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**BookXchange** iOS App

CS 307 Sprint 3 Planning Document

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Team 11

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**Sprint Overview**

There are two primary goals with this sprint are to implement a moderator page to allow the developers (moderators) to manage the users on the app, and create the chat feature for users to communicate with each other. When a user swipes right on a book owner by a user who has swiped right on a book owned by them, then it is a match. These matches will then populate in the user’s chat section. This allows the users to message each other about the books they are swapping and find a time and place to meet in person to physically hand off the books. In this page the user can also access the other user’s profile, view the other books in their library, and give them a community rating after the swap occurs. We will also be implementing a moderator page, which will allow the moderators to remove and manage users and respond when a user reports another user for breaking terms of service, or if something occurs that requires the user to be removed from the app.

**Scrum Master:** Elena Monroe

**Meetings:**

* Tuesdays at 5pm (with Project Coordinator)
* Mondays at 5pm
* Thursdays at 5:30pm

**Risks and Challenges**

There are several risks and challenges we might encounter this sprint. Firstly, we are including an animation when a user finds a match. We are looking to create something dynamic and fun for the user to celebrate their match, so we need to determine the best way to still implement this animation. Additionally, we anticipate some considerable time being spent on creating the chat functionality. We need to familiarize ourselves with the chat API of choice and determine the most effective way of connecting the two users.

**Current Sprint Detail**

**User Story #1 —**  As a user, I would like to be able to report other users who are misusing the app.

| # | Description | Estimated Time | Owner |
| --- | --- | --- | --- |
| 1 | Create UI dropdown with option to report user | 2 hrs | Sam |
| 2 | Create a popup saying that the user has been reported | 2 hrs | Sam |
| 3 | Send an email to the moderator email indicating the report | 3 hrs | Sam |
| 4 | Testing | 0.5 hrs | Sam |

**Acceptance Criteria:**

* Given that a user wants to report another user, they will be able to navigate to a dropdown that gives them this option.
* Given that they do see this dropdown, they will see an option that says “Report this user”.
* Given that the user does want to report the user, they should be able to give a reason as to why they want to perform this action.
* Given that a user reports the user, they should have a popup to indicate that this action has gone through.
* Given that a user does report a user, the moderator should receive an email about this action.

**User Story #2 —**  As a moderator, I would like to be able to log in as a moderator to manage users.

| # | Description | Estimated Time | Owner |
| --- | --- | --- | --- |
| 1 | Create UI for moderator log in | 6 hrs | Elena |
| 2 | Check entered information | 3 hrs | Elena |
| 3 | Report any firebase issues | 4 hrs | Elena |
| 4 | Testing | 0.5 hrs | Pooja |

**Acceptance Criteria:**

* Given the normal user login interface is complete, when the moderator opens the app for the first time, they should be presented with a separate moderator login option.
* Given that moderator log in is implemented properly, when a moderator enters the incorrect information, they should get an error message and be prompted to enter the correct information.
* Given the moderator logs in with a valid moderator email and password, they should be directed to the main page with a list of users.
* Given the moderator log in is implemented properly, when a moderator clicks moderator log in, they should be able to go back to the regular user log in.

**User Story #3 —**  As a moderator, I would like to be able to delete users.

| # | Description | Estimated Time | Owner |
| --- | --- | --- | --- |
| 1 | Create UI for moderator to view users and be able to delete a user | 4 hrs | Harshini |
| 2 | Erase user information from database | 4 hrs | Harshini |
| 3 | Provide moderator with user deletion confirmation | 2 hrs | Harshini |
| 4 | Testing | 0.5 hrs | Harshini |

**Acceptance Criteria:**

* Given that the moderator is logged in, they should be able to see a list of users in the app.
* Given the moderator clicks on a user, they should be taken to a page with the user information.
* Given the moderator clicks on the button to delete the user, they should be presented with a confirmation pop-up to delete the user.
* Given the moderator deletes the user, the moderator should not be able to see that user in the user list.
* Given the moderator deleted the user, when the user tries to log in, they should not be able to log in.

