Labyrinth

High Fidelity Protype

Final Group Presentation

Thrisha Armstrong & Joseleen Figueroa

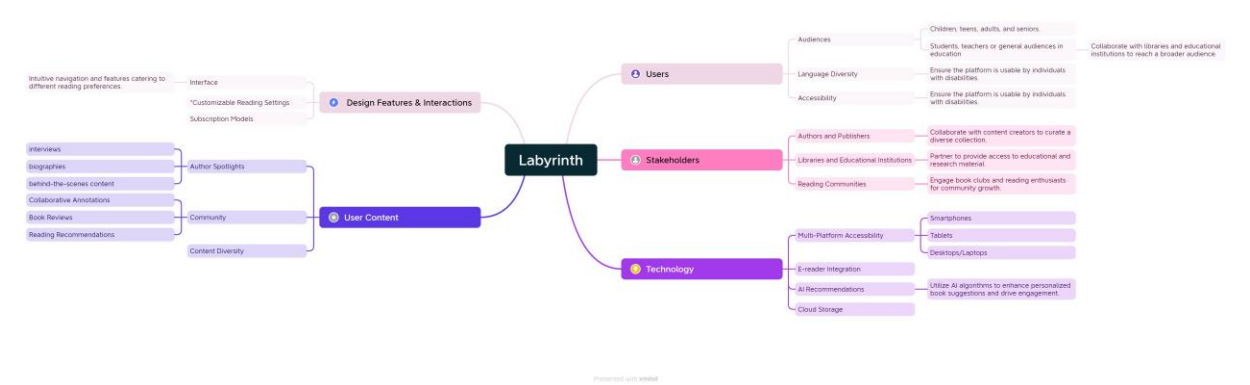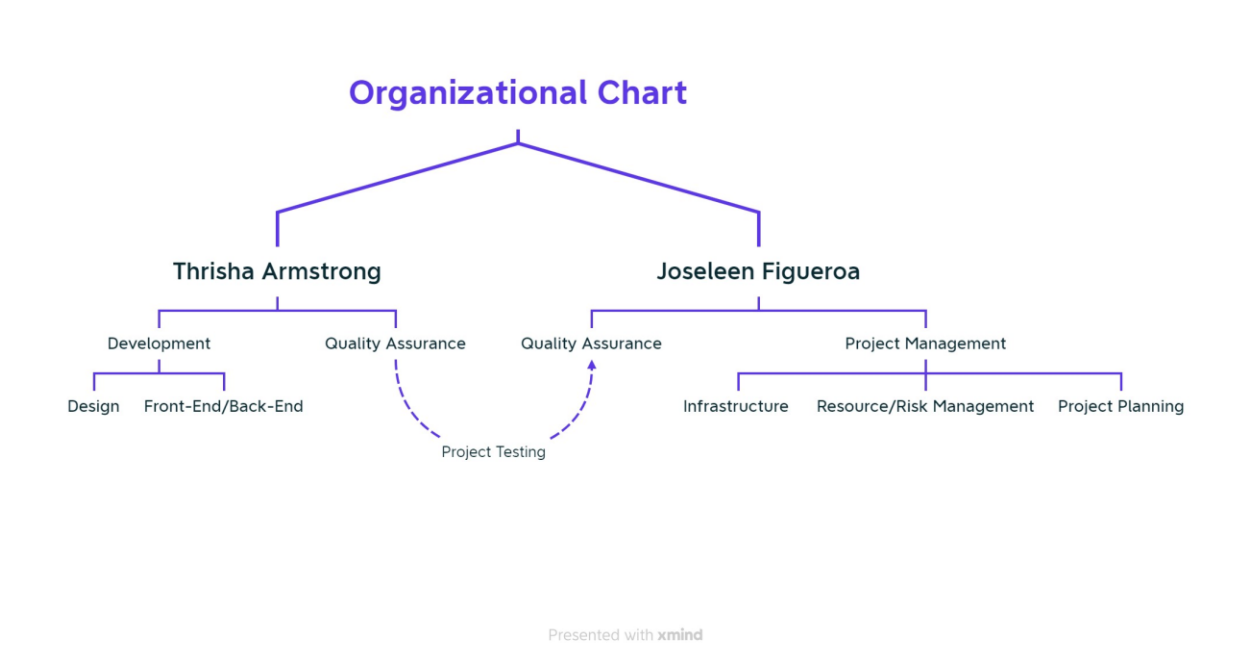# Table of Contents

Team Labyrinth: Thrisha Armstrong, Joseleen Figueroa

Mind Map Brainstorm

Group Idea & Team Formation

Organizational Chart

Examples in the Marketplace

Thrisha:

1. Libby
2. Nook by Barnes & Noble
3. Goodreads

Joseleen

1. Kindle
2. Smashwords
3. FBREADER

Evaluation and Critic: Libby

Libby (Previously known as overdrive) is a no-cost application that enables you to access ebooks, digital audiobooks, and magazines from your local public library. You can either stream these titles using Wi-Fi or mobile data, or you have the option to download them for offline reading, allowing you to enjoy your chosen content at your convenience, no matter where you are. All that's required to begin using Libby is a valid library card.

Link: https://www.overdrive.com/apps/libby#Features

| Strengths	Weakness
Library Access	Limited Availability (Based on library)
Cross-Platform Compatibility	Waitlists (users have to wait to borrow)
Offline Reading and Listening	Limited Format Support
Customization Option	Library Card Requirement
Bookmarks and Notes	Region and Language Restrictions
Recommendation and Discovery	No community or social media presence
Library Integration/	Limited Customer Support
User Friendly UI	
Sync Across Devices	
Built-In eBook Reader and Audiobook Player	

Evaluation and Critic: Nook by Barnes & Noble

Nook is Barnes & Noble's digital platform for reading ebooks and magazines. It includes both a dedicated eReader device and a mobile app available on various platforms.

Link: https://www.barnesandnoble.com/b/nook-devices/_/N-8ri

| Strengths	Weakness
eReader Device	Market Competition (Kindle)
Cross-Platform Access	Library Integration Constraints
Content Selection	Limited International Availability
Customization Options	Platform and Device Dependency
Highlighting and Annotation	Content Availability
Sync Across Devices	Limited Accessibility Features
Barnes & Noble Integration	DRM Restrictions
Reading Sample	Outdated Ecosystem
Offline Reading	Difficult Customer support
Subscriptions to digital magazines	
Access to Nook Store	
Multiple Formats	
User-Friendly Interface	
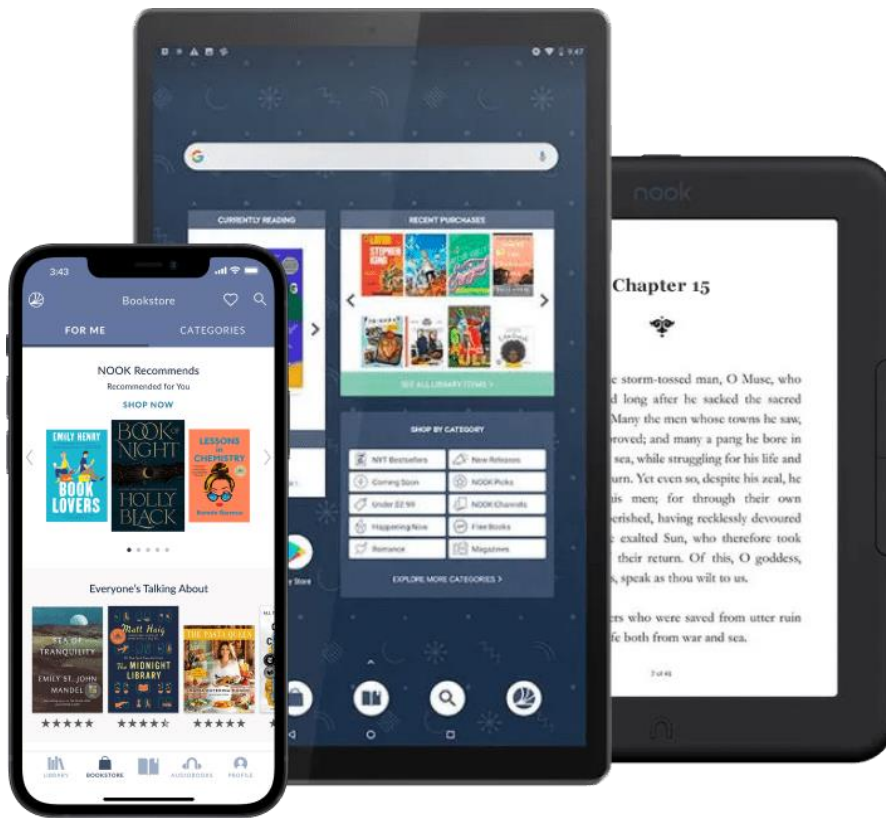
Evaluation and Critic: Goodreads

Goodreads is a social media platform and website designed for book lovers and readers. It serves as a comprehensive online community and database where users can discover, review, discuss, and track books they have read, are currently reading, or want to read in the future.

Link: https://www.goodreads.com/

Strengths	Weakness
Book Database	Inconsistent Reviews
Community Engagement	Limited eBook Integration
Personalized Recommendations	No Real Time updates
Accessibility Features	No Privacy on Profiles
Bookshelves and Organization	Ownership and Monetization/Owned by Amazon
Global Reach	Mobile App Performance
Reviews and Ratings	Limited Genre Diversity
Author Engagement	
Lists and Awards	
Integration with Other Platforms/Apps	
Reading Stats and Insights	
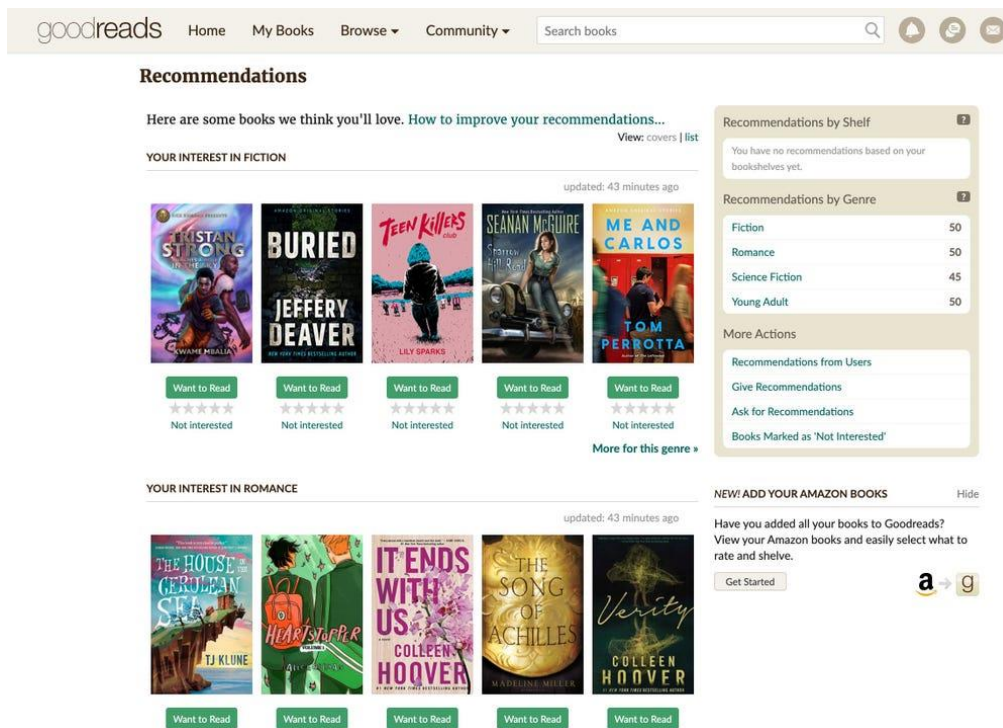
Evaluation and Critic: Smashwords

Smashwords is an online web page that is based in Los Gatos, California. This web page has become a platform for self-publishing e-books. I found this discovery interesting because there are many affordable book purchases along with a long list of categories to choose from.

