

CSC 648/848 SFSU Spring 2021 Milestone 3

iShareBooks

Team 04

History Table

Milestone	Date
M3V2	05/07/2021
M3V1	04/22/2021
M2V2	04/03/2021
M2V1	04/01/2021
M1V2	03/10/2021
M1V1	03/05/2021

Links:

Github:

<https://github.com/CSC-648-SFSU/csc648-04-sp21-Team04/tree/master/application/vertical-prototype/frontend>

Wireframe:

<https://drive.google.com/file/d/1djUja05ZTmadd33newI6ofEZKcZTXROG/view?usp=sharing>

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Objective and Overview:

ishareBook is the book sharing website designed for saving students time and money buying new textbooks. The main objective for isharebooks is to provide a user friendly environment for buy, sell and trade experience. In Milestone 3 we have implemented our horizontal prototype which provides the look and feel of our application and is primarily focused on the UI/UX.

1. Data Definitions V3

1. **General User:** A user who can generally look up the website and has the least privilege to use website features. A general user may **register** to gain additional privilege
 - 1.1. **Registration:** A general user shall be able to create an account.
 - 1.2. **Account Contains:**
 - 1.2.1. **Username:** Needs a username to create an account.
 - 1.2.2. **Email:** Needs a unique email to create an account.
 - 1.2.3. **Password:** Needs a password that gets hashed for security purposes.
 - 1.2.4. **Accept Terms of Use:** Must select this to create the account.
2. **Registered User:** A user who can look up the website and has the most privilege to use website features. A general user shall be able **login** in order to use all of these features and services.
 - 2.1. Can login to the system.
 - 2.1.1. **Email:** Needs to login with a unique email.
 - 2.1.2. **Password:** Needs to provide a password.
 - 2.2. Has the ability to start transactions for textbooks.
 - 2.3. **Buyers:** All registered users are buyers by default. They can buy textbooks.
 - 2.4. **Sellers:** Once a user posts a book for sale, they are considered a seller as long as they have at least 1 book for sale.
 - 2.5. **Comment:** May leave comments in traded books section (inquiries).
 - 2.6. **Profile: A profile contains username, email, ratings, and recent transactions.**
 - 2.6.1. **Username:** The username of a logged in user.
 - 2.6.2. **Email:** The unique email of a logged in user.
 - 2.6.3. **Ratings:** The ratings given to this registered user by other registered users.

- 2.6.4. **Recent Transactions:** The overall transactions made by this registered user.
- 3. **Administrator:** A user who has special privileges and the same privileges as Registered Users.
 - 3.1. Can login to the system.
 - 3.1.1. **Email:** Needs to login with a unique email.
 - 3.1.2. **Password:** Needs to provide a password.
 - 3.2. Privileges:
 - 3.2.1. May delete **Textbook Posts**.
 - 3.2.2. May delete **Registered Users**.
 - 3.2.3. May delete **comments** in the traded books section.
- 4. **Textbook:** The item that is sold/traded by sellers, and bought by buyers/registered users.
 - 4.1. **On Sale Textbooks:** Books can be placed for other registered users to buy.
 - 4.2. **Traded Textbook:** Books can be traded for other books.
 - 4.3. **Auctioned Textbooks:** Sellers can set their own price, and buyers can place offers for it.
 - 4.4. **Free Textbooks:** Buyers can buy free textbooks.
 - 4.5. **Images:** Textbook image is a single image that contains the cover only.
 - 4.5.1. **Size:** 300 x 300 & 500 x 500
 - 4.5.2. **Storage:** Local storage and database
 - 4.5.3. **Format:** jpg/png
- 5. **Textbook Posts:** A textbook post shall be posted by a registered user who is a seller, trader, for auction, or for free.
 - 5.1. **Contains:** Title, Author, Image, Condition, Price.
 - 5.1.1. **Title:** The title of a textbook
 - 5.1.2. **Author:** The author of a textbook.
 - 5.1.3. **Image:** The cover image of a textbook.
 - 5.1.4. **Price:** The price of a textbook (for sale and for auction only).
- 6. **Payment Type:** A payment type shall be selected by all the registered users at the time of transaction.
 - 6.1. **Types Include:** Credit Card, Bank Account, Debit Card.
 - 6.1.1. **Credit Card:** Payment shall be paid with a credit card.
 - 6.1.2. **Bank Account:** Payment shall be paid with a bank account.
 - 6.1.3. **Debit Card:** Payment shall be paid with a debit card.
- 7. **Receipt:** A proof-of-purchase document after completion of transaction.
 - 7.1. **Receipt Includes:** Username, Price, Item info.
 - 7.1.1. **Username:** The user's name who bought an item.

7.1.2. **Price:** Price of the item.

7.1.3. **Item info:** The information of an item (textbook).

8. **Chat Bot:** An assistance bot which shall be able to answer basic website related questions to all kinds of users.

8.1. **Speech:** The chatbot shall be able to speak back.

8.2. **Text:** The chatbot shall be able to reply back with a text.

9. **Tutoring Subscription:** A tutoring subscription is a way of making revenue from this website and shall only be subscribed by the registered users.

9.1. **Includes:** Video, Username, Title.

9.2. **Video:** A tutorial video shall be posted by the registered users.

9.2.1. **Size:** 1000px at full screen, 700 px as default.

9.2.2. **Format:** .mp4

9.3. **Username:** The username of whoever posted the tutorial video.

9.4. **Title:** The title of the tutorial video.

2. Functional Requirements V3

Priority 1

1. General User:

- 1.1. A general user shall be able to search books without creating an account.
- 1.2. A general user shall be able to register for an account.
- 1.3. A general user shall be able to search for the available textbooks.
- 1.4. A general user shall be able to search for the textbooks available for the trade.
- 1.5. A general user shall be able to search for the textbooks available for free.
- 1.6. A general user shall be able to filter searches.
- 1.7. A general user shall be able to view the privacy policy.
- 1.8. A general user shall be able to search a textbook with a department.
- 1.9. A general user shall be able to select the textbooks without creating an account.
- 1.10. A general user shall be able to view only the inquiries related to the post.
- 1.11. A general user shall comply with the website terms and conditions.

2. Registered User

- 2.1. A registered user shall be able to log in to the website account.
- 2.2. A registered user shall be able to log out from the website account.
- 2.3. A registered user shall be able to edit his/her account profile.
- 2.4. A registered user shall be able to list books for sale.
- 2.5. A registered user shall be able to list books for trade.
- 2.6. A registered user shall be able to list books for a free giveaway.
- 2.7. A registered user shall be able to buy books from other sellers.
- 2.8. A registered user shall be able to trade books with other sellers.
- 2.9. A registered user shall be able to get books free of cost from other sellers.
- 2.10. A registered user shall be able to edit/modify the book listing.
- 2.11. A registered user shall be able to reply to inquiries from the registered users.
- 2.12. A registered user shall be able to ask the live chatbot for website-related questions.
- 2.13. A registered user shall be able to filter searches.
- 2.14. A registered user shall be able to search books by department names.
- 2.15. A registered user shall have a rating.
- 2.16. A registered user shall be able to get a receipt of their transactions.
- 2.17. A registered user shall be able to post a tutorial video for subscription.
- 2.18. A registered user shall be able to purchase a subscription for tutorial video.

3. Administrator

- 3.1. An administrator shall be a registered user.
- 3.2. An administrator shall be able to view all registered users' profiles.
- 3.3. An administrator shall be able to view the commission generated through each transaction.
- 3.4. An administrator shall be able to view the transactions history of all registered users.
- 3.5. An administrator shall be able to view reported registered users.
- 3.6. An administrator shall be able to view all the books sold by the registered users.
- 3.7. An administrator shall be able to delete a book post.
- 3.8. An administrator shall be able to delete a registered user's account.
- 3.9. An administrator shall be able to delete registered user's comments.
- 3.10. An administrator shall be able to comment on trade book posts.

4. Profile

- 4.1. A profile shall be created for all registered users.
- 4.2. A profile shall be created when the account is made.
- 4.3. A profile rating shall be visible to all registered users.
- 4.4. A profile shall be deleted from the system.
- 4.5. A profile shall have a 5 star rating of the registered users by default.
- 4.6. A profile shall be edited by the registered user.
- 4.7. A profile shall be keeping the records of the textbooks listed.
- 4.8. A profile shall be keeping the records of the textbooks bought.
- 4.9. A profile shall be added to favorites/save by other registered users.
- 4.10. A profile's recent transaction shall be visible to other registered user
- 4.11. A profile shall be able to see their favourites.

5. Payment Type

- 5.1. A payment type shall be a bank account.
- 5.2. A payment type shall be a debit card.
- 5.3. A payment type shall be a credit card.
- 5.4. A payment type shall be a PayPal account.
- 5.5. A payment type shall be selected by all buyers.
- 5.6. A payment type shall belong to each registered user.
- 5.7. A payment type shall be selected at the time of order confirmation.

6. Textbook

- 6.1. A textbook shall be posted on sale only by the registered users.
- 6.2. A textbook shall be accessible with the textbook name.

- 6.3. A textbook shall be accessible with the department name.
- 6.4. A textbook shall be posted for auctions by the registered user.
- 6.5. A textbook shall be posted for trade by the registered user.
- 6.6. A textbook shall be posted for free by the registered user.
- 6.7. A textbook shall be purchased by the registered users.
- 6.8. A textbook shall be publicly available to all registered users.
- 6.9. A textbook shall be publicly available to all general users.

7. Free Books

- 7.1. A free textbook shall be listed as free of cost.
- 7.2. A free textbook shall be visible to registered users.
- 7.3. A free textbook shall be visible to the general user.
- 7.4. A free textbook shall have a finalized purchase.

8. Traded Books

- 8.1. A traded Book shall be available for all general users.
- 8.2. A traded textbook shall be exchanged between registered users.
- 8.3. A traded textbook shall be in use or in new condition.
- 8.4. A traded textbook shall be listed as available for trade.
- 8.5. A traded textbook's trade shall be finalized.
- 8.6. A traded textbook shall be removed after the trade is done.
- 8.7. A traded textbook shall be listed as available for trade.

9. Textbook Image

- 9.1. A textbook image shall be resized.
- 9.2. A textbook image shall be the image of a book.
- 9.3. A textbook image shall belong to each textbook post.
- 9.4. A textbook image shall be posted by the seller.
- 9.5. A textbook image shall be clearly visible to all users.
- 9.6. A textbook image shall be compatible in any device.

10. Receipt

- 10.1. A receipt shall be made for all purchased textbooks.
- 10.2. A receipt shall belong to each order of the textbook.
- 10.3. A receipt shall be uniquely made for an order.
- 10.4. A receipt shall be a part of the checkout process.

11. Rating

- 11.1. A rating shall be modified by the origin user.
- 11.2. A rating shall contain comments regarding the registered user's experience.

11.3. A rating shall be removed by the origin user.

Priority 2

1. General User:

- 1.1. A general user shall be able to subscribe to the website via email.
- 1.2. A general user shall ask the live chat box for website-related questions.

2. Registered User:

- 2.1. A registered user shall be able to report general users and their illegitimate activities to the website support team.
- 2.2. A registered user shall be able to report the registered users and their illegitimate activities to the website support team.
- 2.3. A registered user shall be able to block the registered users.
- 2.4. A registered user shall be able to invite their friends by message.
- 2.5. A registered user shall be able to subscribe to the website via email.

3. Profile

- 3.1. A profile shall be tracking the inventory for all posts.
- 3.2. A profile shall be editable for all of its fields.

4. Payment Type

- 4.1. A payment type shall be selected in rea.

5. Textbook

- 5.1. A textbook shall be searched by ISBN.
- 5.2. A textbook shall be returned to the seller.

6. Free Books

- 6.1. A free textbook shall be claimed on a first come first serve basis.
- 6.2. A free textbook shall be removed after a registered user has claimed it.

