e.g., hardcover or paperback), and condition (new or used) as well as display its cheapest cost (including shipping and handling) for **small and/or independent bookstores**.

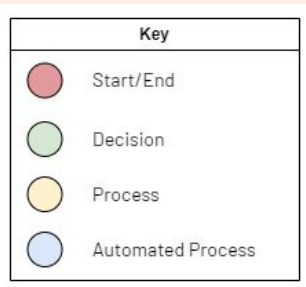
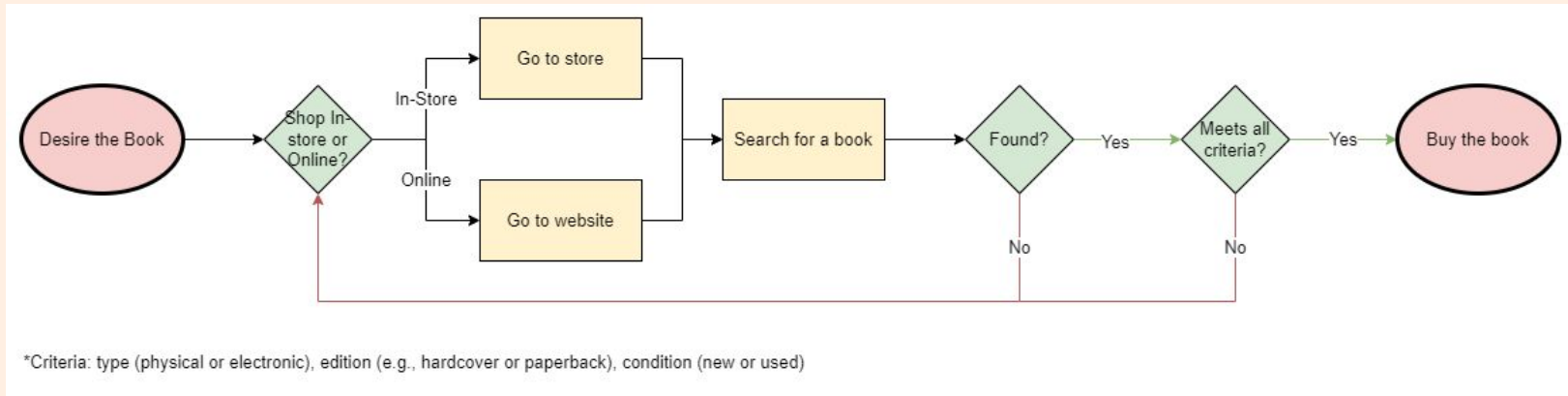


# Customers & End-Users



- Customers: independent bookstores
- End-Users: book-lovers

# Current Process Flow





# Solution Statement

Booked is a web-based application that shows users which **independent bookstore** to purchase a book from based on its type, edition, condition, and lowest total cost.