Link: https://www.smashwords.com/

Strengths	Weakness
User friendly	No mobile app
Affordable	Website only
Many options to choose	No physical hard cover book
Self-publishing options	Small option of free reads
Free books	
Educational tools	
Mobile friendly	
Length of reading options	
Screenplay	
downloadable	

Evaluation and Critic: KINDLE/AMAZON

Link: https://www.amazon.com/kindle-dbs/storefront?storeType=browse&node=154606011

Strengths	Weakness
Kindle apps	Distracting with shopping options
Audio books	Mostly heavily advertised
Wide range of options	Fake reviews
Popular options	
Reviews	
User friendly	
Mobile friendly	

Evaluation and Critic: FBREADER

BReaders is an app friendly reading source founded by The Nikolay Company in 2005. FBReaders is an app you can download to access a wide range of e-books. I enjoy all the options this app such as, the ability to save where you left off, ability to read different books, and the ability to highlight words.

Link: https://fbreader.org/en

Strengths	Weakness
All Platforms Friendly	Vertical reads only
News updates	App only
E-Books	Few glitches when browsing
Organized	Long download process
Preview samples	
Browser Options	
Night Mode	
Pictures	
Long length of Categories	

Feature/Function Matrix

E-Reading Apps	Large Database/Catalog	User-Friendly Interface	Customization Options	Bookmarking	Annotation Tools	Dictionary Integration	Search Functionality	Sync Across Devices	Offline Reading	Reading Progress	Night Mode	Accessibility Features	Cloud Storage	Multiple Device Support	Cross-Platform Access	Library Integration	Recommendation/AI	Book Ratings and	Social Sharing	Support for Various	Content Purchase and	Ebook Sample Access
Libby	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0	0	0.5	0	0
Nook by Barnes & Noble	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.5	1	1	1	0.5	1	1
Goodreads	1	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	1	1	1	0	0	0
Kindle	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	1	1	1	0.5	1	1
Smashwords	1	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	1	0
FBREADER	0	0	0	1	1	1	1	1	1	1	1	0	1	1	1	0	0	0	0	1	0	0
Total	5	3	3	5	4	4	5	6	4	4	4	3	3	3	6	2	3	3	3	3.5	3	2
Percent	83%	50%	50%	83%	67%	67%	83%	100%	67%	67%	67%	50%	50%	50%	100%	33%	50%	50%	50%	58%	50%	33%

Part 1: User Profiles

Primary Users:

1. Casual User (Reader):
   - Age Band: 9+
   - Motivation: Reads occasionally for leisure or entertainment.
   - Needs: Easy access to a variety of books, simple navigation, and book recommendations.
   - Preferred Interaction: A user-friendly interface, personalized book recommendations, and a straightforward search function.
2. Avid Reader (Reader):
   - Age Band: 12+
   - Motivation: Enjoys reading regularly and exploring various genres.
   - Needs: A vast and diverse book collection, a reading progress tracker, and the ability to engage with fellow readers.
   - Preferred Interaction: Extensive categorization, reading challenges, and a social platform for book discussions.
3. Academic User (Reader):
   - Age Band: 18+
   - Motivation: Reads for academic or professional purposes.
   - Needs: Access to textbooks, research materials, and citation management tools.
   - Preferred Interaction: Advanced search features, citation export options, and integration with academic databases.
4. Parental User (Reader):
   - Motivation: Encourages reading in their children or reads children's books to them.
   - Needs: Age-appropriate book selection, parental controls, and progress tracking for children.
   - Preferred Interaction: Kid-friendly interface, parental controls for content, and progress reports.
5. Book Club Organizer (User):
   - Motivation: Manages book club activities, selects books, and facilitates discussions.
   - Needs: Tools for managing book clubs, scheduling meetings, and selecting books.
   - Preferred Interaction: Book club management features, event scheduling, and group discussion forums.

Secondary Users:

1. Authors
2. Publications
3. School Districts
4. Libraries

Stakeholders:

1. Authors and Publishers: They have a vested interest in the app's success as it provides a platform to promote and distribute their books.
2. App Developers and Maintainers: The team responsible for app development, updates, bug fixes, and overall maintenance.
3. Marketing and Sales Teams: Responsible for promoting the app, acquiring new users, and engaging with existing ones.
4. Content Curators: Individuals or teams responsible for selecting and categorizing books in the app's catalog.
5. Advisory Board: A group of literary experts, educators, or critics who provide advice on book selections, features, and improvements to enhance the app's appeal.
6. Investors and Shareholders: Those who have financially invested in the app's development and expect a return on their investment.
7. Regulatory Authorities: Ensuring the app complies with copyright laws, data protection regulations, and other legal requirements.
8. Educational Institutions: If the app serves educational purposes, schools, colleges, and universities may have an interest in its functionality and content.
9. Community Moderators: For apps with social features, these individuals help maintain a positive and safe user community by moderating discussions and content.

Primary Users

- Casual Users
- Avid Readers
- Academic User
- Parental User
- Book Club Users

Secondary Users

- Authors
- Publications
- School Districts
- Libraries

Stakeholders

- Authors/Publishers
- App Developers and Maintainers
- Marketing and Sales
- Content Curators
- Advisory Board
- Regulatory Authorities
- Educational Institutions
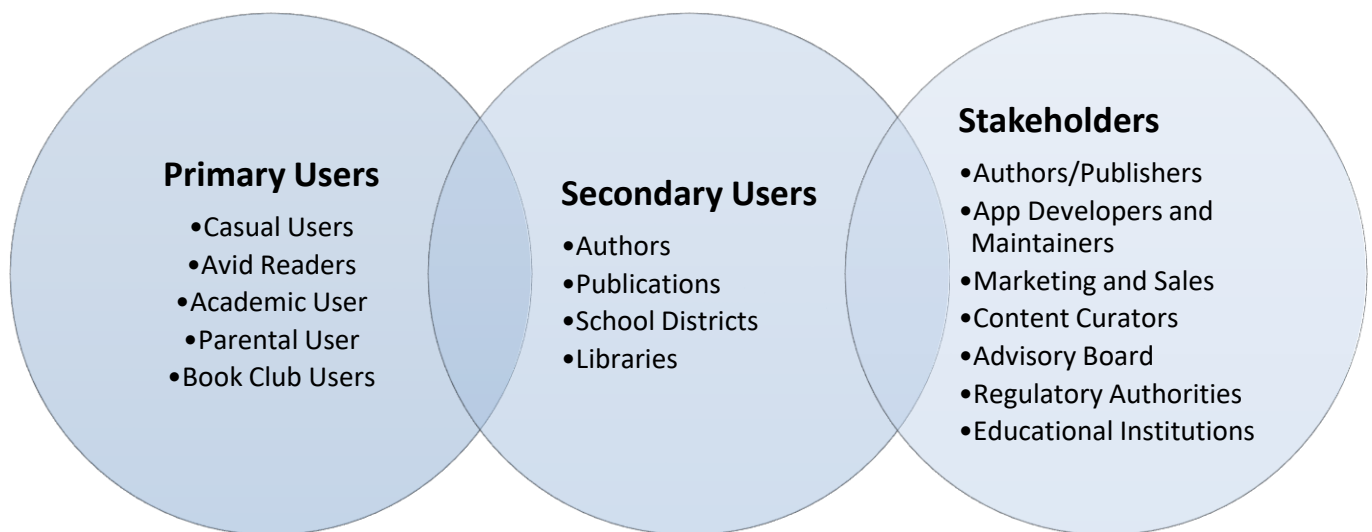
Part 2: Interview Questions and Survey Results

User Open-Ended Interview Questions:

1. What are the main challenges or frustrations you've encountered when using reading apps or digital platforms for reading?

   - When the letters are too small.
   - The signing on process can be long and frustrating.
   - A challenge would be when I have to keep charging my phone or laptop.
   - Trying to find an interesting book.
   - Tab that would recommend books to me based on my already read library.

2. How do you currently discover new books or authors to read? Are there any features or tools you find particularly helpful in this regard?

   - Whenever I see one that is recommended or similar to the book I am reading.
   - I like to ask my friends for books they think are good.
   - Reading reviews from sites such as Barnes & noble, or online.
   - I would rather go into the stores and see what popular books are right now.
   - Social Media mostly.

3. Do you often engage with social features in reading apps, such as book clubs, discussions, or sharing your reading progress? Why or why not?

   - I don't engage much as I'd like to.
   - If it is a book I really like, then I like to add my input.
   - No, not really.
   - It depends if I am done with reading the book, I like to know what other discussions are about.
   - Yes, I like to share my favorite books I've read so far.

4. Could you share a positive experience you've had with a reading app? What made that experience stand out to you?

   - I haven't really had a positive experience yet; I am open to suggestions.
   - I like having reading apps because you can easily save where you left, and it was just easier to transition back into reading.
   - I like that I can highlight or add a pin to any sentences I want to go back to.
   - Lately, I haven't been reading as much.
   - I like that I can highlight certain text and have it read to me in sections.

5. Can you describe your typical reading habits and preferences? What genres or types of books do you enjoy the most?
   - I prefer to read before bed, and my preference is Novels.
   - I read sometimes, not all the time, but when I do I like short stories.
   - I always have a book with me, in case I have time to sit and read. Right now, I am reading a romance novel.
   - I have a kindle I read sometimes, but I have different types or books just depending how I am feeling that day.
   - I like hardcovers and mystery books.