7. Traded Books

- 7.1. A traded textbook shall meet the seller's requirements.

8. Auction Books

- 8.1. A textbook shall be posted on auction.

9. Textbook Image

- 9.1. A textbook image shall be an appropriate image.

10. Receipt

- 9.2 A receipt shall be sent to the email.
- 9.3 A receipt shall be printed out via email.

11. Tutorial Video

- 11.1 A tutorial video shall be recorded by the registered users.
- 11.2 A tutorial video shall be available on search.
- 11.3 A tutorial video shall be posted by the registered users.
- 11.4 A tutorial video shall be subscribed by the registered users.

12. Auctioned Books

- 12.1 An auctioned book shall be posted on auction by the registered users.
- 12.2 An auctioned book shall be purchased by the highest bidder.
- 12.3 An auction book shall be available on search to all users.

Priority 3

1. General User:

- 1.1. A registered user shall be able to subscribe for a website membership.
- 1.2. A general user shall be able to search for books with any keyword.

2. Registered User:

- 2.1. A registered user shall be able to subscribe for a membership.
- 2.2. A registered user shall be able to live chat with other registered users.
- 2.3. A registered user shall be able to make an offer for auction.
- 2.4. A registered user shall be able to save the books.
- 2.5. A registered user shall be able to search for books with any keyword.

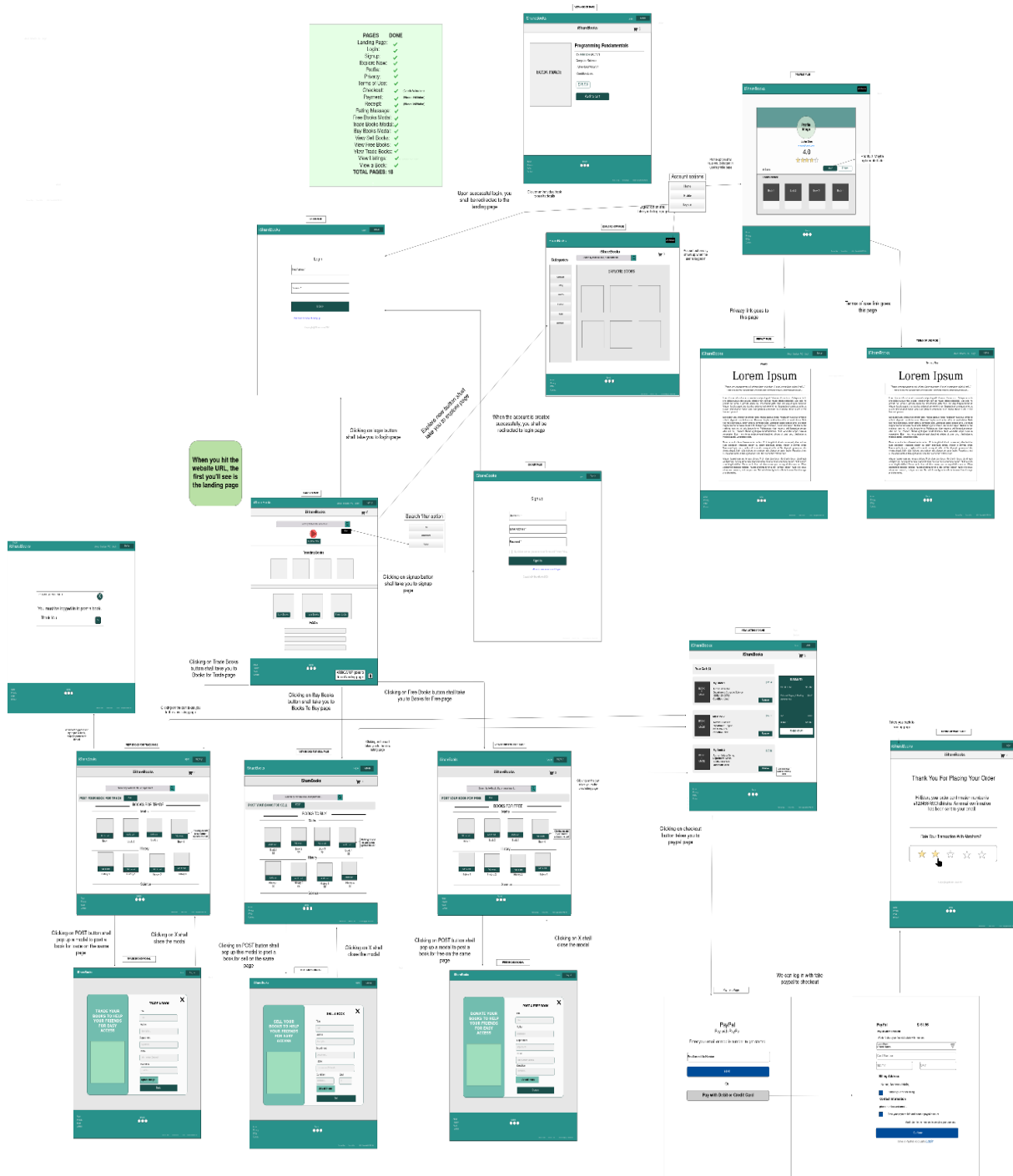
3. Profile:

- 3.1. A profile shall be reported by the registered users.

4. Subscriber:

- 4.1. Subscriber shall have access to paid content.
- 4.2. Subscriber shall have access to tutoring videos.
- 4.3. Subscriber shall have a membership type.

3. Wireframes Based on your Mockups/Storyboards V2 (detailed)



1. Account

Explore Now Event

LOGIN PAGE

iShareBooks

Login

Sign Up

Login

Email Address *

Password *

SIGN IN

[Don't have an account? Sing up](#)

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SIGNUP PAGE

iShareBooks

Login

Sign Up

Sign up

Username *

Email Address *

Password *

☐ By clicking sign up, you agree to our Terms and Privacy Policy.

Sign Up

[Already have an account? Login](#)

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LANDING PAGE

iShareBooks

About

Services

FAQ

Login

Sign Up

iShareBooks

0

Search by textbook title, department.....