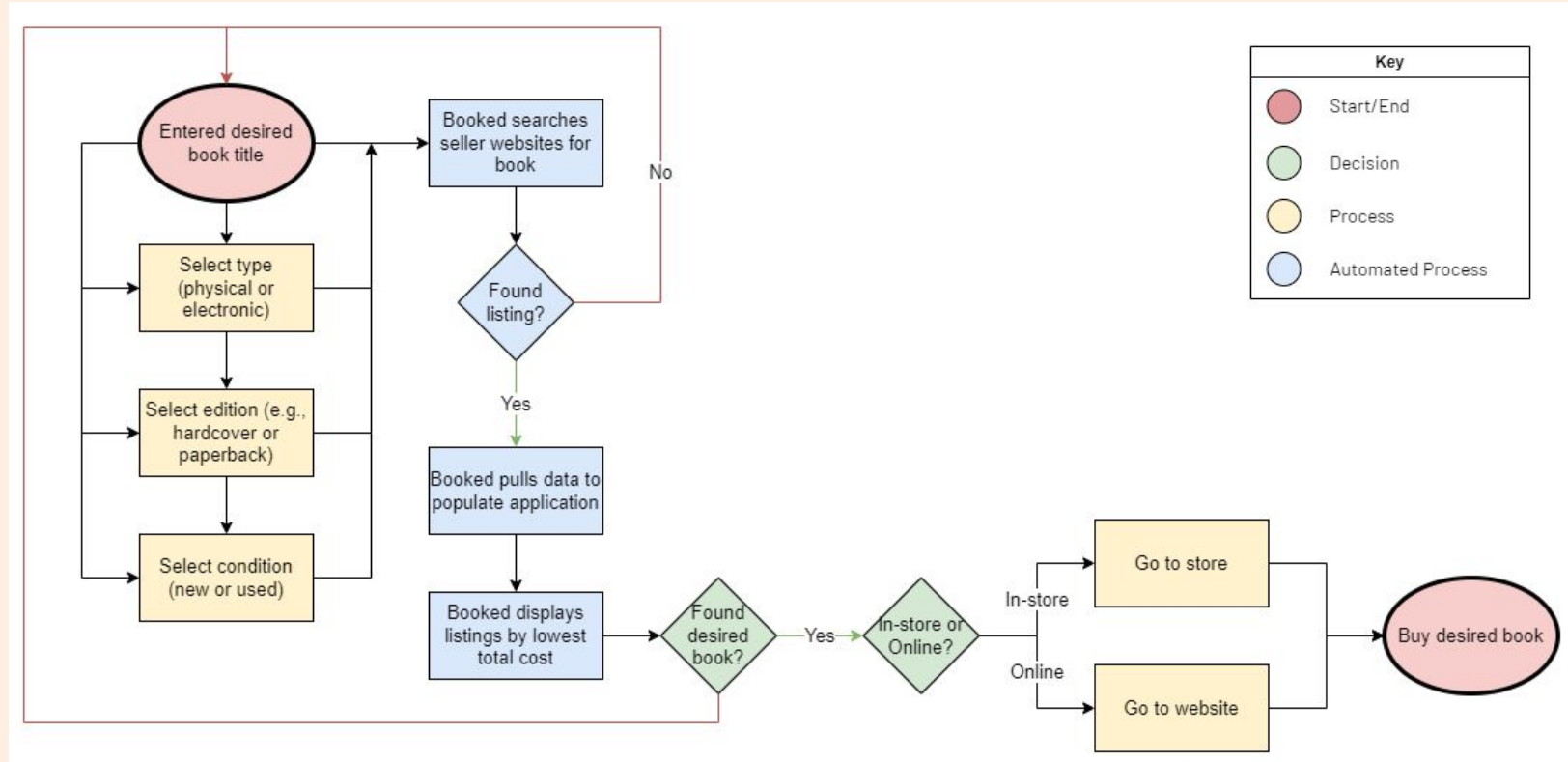


# Solution Characteristics

- Booked will save time and money during the book-searching process by laying out the type, edition, condition, and cost for customers
- It will also introduce users to local and/or **independent businesses**.
- Those who prefer to shop online will be presented with a link to seller's website
- Those who prefer to shop in-person will be presented with the **local bookstore's** address



# Solution Process Flow



# Competitors

**Biblio:** Largest independent book marketplace that specializes in used, rare, and out-of-print books.

**BookFinder:** Search engine for new, used, out-of-print books and textbooks. Checks major catalogs, retailers and listing sites.

**Bookshop:** Online marketplace that partners with independent bookstores.

**Amazon:** Largest marketplace in the United States. Offers new and used books and textbooks, as well as book and ebook rentals.

**AbeBooks:** A top online marketplace focusing on used, rare, collectible and out of print titles for sale by independent booksellers.

**AskMissy:** Learning resource recommendation system.



# Indirect Competitors

**Barnes and Noble:** Physical bookstore in most large U.S. cities. Also, offers an online bookstore to purchase new books.

**Book Publishers (e.g., Penguin Random House):** Publishing houses offer new books to be purchased online.

**Local Libraries:** Local libraries are an alternative to buying books as they provide free book rentals to the general public.



# Competition Matrix

Functionality	Booked	Biblio	BookFinder	Bookshop	Amazon AbeBooks	AskMissy
Find physical books and e-books	✓	✓		✓	✓	✓
Sources include independent bookstores	✓	✓	✓	✓	✓	✓
Offer new and used books	✓	✓	✓	✓	✓	
Filter and sort by edition	✓		✓			✓
Filter and sort by book condition	✓	✓			✓	
Show total cost	✓					
Recommend books	✓			✓		✓
Limited to learning resources						✓

## Mitigation:

- Initial: MEDIUM → MITIGATED: LOW

Mitigation:

- Initial: HIGH → MITIGATED: MEDIUM

Mitigation:

- Initial: MEDIUM → MITIGATED: LOW



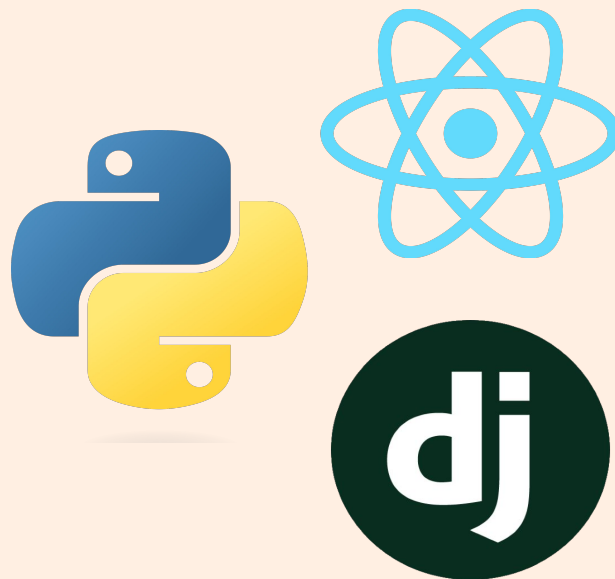
# Tech Stack

## Front-End:

- HTML, CSS, JavaScript (React)

## Back-End:

- Python
- Django
- PostgreSQL



Source: [React Logo](#), [Python Logo](#), [Django Logo](#)