Survey Questions (1-7 Scale):

1. How likely are you to use an e-reading app compared to traditional physical copies of books?
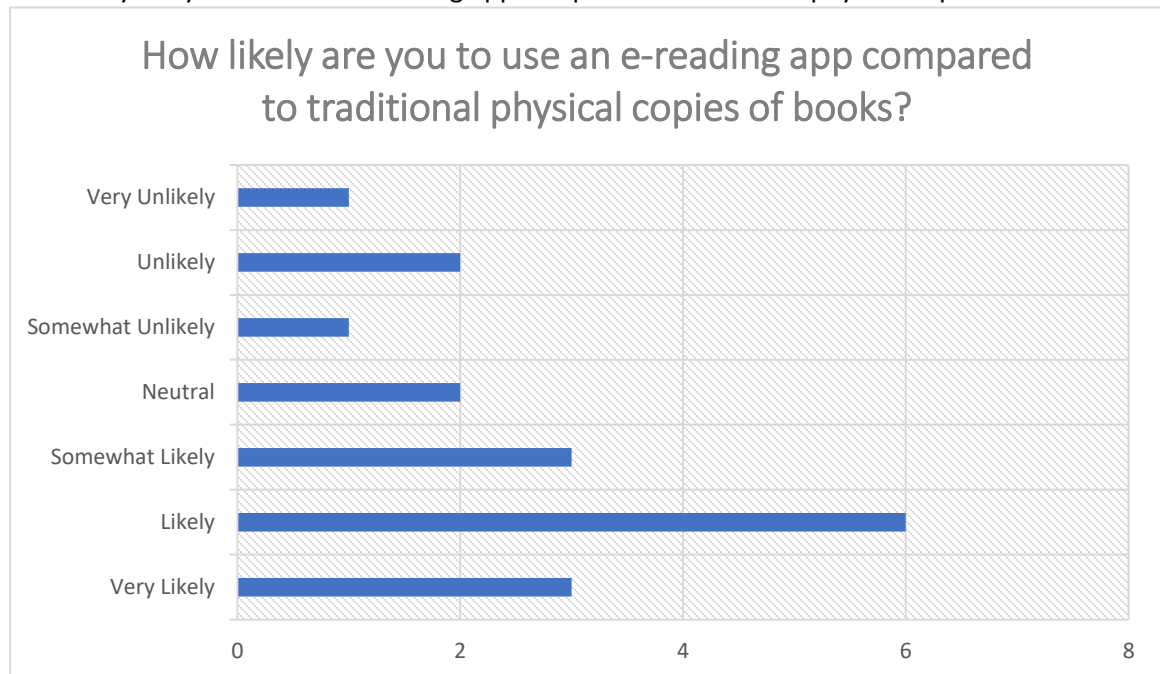
2. How important are updates or notifications from your favorite authors to you?
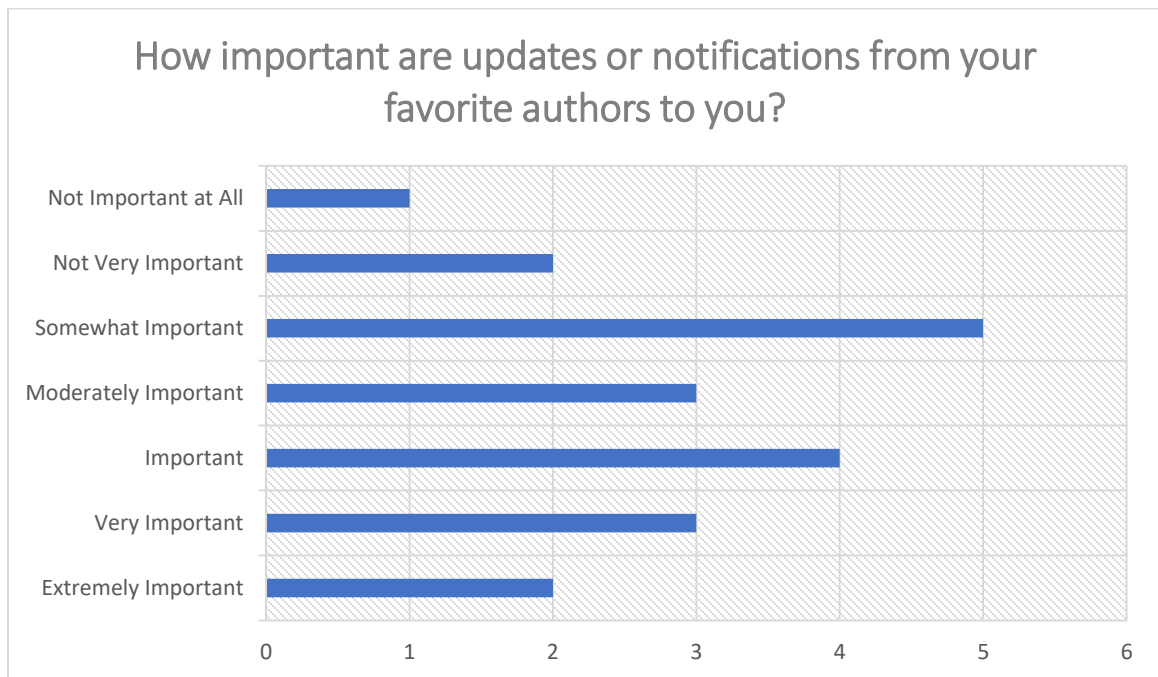
How important are updates or notifications from your favorite authors to you?

Category	Value
Not Important at All	1
Not Very Important	2
Somewhat Important	5
Moderately Important	3
Important	4
Very Important	3
Extremely Important	2

3. How influential are book recommendations when you're selecting your next read?

How influential are book recommendations when you're selecting your next read?

Category	Value
Not Influential at All	2
Not Very Influential	5
Somewhat Influential	3
Moderately Influential	1
Influential	2
Very Influential	3
Highly Influential	4

4. How important is customizability in a reading app to you? (e.g., font size, background color, and other reading settings)
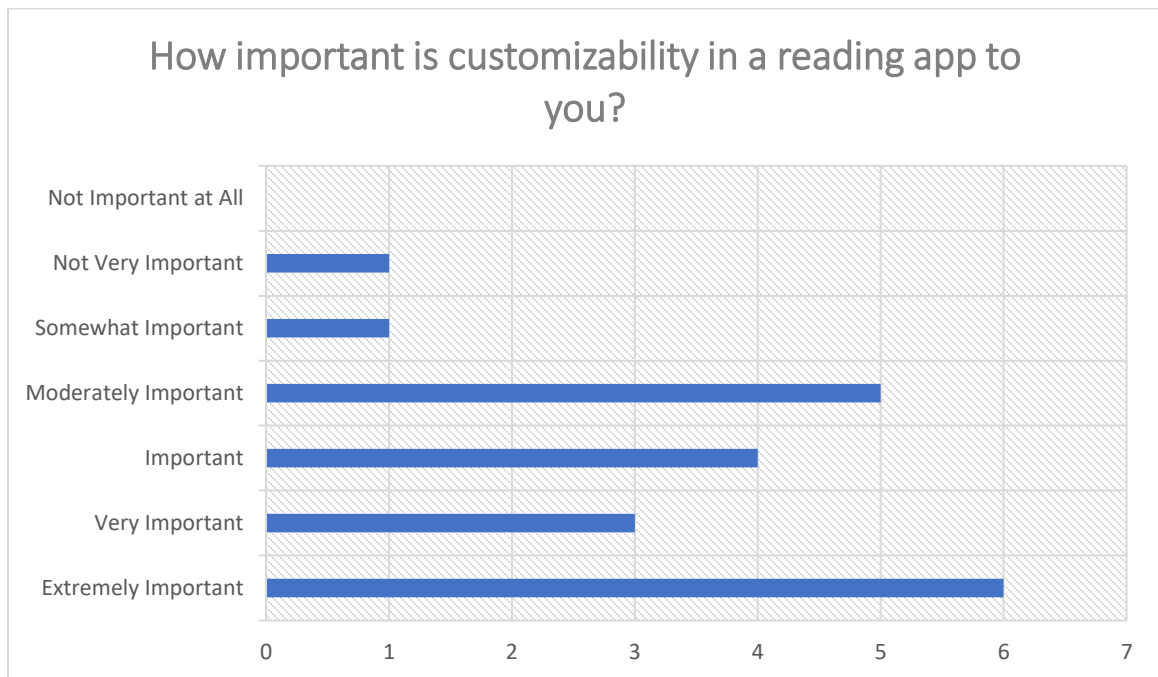
How important is customizability in a reading app to you?

5. How significant are the offered features, such as a wide range of formats (e-books, audiobooks, graphic novels), to cater to diverse reading preferences?

How significant are the offered features, such as a wide range of formats (e-books, audiobooks, graphic novels), to cater to diverse reading preferences?
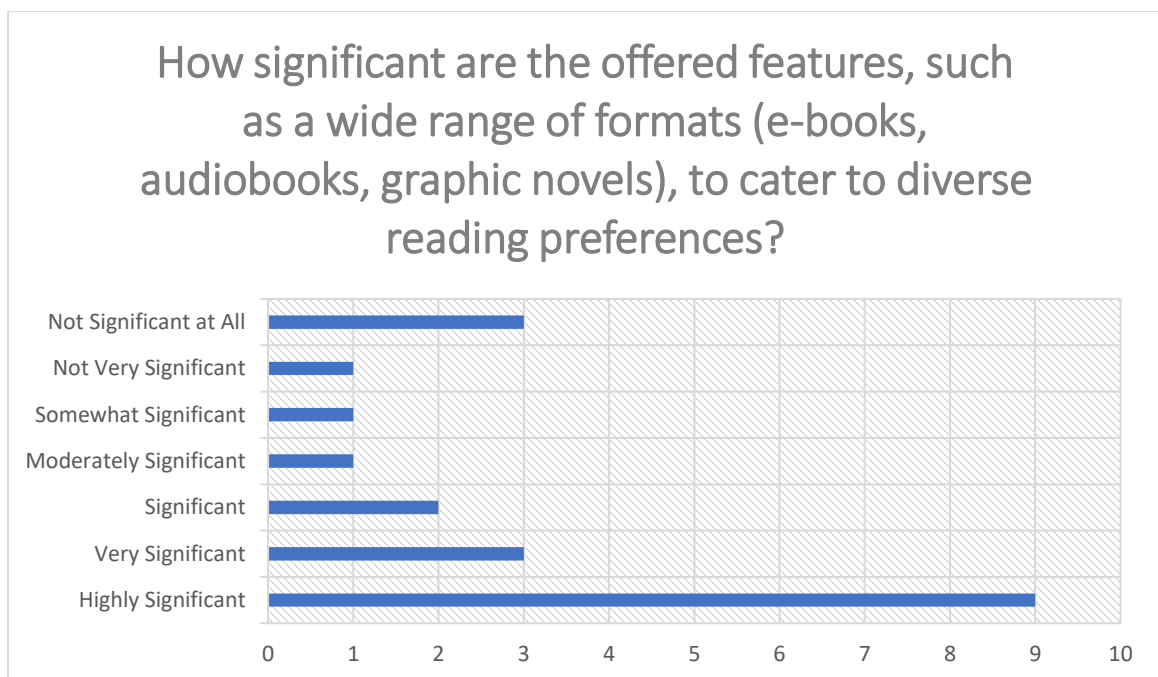
Stakeholder Interview Questions:

1. How do you expect the reading app to stand out from its competitors in the market?
2. What are your long-term plans and strategies for the reading app, including future improvements and expansions?
3. What metrics will you use to gauge the success of the reading app?
4. Based on your expertise, are there critical features or functionalities you consider vital for the app's success?
5. What are the main goals and objectives you aim to accomplish with the reading app?