Filter

Explore Now

Trending Books

Buy Books

Trade Books

Free Books

FAQs

ARROW UP goes to top of landing page

About

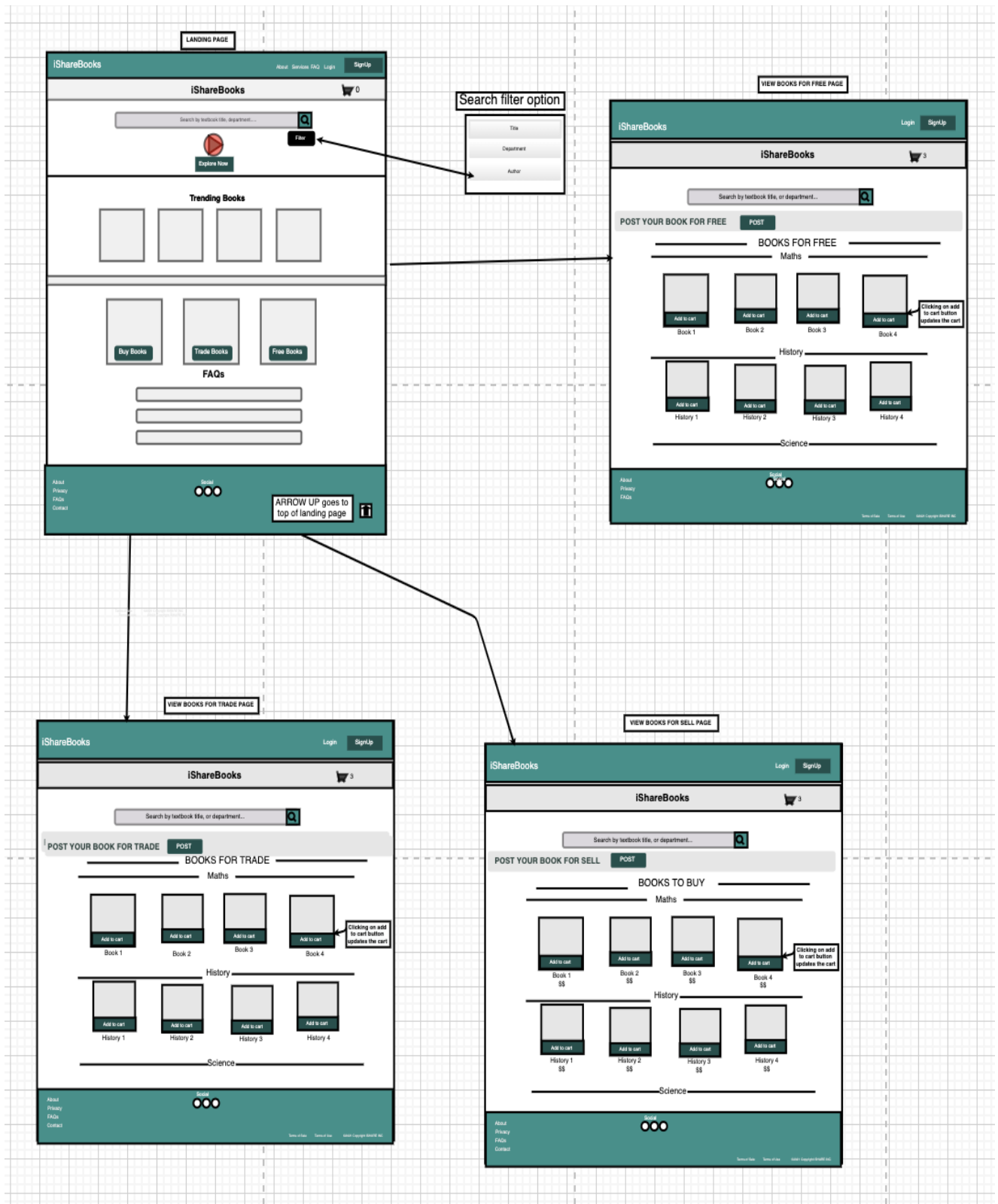
Privacy

FAQs

Contact

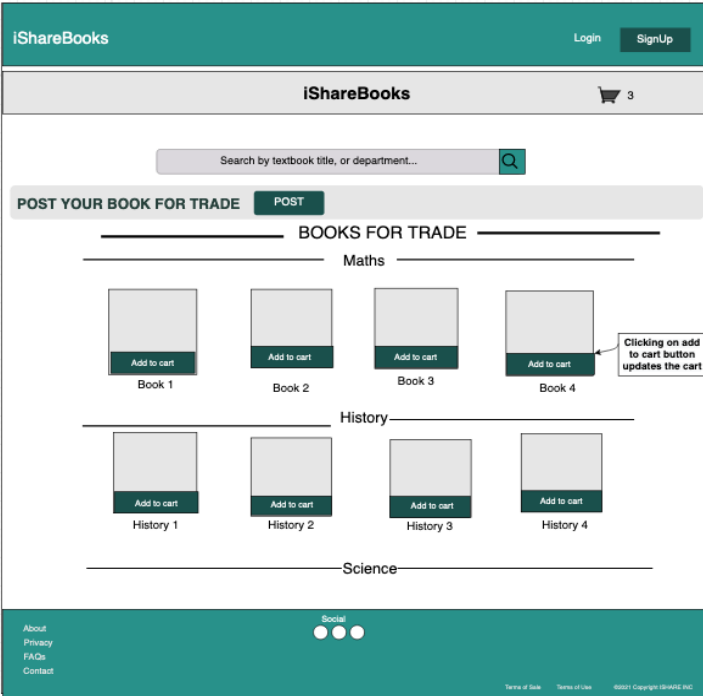
Social

2. Explore Services



3.Post Books for Trade

VIEW BOOKS FOR TRADE PAGE



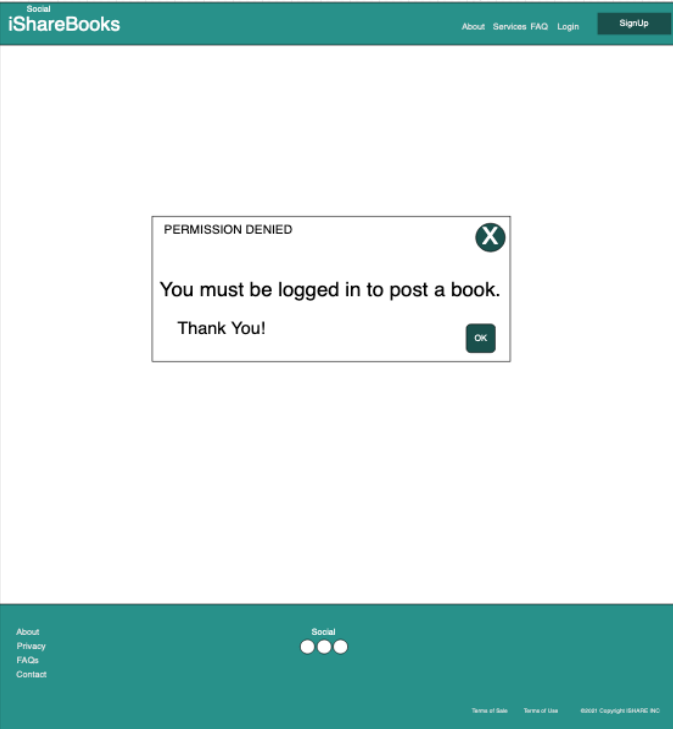
The main page for viewing books for trade. It features a teal header with the iShareBooks logo, a search bar, and a 'POST YOUR BOOK FOR TRADE' button. Below the header, there's a section titled 'BOOKS FOR TRADE' with a 'Maths' category. Under 'Maths', there are four book cards (Book 1 to Book 4), each with an 'Add to cart' button. A tooltip indicates that clicking on the 'Add to cart' button updates the cart. Below the 'Maths' section, there's a 'History' section with four history cards (History 1 to History 4), each with an 'Add to cart' button. At the bottom, there's a 'Science' category. The footer contains links for About, Privacy, FAQs, Contact, and Social media icons.

When Not logged in and try to post a book, displays permission denied

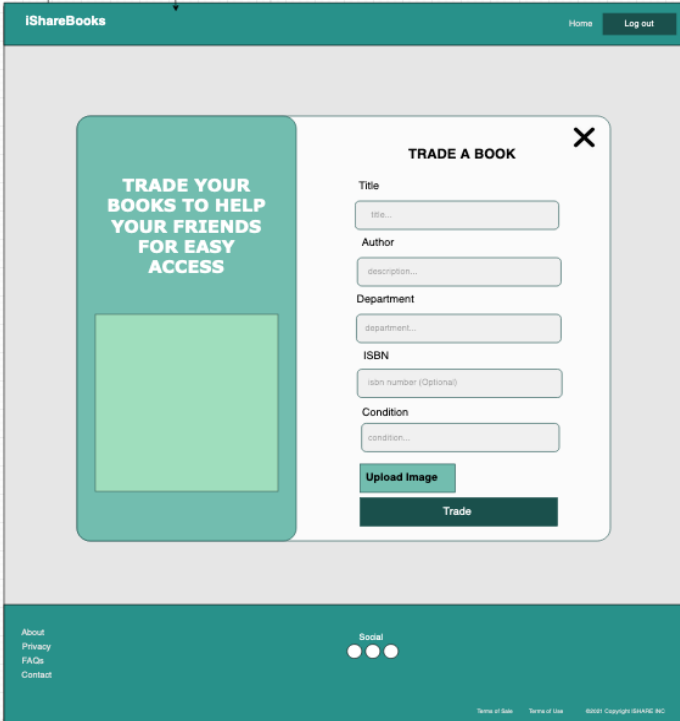
Clicking on X shall close the modal

Clicking on POST button shall pop up a modal to post a book for trade on the same page

TRADE BOOKS MODAL

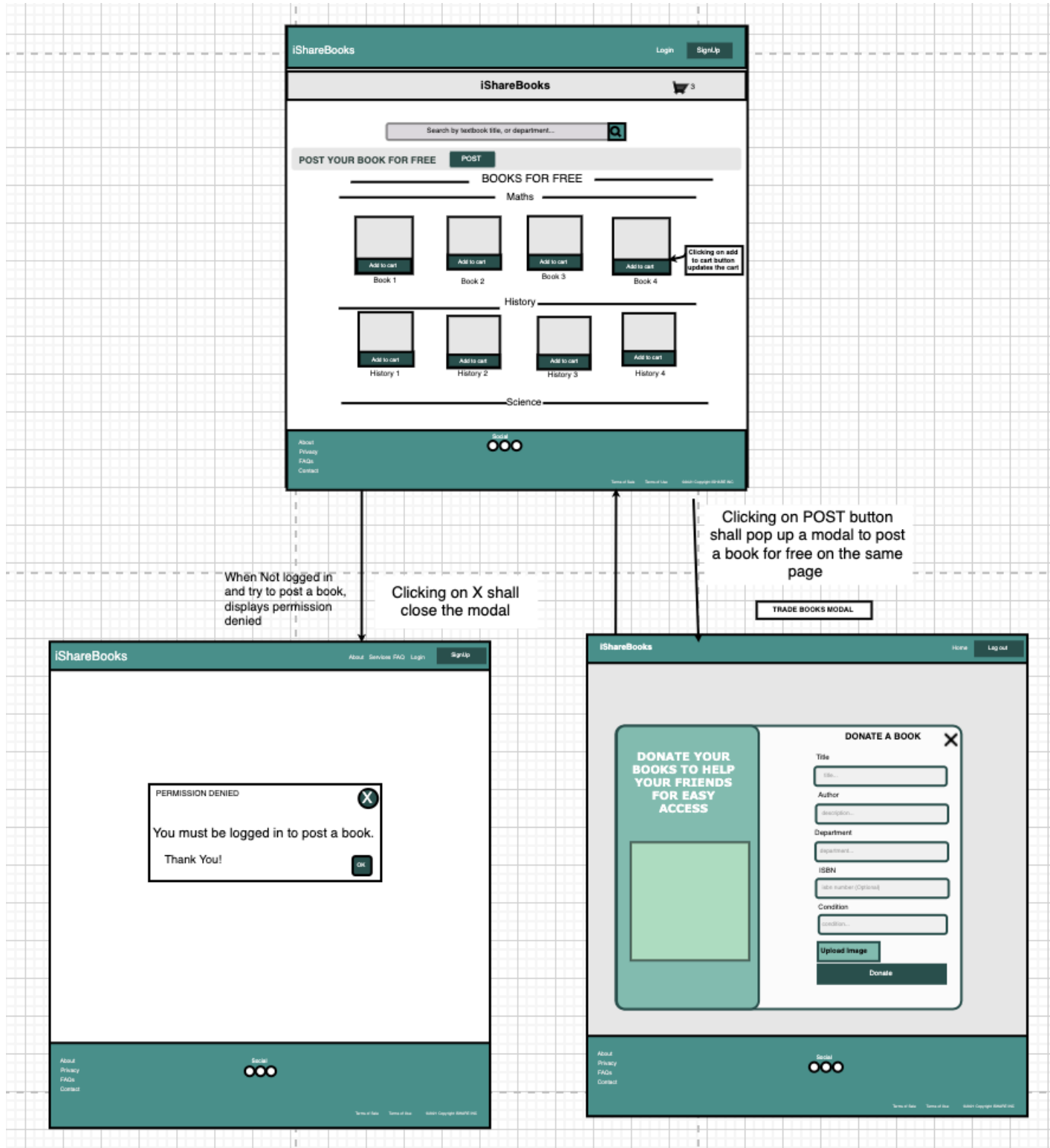


A modal dialog box titled 'PERMISSION DENIED' with a close button (X). The text inside says: 'You must be logged in to post a book. Thank You!'. There is an 'OK' button at the bottom right. The background is a light gray, and the modal has a white background with a thin border.



A modal dialog box titled 'TRADE A BOOK' with a close button (X). The text inside says: 'TRADE YOUR BOOKS TO HELP YOUR FRIENDS FOR EASY ACCESS'. Below this text is a large green square placeholder for an image. To the right of the image placeholder are input fields for Title, Author, Department, ISBN, and Condition. Below these fields are buttons for 'Upload Image' and 'Trade'. The background is a light gray, and the modal has a white background with a thin border.

4. Posting Book for Free



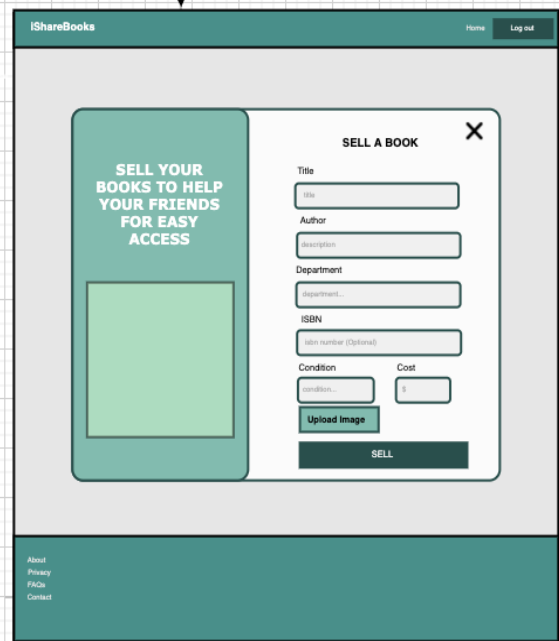
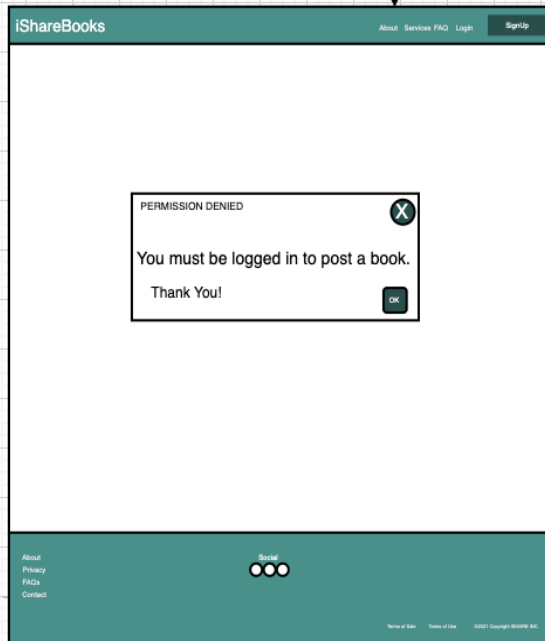
5.Posting Book for Sell