**User Story #4 —**  As a user, I would like to be able to give other users a rating based on my interactions with them so that other users can see this rating when they match with that user.

| # | Description | Estimated Time | Owner |
| --- | --- | --- | --- |
| 1 | Create a button to input a rating for another user. | 1 hr | Aditi |
| 2 | Create UI to enter a rating. | 1 hr | Aditi |
| 3 | Provide the user with the option to cancel or submit their rating. | 1 hr | Aditi |
| 4 | Provide the user with confirmation of their rating submission. | 2 hrs | Aditi |
| 5 | Calculate user’s average rating. | 2 hrs | Aditi |
| 6 | Display user’s community rating on their personal profile. | 4 hrs | Aditi |
| 7 | Testing | 0.5 hrs | Aditi |

**Acceptance Criteria:**

* Given that two users have matched and that the chat functionality has been successfully implemented, they should be able to access a dropdown menu of different options, including the option to submit a rating.
* Given that the user selects the rating option, they should be redirected to a screen to input their rating.
* Given that the UI is implemented correctly, the user should be able to enter their rating.
* Given that the user enters a non-numeric character, they should receive an error message.
* Given that the user enters a number greater than 5, they should receive an error message.
* Given that the user submits their rating, they should receive a popup asking them to confirm or cancel their submission.
* Given that the user selects confirm and that the information saves, they should receive a confirmation popup.
* Given that a user gets a new rating, their updated community rating should be displayed on their profile.

**User Story #5 —**  As a user, I would like to be able to see other users’ community ratings.

| # | Description | Estimated Time | Owner |
| --- | --- | --- | --- |
| 1 | Create UI for view profile page | 3 hrs | Pooja |
| 2 | Integrate info for only other users to view | 4 hrs | Pooja |
| 3 | Make this accessible to other users through their chats | 4 hrs | Pooja |
| 4 | Testing | 0.5 hrs | Pooja |

**Acceptance Criteria:**

* Given the user wants to view another user's profile that they have been messaging, they can click their profile picture.
* Given the user clicks this profile picture, they are directed to a “view profile” page.
* Given this page is properly constructed, this page contains only information that the other user should be able to see and is not modifiable (i.e. no swapped books section, no functional buttons like on a user’s own profile page)
* Given the page is properly constructed, the user's averaged user rating should be visible to the other user.
* Given the user wants to leave this page, they can navigate back to the chat they were previously viewing.

**User Story #6 —** As a user, I would like to be able to block other users so their books don’t appear on my swapping page.

| # | Description | Estimated Time | Owner |
| --- | --- | --- | --- |
| 1 | Create block option in dropdown menu on other user’s profile | 1hr | Aditi |
| 2 | Create popup asking user to confirm | 1hr | Aditi |
| 3 | Create popup saying that the user has successfully been blocked | 2hrs | Aditi |
| 4 | Delete chat with blocked user | 4hrs | Aditi |
| 5 | Testing | 0.5 hrs | Aditi |

**Acceptance Criteria:**

* Given that the user wants to block another user, when they navigate to that user’s chat profile, they should be able to view a dropdown menu that contains the option to block a user.
* Given that they are on that user chat’s profile, they should be able to choose to block the user in a dropdown menu.
* Given that the block user option is implemented correctly, when they click the button, they should be presented with a popup that asks them to confirm that they want to block the user.
* Given that the user confirms that they want to block the other user, they should be displayed with a confirmation popup.
* Given that the block button is pressed by the user, when the button works successfully, the chat with the user that they blocked should be deleted.

