

The background is a light orange color with wavy, abstract shapes in darker orange and blue. There are several stylized blue leaves scattered around. Four blue books are floating in the air, and one orange book is on the right. A blue arrow points upwards in the top left. There are also some small white and blue geometric shapes.

# Booked

CS 410 | Team Gold | 26 October 2022

# Our Team



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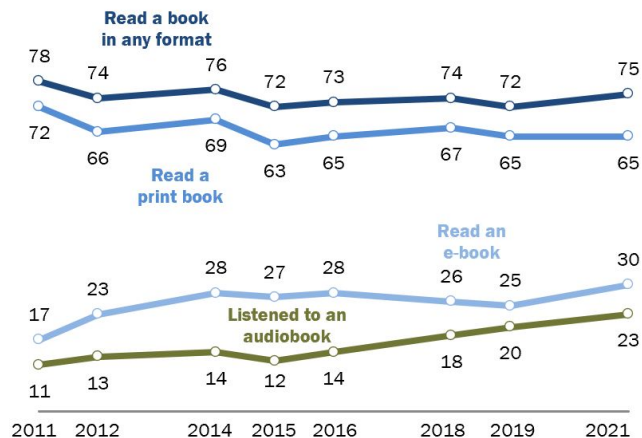
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# Problem Background

## 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



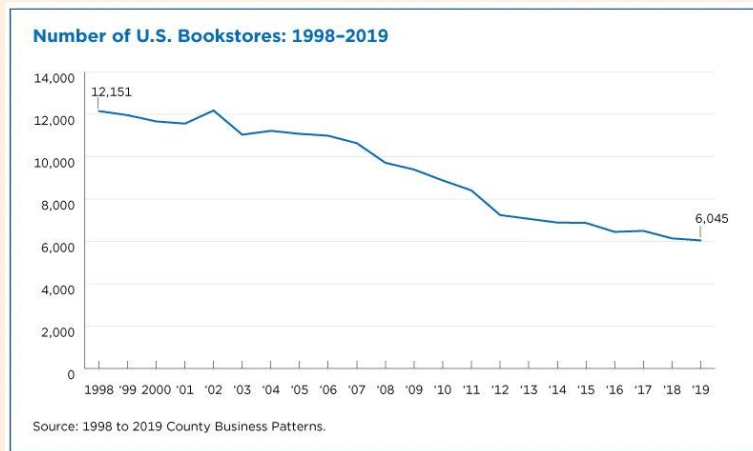
Note: Those who did not give an answer are not shown.

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

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# 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

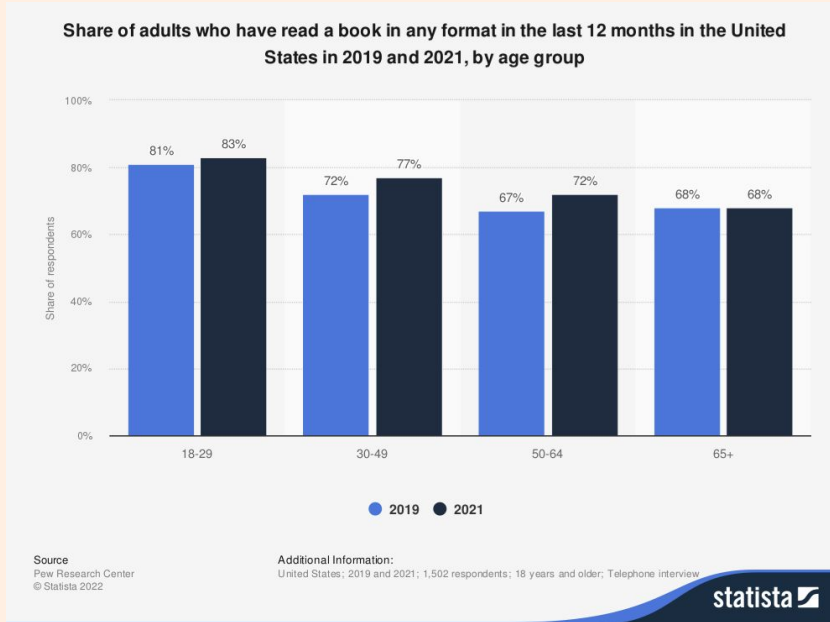


# Problem Statement

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.