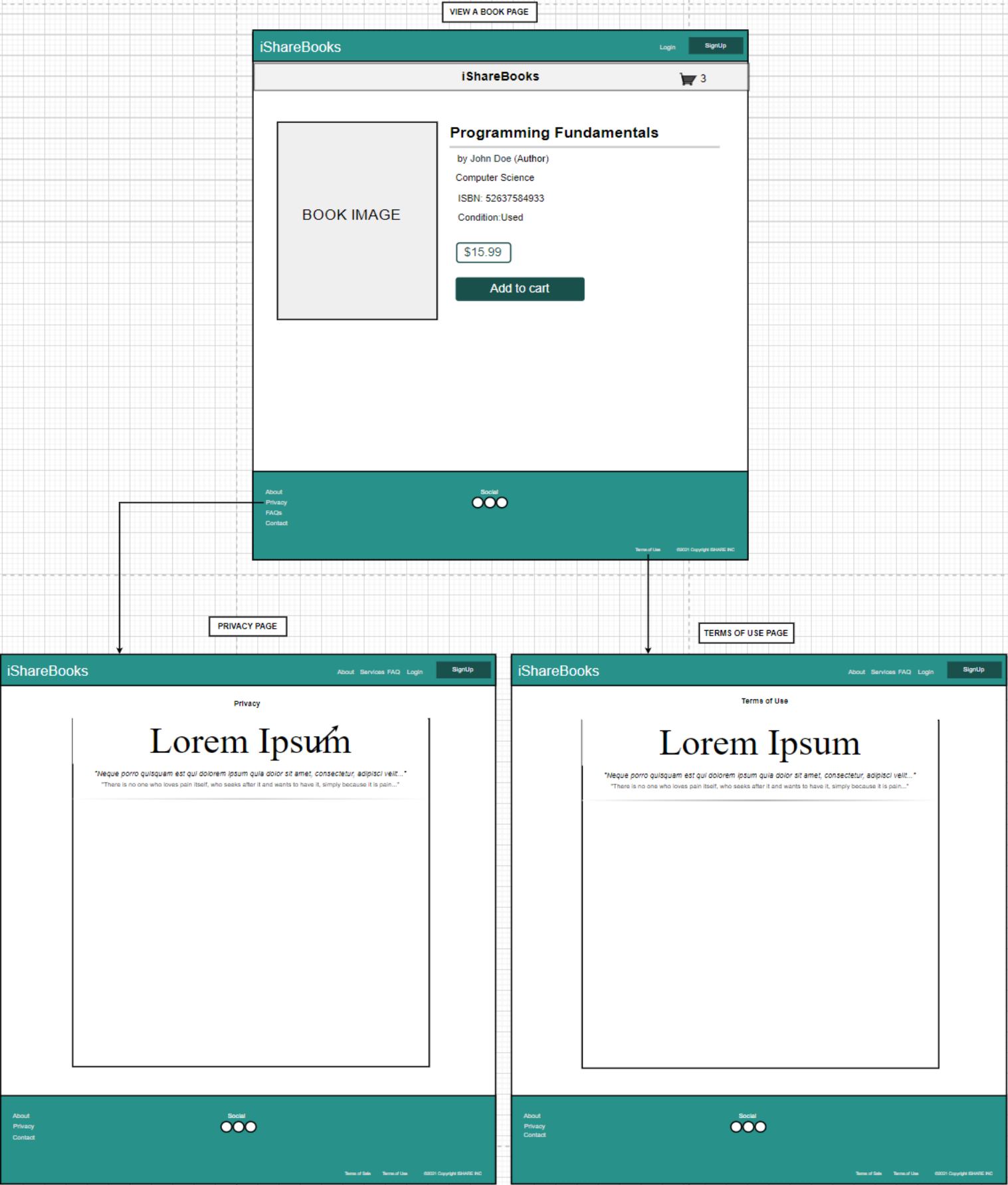
When Not logged in
and try to post a book,
displays permission
denied

Clicking on X shall
close the modal

Clicking on POST button
shall pop up a modal to post
a book for sell on the same
page




6.Footer Links



iShareBooks

[Login](#) [SignUp](#)

iShareBooks

 3

BOOK IMAGE

Programming Fundamentals

by John Doe (Author)

Computer Science

ISBN: 52637584933


Condition:Used

\$15.99

Add to cart

[About](#)
[Privacy](#)
[FAQs](#)
[Contact](#)

Social



Terms of Use

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ABOUT PAGE

CONTACT PAGE

iShareBooks

[About](#) [Services](#) [FAQ](#) [Login](#) [SignUp](#)

iShareBooks

 3

ABOUT US

We are

.....

Mission

Our mission is to....

How does it Work?

...

...

- 1.
- 2.
- 3.

Meet the Team

KC

Danish


Zaid

..

..

[About](#)
[Privacy](#)
[Contact](#)

Social



Terms of Sale


Terms of Use

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iShareBooks

 3

Contact

For general issues...
Email - Phone Number


For Billing
Email - Phone Number

For UI/UX Issues
Email - Phone Number

For Database/Access Issues
Email - Phone Number

[About](#)
[Privacy](#)
[Contact](#)

Social

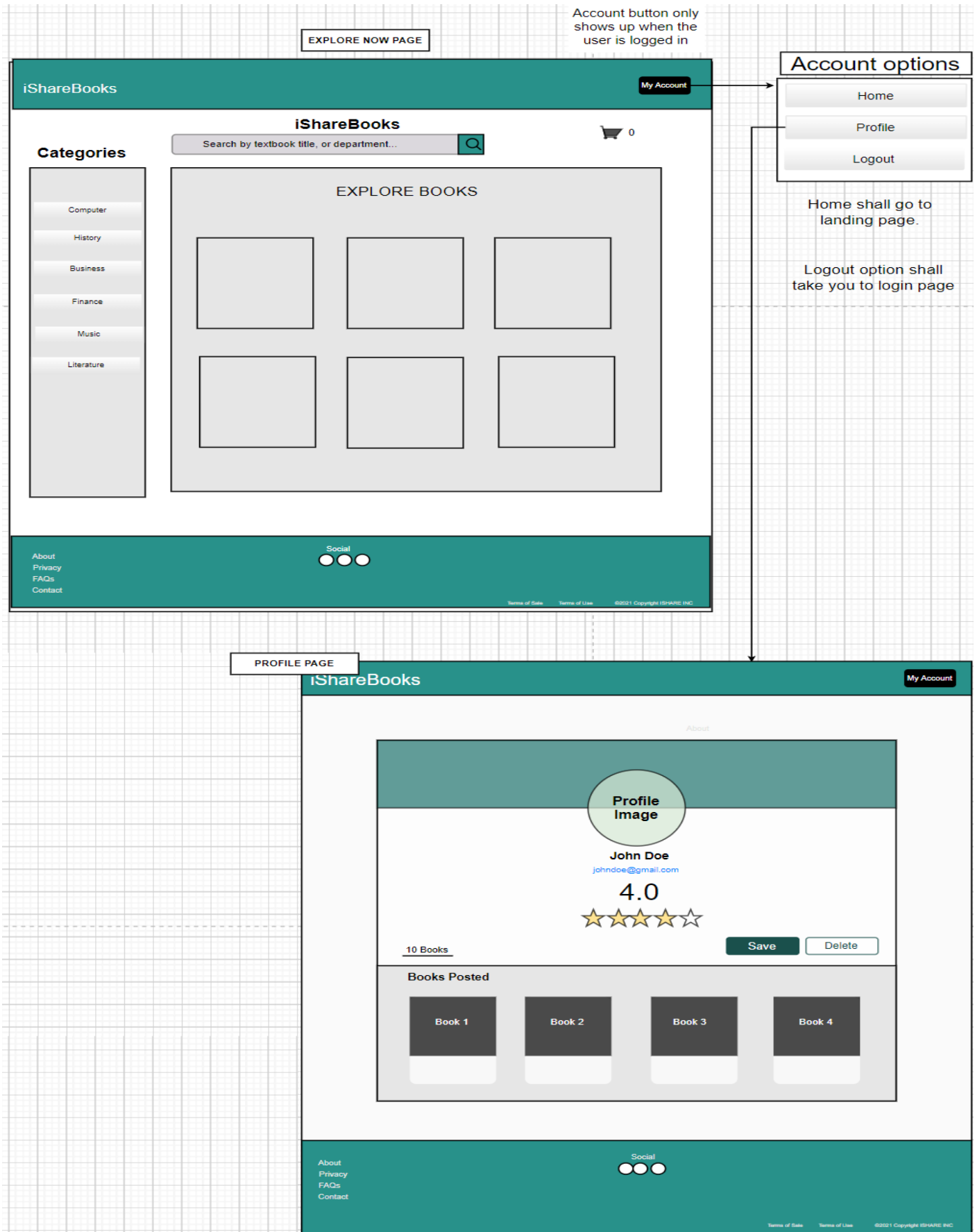


Terms of Sale

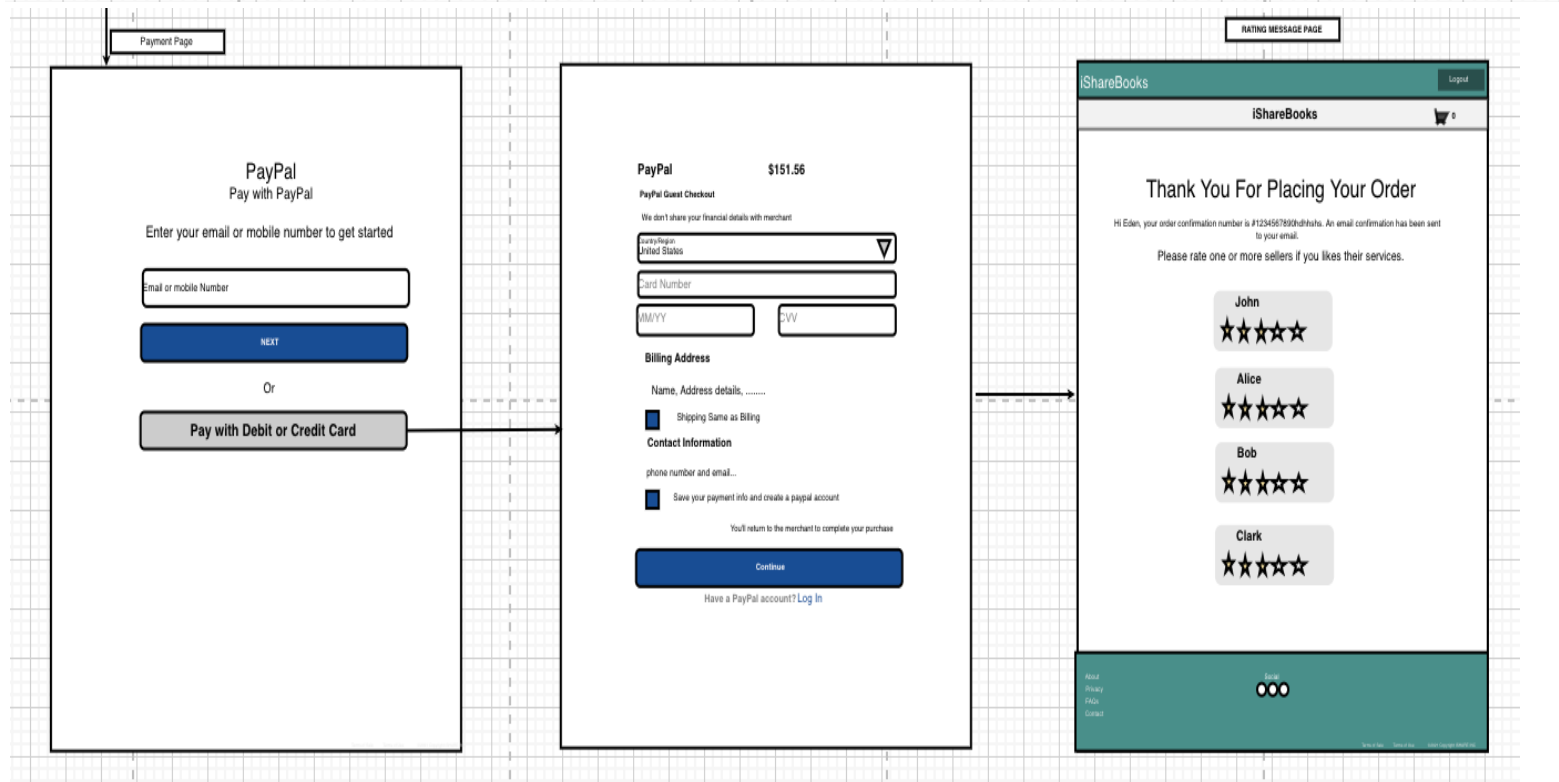
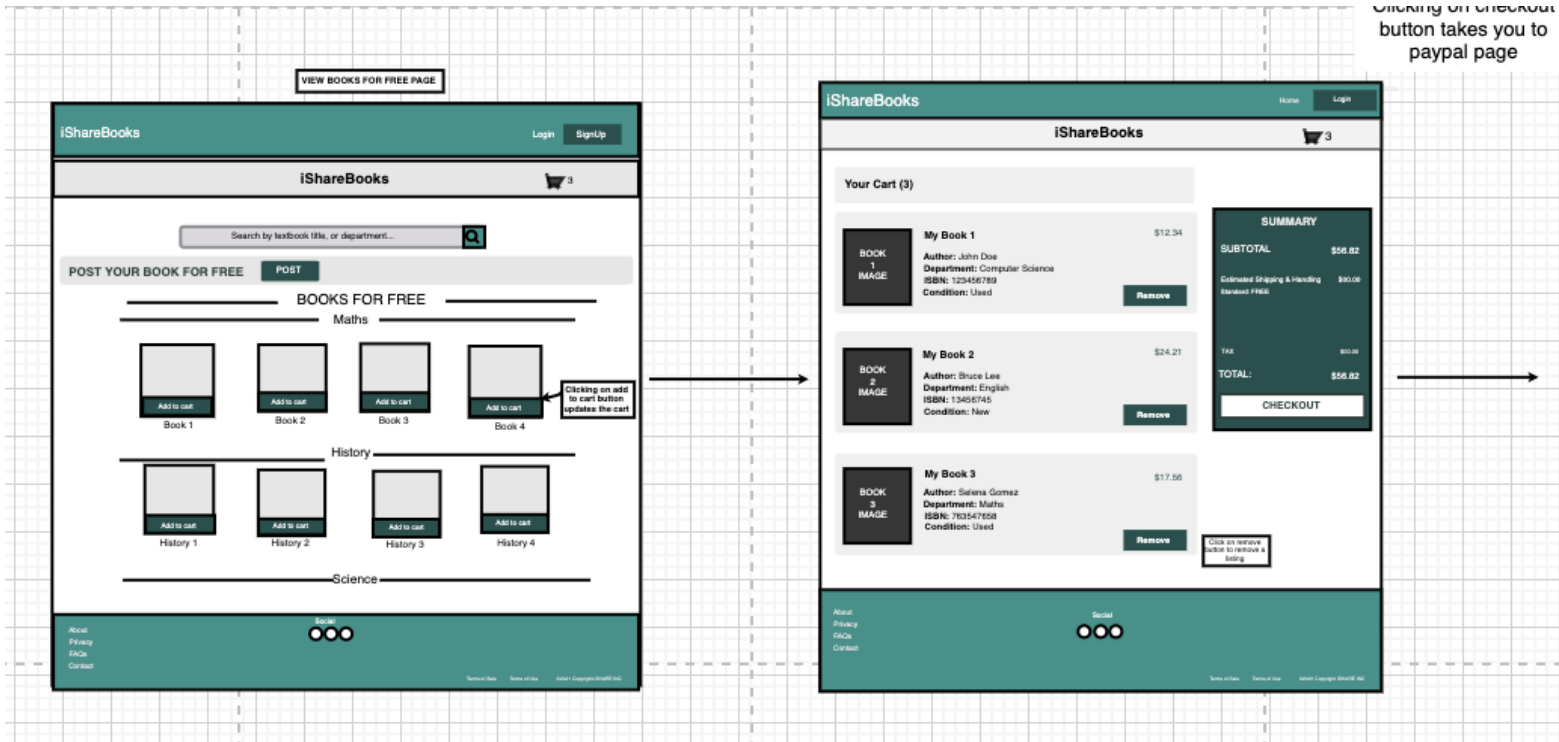
Terms of Use