Stakeholder Survey questions:

1. How often do you use a reading app? 1 (Often)-7 (Not Often)
2. How confident are you in the app's ability to compete effectively in the market? 1 (Not Confident at All)-7 (Very Confident)
3. How well can the project adapt to user feedback and make improvements? 1 (Not Effective)-7 (Very Effective)
4. To what extent is the project prepared to collaborate with authors, publishers, and content providers to expand the content library? 1 (Not Prepared at All)-7 (Highly Prepared)
5. How confident are you in the project's ability to adjust its pricing and monetization strategies to stay competitive? 1 (Not Confident at All)-7 (Very Confident)

Part 3: User Goals, Task, and Activity Required

User	Goals	Task	Activities
Casual Reader	• Enjoy reading for leisure and relaxation.	• Browse for interesting books. • Read during free time. • Explore different genres.	• Access to a user-friendly e-reading app. • A selection of diverse and engaging books. • Recommendations based on personal preferences.
Avid Reader	• Read extensively and discover new authors	• Devote significant time to reading. • Participate in book clubs or discussions. • Collect and organize a personal library.	• Access to a vast collection of books. • Social features for book discussions. • Tools for cataloging and managing books.
Academic User	• Access and study academic and research materials.	• Find scholarly articles and textbooks. • Annotate and take notes for research. • Cite sources and generate bibliographies.	• Access to academic databases. • Highlighting, note-taking, and citation tools. • Integration with academic writing software.

Parental User	• Foster a love for reading in children.	• Find age-appropriate books. • Read aloud to children. • Monitor reading progress.	• Access to a kid-friendly library. • Parental controls and reading progress tracking. • Interactive and educational e-books.
Club Organizer	• Facilitate book club activities and discussions.	• Select books for the club. • Schedule and manage meetings. • Foster engagement among members.	• Book club management features. • Communication tools for members. • Access to a wide range of books for selection.
Authors/Publications	• Publish and promote books, articles, or content.	• Write and edit content. • Market and distribute publications. • Engage with readers and fans.	• Writing and editing tools. • Marketing and promotional features. • Reader engagement and feedback mechanisms.

Case (storyboard)
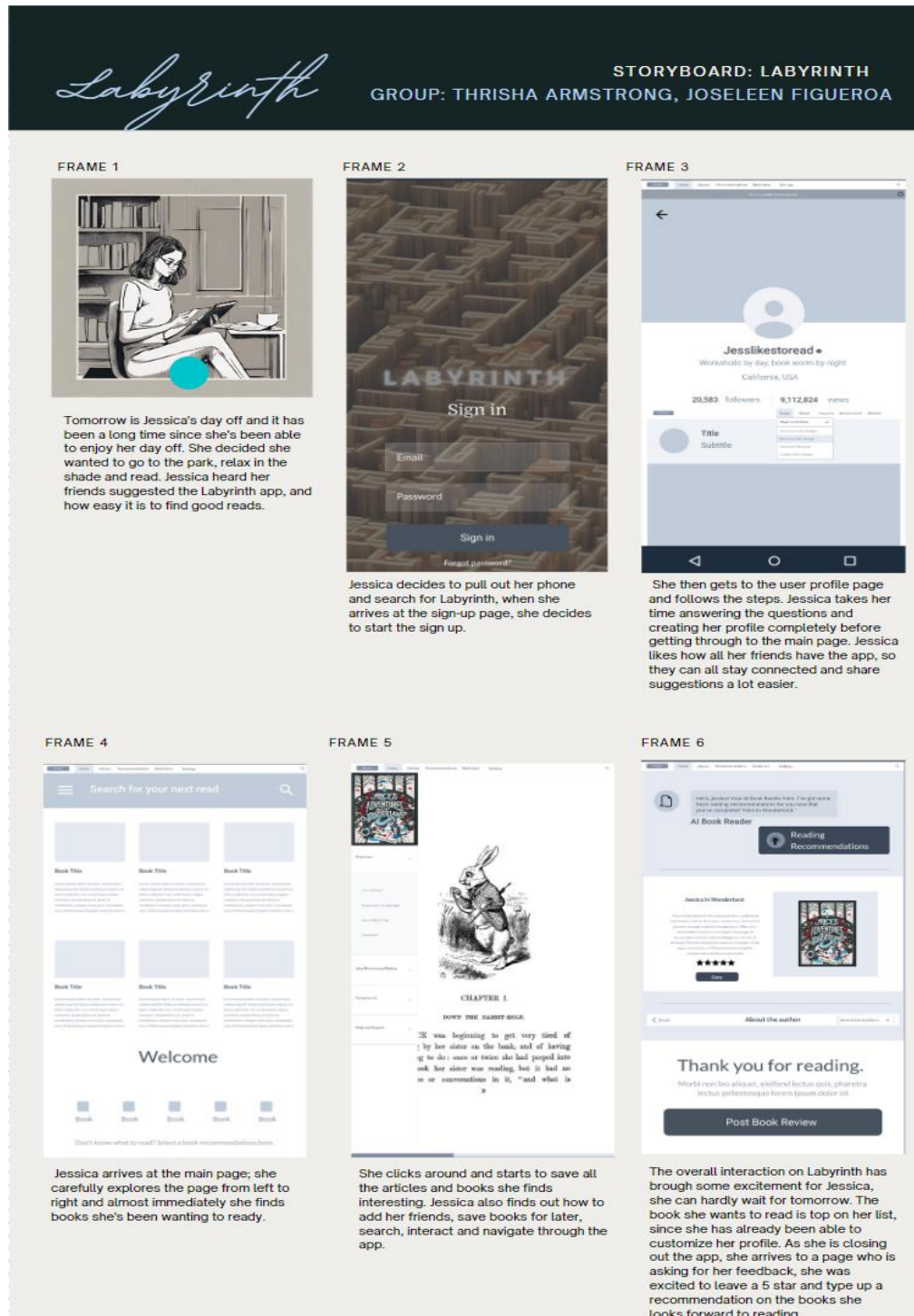
Link:
https://www.canva.com/design/DAFvmhtueKA/a8NIbDOVg5cXqjyzhmP7Ww/edit?utm_content=DAFvmhtueKA&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton

Conduct a Think Aloud Protocol

Assessed Product: https://www.amazon.com/books-used-books-textbooks/b?ie=UTF8&node=283155

Video Link for think aloud Protocol: https://youtu.be/I48XayVgMbA

Task Analysis

 Assigned user task: "Scroll through amazon kindle, and download a book"

1. Open app – Scrolls on first page i. 1.1. Confused- searching for a book (0:11-0:23) -says" So is it like, So I don't know if it's like separated through genres, for you? Okay, maybe do a search for a book. How do I browse, where is the browser?" (0:36) ii. 1.1.1. Swipes around- says," I have to pick a genre, browse the best sellers." (0:25) iii. 1.2. Presses on, best seller's options (0:26) iv. 1.2.1. Presses on a random book (0:28-0:35) v. 1.2.2. Scrolls around in search of a book, -says, "Okay." (0:37) vi. 1.2.3. Presses random book (0:46) vii. 1.3. Finds audible samples (0:50) viii. 1.4. Scrolls on book reviews (0:52) ix. 1.5. Reads reviews (1:12) (perks 1:01 -1:12) - says "reviews are down here, that's cool, if I scroll I can like read the reviews." x. 1.6. Surprised- can swipe right (1:13) -says" I can search this way, that's cool too. xi. 1.7. Presses see all details (1:22) xii. 1.7.1. Confusion- Arrives at a new page- with samples (1:26) say's" there's so many options, like what am I doing?" xiii. 1.7.2. Presses download a sample (1:32) xiv. 1.7.3. Pauses to read instructions (confusion/error 1:51 - asks "Oh, I just downloaded a book, what did I download?" - (unsure of how to find the book) xv. 1.7.4. Presses on book, in search of downloaded library (1:52) xvi. 1.7.4.1. Confusion/ error (error 1:53 - disclaimer stated, "This app does not support purchasing of this content, digital books purchased from amazon are available to read in the kindle app) - says "Okay, so since I'm using the kindle app on this phone, I can download them to use them on an actual kindle. That's cool, but I can't read it on my phone?") xvii. 1.7.4.2. Swipes around more the best seller's category (2:15-2:31) -says," So Ican pretty much just look at other books that I want to get on my kindle." xviii. 1.7.4.3. Notification pops up- Introduction prime Reading, clicks okay. (2:34) xix. 1.7.4.4. Reads out loud-says, "Prime reading, discover... So many options, um. (2:47) xx. 1.7.5. Click bottom option, "Library" (2:46) xxi. 1.7.6. Presses on "Library" (surprised- downloaded book (2:45-2:49) says "You can download books? This is the book that I downloaded." xxii. 1.7.7. Surprised- found book-says," Oh so I can read it because this is the book (2:55) xxiii. 1.7.7.1. Surprised-says, "Can I highlight, I can highlight. That's cool, I like highlighting when I'm reading. (3:07) xxiv. 1.7.7.2. Swipes right- says," What other options on there?" (3:08) Lab 5: Users Task Team: Thrisha Armstrong, Joseleen Figueroa xxv. 1.7.7.3. Click on index page on top- (Confusion-says, "What's this? That's how you can jump, I guess different part of the book" (3:18) xxvi. 1.7.8. Surprised- discovers notations tab-says, "Oh that's cool, so the highlights that I made I can keep the notations up here and then make notes about them while I ready." (3:27) xxvii. 1.7.9. Presses on "add notes" -says, That's actually, really cool." (3:33) xxviii. 1.7.10. Exit notes, click delete. (3:37) xxix. 1.7.11. Swipes right a few times-says," Alright, I am ready to read it now." (3:47) xxx. 1.7.11.1. Closes app (3:48) • Error Count: 2 • Confusion Count: 5 • Surprised Count: 5 • Total task duration: 3:48 minutes.

- Error Count: 2
- Confusion Count: 5
- Surprised Count: 5
- Total task duration: 3:48 minutes

UX Design Evaluation

To improve the user experience design of the application:

1. User Onboarding and Guidance: Implement an interactive tutorial or onboarding process to guide users through the app's features, especially for first-time users.

2. Simplified Navigation: Streamline the app's navigation to make it more intuitive. Use clear labels, icons, and organize content logically.
3. Search Functionality: Enhance the search functionality by providing auto-suggestions, filters, and predictive search to help users find books more easily.
4. User Feedback and Help: Include in-app chat support or a help center where users can get assistance or answers to their questions.
5. User Feedback and Help: Include in-app chat support or a help center where users can get assistance or answers to their questions.

Designs we found that worked:

1. Reading Experience: Users can read and interact with the book, including highlighting and adding notes, which enhances the reading experience.
2. Progress Indicators: The app provides feedback to users during actions like downloading, which is helpful.

Data Dictionary

Profile:
- Username: The user's chosen username.
- Email: The user's email address.
- Profile Picture: URL or binary data of the user's profile picture.
- Bio: Contains the users favorite Genre's, Book clubs, about me
- Favorite Books: A list of book IDs that the user has marked as favorites.
- Reading History: A list of book IDs that the user has read.
- Saved: Posts and recommendations saved from other profiles.

Author Profile:
- Self-published: The number of books or works the user has self-published.