# Development Tools

## Software Requirements:

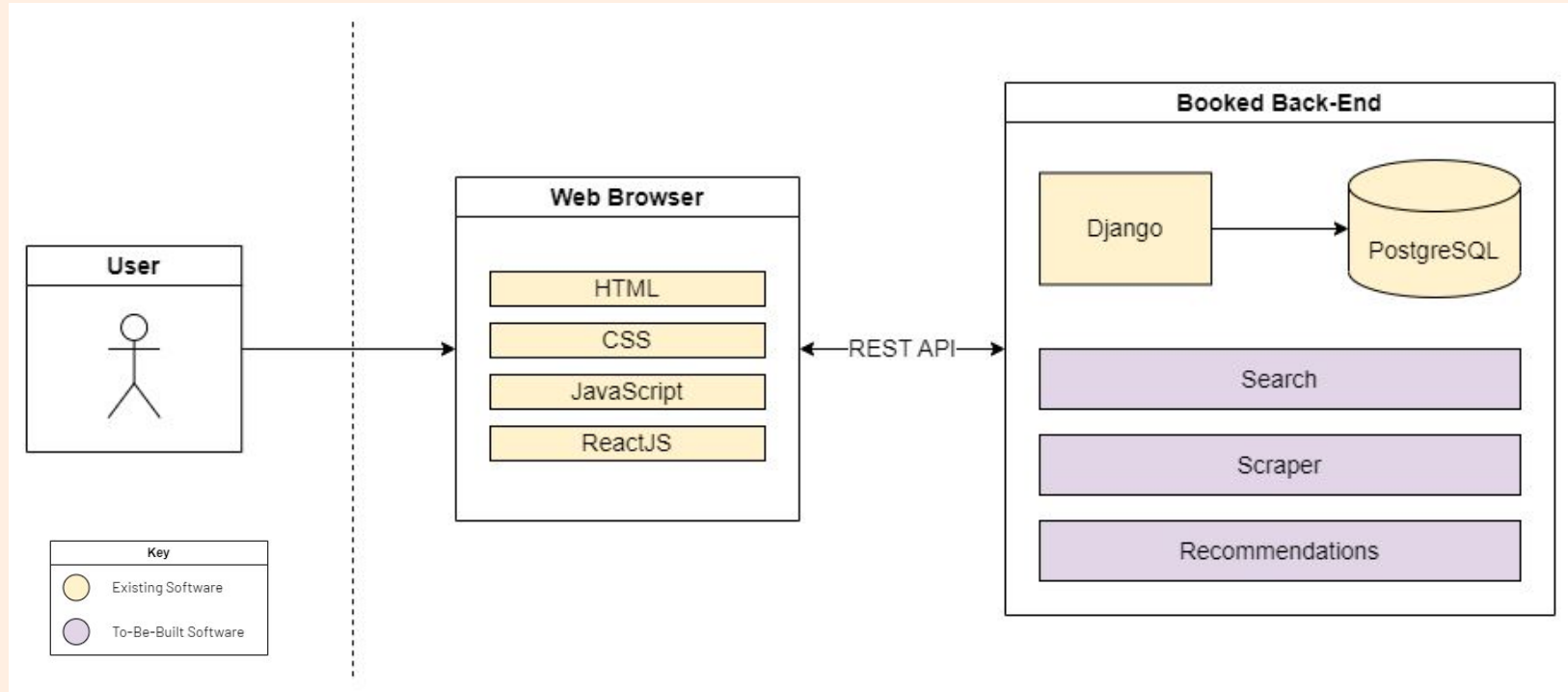
- **Scheduling:** Trello
- **Issue Tracking:** GitHub
- **Version Control:** Git via GitHub
- **IDE:** Visual Studio Code
- **Unit Testing:** Jest, PyTest
- **Documentation:** PyDoc, GitHub Pages
- **API Testing:** Postman
- **GUI Mockups:** Figma

## Hardware Requirements:

- Only a PC capable of running the software tools listed is needed.