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7.Profile



8. Buying Books for Free



9. Buying Books for Trade

iShareBooks

Log inSign Up

iShareBooks

3

Search by textbook title, or department...

Q

POST YOUR BOOK FOR TRADE

POST

BOOKS FOR TRADE

Maths

Book 1

Add to cart

Book 2

Add to cart

Book 3

Add to cart

Book 4

Add to cart

Clicking on add to cart button updates the cart

History

History 1

Add to cart

History 2

Add to cart

History 3

Add to cart

History 4

Add to cart

Science

Add to cart

About

Privacy

FAQs

Contact

Sign Up

Terms of Use

Terms of Use

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iShareBooks

Home

Log in

iShareBooks

3

Your Cart (3)

BOOK 1

IMAGE

My Book 1

Author: John Doe
Department: Computer Science
ISBN: 123456789
Condition: Used

\$12.34

Remove

BOOK 2

IMAGE

My Book 2

Author: Bruce Lee
Department: English
ISBN: 13456745
Condition: New

\$24.21

Remove

BOOK 3

IMAGE

My Book 3

Author: Selena Gomez
Department: Maths
ISBN: 783547659
Condition: Used

\$17.56

Remove

Click on remove button to remove a book

SUMMARY

SUBTOTAL \$56.82

Estimated Shipping & Handling \$00.00

Standard P&H \$00.00

TAX \$00.00

TOTAL: \$56.82

CHECKOUT

About

Privacy

FAQs

Contact

Sign Up

Terms of Use

Terms of Use

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Clicking on checkout button takes you to paypal page

Payment Page

PayPal

Pay with PayPal

Enter your email or mobile number to get started

Email or mobile Number

NEXT

Or

Pay with Debit or Credit Card

PayPal

\$151.56

PayPal Guest Checkout

We don't share your financial details with merchant

Country/Region

United States

Card Number

MMYY

CVV

Billing Address

Name, Address details, ...

Shipping Same as Billing

Contact Information

phone number and email...

Save your payment info and create a paypal account

You'll return to the merchant to complete your purchase

Continue

Have a PayPal account? Log In

iShareBooks

Log in

iShareBooks

0

Thank You For Placing Your Order

Hi Eden, your order confirmation number is #1234567890123456. An email confirmation has been sent to your email.

Please rate one or more sellers if you likes their services.

John

★★★★★

Alice

★★★★★

Bob

★★★★★

Clark

★★★★★

About

Privacy

FAQs

Contact

Sign Up

Terms of Use

Terms of Use

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10. Buy Books for Sell

Clicking on Buy Books button shall take you to Books To Buy page

The iShareBooks homepage features a header with 'iShareBooks' and a shopping cart icon showing 3 items. Below the header is a search bar and a 'POST YOUR BOOK FOR SELL' button. The main section is titled 'BOOKS TO BUY' and is divided into three categories: Maths, History, and Science. Each category displays four book cards. Each card includes a book image, title, author, department, ISBN, condition, and price. An 'Add to cart' button is present on each card. A tooltip indicates that clicking the 'Add to cart' button updates the cart. The footer contains links for Home, Privacy Policy, About, and Contact.

Clicking on checkout button takes you to paypal page

The 'Your Cart (3)' page displays a list of three books in the cart. Each book card shows the book image, title, author, department, ISBN, condition, and price. A 'Remove' button is located next to each book. A 'CHECKOUT' button is at the bottom right. A summary box on the right shows the subtotal (\$56.82), estimated shipping & handling (\$0.00), and a total of \$56.82. A tooltip indicates that clicking the 'Remove' button removes the item from the cart. The footer contains links for Home, Privacy Policy, About, and Contact.

The PayPal 'Pay with PayPal' page prompts the user to enter their email or mobile number to get started. It features a text input field for the email or mobile number, a 'NEXT' button, and an 'Or' separator. Below the separator is a 'Pay with Debit or Credit Card' button. The footer contains links for Home, Privacy Policy, About, and Contact.

Payment Page

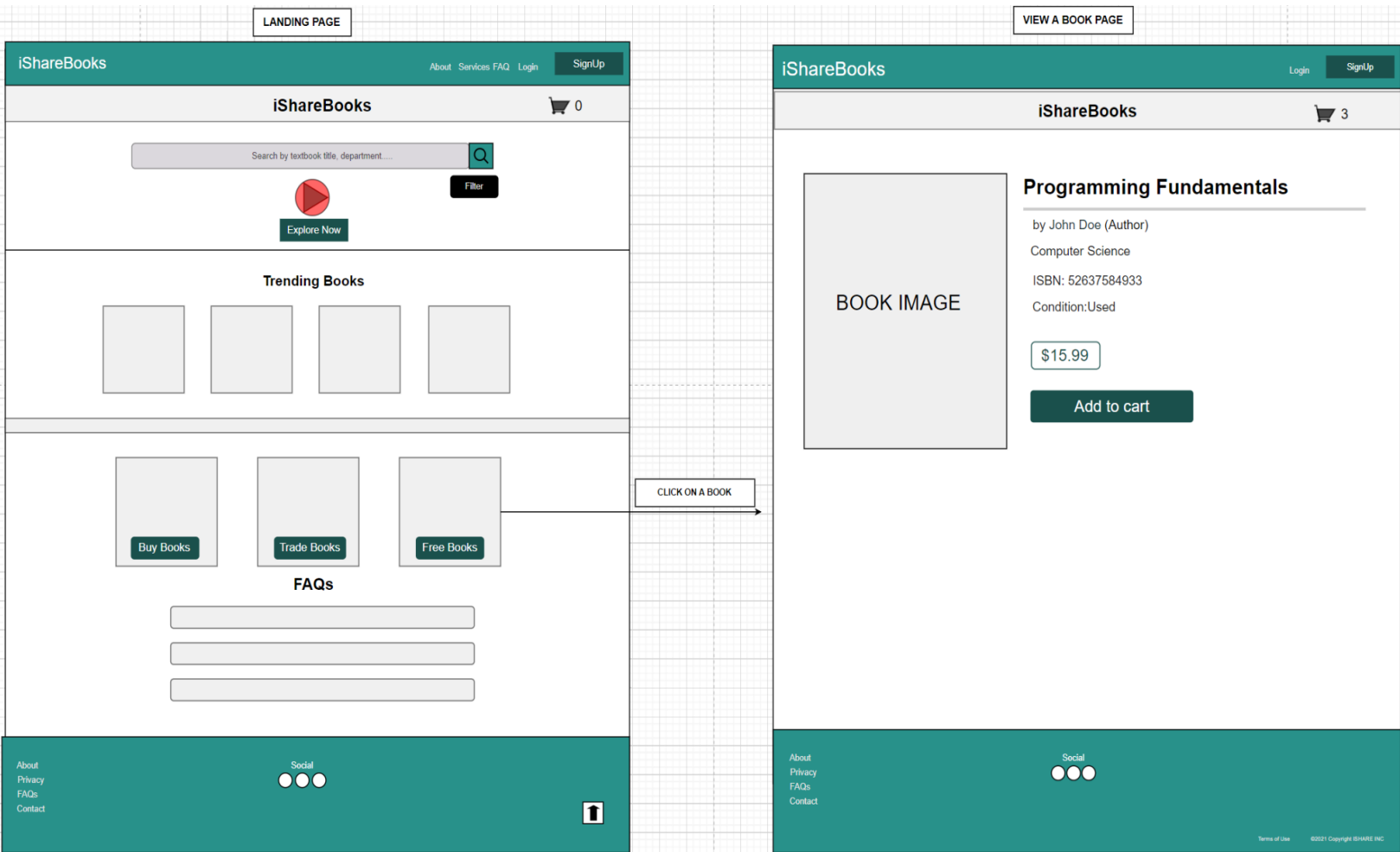
The PayPal 'Pay with PayPal' page prompts the user to enter their email or mobile number to get started. It features a text input field for the email or mobile number, a 'NEXT' button, and an 'Or' separator. Below the separator is a 'Pay with Debit or Credit Card' button. The footer contains links for Home, Privacy Policy, About, and Contact.

The PayPal Guest Checkout page displays the total amount of \$151.56. It prompts the user to enter their email or mobile number to get started. It features a text input field for the email or mobile number, a 'NEXT' button, and an 'Or' separator. Below the separator is a 'Pay with Debit or Credit Card' button. The footer contains links for Home, Privacy Policy, About, and Contact.

