# SW Engineering CSC648/848 Spring 2021

# **iShareBooks**

# Team 04

Milestone#: Milestone 1 Date: 03/05/2021

# **History Table**

Milestone	Date
M1V2	05/6/2021
M1V1	03/05/2021

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# **Executive Summary**

Students always struggle to find books at a reasonable price. Each semester, students are stuck with books that they will no longer need. An option for most is to resell the books back to the BookStore or Amazon for a cheap price, which will be sold back to students at steep prices. Meanwhile, there are other students who are looking for those used book,. They often pay way higher prices at a bookstore. Imagine if a student could sell their books and set their own prices, and buy textbooks from other students at an affordable price.

iSharebook is a web app designed for sharing books for a wider variety of audiences of any educational background. With iSharebook an individual can list books s/he no longer needs and put a reasonable price for the books; the other individuals looking for books can browse through the web app and once they find the book they were looking for, s/he can contact the seller and make transactions. This way the buyer will benefit from having to spend a large amount of money on the books whereas the seller will get a reasonable amount for the book s/he no longer needs. "Share Book Share Knowledge!" is our motto and we stand by it. We strongly believe it's time to democratize the way we study. Students can BUY, SELL OR TRADE their used books on our website and even make some extra money.

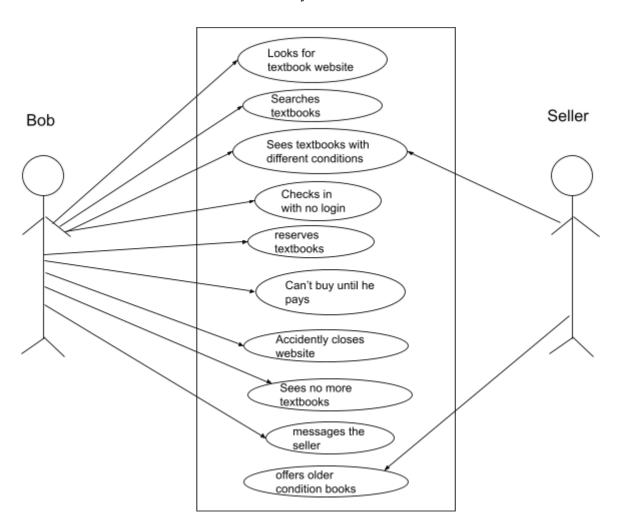
As of now, we are planning to provide our web app service for the San Francisco State University community. We are constantly working on expanding our service in other parts of the United States and plan on providing access to the rest of the world in near future. Let us all be together in the journey to make books accessible to everyone at economical prices and make education exciting

# **Main Use Cases**

### Use case #1:

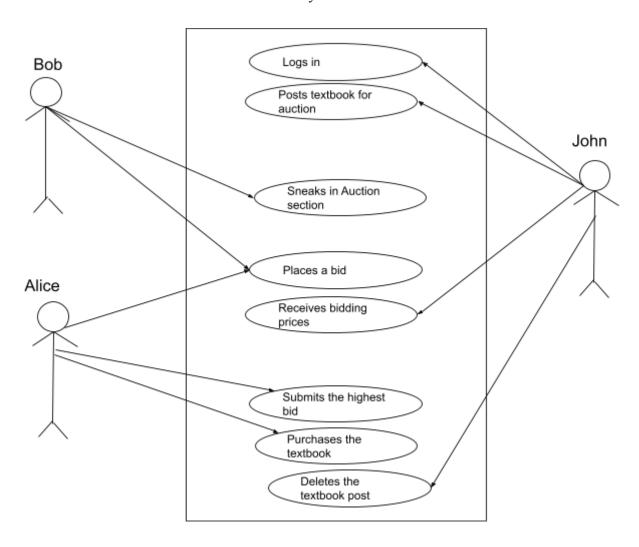
Title:	Purchasing a used textbook
Actors:	Bob, Seller
Description:	Bob just graduated from high school, and now he got admission in a University close to his house. Bob has already signed up for his classes, and since he's a freshman, he has no clue from where to buy his courses' textbooks. Bob looks for his campus's textbook website and finds out that he can buy the used textbooks for his courses for a much cheaper price. Without needing to create an account, Bob searches for his textbooks and he sees several similar textbooks with different conditions. He reserves those cheaper textbooks under his name, but he can't buy them until he pays for them. Meanwhile Bob accidentally closes the website. When he comes back, the textbook order is no more under his name. Bob searches for those textbooks again, and this time he messages the seller about those books, but most of the textbooks are already purchased by somebody else. The seller offers Bob the same textbooks but that are not in much good condition.