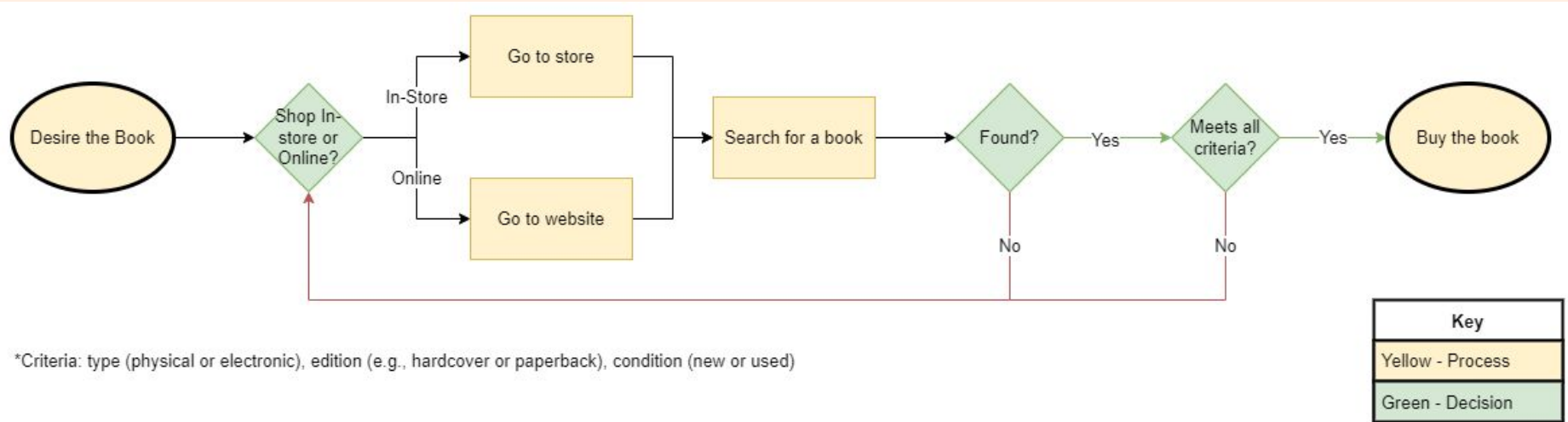


# Customers & End-Users



- 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.