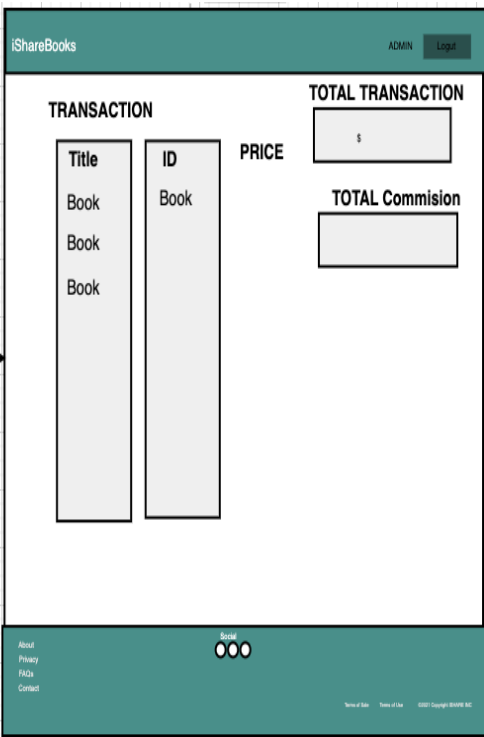
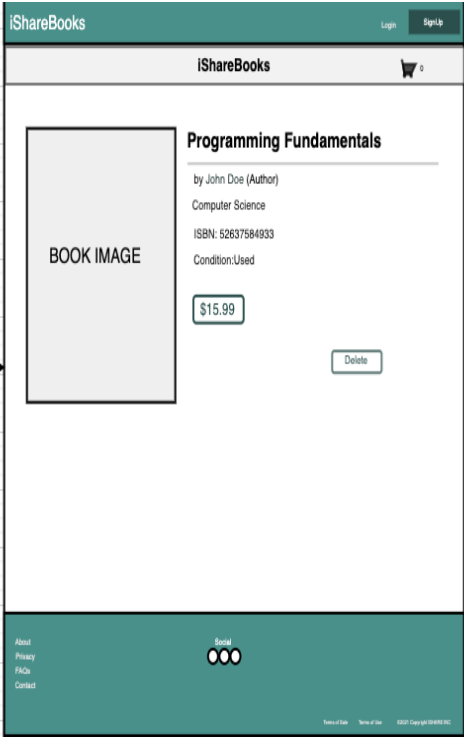
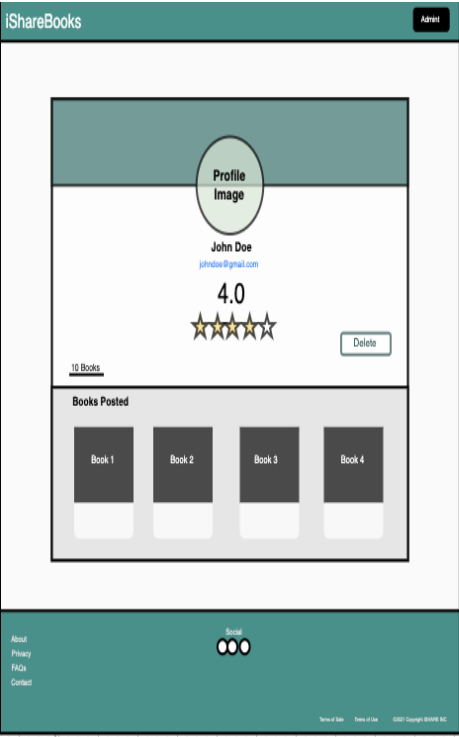
RATING MESSAGE PAGE

The 'Thank You For Placing Your Order' page displays a confirmation message and a list of five sellers with their ratings. The sellers are John (5 stars), Alice (4 stars), Bob (3 stars), Clark (4 stars), and Clark (4 stars). The footer contains links for Home, Privacy Policy, About, and Contact.

11.View an Individual Book Details



12. Administrator



4.High level database architecture and organization V2 (detailed)

User Rating System

1.BUSINESS RULES:

1. Registered User

- a. A registered user shall be either a buyer or a seller.
- b. A registered user shall be able to log into one account.
- c. A registered user shall have a rating.

2. Buyer

- a. A buyer shall be able to buy zero or many books.
- b. A buyer shall be able to post many user ratings.
- c. A buyer shall be able to post a payment type.

3. Seller

- a. A seller shall be able to sell many books.
- b. A seller shall be able to post many user ratings.

4. Textbook

- a. A textbook shall be listed by many sellers.
- b. A textbook shall be sold by many sellers.
- c. A textbook shall be purchasable by one registered user.

5. Transaction

- a. A transaction shall be posted after the completion of one purchase.
- b. A transaction shall have many receipts.

6. Soldbooks

- a. A soldbook shall be entered into database after a transaction is complete.

7. Rating

- a. A user rating shall be posted by many buyers or sellers.
- b. A user rating shall belong to one registered user.

8. Payment Type:

- a. A payment type shall belong to one buyer.

9. Receipt:

- a. A receipt shall be sent to one seller.
- b. A receipt shall belong to one transaction.

2. ENTITIES

1. Registered User (STRONG)

- a. User_id: To identify each user's actions and login status (int).
- b. Email: To identify each user and save their credentials in the database (string &|| int).
- c. Password (string &|| int)

2. Buyer (WEAK)

- a. Buyer_id: To identify each buyer's actions and login status (int).
- b. Username: To be used for buying and transactions (string &|| int).

3. Seller (WEAK)

- a. Seller_id: To identify each seller's actions and login status (int).
- b. Username: To be used for selling and transactions (string &|| int).

4. Book (STRONG)

- a. Book_id: To identify each book uniquely (int).
- b. Title: To be saved in the database and displayed on the frontend and search results (string &|| in).
- c. Author: To be saved in the database and displayed on the frontend (string).
- d. Department: To be saved in the database and displayed on the frontend and search results (string).
- e. Isbn: Null for now, will be added when the seller posts a book (in).
- f. Cost: Cost that goes with each book to be sold (int/double).

5. Transactions (WEAK)

- a. Transaction_id: To identify an individual transaction (int).

6. Rating (WEAK)

- a. Rating_id: To identify each rating coming after the checkout is done (int).
- b. Rating: The rating count which is calculated by taking the average of all the ratings for a user (int).
- c. Comment: Optional but will be working as a feedback for each seller (string &|| int).
- d. Transaction_id: Will reference the transaction which was done before rating the seller (int).

- e. To: To a seller. (string &|| int)
- f. From: From a buyer (string &|| int).

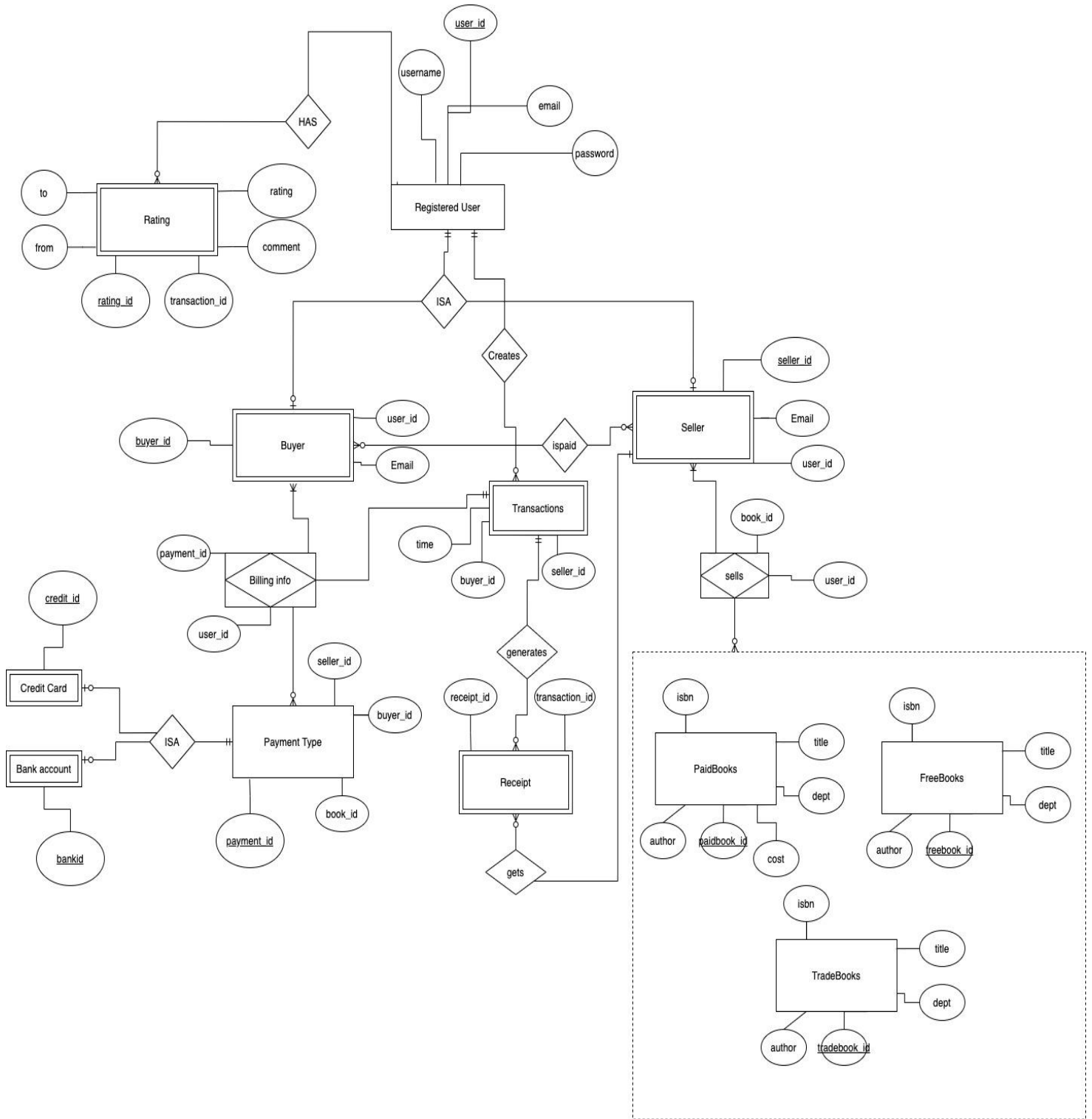
7. Payment Type (STRONG)

- a. Payment_id: To identify the payment type (int).
- b. Seller_id: To identify which seller is picking the payment type for the transaction (int).
- c. Type: The type of the payment type that the buyer will pick (string).