# Major Functional Components Diagram



# Development Model



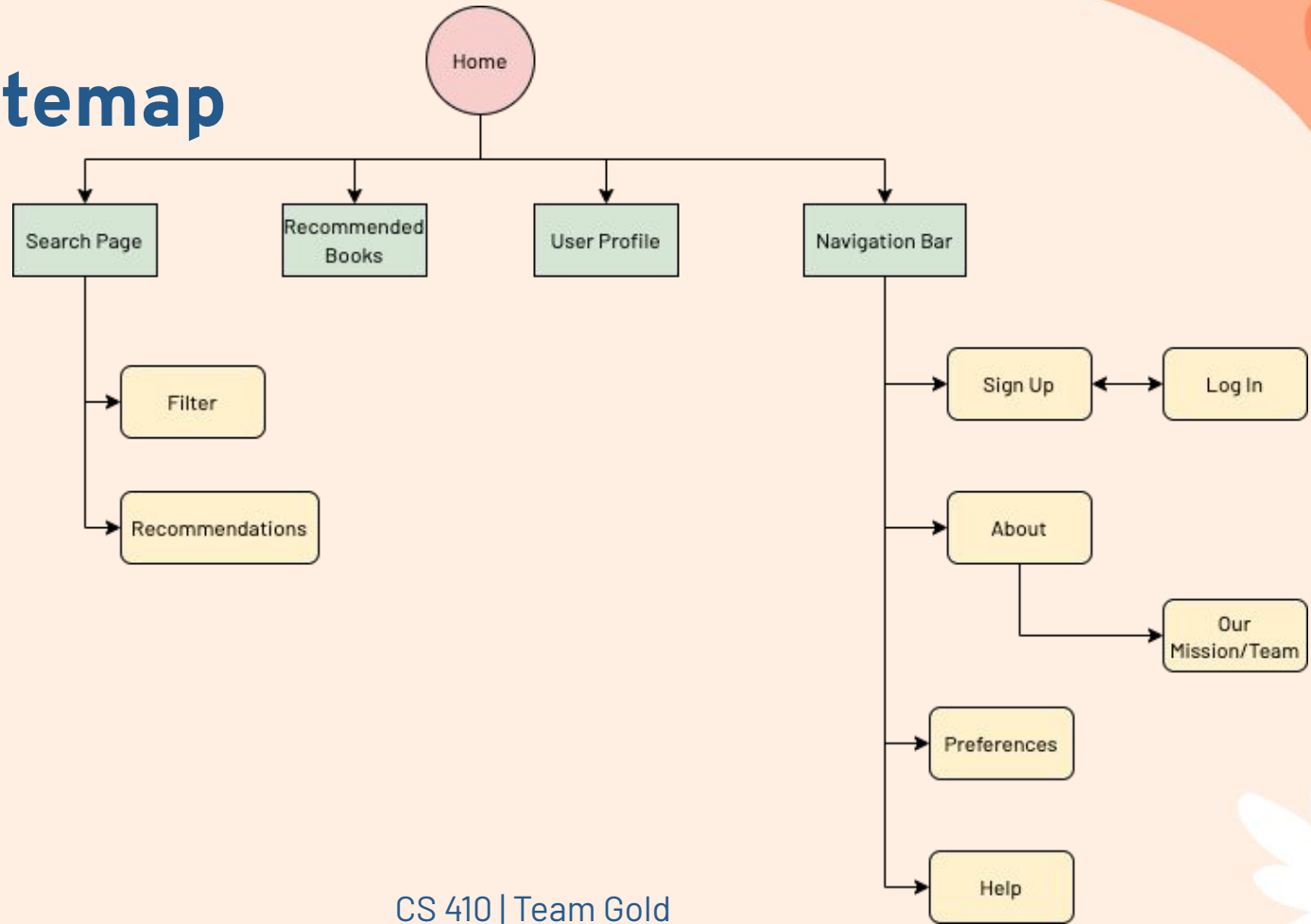
Source: [What is Agile software development?](#)

# Milestones

5, 2 week sprints\*



# GUI Sitemap



# GUI Mockup: Login Page

**Booked**

Home | Sign up | About | Preferences | Help

## Sign in

Email

Password

[forgot your password?](#)

☐ Keep me signed in

**Sign in**

[New to booked?](#)

**Sign up**

# GUI Mockup: Account Creation Page

**Booked**

Home | Sign in | About | Preferences | Help

## Create Account

Your name \*

Email \*

Password \*

▲ Passwords must be at least 6 characters

Re-enter password

▲ Passwords must match

Zip code (optional)

Sign up

By creating an account, you agree to the  
Booked Terms of Service and Privacy  
Policy

Already have an account?

Sign in

# GUI Mockup: Booked Search Page

## Booked

Finding the book from your local independent bookstore - Simplified!

Home | Sign in | About | Preferences | Help

### Book Price Comparison

Book Title:

Book is written in English ▾

Author:


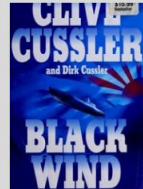
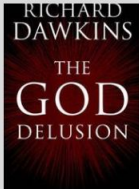

ISBN:

Condition: New ▾ Binding: Hardcover ▾

Edition: First ▾

Format: Physical ▾ Search

### Books based on your interests



<>



# GUI Mockup: Search Results Page

Booked

[Home](#) | [Sign in](#) | [About](#) | [Preferences](#) | [Help](#)

## Search Results

Showing all matches where

Author is: Sun Tzu  
Title is: Art of war  
ISBN is: [not specify]  
Condition is: New  
Edition is: [not specify]  
Format is: Physical  
Binding is: Hardcover  
Book is written in: English


Save Search

New Search

All listings	Condition ▼	Edition ▼	Format ▼	Binding ▼	Best Match ▼
13,000+ results for Art of War					<a href="#">Filter options</a>