System



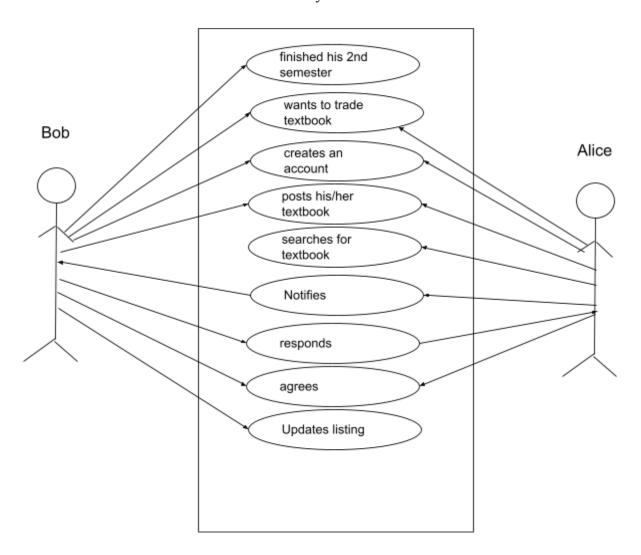
Title:	Textbooks Auction
Actors:	Bob, Alice, John
Description:	Prior to putting his very demanding textbook on the website for sale, John logs into the textbook website with his unique email, and posts his textbook for auction. Meanwhile, Bob, who needs this textbook for his course at any cost, sneaks into the auction section. The textbooks are almost out of stock so Bob immediately places a bid for the textbooks that he wants to buy. Alice, who is another general user like Bob, places her bid for the same textbook as well. John receives those bidding prices. Being a highest bidder, Alice is able to purchase the textbook. John can now remove his posted textbook.

System



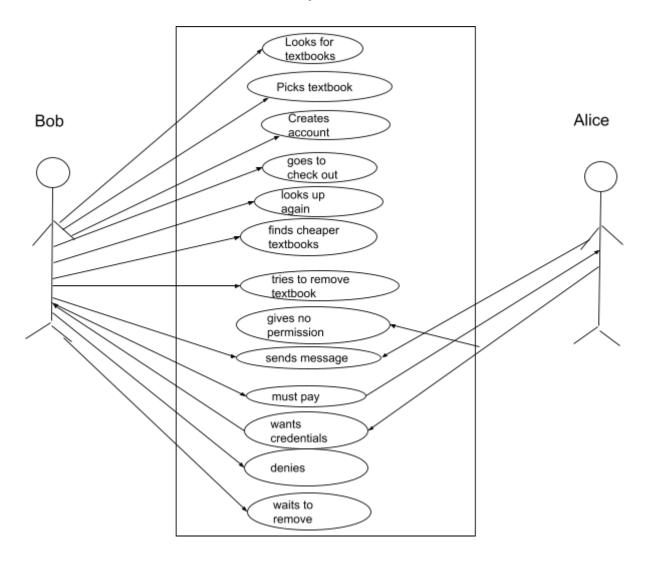
Title:	Textbooks Trade
Actors:	Bob, Alice
Description:	Bob, a student, just finished his 2nd semester and has English book that he no longer needs. He wants to trade it for a Calculus book. Bob finds a textbook website. He creates an account and posts his books for trading. Meanwhile, Alice is searching for English books on the same website. She sees that Bob is trading his English book for a Calculus book that Alice is looking to get rid of. Alice creates an account and notifies Bob that she is interested in trading the book. Bob responds to her back and they agree for a trade. After successfully trading, Bob updates the listing.

System



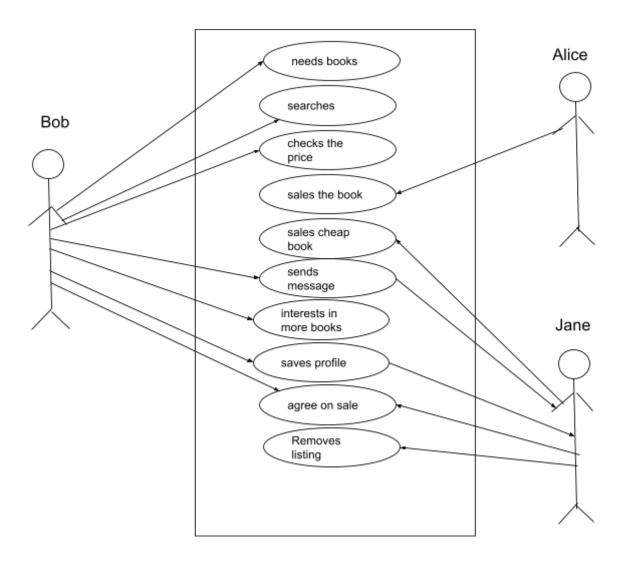
Title:	Deleting Textbooks After Selection
Actors:	Bob, Alice
Description:	Start of the Fall semester, Bob, who's been appointmented as a Biology instructor in the campus from where he has recently graduated. Bob looks through the textbook website to buy the mandatory textbook for his class. He creates an account and picks that book. Meanwhile, Bob searches up for the same book again and finds that there are similar books available for a much cheaper price. Bob tries to remove the chosen textbook from his account, but the system wouldn't let him do it. Bob notifies Alice, who is selling this book, that he doesn't want this book anymore. However, Alice says that he must have to buy this book now or give his login credentials for her to delete the book. Bob doesn't grant her permission to do that but instead he waits until he's able to remove the book from the account by himself.