**User Story #7 —** As a user, I would like to have a chat feature open up when I’ve matched with another user’s book.

| # | Description | Estimated Time | Owner |
| --- | --- | --- | --- |
| 1 | Create UI screen of chat messages. | 4 hrs | Harshini |
| 2 | Create UI for a two-user chat. | 5 hrs | Harshini |
| 3 | Make chat feature open when users’ books have matched. | 3 hrs | Harshini |
| 4 | Give users viewing access to matched user’s profile. | 2 hrs | Harshini |
| 5 | Testing | 0.5 hrs | Harshini |

**Acceptance Criteria:**

* Given that two users ‘like’ each other's books, both users will have a new chat feature appear in their messages section with the other user.
* Given that both users have successfully created their profiles, they should be able to see each others’ name and profile picture from the main chat tab.
* Given that the chat functionality is implemented correctly, both users should receive a message in their chat feature that they’ve matched.
* Given that the match functionality is implemented correctly, both users should be able to access information about the matched books.
* Given that the user can view the chat feature with another user, they should be able to exit out of it to view all their messages.

**User Story #8 —** As a user, I would like to be able to send and receive messages with users whose book I’ve matched with.

| # | Description | Estimated Time | Owner |
| --- | --- | --- | --- |
| 1 | Make sure a user is able to send a message upon a book match | 6 hrs | Sam |
| 2 | Make sure a user is able to receive messages upon a book match | 6 hrs | Sam |
| 3 | Make sure that messages are shown as delivered if sent | 3 hrs | Elena |
| 4 | Testing | 0.5 hrs | Elena |

**Acceptance Criteria:**

* Given that two users’ books have matched, when a user receives a chat, they should be able to view it in their chat feature.
* Given that two users’ books have matched, when a user sends a chat, they should be able to view it in their chat feature.
* Given that a message has been delivered, this should be visually indicated in the chat feature.
* Given that a user is sending another user a message, they should be able to enter in text and emojis.
* Given the user wants to leave the specific chat, they can navigate back to their chat page.

**User Story #9 —** As a user, I would like to retain my chat history from people whose books I’ve matched with.

| # | Description | Estimated Time | Owner |
| --- | --- | --- | --- |
| 1 | Add scrolling for messages | 3 hrs | Sam |
| 2 | View previous messages when a user scrolls up | 5 hrs | Elena |
| 3 | View previous likes and dislikes when user scrolls up | 3 hrs | Elena |
| 4 | Testing | 0.5 hrs | Sam |

**Acceptance Criteria:**

* Given that a user clicks on a chat with another user, they should be able to see the most recent messages.
* Given the user scrolls up, they should be able to see previous chat features with everyone they’ve matched with.
* Given the user is able to see previous messages, they should be able to see which messages are theirs and which ones are the other users.
* Given the user is able to see previous messages, they should be able to still like/dislike previous messages.

**User Story #10 —** As a user, I would like to be able to unmatch with other users’ books.

| # | Description | Estimated Time | Owner |
| --- | --- | --- | --- |
| 1 | Create UI to remove a user from the chat page | 3hrs | Sam |
| 2 | Remove the chat from each users page | 4hrs | Sam |
| 3 | Allow the two books to be swappable again | 2hrs | Sam |
| 4 | Testing | 0.5 hrs | Sam |

**Acceptance Criteria:**

* Given that the user has matched with another user and can view the chat with them on their chats page, the user can see a delete icon at the edge of the chat.
* Given the user presses this delete button they are prompted with a popup to confirm they want to remove the match.
* Given the user confirms that they want to remove this match, the chat is removed from their chat page.
* Given the user confirms that they want to remove this match, the chat is removed from the other users page.
* Given the chats are removed from both users' pages, the books that they matched on are added back to the available feed.

**User Story #11 —** As a user, I would like to have a nearby public location suggested to me to swap books with a user I matched with.

| # | Description | Estimated Time | Owner |
| --- | --- | --- | --- |
| 1 | Create text UI at top of chart page | 2hrs | Aditi |
| 2 | Determine the locations of both users | 1hrs | Aditi |
| 3 | Select a nearby public place for them to meet | 2hrs | Aditi |
| 4 | Testing | 0.5 hrs | Aditi |

**Acceptance Criteria:**

* Given a user matches with another user both of their zip codes are recorded and compared.
* Given this comparison is successful, a nearby public location is determined for the two users to meet at to swap books.
* Given the match has occurred, the user can then navigate to their profile page where they see a new chat created with the user they matched with.
* Given they click on the chat they are directed to a page that allows them to message the user they matched with.
* Given the user successfully opens this page there will be text at the top of the page suggesting a location for the two users to meet at.