Page:

- Connections: Information about the user's network, including followers and those they follow.
- **Followers**: List of accounts that the user follows. User can search through usernames
- Following - List of accounts that the user follows. User can search through usernames

Reviews:
- Rating: Your assessment of a book
- Review Text: Your written thoughts and opinions about a book.
- Date Posted: The date when you wrote the review

Library:
- Self-Published
- Articles
- Book: A literary work you can read or add to your collection.
  - Title: The name of the book.
  - Author: The person who wrote the book.
  - Publication Year: The year the book was published.
  - Genre: The category or type of the book.
  - Description: A brief summary of the book.
  - Cover Image: The picture representing the book.
  - ISBN: A unique identification number for the book.
  - Language: The language in which the book is written.
  - Average Rating: The overall rating given to the book.
  - Total Ratings: The number of ratings the book has received.
  - Price: The cost to purchase or access the book.
  - Available Formats: Different file types in which the book can be read

Recommendations:
- Recommended Book: A book that the app suggests you might enjoy.
- Recommendation Source: Where the recommendation comes from.
- Date Recommended: The date when the recommendation was made.

Feed:

- Following Feed: Displays content the user saved, recommended, or followed.
- Explore Feed: Shows popular and recently published books, events, and recommendations based on the user's algorithm.
- Suggested Posts: Posts recommended to the user based on their saved books, authors, and explored content.

Information Architecture
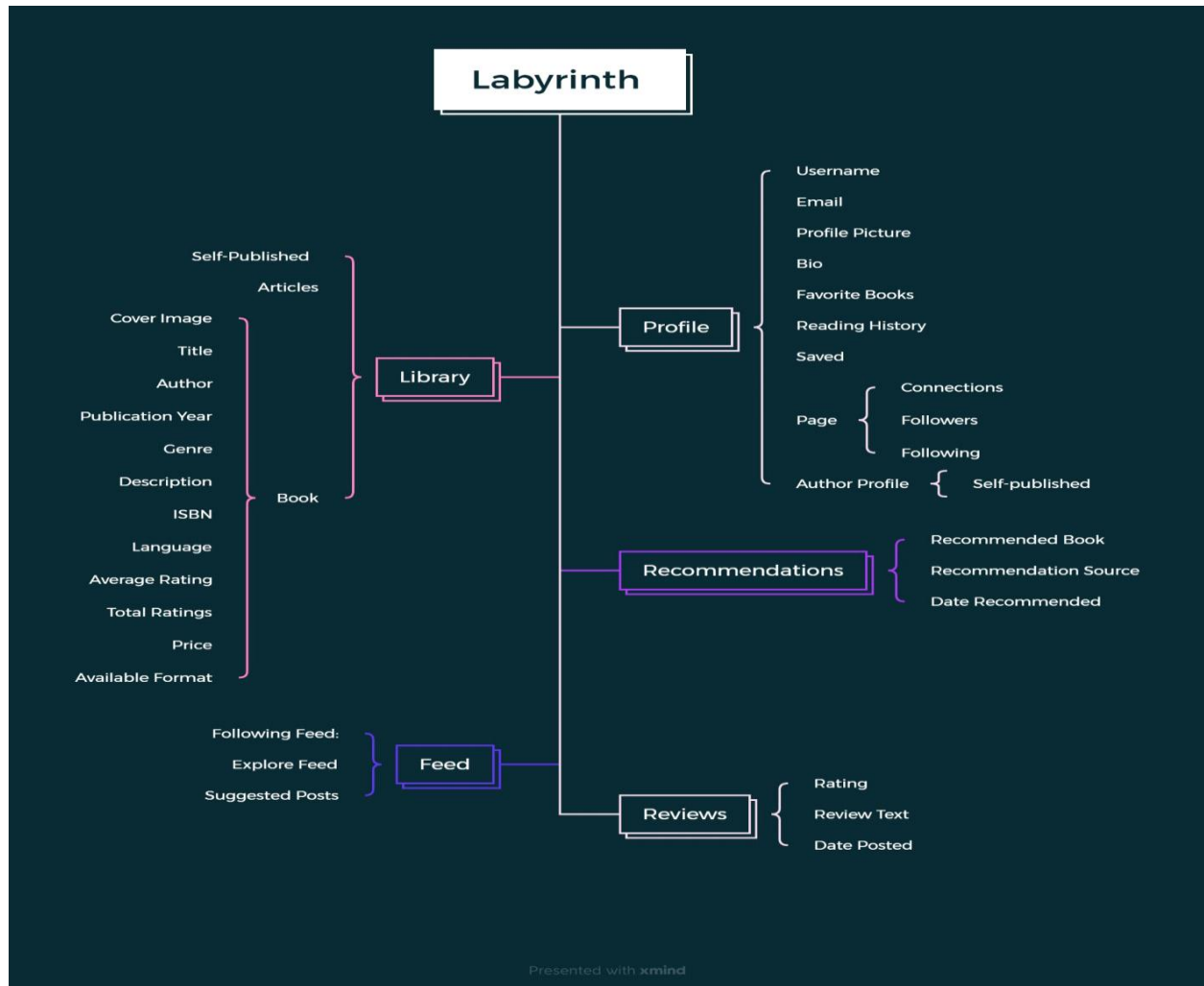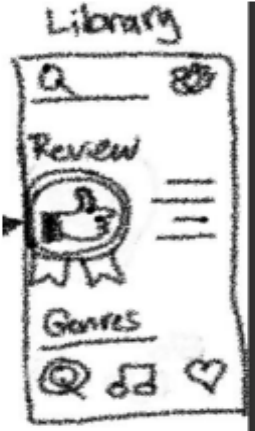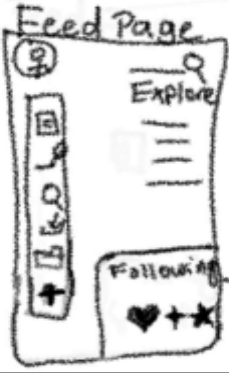
Navigation
Structure
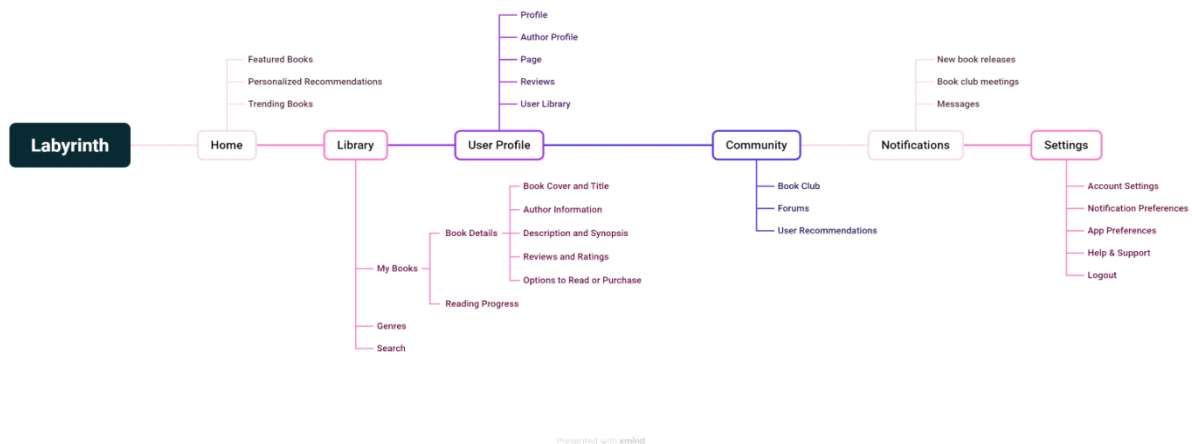
Navigation Wire flow:

Search, Sort, and Retrieval Results

Search		
	• Search for Books and authors. • Search for users in followers • Search for users in following • Search for hashtags, URL, ISBN.	
Sort	• Most recent posts on explore page. • Most reviews • Least reviews • Recommended book	
Filter	• By most recommended (Most read, best sellers, Authors accessories...) • By algorithm (most viewed, reviewed, tags, purchased...) • By length (short story, long story...) • By Author (best sellers, children's book, young adult...) • By Genre (fiction, non-fiction, romance) • By mood (sad, happy, bored, etc.)	

User Feedback	Design Improvement
The search function is quite good, but it could benefit from autocomplete suggestions as I type. It would make finding books and authors even faster.	Implement an autocomplete feature that provides real-time suggestions as users type in the search bar. This will help users quickly find books and authors.
The ability to search for users is great, but it would be even better if we could filter users based on specific criteria like interests or reading preferences.	Enhance the user search feature by adding filter options. Allow users to filter search results based on criteria like interests, reading preferences, and genres. Introduce an "Advanced Search" option that opens additional filtering and sorting possibilities.
I'd like to see an option to sort my personal library by the date I added books. It would help me keep track of my reading progress.	Add a "Date Added" sorting option to the user's personal library. Users can choose to view books in the order they were added. Include a toggle button that lets users switch between ascending and descending order, depending on whether they want to see their oldest or newest additions first
Customizable filters would be a game-changer. Letting users create their own filters based on criteria they choose would be a significant improvement.	Introduce a "Create Your Own Filter" feature that empowers users to define their own filtering criteria.

Target technology platform of users:

Our primary target platforms for users are mobile devices, including smartphones and tablets, running iOS and Android operating systems.

Hardware Requirements:

- The app is designed to run smoothly on mobile devices, including those equipped with mid-range processors such as the Qualcomm Snapdragon 7xx series and equivalent processors from other manufacturers.
- It ensures compatibility with various screen sizes, ranging from small-screen smartphones like the iPhone SE (4.7-inch) to larger tablets like the iPad Pro (12.9-inch).

OS Requirements:

- iOS: The app is compatible with iOS 13 and newer versions, ensuring seamless operation on devices like the iPhone 6S and later models (including iPads).
- Android: It supports Android 8.0 and newer versions, ensuring compatibility with a diverse range of Android devices, from mid-range to flagship models.

Software Requirements:

- iOS, Android, macOS, and Windows

Network Requirements:

- Download speed of at least 10MB or higher for a smooth experience.
- Supports 4G and 5G connectivity for fast access to content.

Security Requirements:

- The app employs encryption to secure user data, including personal information and reading preferences.
- User accounts are protected by robust authentication mechanisms, including username/password and biometrics.
- Secure payment processing is implemented for any in-app purchases or subscriptions.

Economic/ payment Requirements:

- The primary app offers a mix of free and paid content, with transparent pricing and clear subscription plans.
- It integrates a secure payment gateway to enable transactions, including credit card payments, mobile payment methods, and in-app purchases.
- The app complies with relevant payment regulations and provides users with clear pricing information.

Legal Considerations:

- Under US Copyright Law, self-publishers are automatically protected by copyright for their creative works.
- Regarding AI and copyright, content generated by AI is subject to US Copyright Law, and each case is reviewed based on the specific content to determine copyright status.

Constraints and Opportunities of Digital Product & Delivery Channel & Cost:

The opportunity of our app is bringing users closer to a community with likeminded individuals. We have the chance to provide a digital product that could reach the large scalability of a global audience. Our App promises the delivery of personalization based on user data. A constraint we may face in the beginning is the available content that larger companies can offer with licensing.

The Market Pay:

Our service includes free and subscription base usage. The free service will be covered by advertisements. We want to offer all users the same level of content with only enhanced features in our premium version.