System



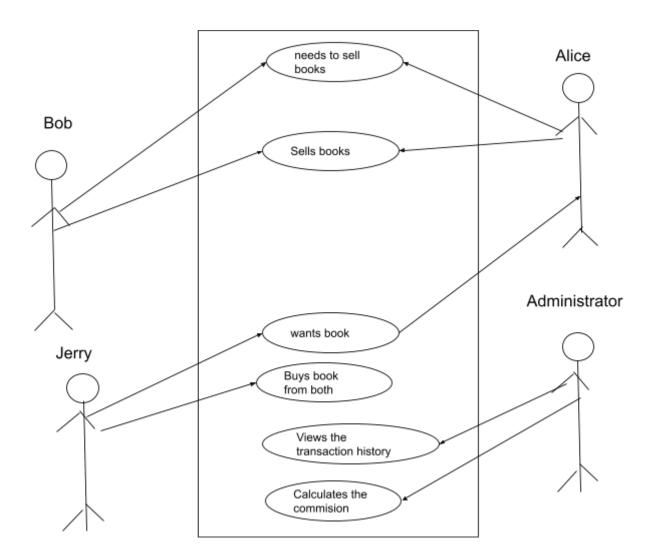
Title:	Adding Seller/Trader to Favourites
Actors:	Bob, Alice, Jane
Description:	Bob, a first year student, needs books for his upcoming semester. He is a registered user. He goes to the website and searches for the first book he needs. He finds that there are more than one seller selling that book. Bob checks out for what price Alice is selling her book. He also finds Jane, who is another seller, selling the same book for a cheaper price. Bob sends a message to Jane. Bob finds out that Jane also has a few other textbooks that he might need for the future classes. He saves Jane's profile so he can check back on a later date. Bob and Jane agree on the sale. Jane removes the listing from her profile.

System



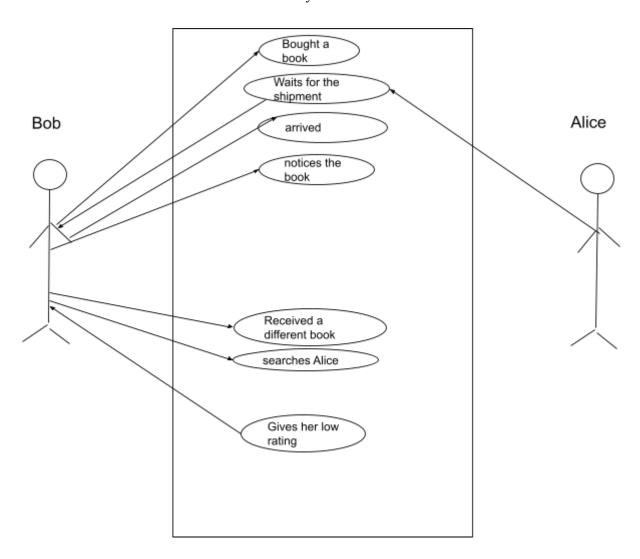
Title:	View and Calculate website commision
Actors:	Bob, Alice, Jerry, Administrator
Description:	Bob, a registered user, needs to sell some books on a textbook website. Alice, who is also a registered user and just graduated from her school, wants to donate her book so that future students can get them for free. Both Bob and Alice post their books. Jerry, another registered user, sees those books and finds out he needs them for his class. He buys those books from both sellers and does the transaction for the book. The admin calculates the commission made from website transactions and keeps track of the sales made by Jerry.

System



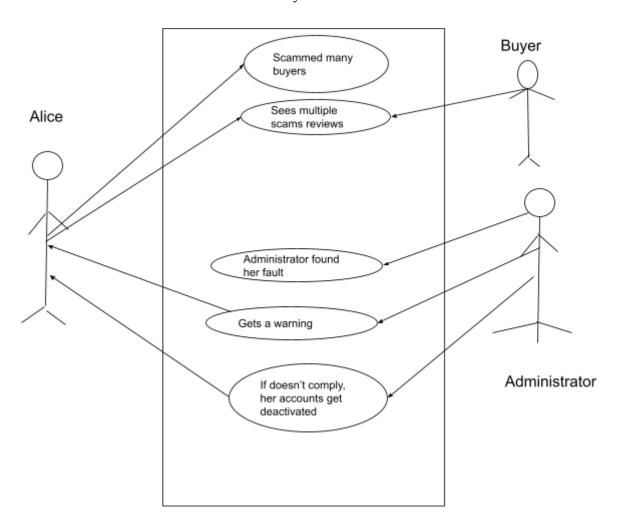
Title:	Rating a Seller
Actors:	Bob, Alice
Description:	Bob, a student, who recently buys a book that was listed on sale on the textbook website by Alice. He waits for the delivery. Upon textbook arrival, Bob notices that he received a different book than what was listed on the website by Alice. He searches for the seller and gives her a low rating for her unfair sale.

System



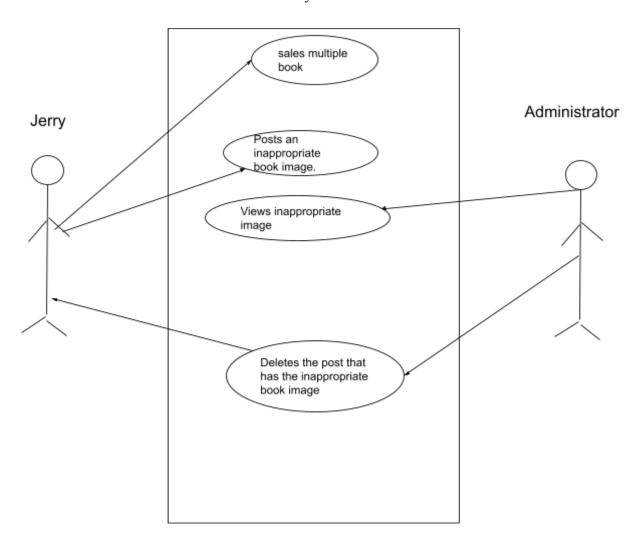
Title:	Removing a Bad User
Actors:	Alice, administrator, buyer
Description:	Alice, a registered user who is also a seller, has been scamming other students. After she gets reported by the buyers who she scammed, the buyers can let the admin know about it and the administrator can delete the seller.