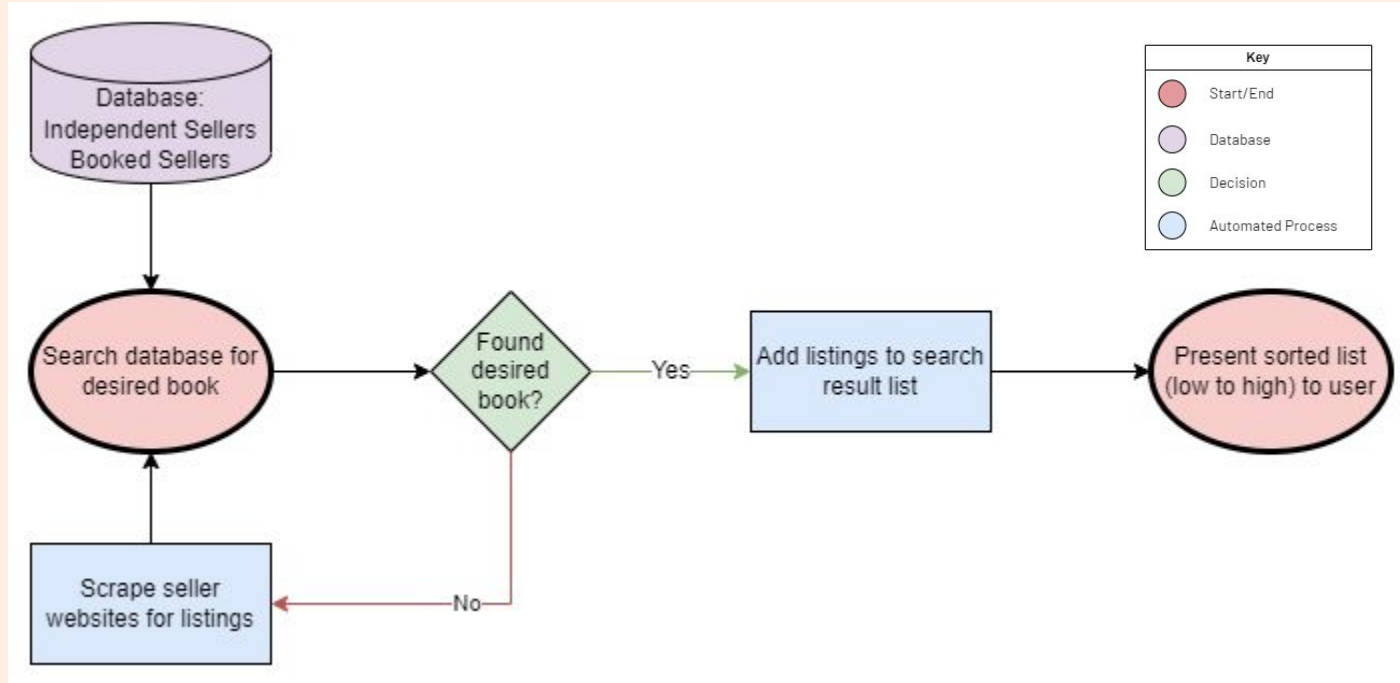
Book results 1 - 50 of 13521

Click on price to find out about the book

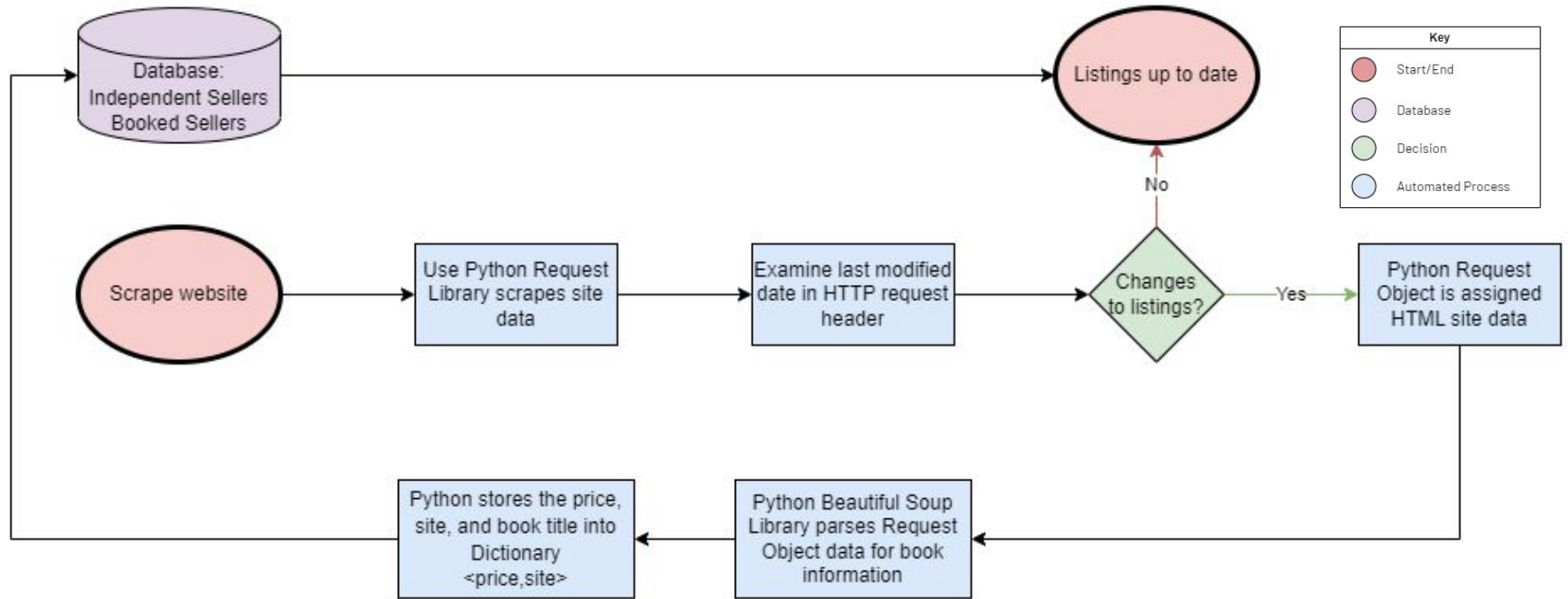
#	Book Seller	Book Info	Price
1		New, Sun Tzu, The Art of War, Hardcover, ISBN 9780007420124, Publisher: HarperCollins Publishers, 2011, Available - dispatched from the UK in 1 business day with free delivery worldwide	\$ 4.38
2		New, Sun Tzu, The Art Of War, Hardcover, ISBN 9781599869773, Publisher: Filiquarian, 2007, Edition: First Thus. 68 pages, In Stock, Fulfillment by Amazon	\$ 5.53