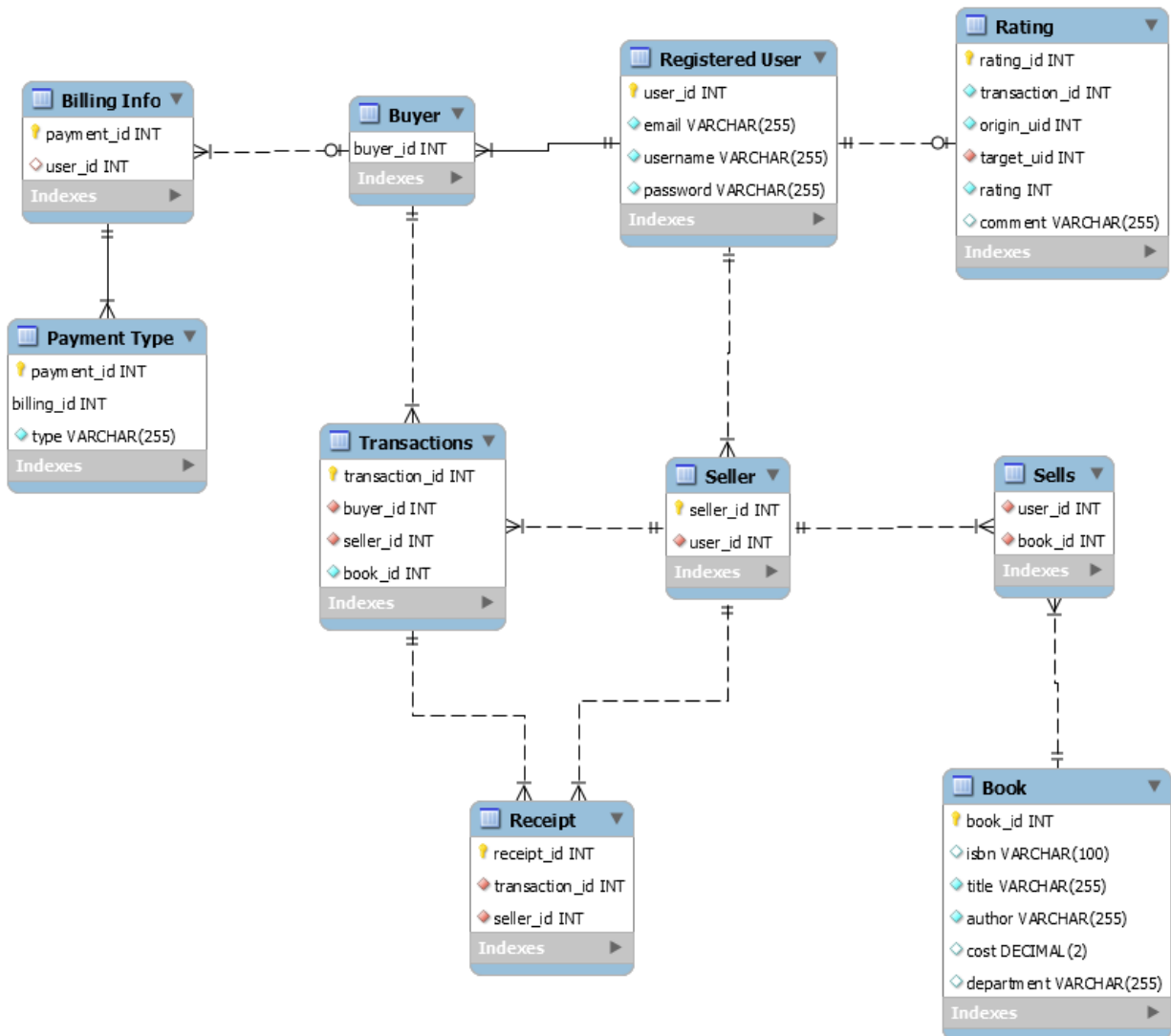
8. Receipt (WEAK)

- a. Receipt_id: To identify each receipt for a checkout (string).
- b. Transaction_id: Needs it to know which transaction the receipt is for (in

4.ENTITY RELATIONSHIP DIAGRAM (ERD)



DATABASE MODEL



DBMS:

We will use MySQL to create the database because there are already multiple powerful tools such as MySQL Workbench that allow us to easily create and test the integrity of each entity relation.

Media Storage

1. Book Cover Image
 - a. Storage: MEDIUMBLOB
 - b. Types Supported: JPEG, PNG
 - c. Size Limit: 300KB

Search Filter & Architecture Implementation

1. Search Algorithm:
 - a. The search algorithm will consist of user input into the search bar. The user may input book attributes, departments, and/or seller's attributes. After parsing and confirming the validity of the input, multiple queries will be sent to the database. All valid queries will return a list of book objects (**discuss). A book object will store the book's attributes (i.e., title, author, department, cost, and seller).

Organization of User Search Results:

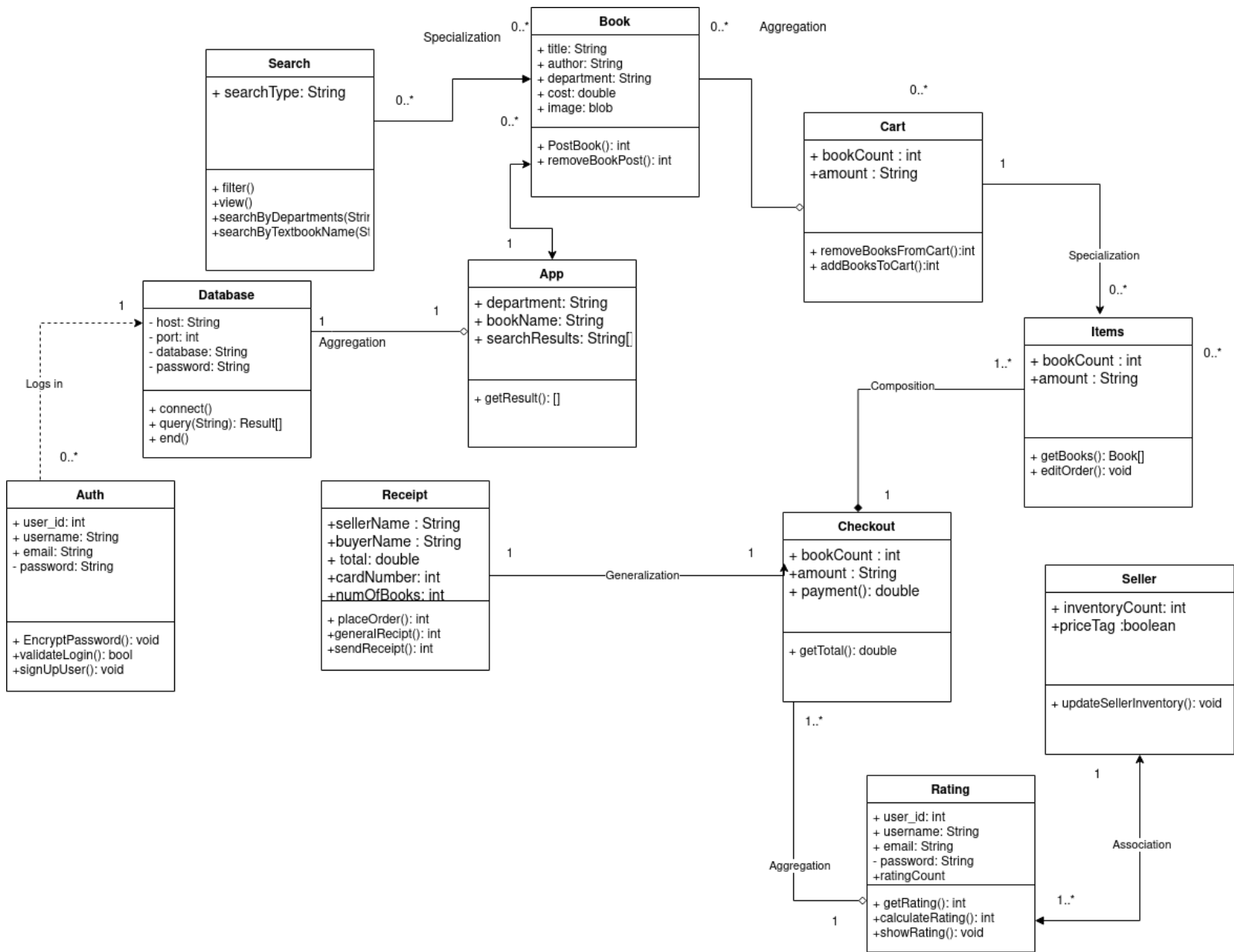
1. Search results shall be organized in the order as follows:
 - b. By Title
 - c. By Author
 - d. By ISBN
 - e. By Cost
 - f. By Seller (username/rating)
 - g. By Department (English, Literature, History, CompSci, etc.)

DB Search Terms (by table):

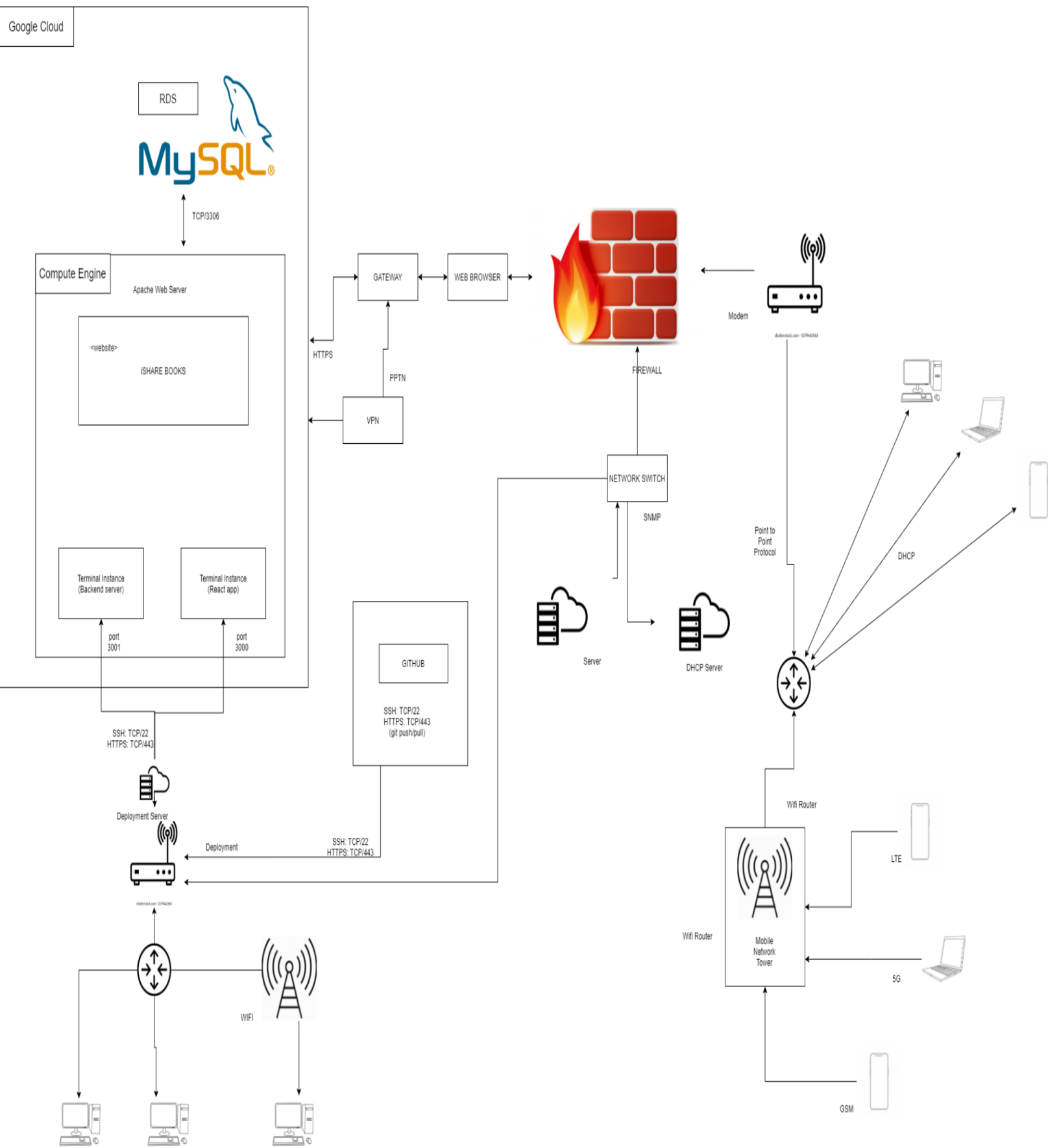
1. Book
 - a. title: title of book
 - b. author - author of book
 - c. department - department of book
 - d. isbn - International Standard Book Number
 - e. cost: price of book
2. Ratings
 - a. user_id (target and source user_id)
3. Transactions
 - a. transaction_id

5. High Level Diagrams V2 (detailed)

UML (Rating System)