System



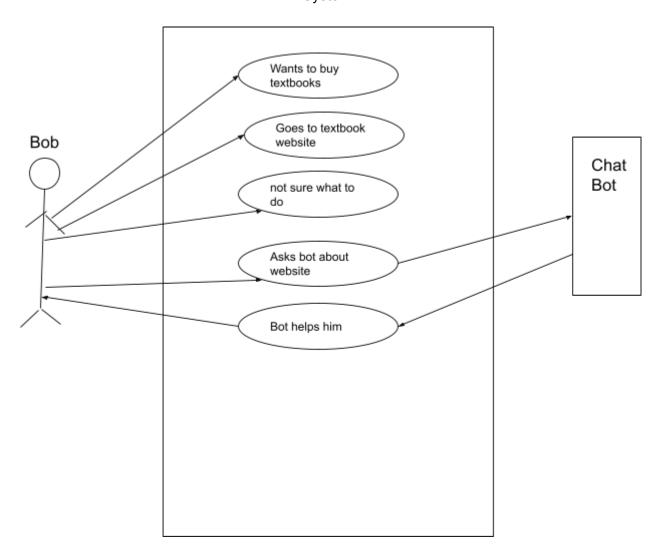
Title:	Deleting a Post
Actors:	Administrator, Jerry
Description:	Jerry, a seller, is selling a textbook on the textbook website that he no longer needs. He posts his books that he wants to put on sale, however; Jerry posts a very inappropriate image for one of the books that is non-pleasant for other users on the website. The administrator notices it and deletes his post.

System



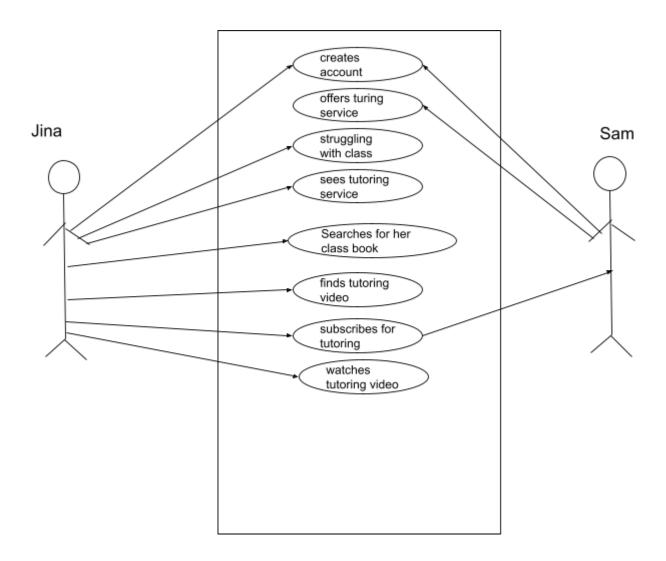
Title:	Live Website Chat Bot
Actors:	Bob
Description:	Bob, who just finished his high school, has been admitted to a CSU university in his hometown. Bob wants to buy some cheaper textbooks so one of his friends recommends him a textbook website where all the university students buy their books as well. Bob goes to the textbook website but he wants to be sure what exactly the website is about. So he asks the live chat bot, that is available as an assistance bot from the website itself, to know what the website is about and what it can do.

System



Title:	Paid tutoring subscription
Actors:	Sam, Jina
Description:	Sam is a Math tutor at a university. Sam creates an account at a website. He is a registered user. Sam offers tutoring service for Maths. Jina is a student at the same university. She is struggling with her math classes. Jina finds that a website provides tutoring service. Jina creates an account and becomes a registered user. Jina searches for her class textbooks and finds that Sam is offering tutoring services for that course. Jina subscribes for Sam's video lessons and watches his videos.

System



### **List of Main Data Items and Entities**

**General User:** A user who can generally look up the website and has the least privilege to use website features.

**Registered User:** A user who has more privilege than a general user to use the website features. This user will also have an account registered with his/her information stored for future purpose.

**Administrator:** A user who has the most privilege than any other kind of user. They can support other users and can monitor their activities on the website.

**Seller:** A seller is a registered user. Sellers can post books for sale.

**Profile:** A profile is made for every registered user which would have general information about the registered user.

**Account:** Every registered user will have an account. Creating an account would be mandatory for any user who wants to make the most of the website.

**Trader:** A trader is a registered user when they actually trade their posted book. A trader may also not need to login to ask for trading textbooks.

**Textbook:** A textbook is a course book for universities. A textbook is an item that is sold, bought or traded by registered users. A textbook can be seen by all users.