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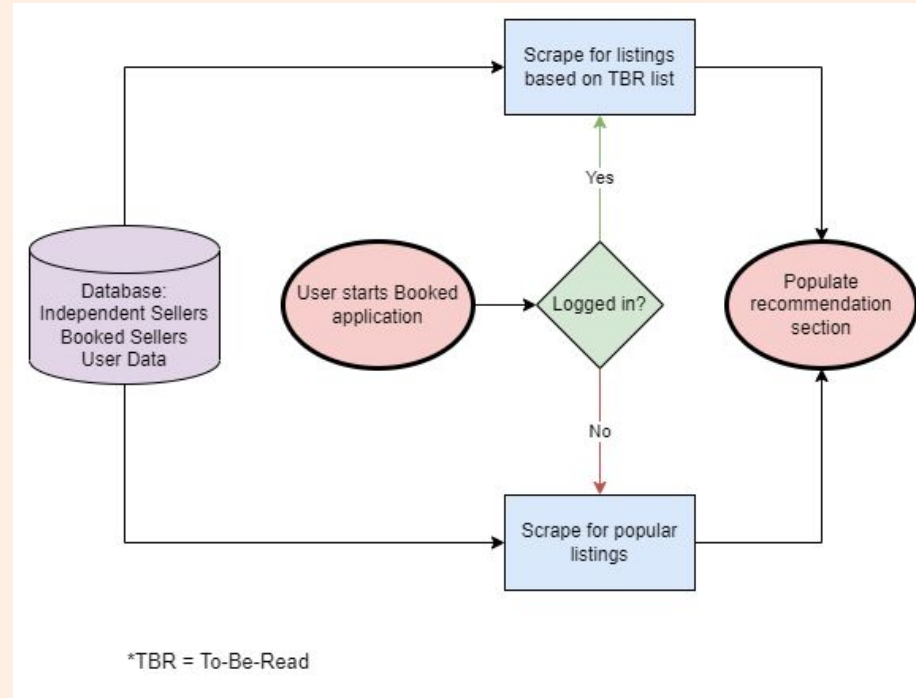
# Algorithm: Booked Search