Cost Coverage (Development and Operational Costs):

Our capacity to cover development and operational expenses will be contingent on variables such as pricing, our user base, and ongoing revenue streams. Development will initially begin with our shareholders/investors, however as time progresses, we project that platforms like iTunes, Google Play, Steam, and Amazon each have revenue-sharing models that influence profitability.

What design choices do you have as a result of the hardware constraints?

Hardware constraints play a crucial role in shaping our design decisions. To ensure optimal performance and user experience, we must take into account factors such as limited storage space, compatibility with various platforms (iOS, Android, macOS, and Windows), and the reliance on cloud-based servers. Additionally, power constraints, particularly when operating on battery power sources, necessitate energy-efficient design considerations.

What do these constraints/opportunities allow/prevent in the design?

These constraints directly impact the design in several ways. They influence the processing speed of our applications, pushing us to optimize algorithms for efficiency. They also drive us to prioritize energy efficiency, ensuring longer battery life for mobile devices. Furthermore, these constraints guide our decisions on the application's capabilities and overall performance.

Quantifiable goals and outcomes

Success

1. Implement AI-driven algorithms to deliver faster and more efficient results.
2. Create a stable application that runs smoothly on various devices.
3. Ensure compliance with copyright regulations to prevent unauthorized book downloads.
4. Implement storage management strategies to prevent system overloads and reduce the risk of crashes.

Failures

1. Inability to prevent unauthorized book downloads, leading to copyright violations.
2. Neglecting to manage limited storage effectively, resulting in system crashes and performance issues.
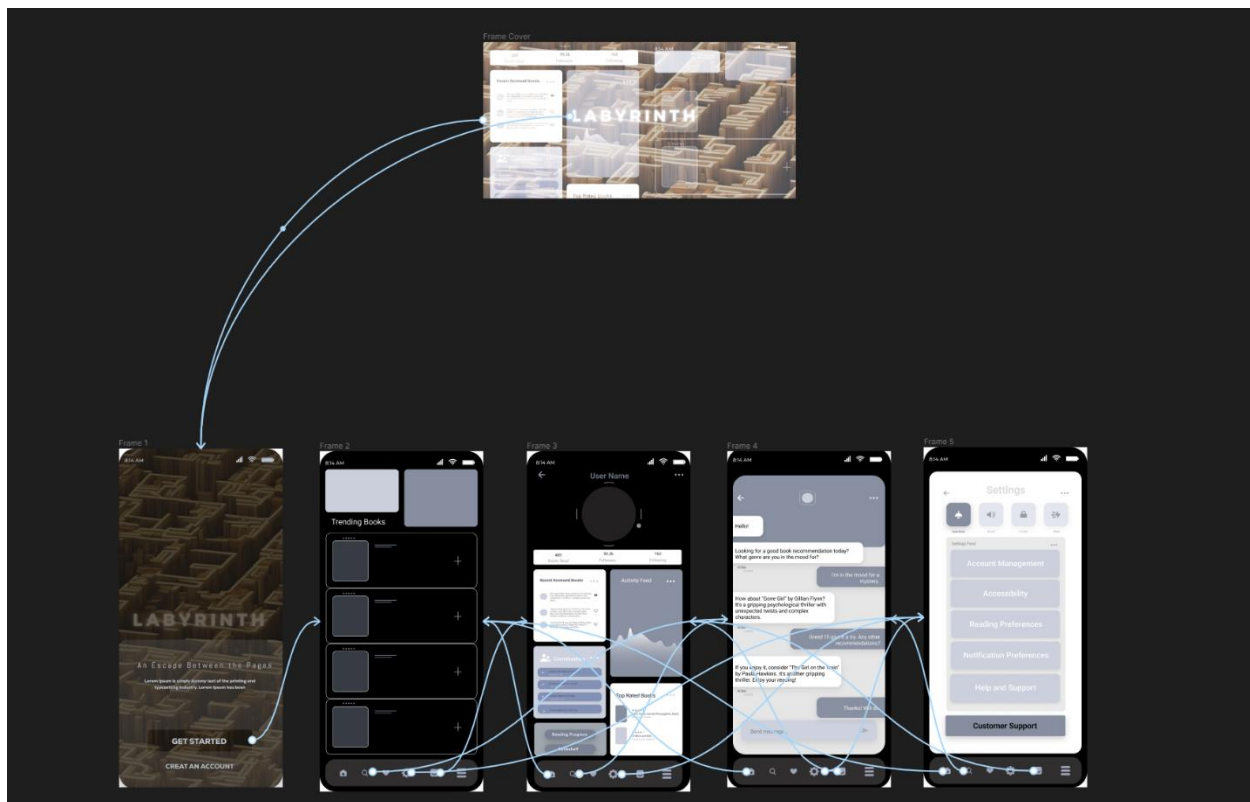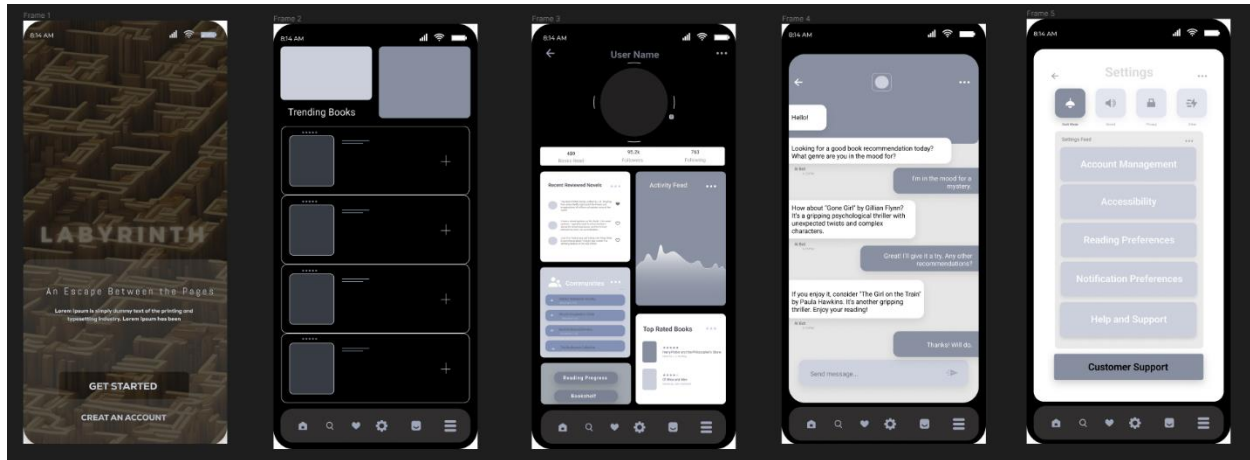
By setting these measurable goals and outcomes, we can gauge our success and make necessary adjustments to meet our design objectives

UCD Prototyping & Design (Low and Mid Fidelity)

1. **Paper Prototype**
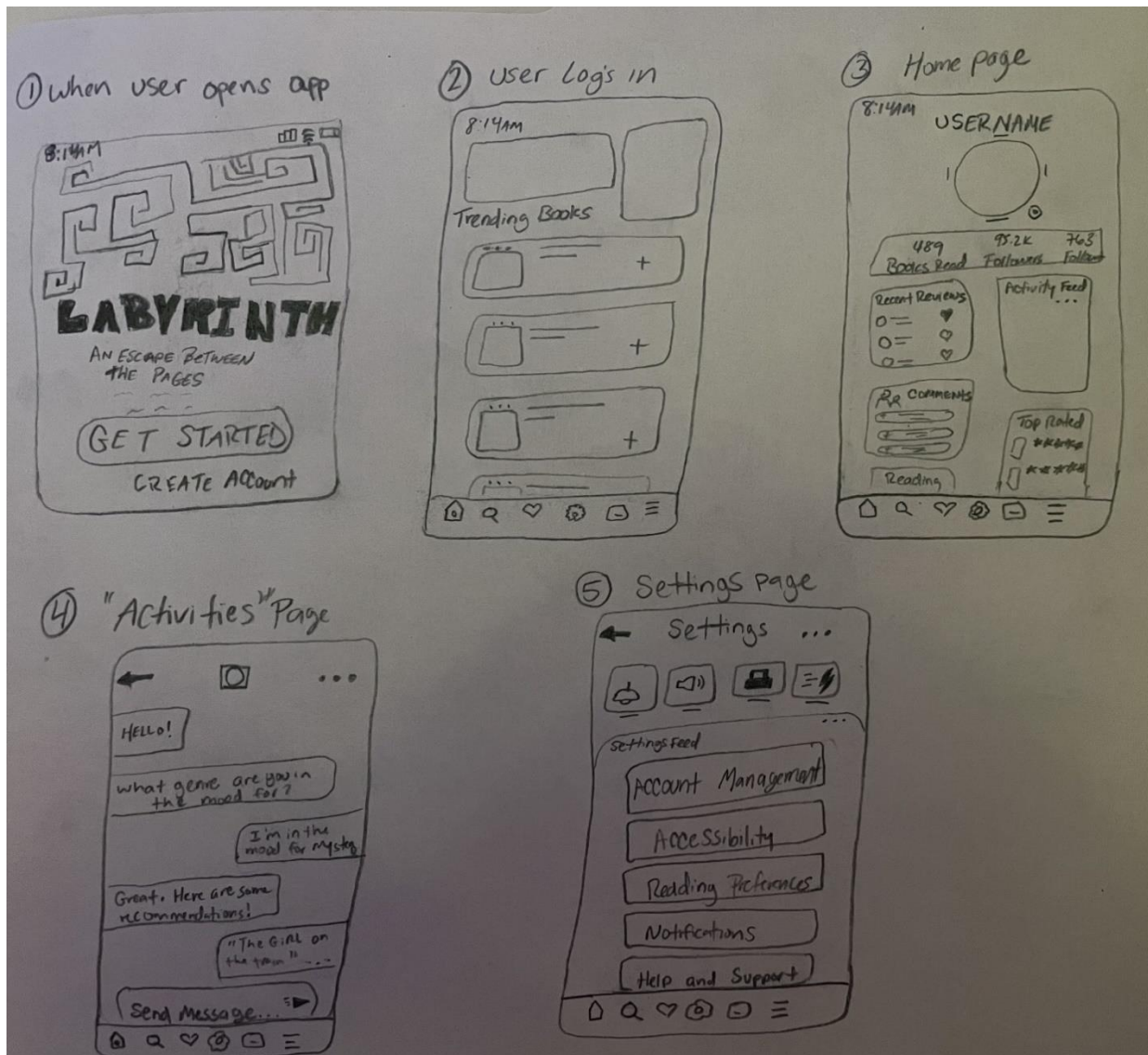
2. Adobe XD Prototype

3. Think Aloud Protocol

Link:
https://www.youtube.com/watch?si=sKoAdV9BYFYC3IoE&v=wSHMNauY1SQ&feature=youtu.be&ab_channel=JoJo

Protocol: Find a new book to read.

i.   **App prototype is open on sign up/login screen (0:00-0:05)**
ii.   **1.1. User clicks "Get Started" button, was confused because went into activities page after log in. (0:06)**
iii.   **Arrives to recommendations page (0:11)**
iv.   **2.1. User talks about scrolling through the popular now recommendations. (0:16)**
v.   **2.2. User Clicks around looking for new releases on recommendations home page (0:20)**
vi.   **3. Adds a book and is taken to profile page (0:25)**
vii.   **3.1. Scrolling around, user talks about looking into list of books already read or books others have read (0:28)**
viii.   **3.2. Scrolls towards bottom of page (0:35)**
ix.   **4. Click on reading progress on profile (0:39)**
x.   **4.1. User scrolls to check what friends have been reading (0:44)**
xi.   **4.2. User decides to want to chat with someone on friends list on book options (0:47)**
xii.   **5. Click messages (0:55)**
xiii.   **5.1. Sends and receives messages on click to chat (0:58)**
xiv.   **5.2. Share messages about book options (1:00)**
xv.   **6. Exits out of chat into settings (1:04)**
xvi.   **6.1. User talks about checking settings (1:05)**
xvii.   **6.2. Click on reading preference (1:11)**
xviii. **7. User is done decides will log out (1:16)**
xix.   **7.1. User Logs out of app (1:17)**

Error count = 1

Total duration = 1:17

Notes from Task Analysis:

- After user click get started, page goes to recommendations page (0:11)
- "Things I want to do: add a page for log in steps (0:00-0:10)
- budget slider feature on signs up page (0:50)
- add some matching feature, as a quick way to see people with similar interests in books as you.
- User thinks it's option to find books and chat with friends (0:28)

Errors from Task Analysis:

The main error is the unexpected navigation flow after clicking "Get Started," which should lead to a login step instead of directly to the activities page.