**Traded Book:** A textbook that is traded with another book.

**Auctioned Book:** A textbook that is posted for an auction and maybe bought by the highest bidder.

**Free Books:** A book that can be claimed free-of-charge.

**Payment Type:** A way to pay for a transaction.

**Receipt:** A proof-of-purchase document after completion of transaction.

# **List of Functional Requirements**

#### **General User:**

- 1. A general user shall be able to search for a textbook without creating an account.
- 2. A general user shall be able to search a textbook with a textbook name.
- 3. A general user shall be able to search a textbook with a department.
- 4. A general user shall be able to select the textbooks without creating an account.
- 5. A general user shall be able to send inquiries to the seller.
- 6. A general user shall ask the live chat box for website related questions.
- 7. A general user shall be able to see the response from the seller.
- 8. A general user shall be able to search for the textbooks available for the auction.
- 9. A general user shall be able to search for the textbooks available for the trade.
- 10. A general user shall be able to search for the textbooks available for free.
- 11. A general user shall be able to create an account.
- 12. A general user shall be able view the privacy policy.
- 13. A general user shall be able to chat with someone who can help.

### **Registered User:**

- 14. A registered user shall need to create an account before posting a textbook on sale.
- 15. A registered user shall have access to the website.
- 16. A registered user shall be a seller.
- 17. A registered user shall be notified about the general user's textbook purchases.
- 18. A registered user shall be able to search for the textbooks.
- 19. A registered user shall be able to log in with a unique email.
- 20. A registered user shall be able to log out.
- 21. A registered user shall ask the live chat box for website related questions.
- 22. A registered user shall be able to subscribe for paid tutoring service.
- 23. A registered user shall be able to post textbooks for auction.
- 24. A registered user shall be able to post textbooks for trade.
- 25. A registered user shall be able to set a starting price for the textbooks.
- 26. A registered user shall be able to set a bidding time.
- 27. A registered user shall receive bidding prices from the bidders.
- 28. A registered user shall delete his/her posts.
- 29. A registered user shall be a buyer.
- 30. A registered user shall be at least 8 years of age.
- 31. A registered user shall be able to respond to messages.

- 32. A registered user shall be able to comment on a post.
- 33. A registered user shall be able to change their primary email.
- 34. A registered user shall be able to cancel their transaction.
- 35. A registered user shall be able to save multiple payment types.
- 36. A registered user shall be able to report a problem.
- 37. A registered user shall be able to purchase the textbook with the highest bid.
- 38. A registered user shall be able to update their cart.
- 39. A registered user shall be able to block other users.
- 40. A registered user shall be able display their online status.
- 41. A registered user shall be able to see their uptime [member since]
- 42. A registered user shall comply with the website terms and conditions.
- 43. A registered user shall be able to view the privacy policy.
- 44. A registered user shall be able to change their contact information.
- 45. A registered user shall be able to change their password.
- 46. A registered user shall be able access their profile information
- 47. A registered user shall be able to edit their profile information
- 48. A registered user shall be able to add other users to favourites.
- 49. A registered user shall be able to add textbooks to the wishlist.
- 50. A registered user shall have a rating about themselves.
- 51. A registered user shall be able to sign up with valid third-party email.
- 52. A registered user shall be able to login with a valid third-party email.
- 53. A registered user shall be able to invite their friends by message.
- 54. A registered user shall be able to delete their account.
- 55. A registered user shall be able to edit their books.
- 56. A registered user shall be able to make a payment.
- 57. A registered user shall be able to edit/change the title of the book.
- 58. A registered user shall be able to share the website content in social media.
- 59. A registered user shall be able to ship the book by mail.
- 60. A registered user shall be able to pick up the book from the seller.
- 61. A registered user shall be able to filter search by miles.
- 62. A registered user shall be able to give feedback to another registered user.

#### **Administrator:**

- 63. An administrator shall be able to create an account.
- 64. An administrator shall be able to view books posted on the website.
- 65. An administrator shall be able to view other registered users accounts.
- 66. An administrator shall be able to view comments posted by other registered users.
- 67. An administrator shall be able to delete an account of all registered users.
- 68. An administrator shall be able to delete a book post of all registered users.
- 69. An administrator shall be able to view the website commission after transaction.
- 70. An administrator shall be able to view all sold books.
- 71. An administrator shall be able to view inquiries from all registered users.
- 72. An administrator shall be able to send inquiries to all registered users.
- 73. An administrator shall be able to comment on a trade textbook post.
- 74. An administrator shall be able to delete a comment on a trade textbook post.
- 75. An administrator shall be able to sell a textbook.
- 76. An administrator shall be able to validate the appropriate card information for transactions.
- 77. An administrator shall be able to send warnings to all registered users.
- 78. An administrator shall be able to report all registered users with a bad rating.
- 79. An administrator shall be able to flag all registered users.

#### **Profile:**

- 80. A profile shall be created for all registered users.
- 81. A profile shall be created when the account is made.
- 82. A profile shall be visible to all registered users.
- 83. A profile shall be rated by other registered users.
- 84. A profile shall be edited by the registered user.
- 85. A profile shall be keeping the records of the textbooks sold.
- 86. A profile shall be keeping the records of the textbooks bought.
- 87. A profile shall be added to favorites by other registered users.

### **Payment Type:**

- 88. A payment type shall be a bank account.
- 89. A payment type shall be a debit card.
- 90. A payment type shall be a credit card.
- 91. A payment type shall be selected by all buyers.
- 92. A payment type shall belong to each registered user.
- 93. A payment type shall be selected at the time of order confirmation.