# Algorithm: Booked Scraper

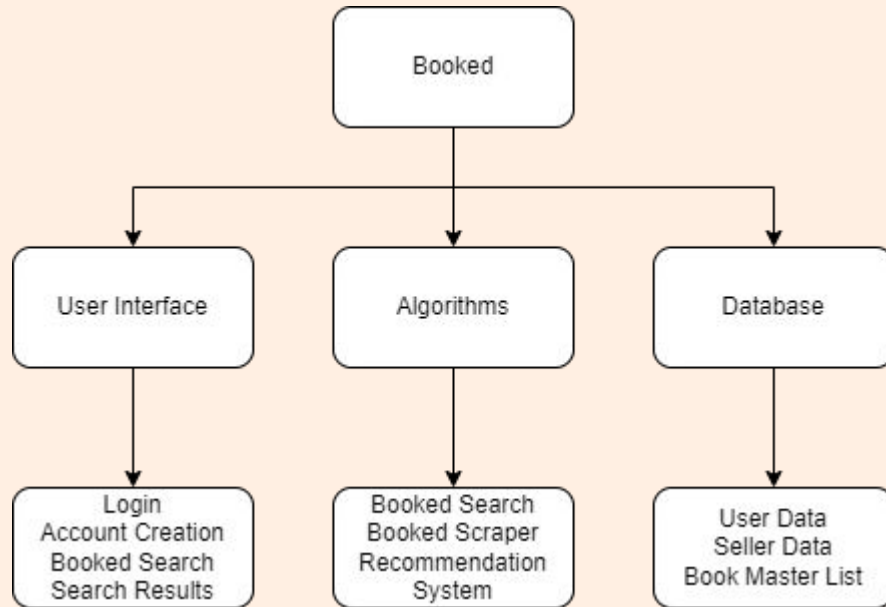


# Algorithm: Recommendation System

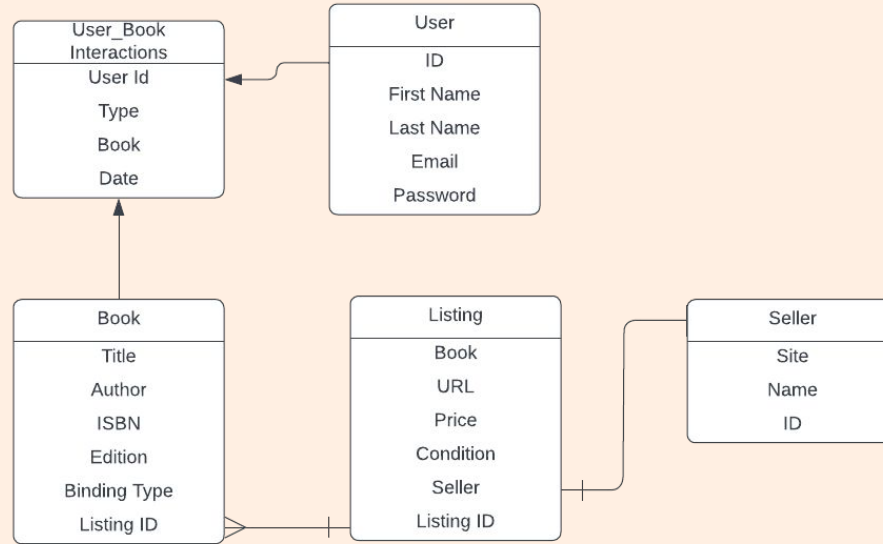


Key	
	Start/End
	Database
	Decision
	Automated Process

# Work Breakdown Structure



# Database Schema



# Conclusion

Booked will not...

- Include major book retailers
- Provide personalized book recommendations
  - Relevant purchases only
- Be limited to textbooks

Booked will...

- Include **independent bookstores** in search results
- Allow users to find specific books based on specific criteria
  - Ensure that the criteria are met exactly
- Provide users with the cheapest price



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**Thank you!**

The bottom of the slide features a decorative border with a light orange background. It includes illustrations of blue leaves, a small blue book, a white feather, and a group of green stars.



# References

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# Appendix



# Customer Risks

C1: Difficult to appeal to customers

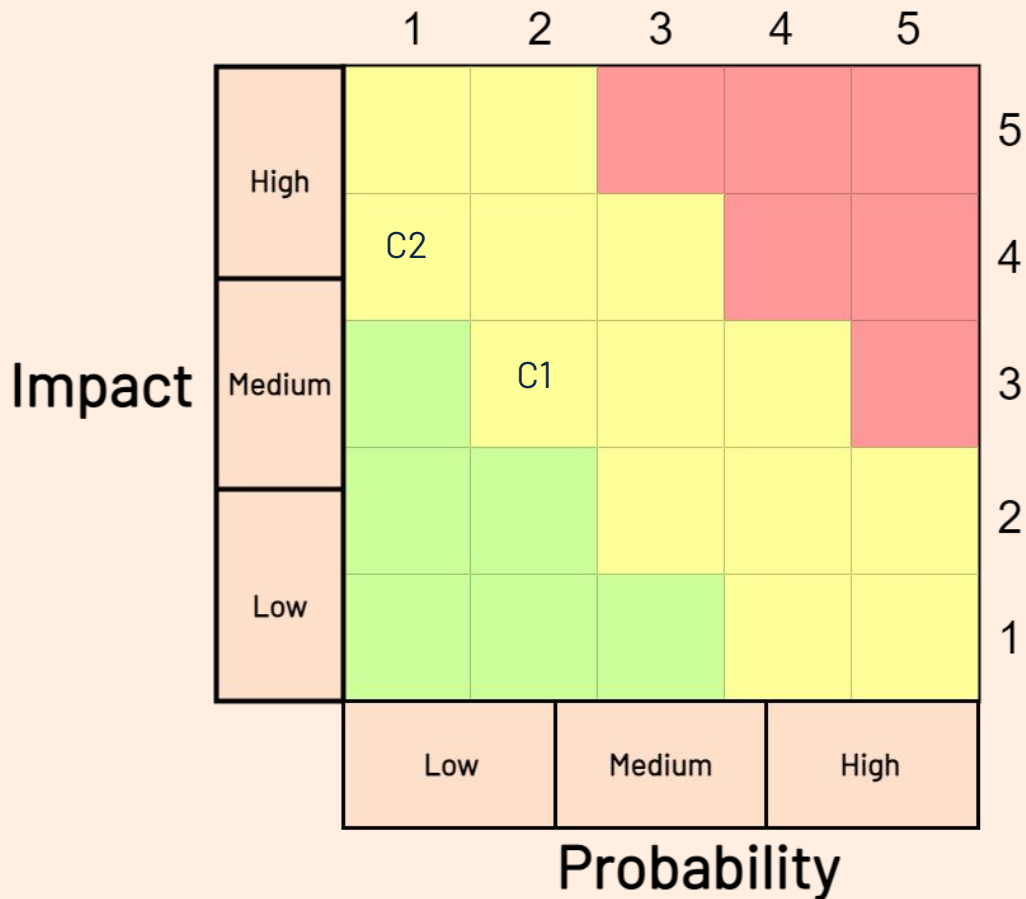
Mitigation:

- Show differences between us and competitors

C2: Account emails could be compromised

Mitigation:

- Use best practices to secure customer information

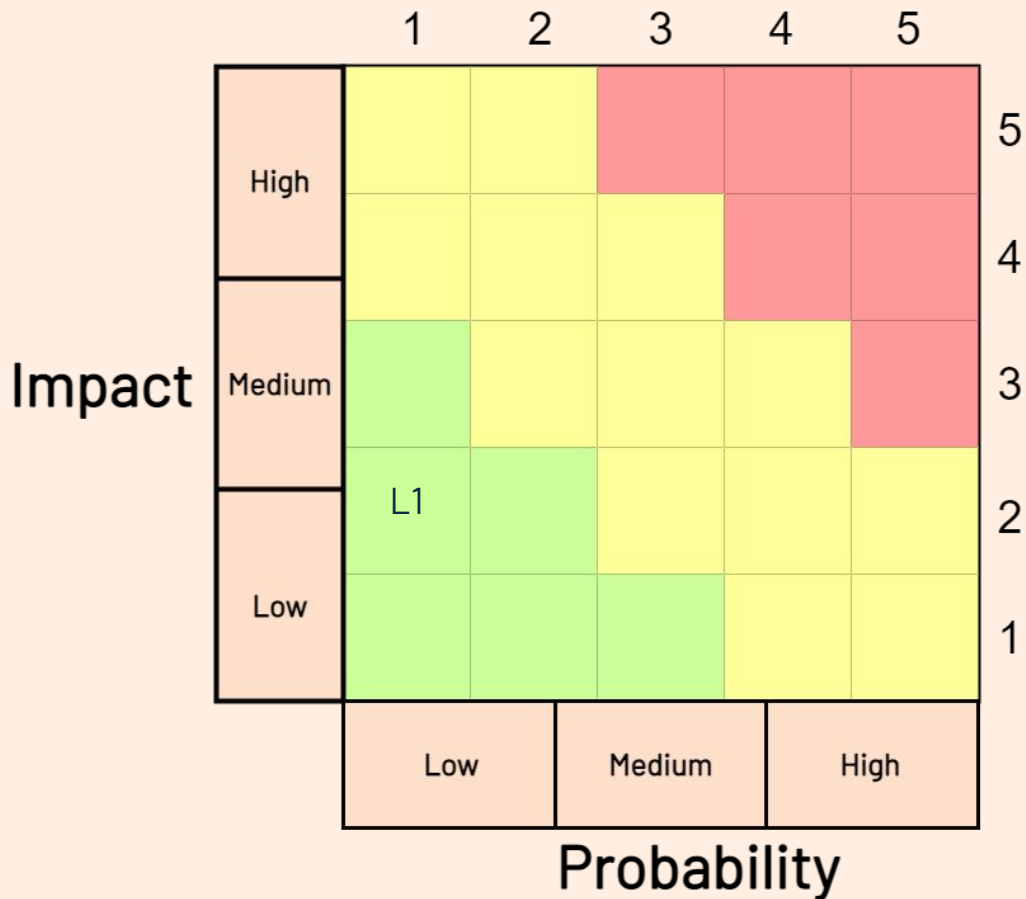


# Legal Risks

L1: Cease and desist for web scraping

Mitigation:

- Obtain data through API
- Form partnerships with bookstores that want advertising



# User Roles

1. **First timers:** Users who want to create an account by entering their name and email address
2. **Local Businesses :** Users who know the zip code of their location to generate their local bookstores
3. **Existing Customers:** Users who know the title and/or author of the book they are searching for
4. **Buyers:** Users who decide if they want to purchase the book online or in person



# User Stories

- As a User, I would like to create an account with my name and email address.
- As a User, I would like to enter the title of the book I want to buy.
- As a User, I would like to enter the author of a book I would like to buy.
- As a User, I would like to enter my zip code, to see the near by local bookstores.



# Real World Product vs. Prototype

Feature	RWP	Prototype	Prototype Actual
Book Search Conditions	X	X	X
GUI Layer	X	X	X
“Help” button	X	X	X
Storage of Bookstore databases	X	X	X
Preferences	X	X	X
User login	X	X	
User profile	X		