4. **Improving the Design**

Onboarding Process: To avoid confusion after clicking "Get Started," created an onboarding process that guides the user through the app's features, culminating in the login/sign-up screen.

Clear Navigation: Make it clear where the "Get Started" button will take the user.

Interview

Question: Can you tell me your overall impression of the app after using the updated version?

User: I found the design really intuitive and straightforward. It's easy to navigate through different sections, and I didn't feel lost at any point. I especially like how the options on books are organized; it makes finding what I want to read next quite enjoyable.

Question: Were the icons and visual cues clear when you were exploring the app?

User: Absolutely, the icons are clear and indicative of their functions, which made it easier to explore. I particularly appreciated the 'New Releases' icon—it took me exactly where I wanted to go without having to dig through menus.

Question: Is there anything that you would suggest improving or adding to the app?

User: As of now, not really. I think the matching feature for finding people with similar interests is something I'm looking forward to using more. But it would be nice if there were some community forums or book clubs within the app to discuss books with a larger group.

Conclusion:

The feedback is positive, highlighting the app's ease of use, clear design, and user-friendly features. The social aspects and personalized settings are also well-received, indicating that the improvements made have had a positive impact on user experience. However, the suggestion of community forums or book clubs could be considered for future updates to enhance the communal feeling of the app

UCD Prototyping (3 Designs & High Fidelity)

Option 1: Conservative
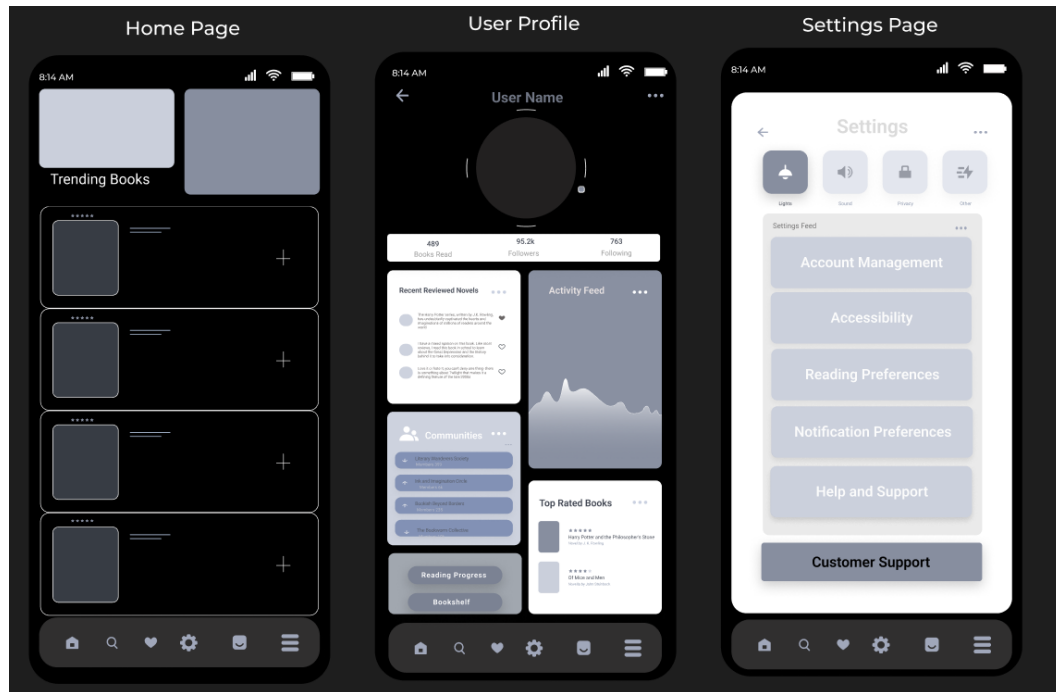
Option 2: Moderate
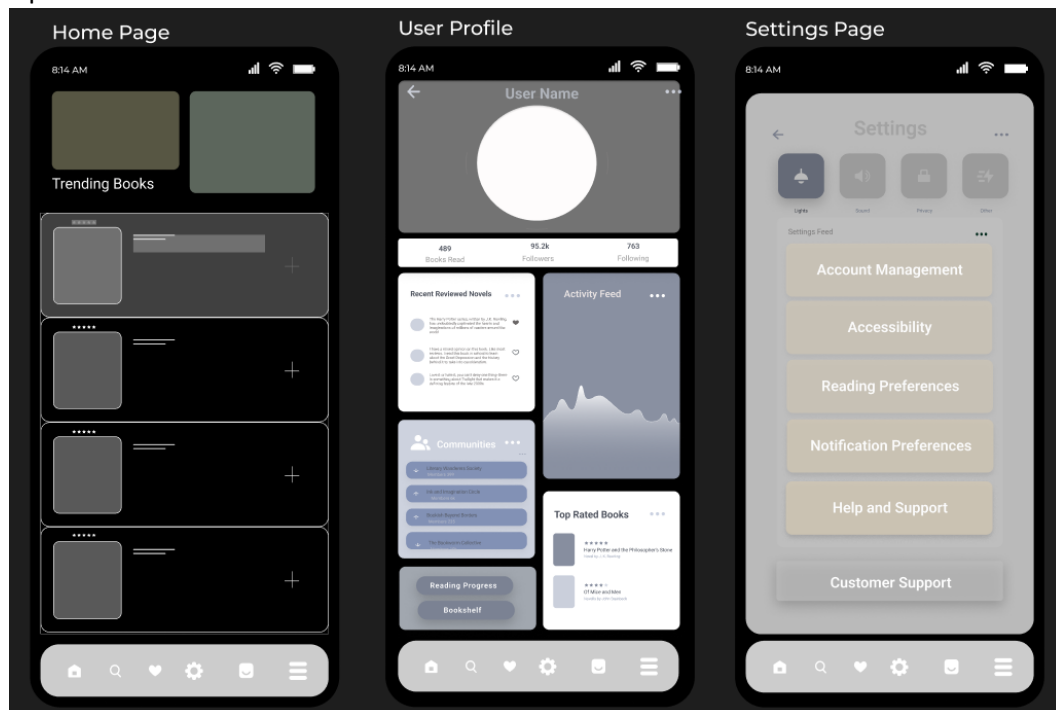
Option 3: Wild
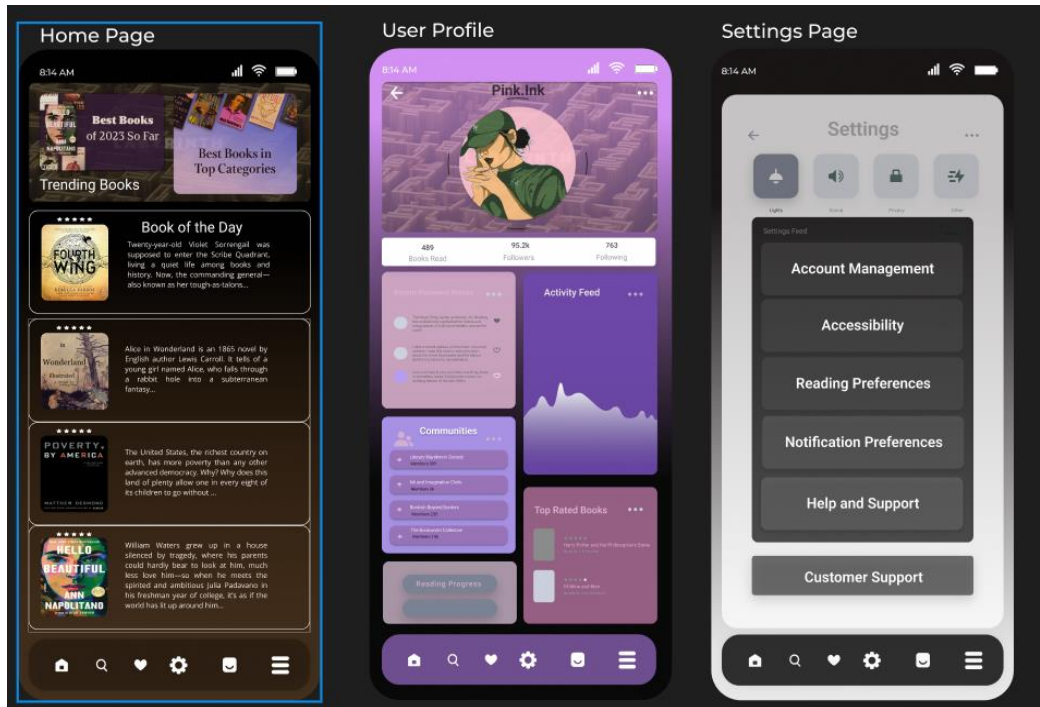
User feedback

User 1

- User 1 liked the moderate look because she liked the color blend, and the style of the app. The app was mostly in dark mode, but with enough color to make the images, text, and icons pop. The app is easy to navigate with the main buttons being easy to find on the bottom of the page. Also, the user likes the more mature look of the app, because of the overall style and set up. User 1 also thought conservative look wasn't bad and would like either of the two.

User 2

- User 2 preferred option 3, which is the wild look. The design of the app gives off more of a social app vibe along with the many book options. The home page is fun to read, with book covers and trending options. User 2 felt that the wild look stand out more because of the colors, and it gives off a more "fun" vibe. The conservative design and the moderate look was the user's least favorite because she thought it gave off more of a boring look, and could use more color.

User 3

- Preferred the conservative look because it was more minimal with the overall set up. The colors are more consistent, the text is easier to spot as your read along. User 3 also believed that the conservative look is more appealing, and aligns with the apps purpose. The overall design will give any user a better experience.