#### **Textbook:**

- 94. A textbook shall be posted on sale only by the registered users.
- 95. A textbook shall be accessible with the textbook name.
- 96. A textbook shall be accessible with the department name.
- 97. A textbook shall be posted for auctions.
- 98. A textbook shall be posted for trade.
- 99. A textbook shall be posted for free.
- 100. A textbook shall be purchased by the registered users.
- 101. A textbook shall be publicly available to all kinds of users.
- 102. A textbook shall be in use or in new condition.
- 103. A textbook description shall be edited.
- 104. A textbook shall be added to wishlist.
- 105. A textbook's info shall be edited by its seller.
- 106. A textbook shall be removed by the seller when purchased.
- 107. A textbook shall be removed after being traded.
- 108. A textbook ownership shall comply with the copyright policy set by the author.

#### Free Books:

- 109. A free textbook shall be listed as free of cost.
- 110. A free textbook shall be claimed on a first come first serve basis.
- 111. A free textbook shall be visible to registered users.
- 112. A free textbook shall be visible to the general user.
- 113. A free textbook shall have a finalized purchase.
- 114. A free textbook shall be removed after a registered user has claimed it.

### **Traded Books:**

- 115. A traded textbook shall be listed as available for trade.
- 116. A traded textbook shall meet the sellers requirements.
- 117. A traded textbook shall be exchanged between registered users.
- 118. A traded textbook shall be in use or in new condition.
- 119. A traded textbook shall be visible to registered users.
- 120. A traded textbook shall be visible to the general user.
- 121. A traded textbook's trade shall be finalized.
- 122. A traded textbook shall be removed after the trade is done.

#### **Textbook Image:**

- 123. A textbook image shall be resized.
- 124. A textbook image shall be the image of a book.
- 125. A textbook image shall belong to each textbook post.
- 126. A textbook image shall be posted by the seller.

- 127. A textbook image shall be compatible in any device.
- 128. A textbook image shall be clearly visible to all users.
- 129. A textbook image shall be an appropriate image.

### **Receipt:**

- 130. A receipt shall be made for all textbook purchases.
- 131. A receipt shall be made for the order confirmation.
- 132. A receipt shall belong to each order of the textbook.
- 133. A receipt shall be uniquely made for an order.
- 134. A receipt shall be a part of the checkout process.

#### **Chatbot:**

- 135. A chatbot shall be able to answer basic website related questions.
- 136. A chatbot shall be able to answer through speech.
- 137. A chatbot shall be able to answer through text
- 138. A chatbot shall be able to answer to all kinds of users.

#### **Tutorial Video:**

- 139. A video tutorial shall be posted by the registered users.
- 140. A video tutorial shall be subscribed by the registered users.
- 141. A video tutorial shall be visible upon subscription to registered users.

#### **Auctioned Book:**

- 142. An auctioned book shall be listed as available for auction.
- 143. An auctioned book shall be listed for auction by registered users.
- 144. An auctioned book shall be purchased by the highest bidder.
- 145. An auctioned book shall be available to all users.

## Non-Functional Requirements

### **Security:**

- 1) Verification of email shall be required upon sign in.
- 2) Username, password, and email shall be required to create an account.
- 3) The passwords shall be saved as encrypted.
- 4) To post a textbook a user shall be registered with an account.
- 5) Photos shall be saved as binary.

### **Privacy:**

- 6) User personal information such as passwords, email, phone number, transactions shall be private.
- 7) Registered user's password shall be saved into the MySQL database.
- 8) Registered user's email shall be saved into the MySQL database.
- 9) Registered user's phone numbers shall be saved into the MySQL database.
- 10) Posted textbooks shall be available to all users.
- 11) Inquiries about the trade textbook post shall be saved into the MySQL database.

#### Performance:

- 12) Everytime a user requests something on the website, the requests should be completed within 10 seconds.
- 13) The website should load within 5 seconds.
- 14) The inquiries between buyer and seller shall be in real time.
- 15) The selected textbooks shall stay in the cart upon page refresh.
- 16) The website shall be able to display textbooks within 5 seconds upon appropriate search.

### **System Requirements:**

- 17) Technologies implemented in the website shall adhere to the CTO guidelines and implement all the technologies listed.
- 18) Website shall support Google chrome.
- 19) Website shall support Firefox.
- 20) Website shall support Safari and Internet Explorer.
- 21) Website shall be simple and user friendly.
- 22) Website shall support mobile devices.
- 23) Websites shall be responsive to all devices.

### Marketing:

- 24) Each www page shall display the website logo.
- 25) Each www page shall have a contact section at the bottom.
- 26) Each www page shall have social media links about the website.

#### **Content:**

- 27) A navigation bar shall be present and shall be sticked to the top of the website.
- 28) A search bar shall be present within the navbar.
- 29) The website logo shall be present to the leftmost on the navigation bar.
- 30) The textbooks categorized shall be displayed in the center of the landing page.
- 31) The website shall have pleasant colors.
- 32) The website shall have trending books listed above textbook categories.
- 33) Login and Signup pages shall be accessible from the navbar.
- 34) The website shall have separate pages for each textbook category.
- 35) Each textbook category page shall have a textbooks posting feature.
- 36) Posted textbooks shall have an appropriate image size.
- 37) A website footer shall be present in all pages at the bottom.