Network Diagram



6. Detailed List of Contributions Vertical and Horizontal Prototype

1. Yangesh KC -*Team Lead*

ykc@mail.sfsu.edu

As a Team Lead:

- *Accountable for following M3 guidelines and ensuring all requirements are met.*
- *Directly supervise team members with daily regular interactions, including managing teams work load.*
- *Managed and oversaw team progress setting up deadlines, group discussion and resolving issues, debugging and testing Product Features.*

As a Team Member:

Milestone 2:

- 1. Main contributor to Network and Deployment Diagrams.*
- 2. Partial Contribution to Identifying Key risks and planning mitigations.*
- 3. Contributed to UML diagrams, Project Management Section.*
- 4. Partial contribution to ERD and Database Model.*

Vertical Prototype:

- 1. Implemented Suggestion Feature in the search bar.*
- 2. Main Contributor to the Footer Section.*
- 3. Partial contribution for Project Deployment.*

Horizontal Prototype:

- 1. Implemented the Explore now page*
- 2. Implemented the Footer Design and Layout*
- 3. Implemented the Books Not Found Model*
- 4. Contributed to the Wireframe Design and Testing*

2. Danish Siddiqui *-Frontend Lead*

dsiddiqui@mail.sfsu.edu

Milestone 2:

1. *Partial contribution to the Data definitions, Mockups and Storyboards, UML and Network diagrams.*
2. *Contributed to peer review.*

Vertical Prototype:

1. *Front-end Vertical SW Prototype Architecture Design*
2. *Reviewed and Contributed to login/signup validation and implemented Landing page components.*
3. *Implemented Search Bar Functionality and Filter Components*
4. *Helped to resolve front-end css and routing issues.*

Horizontal Prototype:

1. *Implemented the BuyBooks Page, TradeBooks and FreeBooks Page.*
2. *Implemented the styling for most of the pages.*
3. *Fixed post books models for all services.*
4. *Contributed to the Wireframe Design and Testing.*
5. *Implemented viewBooks, Card, ViewListing, and Cart functionality.*
6. *Implemented and set up redux for more efficient data manipulation.*
7. *Implemented the protected routes for our logged in users.*
8. *Implemented the security check logic on posting and checking out books for logged in users only.*
9. *Implemented total amount and dialog box pop ups.*
10. *Fixed the search request functionality on frontend side.*
11. *Implemented search filter function on frontend.*

3. Zaid Alkhatib *-Backend Lead*

zalkhatib@mail.sfsu.edu

Milestone 2:

1. *Main Contributor to the High Level API and Algorithms section.*
2. *Partial contribution to Identifying risks, Network Diagrams and Project Management details.*
3. *Partial Contribution to ERD section*

Vertical Prototype:

- 1. Build Login and Registration for the backend.*
- 2. Created AWS database*
- 3. Assisted Frontend to resolve data retrieval issues.*

Horizontal Prototype:

- 1. Implemented the Payment Layout and Design*
- 2. Implemented the Footer Design and Layout*
- 3. Implemented the Books Not Found Model*
- 4. Contributed to the Wireframe Design and Testing*

4. Mark Jovero *-Backend Support*

mjovero@mail.sfsu.edu

Milestone 2:

- 1. Contributed to high level architecture and design.*
- 2. Partial Contribution to UML, Network Diagrams and Identifying Key Risks.*

Vertical Prototype:

- 1. In charge of Project Deployment via AWS.*
- 2. Main contributor to books.js*
- 3. Contributed to backend image archive and rendering.*
- 4. Assisted to debug and resolve Media Storage in the backend.*

Horizontal Prototype:

- 1. Created AboutUs, Profile, and Contact pages.*
- 2. Implemented onClick logic for viewBook*
- 3. Checked validity of Priority 2 functional requirements.*
- 4. Created Rating table to be used in frontend profile rating.*
- 5. Deployment of horizontal prototype.*

5. Abishek Neralla *-Backend Member*

aneralla@mail.sfsu.edu

Milestone 2:

- 1. Partial contribution to UML and Database Model Diagrams.*
- 2. Contributed to group discussions and peer review.*

Vertical Prototype:

- 1. Contributed to the services section on the front-end.*
- 2. Implemented UI/UX for the services section.*

Horizontal Prototype:

- 1. Implemented the Footer Links*
- 2. Reviewed Documents*
- 3. Implemented the Privacy Page*

6. Pramod Khatri *-Frontend Member*

pkhatri@mail.sfsu.edu

Milestone 2:

- 1. Partial contribution on Mockups and storyboards.*
- 2. Partial Contributed to data definitions V2.*

Vertical Prototype:

- 1. Implemented UI/UX and validation for the Login page.*
- 2. Contributed to the FAQ section on the front-end.*

Horizontal Prototype:

- 1. Implemented the Checkout and Login Page.*
- 2. Implemented the Checkout and Login Wireframes*
- 3. Implemented the Links for Terms of Use*

7. Aryanna Brown *-Frontend Member*

abrown22@mail.sfsu.edu

Milestone 2:

- 1. Contributed to Mock-ups and storyboards.*
- 2. Partial Contribution to data definitions V2.*

Vertical Prototype:

1. *Implemented UI/UX and validation for the Registration page.*

Horizontal Prototype:

1. *Implemented the View Books and Sign Up Page*
2. *Implemented the WireFrames for the View Books and SignUp Page*

8. Yuhua Wu *-Frontend Member*

ywu23@mail.sfsu.edu

Milestone 2:

1. *Contributed to storyboard and UML group discussions.*

Vertical Prototype:

1. *Designed and Implemented the UI/UX services section.*
2. *Implemented the four different buttons for services section*
3. *Service section included responsive and interactive features*

Horizontal Prototype:

1. *Worked on Wire Frames.*
2. *Implement Term of Use and Term of Sale*
3. *Implement Term of Use and Term of Sale*

Appendix I – Rubrics and checklist for Part 1 Milestone 3 review: Project Status and UI Review (to be done by class instructor meeting each team for 20 min). Use modification of this for team M3 summary

Section: 64-848 04 **Team:** 04

Date: 05/06/2021

Number of students present: 8

Team on time: 9:45pm

All required items brought to the meeting: Checked (Wireframes, Horizontal Prototype, Notebook, meeting recording)

1. UI and functionality feedback (P1 functions only)

Instructor will check functionality and pages/use cases as below:

- **Home page**

Need to change the trade link to something like tradePost or more meaningful.

- **Search (including search field validation)**

Looks good, make sure no injection attacks.

- **Search results**

Good but need to show most popular books when no successful search.

- **Filtering**

Menu tabs for filtering on the Explore Now page needs a better design.

- **Search Details and maps (if applicable)**

No feedback.

- **Messaging/contact seller/user (if applicable)**

No feedback.

2. Brief review of coding, Github, database etc.

The coding style is functional programming. On Github, each member has their own branch and they submit their code into their branches before it's merged into the horizontal branch. At the time of delivering the product, the final running code shall be moved to the master branch.

The MySQL database is created based on the previous knowledge of CSC675 in MySQL Workbench with all the tables needed for our product. We tried to be consistent with the namings throughout our project.

All passwords are stored encrypted before they're stored into our database. The images are saved in a BLOB.

3. Project status – be ready to verbally explain the status of the issues below.

a) Teamwork: is the team working out, any related issues

The team works out good as the due date comes closer, however; we still have lack of communication and sometimes the tasks are not being done on the given date

b) Risks: all actual (not hypothetical) risks (schedule, technical, skills etc.) should be identified and either resolved or plans made how to resolve them asap.

All of us have different sets of skills and knowledge of the programming framework and it takes some time for some members to learn something they do not know already. Meetings seemed rather optional than mandatory due to time issues and other class work.

We're using Trello to assign each member to do a task on a certain deadline. Also, people who can help other members are open to jump on their section so that the over deadline for each Milestone is met.

c) Coding practices: by this time you should have decided which coding style to use and actually use it, so be ready to report on this. Actual code will be verified.

The coding style is functional Programming. However; the app folder is organized in the conventional ReactJS way of organizing into components and pages folders. The redux has its own folder as well.

We also have a separate folder for the frontend and the backend of our app.

d) Usage of proper SE code management practices: be ready to comment on how you manage code submissions, reviews, build and test etc. This will be verified by looking at actual code and server logs

The code is submitted on each member branch on Github only after it's runnable and performs some tasks. We try our best to be descriptive in our commits so that others can track what was pushed and what was done as per each commit.

The code is then tested and run by at least 3-4 people on their local machines before it goes to merge together and deploy on the Google Cloud.

e) How did you address site security and safe coding practices: PW management, use of secure protocols, checking for valid inputs etc.

For password security, we are using a node package called 'bcrypt' that adds a salt value to our passwords and convert them into hash value before we save it to the database. To verify the password, we decode them after getting them from the database and then validate and send a successful message to the frontend.

Inputs are being validated with Material UI Formik validation component that provides a solid and cleaner validation scheme for each type of input.

We use cors and origin access to safely run our app on any browser.

f) Digital content (e.g. images, video) please provide information on status and availability, chosen formats, resolution etc.

All images are taken from websites that provide free images for commercial use. The most popular one that we are getting our pictures and cover page video from is Pexels.com.

Images can be any standard format, extensions are jpg, png (superior) etc. The pixels resolution is different for each page. We are using 300x170 on services and landing pages, 300x200 on listing pages. The resolution decreases when the screen size is decreased.

g) Other

We are also using a third party API which is the PayPal API for our checkout system that gives a fake email and password for a buyer to login and submit a fake payment.

4. List of P1 features committed for delivery

- Buy, trade, and free books services.
- Rating a seller and display rating on each profile (special feature).
- Transaction system.
- Login and Sign up.
- Search and filter search.
- Persistent login.
- Complying users to accept the terms of use before signing up.
- Password encryption.

Appendix II– Rubrics and checklist for Part 2 Milestone 3 review: SW Review (to be done off-line)

Section: CSC648-848 04

Team: 04

Date: 5/7/2021

Instructor to Check and comment below:

- **Git/Github organization (e.g. organization of branches)**

Each member has their own branch on Github, then the code is tested and merged to horizontal/deployment and then we will be moved to a master branch for final delivery.

- **Git/Github usage: Comments on positing; Number of posting to Github; App. even distribution of submissions among team members (check GitHub post stats for all members)**

As soon as a task is done, it is committed and pushed to each person's branch with their commit. Number of commits varies for each member due to some technical skill or not being able to finish the task on time. After M4, we are supposed to work off from the horizontal branch to get things to work faster.

- **Code documented (header, in code) with good coding style**

No header yet, but will be added later.

Our coding standard style in functional programming.

- **MVC/OO patterns followed up**

MVC is followed for the most part. Model is our backend, View and Controller are merged as per React JS framework semantics into each component and page file on the frontend.

- **Frameworks (back end front end) deployed correctly**

We are making sure that frontend, backend, and the database are deployed correctly on Google Cloud and our app is running with no issues.

- **Database organization (tables, naming...)**

The database is created and organized using the prior knowledge of the database management system. The tables are created with defined foreign keys to retrieve the data according to our requirements. The table names are consistent throughout our app and are simpler and meaningful to make it easy to work with them.

- **Blobs being used? If so, is it working?**

Blobs are used to store images. Took us a while to figure out how to work with them and display images to our UI.

We're converting blobs into image buffer then buffer to base64 jpeg images to display on the frontend.

- **Adherence to best practices of security (PW encrypted, search inputs verified etc.)**

Password is being encrypted and decrypted with node's bcrypt library. Inputs are being verified using Material UI's Formik component that allows solid validation with displaying errors on the frontend as well. For search inputs, we are preventing SQL injections on the backend side and retrieving only relative data.

- **Efficiency (proper use of image thumbnails, efficient search etc.)**

The search is efficient and the filter works as it should be on each page. Images are resized as per need and are displayed asynchronously to avoid race conditions.

- **Other**

Using Paypal API for transactions.