Style Guide

Identity & logo:

Primary Identity Mark:

The inspiration behind the logo originates from the name of the application. A maze of books. The purpose was to create a Labyrinth that readers get lost in.
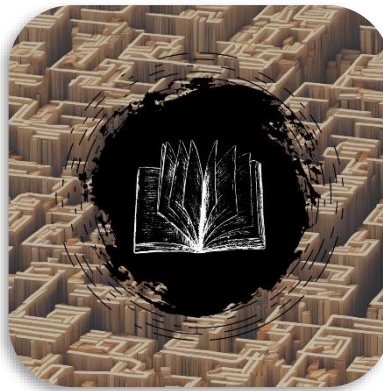
Mobile App Icon:

Our mobile Icon represents a direct link to the apps purpose. Books.

Colors:

Our app's color palette draws inspiration from the soothing elements of coffee and the cozy world of books. We have carefully curated a harmonious blend of mocha, milk, and frothy shades to infuse warmth and comfort into the user experience. Additionally, to cater to individual preferences, we've empowered users to customize their profile with a color of their choice.

Primary Color Palette:

Roman Coffee	Bison Hide	Mongoose	Gray Olive
#755D4D	#C1B5A1	#BBA386	#ABA48D

Secondary to User Preference:

Lavender Purple	Cinder	Swiss Coffee	Emperor
#9B75AC	#0D0A0E	#D6CFCC	#4E4047

Open Sans Light
Open Sans Regular
Open Sans Semibold
Open Sans Bold
Open Sans Extra Bold

Typography:

Open Sans: This elegant font serves as the default text for the book content, titles, and writing within our application. Its timeless appeal enhances the reading experience.

Roboto: Our primary typeface, Roboto, takes center stage in our app's design. It is prominently featured in the application's interface, settings, and notifications, serving as the backbone of our textual communication.

Roboto Thin
Roboto Light
Roboto Regular
Roboto Medium
Roboto Bold
Roboto Black
Roboto Thin Italic
Roboto Light Italic
Roboto Italic
Roboto Medium Italic
Roboto Bold Italic
Roboto Black Italic

Buttons:

Our buttons were selected to provide an intuitive and engaging user experience. Each button is thoughtfully designed with a focus on usability and aesthetics, ensuring that users can effortlessly interact with our application.
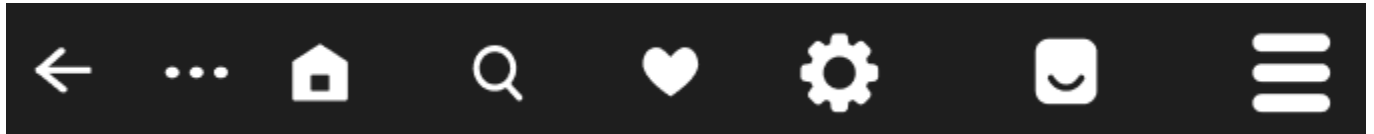
We used Figma for our interactive Design:

https://www.figma.com/proto/efX3KwG6JmIGlQa7I3RXNx/Labyrinth?type=design&node-id=103-5671&t=CyFtYtbHz3epIIig-0&scaling=contain&page-id=101%3A37&starting-point-node-id=103%3A5671

Evaluate Design with User Testing

Assessed product:

https://www.figma.com/proto/efX3KwG6JmIGlQa7I3RXNx/Labyrinth?type=design&node-id=103-5671&t=CyFtYtbHz3epIIig-0&scaling=contain&page-id=101%3A37&starting-point-node-id=103%3A5671

Think Aloud Protocol: https://youtu.be/j3Xzy-xacLg

Hierarchical Task Analysis

Assigned user task: "Search for a book on the app"

1. Open app

2. Clicked Get Started (0:01-0:05)

 2.1. Goes to explore page (0:06-0:15) scrolls around, didn't find anything decides

to move on, says "Let me look at my profile")

3. Goes to my profile page (0:15-0:26)

 3.1. Clicks Activity feed icon (0:21-0:31) (error"end up in settings page")

 3.1.1. Scrolls around settings (0:36-0:39)

 3.1.1.1. Settings page took user to messages (0:47-0:52)(Surprised, setting

went to messages)

 3.1.2. Clicks on Library (0:52-0:58)(confusion on what to do next, setting was

stuck on loading page)

 3.1.2.1. Decided to move on to a book that caught interest (1:12-1:11) (Says,

"I want to see more of what they are saying about this book")

 3.1.3. Clicked settings to receive alerts on book updates (1:22-1:25)

 3.1.4. Logs off (1:27)

Error Count: 1

Confusion Count: 1

Surprised Count: 1

Total task duration: 1:27minutes

Post-experience survey

1. On a scale of 1 to 5, how easy was it to open the app and start your search?

- User 1: Easy (2)

- User 2: Very Easy (1)

- User 3: Very Easy (1)

- User 4: Very Easy (1)

- User 5: Neutral (3)

2. Did you encounter any issues or errors during your search process? If yes, please describe them briefly.

- User 1: Yes, I encountered an error when clicking the Activity feed icon, which led me to the settings page instead.

- User 2: No, opening the app and starting the search was very easy.

- User 3: Partially, I couldn't find the exact book I was looking for. Sure it's due to the limits, I wanted to search by genre.

- User 4: No, I didn't face any errors or issues during the getting started process. However, it could use some more instruction.

- User 5: No, was straightforward and easy to follow.

3. Were you able to find the book you were looking for?

- User 1: No, Unfortunately, I couldn't find the book I was searching for. The search results seemed limited.

- User 2: Yes, for the options given it was easy to look for a book.

- User 3: Partially, needs more advanced features for searching. The library didn't load.

- User 4: Honestly, wasn't looking. When I click on the search it took me a AI search. I like that since I don't really know what to look for.

- User 5: No, limited options.

4. Please share any additional comments or feedback about your experience while searching for a book on the app.

- User 1: Feedback: The app's interface was visually appealing, but it needs improvement in terms of search functionality. Also, the unexpected jumps to different pages (like settings and messages) were confusing.

- User 2: Feedback: The app's user interface is clean and easy to move around. I appreciate the attention to detail on the profile page. Looks like a lot of different options and social features.

- User 3: Feedback: The app's interface is visually pleasing, but there's room for improvement in terms of book options. It would be helpful to have more advanced search filters.

- User 4: App looks nice. I like the interface a lot. I think the app just needs more work to refine it. Otherwise it really nice start.

- User 5: didn't look for a book. I did like the AI suggestion option.

5. How likely are you to recommend our app to others based on your experience today?

- User 1: Likely, Feedback: I would be likely to recommend the app if the search feature was improved. The overall experience was decent, but the search function needs work.

- User 2: Very Likely, It's user-friendly and looks efficient.

- User 3: Neutral, needs improvement. Can't see it competing in a market with amazon books yet.

- User 4: Likely. Once the app is polished, I would love to share it with others.

- User 5: Neutral. Will comics be available or just books?

6. Is there any specific feature or improvement you would like to see in our app to enhance your book search experience?

- User 1: Feedback: I suggest enhancing the search tool to provide more relevant results and adding advanced search filters to narrow down choices.

- User 2: Feedback: I would appreciate a feature that allows users to save their search preferences and history.

- User 3: I think having a feature to see user reviews and ratings for books would be helpful.

- User 4: I would love to see an option to filter books by genres and an easy way to save books to my reading list

- User 5: Not really. But you add other reading options other than just books.

7. Did you find the app's user interface intuitive and easy to navigate?

- User 1: Neutral, the user interface was visually pleasing, but some parts were not intuitive, especially when I ended up in unexpected places like the settings and messages.

- User 2: Neutral, I found the user interface somewhat intuitive, but there were a few sections that could be better organized for smoother navigation.

- User 3: Intuitive, The user interface was generally easy to navigate, but there were some unexpected jumps to different pages.

- User 4: Very Intuitive, user interface was easy to move around.

- User 5: Intuitive, didn't really run into any problems.

8. Were there any aspects of the app's design or layout that you found confusing or unclear?

- User 1: I found the transition from one page to another confusing. It's important that the app maintains a consistent and logical flow.

- User 2: The design was visually appealing, but I was confused when I couldn't easily return to my previous page after exploring different sections.

- User 3: I found the design aesthetically pleasing, but the layout in some sections was a bit cluttered.

- User 4: Some icons were unclear in their meaning.

- User 5: Some of the options when clicking in the app weren't actionable.

9. Overall, how satisfied are you with your experience searching for a book on our app?

- User 1: Satisfied, I'm satisfied with the overall experience, but there's room for improvement, particularly in the search functionality and navigation.

- User 2: Satisfied, With some refinements, I believe it could become an excellent book searching platform.

- User 3: I'm moderately satisfied with the experience. It has potential, but there are some usability issues that need attention.

- User 4: I'm somewhat satisfied with the experience. It's a good start, but there's room for improvement, particularly in terms of user guidance.

- User 5: somewhat satisfied. I didn't search for a book.

10. Please provide any suggestions or specific feedback that can help us improve your experience with our app.

- User 1: Feedback: Focus on improving the search feature, ensure a consistent navigation experience, and provide clear instructions or tooltips for users.

- User 2: Consider providing users with personalized book recommendations.

- User 3: Maybe add a feature for users to create and share booklists with others.

- User 4: Create a user onboarding tutorial to guide new users through the app's features.

- User 5: Make the social option better. Communities look basic. Didn't get to see the social features in detail.

Expert Evaluation

What worked What didn't work and errors:

The user successfully opened the app and clicked on the "Get Started" button. They navigated through the application and successfully reviewed the book process. However, due to the lack of instructions of navigating the application the user ran into errors.

The user encountered an error when clicking the Activity feed icon, as it led to the settings page instead of the intended action.

- We intend to create a page at the start which will explain each icon and its intended use.

There was confusion when the user clicked on the Library, as the loading page seemed to be stuck.

- This was purposely done for end user testing. We wanted to see if users would fully use the application and check each icon available and ensure adequate testing was completed.

There was a surprise when clicking on the settings page from the Library, as it unexpectedly took the user to the messages.

- After careful review, we found that this was user error. User clicked on the setting icon in the menu when on the library page. This feedback will be taken into consider regarding moving the menu for a comfortable mobile experience.

Future Improvements

1. **Error Handling:** Fix the issue where clicking the Activity feed icon leads to the settings page. Ensure that the user is directed to the correct page.

2. **Loading Page Improvement:** Address the confusion caused by the loading page in the Library section. Enhance the user experience by providing clear feedback or speeding up the loading process.
3. **Consistency:** Ensure that the app's navigation is consistent to prevent surprises like ending up in the messages when clicking on settings from a different page.
4. **Usability Testing:** Conduct usability testing with end-users to gather more insights into their experiences and preferences. This will help in refining the app's design and functionality.
5. **User Education:** Provide clear and intuitive instructions or tooltips to guide users on how to perform specific tasks within the app.

<mark>**Final project submission**</mark>

Added:

AI text to button for further clarification.

Added in depth filter options and corrected the library page for less user confusion/error.

Added an instruction page at the beginning of application.
https://www.figma.com/proto/efX3KwG6JmIGlQa7I3RXNx/Labyrinth?type=design&node-id=103-5671&t=HdSxxbedQjO9Rmf1-1&scaling=scale-down&page-id=101%3A37&starting-point-node-id=103%3A5671&mode=design