### **Functionality:**

- 38) The website shall be deployed to Google Cloud Service.
- 39) The website shall be allowing the users to interact in real time.
- 40) The website shall be easy to use and easy to navigate.
- 41) The website shall have a usage page.
- 42) The website shall do efficient and quick searching for the textbooks.
- 43) The website shall be allowing users to post many books.

### **Availability:**

- 44) The textbooks shall be available upon appropriate searches.
- 45) Upon unsuccessful search, the page should display an error message.
- 46) The website should be accessible to any browser.
- 47) All the options to buy and sell textbooks shall be visible clearly.
- 48) The links to different pages shall be easily tracked.
- 49) Checkout should only be accessible when a user is successfully registered.

### **Fault Tolerance:**

- 50) The website shall be able to handle the display errors.
- 51) The website shall load all the content upon refresh on an error.

### **Storage:**

- 52) The textbook posts shall be saved into the database without being overloaded.
- 53) The textbook posts shall be updated in the database.
- 54) The textbook posts shall be deleted from the database.
- 55) The general users shall be stored into the database.

- 56) The registered users shall be stored into the database.
- 57) The registered user's account shall be updated into the database.
- 58) The registered user's account shall be deleted from the database.
- 59) The registered user's email shall be saved into the database.
- 60) The registered user's password shall be saved into the database.
- 61) The registered user's phone number shall be saved into the database.
- 62) The textbook's name shall be stored into the database.
- 63) Textbook images shall be saved into the database.
- 64) Textbook titles shall be saved into the database.
- 65) Textbook conditions shall be saved into the database.
- 66) Textbook price shall be saved into the database.
- 67) All the inquiries about the textbook posts shall be saved into the database.
- 68) The department names shall be stored into the database.
- 69) The login user's cookie session shall be saved into the database.

### Legal:

- 70) The copyright content policy shall be written explicitly at the bottom on all pages.
- 71) A link to terms and conditions shall be present at the bottom on all pages.
- 72) The website privacy policy shall be clearly visible at the bottom.
- 73) The contact information shall be visible to give feedback.

#### **Environmental:**

- 74) Final application code shall be sitting in the master branch.
- 75) A develop branch shall act as a mock master branch.
- 76) All contributed code shall be done on each member's branch.
- 77) The code shall be peer reviewed before merging to the develop branch.
- 78) The application shall be run and tested from the develop branch.
- 79) The application shall be deployed from the master branch on to Google Cloud Service.

#### **Look and Feel:**

- 80) The images shall resize on screen resizing.
- 81) The font shall be visible and readable for the users.
- 82) The pages shall be easily redirected to other pages.
- 83) The website shall have all the components properly proportioned.

# Security Upgrades/Upkeep

- 84) Database security and Encryption.
- 85) Database security and Encryption.
- 86) Speed, Caching and Optimization.
- 87) UI/UX.

# **Competitive Analysis Table**

Feature /Company	Bookmooch.co m	bkstr.com	thriftbooks.c om	paperbacksw ap.com	www.pegasusb ookstore.com
Strengths	- simple ux - Informative search results - Homepage makes clear the purpose - Mobile version - Multi language support	. Clean UI . Categorized Items . Visible font size .Good onboarding design	- Good color palette - Grid-style layout of books on homepage and has most popular categories.	- Has youtube videos - User can search book from ISBN -user can pay for the book -User can swap book	- Search bar that is straight forward, shows what to type in - Good selection of books, but no textbooks - Accepts CDs, DVDs
Weaknesses	- unoptimized for bigger screens - bad onboarding experience - some links do not work	. Ugly looking footer . Search Bar not aligned center . Only new textbooks	- Not immediately clear what the website does, aside from the title - Too broad selection of items, not just books but video games Does not sell many textbooks, if any. Only sells normal books	- Very cramped and small fonts - Misaligned text/text fields - Privacy Error when visiting site -very primitive UI and UX	- Catalog view is outdated - Inconsistent buttons - List of categories to sort is too long, needs a good way to implement - No student-student trading/auction - Not clear what they are selling

Pricing	- free service - users earn points for each book they list - points can be used to purchase/borro books - users may buy using Amazon link, company receives part of purchase	. Regular flat price . No discount . Purchase directly from SFSU bookstore	- Considerably cheaper than department store books	- Websites offer credit to trade books.  -They offer discounts and credit tokens in a single purchaseBooks are overpriced and heavily discounted	- They buy books for a certain percent of MSRP
Status	- Still under development	. Fully developed . Updated each year	- Fully developed	-Backend Fully developed -Frontend is functional.	- Fully developed and operational
Social Media	- facebook	. Instagram . Twitter . Facebook	- Pinterist - Facebook - Twitter - Instagram - Tumblr	- Facebook - Twitter	- Facebook - Instagram - Twitter

Onboarding Experience	- Registration is messy and can be confusing for users who are not tech-savvy UI/UX for logging in uses JS popup to collect information, which does not seem intuitive.	. Navbar has everything . Login, Store Info, and bag . Can swipe to navigate items . Can select a category to purchase from	- Easy onboarding experience. Sign up UX is easy to read.	- UI/UX is not that great but functional  -Website is not fully SSL secured and some links are flagged by the browser.  -Website claims to be an Amazon associate/partner website.	- No landing page
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# **Competitive Features Table**