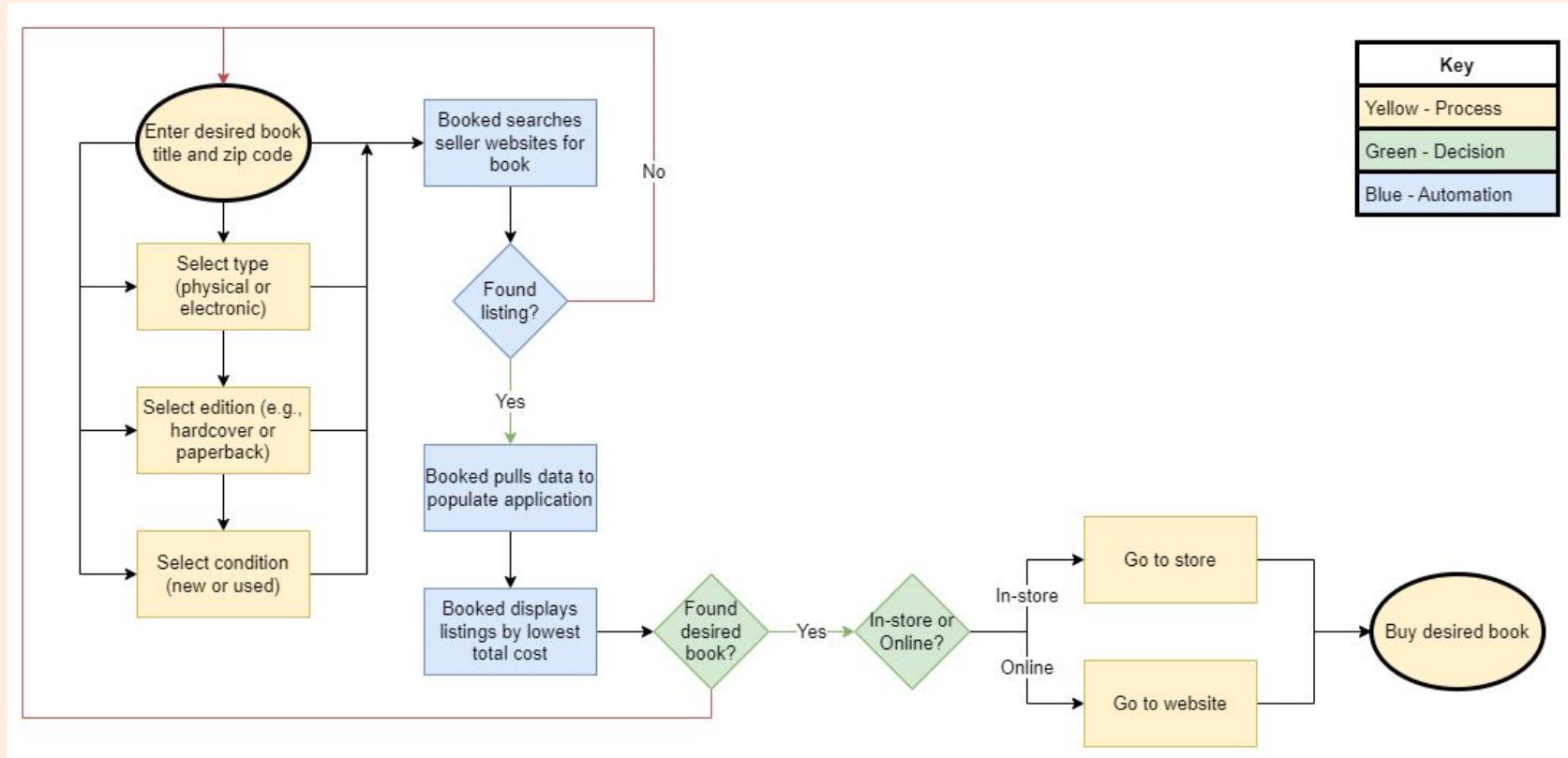


# Solution Characteristics

- Booked will save time and money during the book-searching process by laying out the type, edition, condition, and cost for customers
  - Will be done by database searching and web scraping
- Those who prefer to shop online will be presented with a link to seller's website
- Those who prefer to shop in-person can enter their zip code, and will be presented with the local bookstore's address
  - Will introduce users to local and/or independent businesses



# 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 | 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          |        |        |            |          |        | ✓        |

# Customer Risks

C1: Difficult to appeal to customers

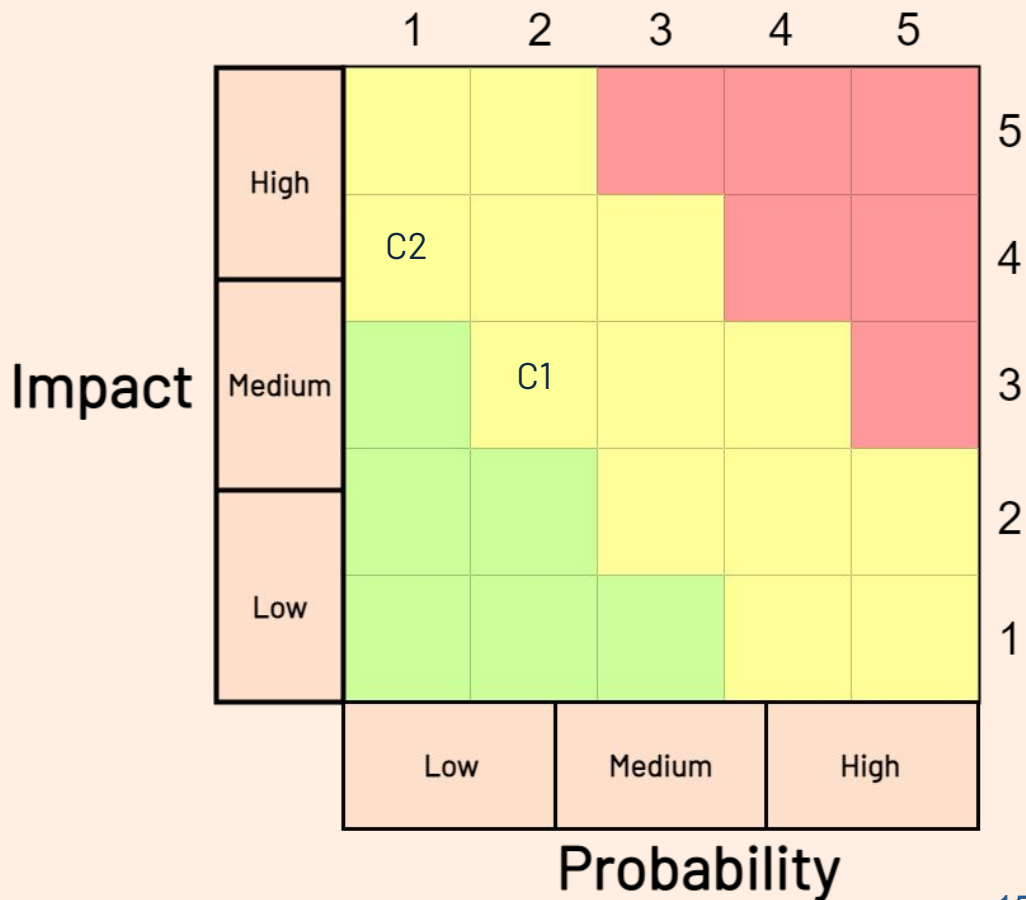
Mitigation:

- Show differences between us and competitors

C2: Account emails could be compromised

Mitigation:

- Use best practices to secure customer information



# Security/Technical Risks

T1: Incomplete or outdated data pulled

Mitigation:

- Put checks in place to verify data

T2: No backup system for maintenance or unplanned downtime

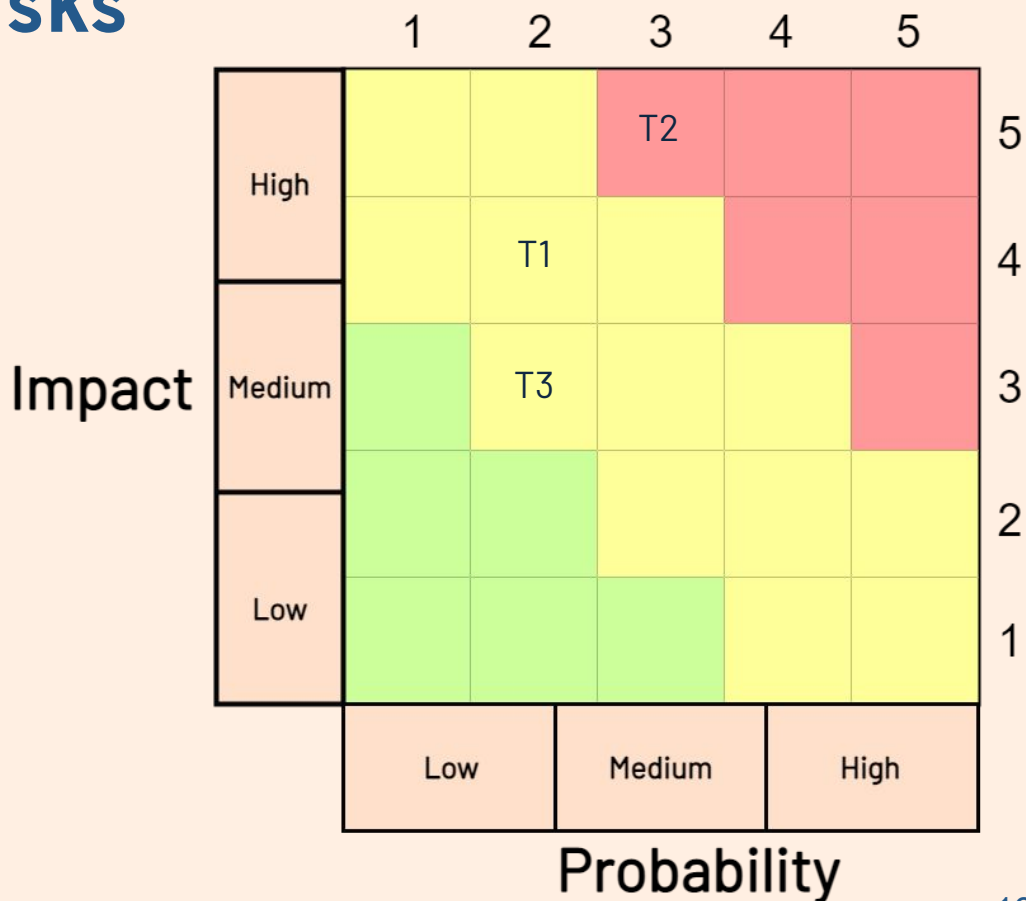
Mitigation:

- Create backup system so Booked is always online for customers

T3: Booked platform is compromised

Mitigation:

- Use standard practices for website security



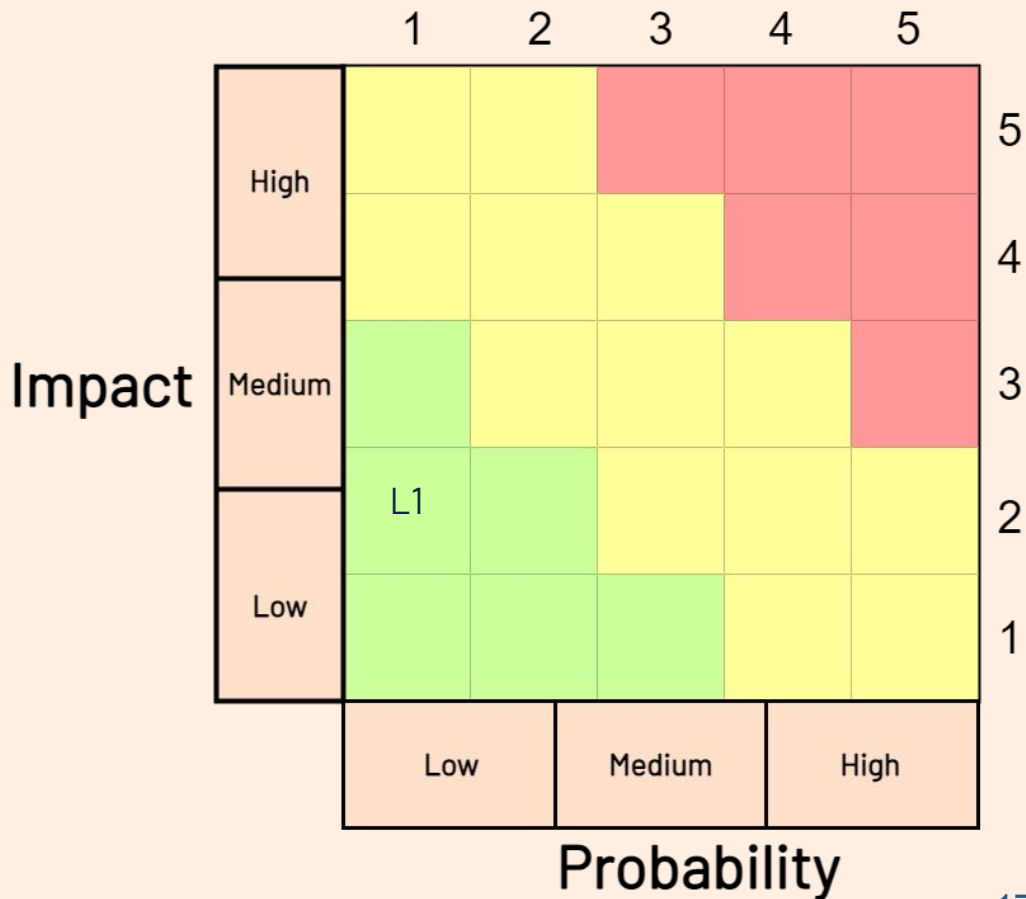


# Legal Risks

L1: Cease and desist for web scraping

Mitigation:

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



# 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



The top of the slide features a decorative border with a light orange background. It includes illustrations of blue leaves, a cluster of black dots, a small orange book, a white leaf outline, and a group of teal plus signs.

**Thank you!**

The bottom of the slide features a decorative border with a light orange background. It includes illustrations of blue leaves, a cluster of teal dots, a small blue book, and a group of white plus signs.

# References

1. "12 Stats on the State of Bookstores in the U.S." *OEDB.org*, Copyright © 2006-2022 OEDb.org, a Red Ventures Company, 2 Aug. 2018, <https://oedb.org/librarian/12-stats-on-the-state-of-bookstores-in-america-today/#::~text=Today%2C%20there%20are%20around%2010%2C800%20bookstores%20in%20the%20U.S>
2. "4 Reasons Why Shipping Is so Expensive in 2022." *Gilson Solutions*, 11 Mar. 2022, <https://gillonsolutions.com/4-reasons-why-shipping-is-so-expensive-in-2022/>
3. "Book Lovers Presentation." Slidesgo, <https://slidesgo.com/theme/book-lovers#search-book+lovers&position-1&results-3&rs=search>.
4. Faverio, Michelle, and Andrew Perrin. "Three-in-Ten Americans Now Read e-Books." Pew Research Center, Pew Research Center, 2 Feb. 2022, <https://www.pewresearch.org/fact-tank/2022/01/06/three-in-ten-americans-now-read-e-books/>
5. Hait, Andrew W. "Despite Our Love of All Things Electronic, Bookstores Still Relevant This Holiday Season." *Census.gov*, 13 Apr. 2022, <https://www.census.gov/library/stories/2021/12/do-not-turn-the-page-on-bookstores.html>
6. "Print Book Market Share by Channel", ©Statista 2022, 6 Jan 2016, <https://www.statista.com/statistics/534111/amazon-book-market-share-usa/>
7. Watson, Amy. "Book Readers in the U.S. by Age 2021." Statista, 27 July 2022, <https://www.statista.com/statistics/249787/book-reading-population-in-the-us-by-age/>.