Feature	bookmoo ch.com	bkstr.co m	thriftbooks. com	paperbacks wap.com	pegasusboo kstore.com	Our Future Product
Search Bar	+	+	+	+	+	+
Used books	+	-	+	+	+	+
Trade books	-	-	-	+	-	+
Free books	-	-	+	-	-	+
User Rating	-	-	-	-	-	++
Wishlist	-	+	+	-	-	-

Feature exist: +
Superior: ++
Does not exist: -

## **Summary of Competitive Analysis**

iShareBook is a book sharing website designed for saving students time and money buying new textbooks. iShareBooks will implement a user rating system, a feature that the competitors surprisingly lack. We want to encourage users to sell their unwanted books on our platform. Since our platform is open to the public, anyone is free to engage in trades or purchases with other people. In order to boost user confidence to use our platform, we must have a way to moderate transactions. Thus, we came up with a user rating system. After each transaction, buyers and sellers can rate one another. By doing so, we can gauge user satisfaction. Did the buyer receive a completely different book? Did the seller receive the payment? If a user's average rating dips to a certain threshold, they will be removed from the site completely. We anticipate that this feature will not require any special algorithms or APIs, which therefore will not increase development costs.

Furthermore, we plan to implement a live chat bot that would display answers as texts and/or as a voice to the basic questions about the website, it will also redirect the user to different website pages with their speech recognition, and refer to general solutions whenever a user needs help on our website. Lastly, we will be adding an ebook feature, where users can search, download and read ebook. In the background our app will be downloading the ebook from the public library and presenting it to the user. Our short term goal is to grow our user base by at least 30%. After having a sustainable user base, we plan to introduce a subscription policy, where paid users can have access to the paid content like tutors, learning videos, reading materials and live sessions with tutors. Overall, we plan to focus on building a fun and easy to use platform which meets student needs and gives us a competitive advantage among our peers.

# **High-Level System Architecture and Technologies Used**

**Server Host:** AWS

Operating System: Ubuntu 16.04 Server

**Database:** MySQL **Web Server:** AWS

Server-Side Language: JS And Node JS

FrontEnd Framework: React JS

Web Analytics: Google Analytics SSL Cert: Lets Encrypt (Cert Bot) SASS: 3.5.5

### **Team 04:**

	Name	Skills	Range
1.	Yangesh KC	Python SSL React Gloud	4
2.	Dannish Siddiqui	JS Node React	4
3.	Zaid Alkhatib	JS Node React AWS	4
4.	Mark Jovero	JS MySql	3
5.	Abishek Neralla	JS MySql	3
6.	Arayanna Brown	JS MySql1 Node	2
7.	Yuhua Wu	JS React Node	3
8.	Pramod Khatri	JS Node React	3.5

Member's Familiarity with Server-Side Language on a scale of 1 to 5, with 5 being very familiar and 1 being never used.

### **Team Contribution:**

### Team Lead: Yangesh KC

- Oversaw development of all sections
- Contributed to a use case, executive summary
- Reviewed all use cases and contributed to the competitive analysis table.
- Managed github and added to the High-level system architecture section.
- Contributed to Competitive analysis summary.
- Coordinated with team members, held meetings to work on Use cases,
   Competitive analysis and executive summary.

### Front End Lead: Danish Siddiqui

- Primary Contributor to the Use case section.
- Contributed in 3 use case diagrams.
- Reviewed Functional requirements sections and added non functional requirements.
- Helped team members in completing the competitive analysis table and peer review

#### Backend Lead: Zaid Alkhatib:

- Primary contributor to Executive Summary.
- Contributed to Competitive Analysis Table.
- Added a Use Case and 3 Non Functional Requirement
- Helped in reviewing the Executive summary.

#### Front-End Member: Yuhua Wu

- Contributed to Main datas and developed Entities.
- o Contributed to the feature table.
- Participated in peer review.
- Contributed use case

#### Back-End Member: Member: Abishek Neralla

- Reviewed Executive Summary
- o Contributed in 3 Functional and 2 Non Functional Requirement
- Added 1 Use case and 1 use case diagram.

#### Member: Arayana Brown:

- Worked with team member to develop Main data and Entities
- o Contributed to a competitive analysis table.
- Participated in peer review and group discussions.

### Backend Team Member: Mark Jovero

- Contributed to 3 use cases and 3 companies for competitive analysis.
- Added some features in the features table.

- o Helped team members to competitive analysis,
- o Primary contributor to list of main entities
- Peer reviewed in the Executive summary.

### Front End Member: Pramod Khatri:

- o Contributed to a use case diagram
- o Participated in peer review and group discussion.
- o Contributed to 2 non functional requirements.

### **Team Checklist**

- Team members are meeting regularly in a time slot outside of the class **Done**
- Team members feel comfortable about using the listed SW tools and deployment server **Done**
- Github Master is chosen for the team

Done

- Team is all set and is able to use the chosen backend language and the frontend framework, and those who need to learn are working on learning and practicing

Done

- Team lead ensured that all team members read the final M1 and agree/understand it before submission

Done

- Github was organized as discussed in class (e.g; master branch, develop branch, folder for milestone documents etc.)

Done