**User Story #12 —** As a user, I would like to ‘heart’ other peoples’ messages.

| # | Description | Estimated Time | Owner |
| --- | --- | --- | --- |
| 1 | Create UI for being able to heart a message | 2hrs | Elena |
| 2 | Create UI for being able to dislike/heartbreak a message | 2hrs | Elena |
| 3 | Retain this action by having a persisting heart on a user’s message | 2hrs | Elena |
| 4 | Allow the user to unheart the message | 2hrs | Elena |
| 5 | Testing | 0.5 hrs | Elena |

**Acceptance Criteria:**

* Given that the user wants to “heart” a message, when they click on the message, they should be presented with the option to “heart” it or “heartbreak/dislike” it.
* Given that the user clicks on the heart, the “heart” should stay on the message.
* Given that the user clicks on the heart, the “heartbreak” should stay on the message.
* Given that the user wants to react to a message, when they attempt to, then they should be able to react to both their own and the other user’s messages.
* Given that the user wants to get rid of the reaction, when they press on the message, they should be able to click on the respective reaction to remove it.

**User Story #13 —** As a user, I would like to see a visual display of all the books I’ve swapped with.

| # | Description | Estimated Time | Owner |
| --- | --- | --- | --- |
| 1 | Create option that allows user to see swapped page | 2hrs | Harshini |
| 2 | Create UI for swapped books | 3hrs | Harshini |
| 3 | Show Books in grid layout under Library section in User profile | 4.5 hrs | Harshini |
| 4 | Testing | 0.5 hrs | Harshini |

**Acceptance Criteria:**

* Given the user is on the profile page, they should be able to see an option to see their swapped books.
* Given the user has swapped no books, they should see a No Books Swapped/Matched message in their library.
* Given that the user has swapped books, when they are on the profile page, they should be able to see books that they have swapped.
* Given that the previously swapped books display is implemented correctly, the book’s owner name and the swap date should be shown.
* Given that a user just swapped a book, they should be able to see the most updated version of the books they’ve swapped.

**User Story #14 —**  As a user, I would like to see an animation on the screen when I match with someone for a book.

| # | Description | Estimated Time | Owner |
| --- | --- | --- | --- |
| 1 | Create UI that shows text animation | 3 hrs | Pooja |
| 2 | Ensure the animation only occurs when there is a match | 1 hr | Pooja |
| 3 | Ensure that this animation does not persist | 2 hrs | Pooja |
| 4 | Testing | 0.5 hrs | Pooja |

**Acceptance Criteria:**

* Given that a user matches with another user’s book, they should be able to see an animation indicating the match
* Given that a user matches with another user’s book, they will see a “It's a match” animation on the screen
* Given that a user sees this animation, it should appear for a short time and not persist
* Given that a user receives this animation, they should also be able to see a popup after the animation indicating that they can access a chat
* Given this popup generates properly, it should indicate for the user to access their chat tab and disappear after 2 seconds.

**User Story #15 —**  As a user, I would like to receive a notification when I have matched with someone for a book and when a user sends me a message.

| # | Description | Estimated Time | Owner |
| --- | --- | --- | --- |
| 1 | Create push notification functionality | 3 hrs | Pooja |
| 2 | Send notification for match | 3 hr | Pooja |
| 3 | Send notification for message | 3hrs | Pooja |
| 4 | Testing | 0.5 hrs | Pooja |

**Acceptance Criteria:**

* Given that a user matches with another user (while not on the app), a push notification is sent to the second user’s phone.
* Given that a user receives this push notification, it contains the name of the user that matched with them and the books that they want to swap.
* Given a user matches with a user (via swiping), the user swiping receives no push notification.
* Given that a user receives a message (while not on the app), a push notification is sent to the second user’s phone.
* Given that a user receives this push notification, it contains the name of the user that messaged them.

**Total Hours Per Person for Sprint 3:**

| # | Team Member | Total Time |
| --- | --- | --- |
| 1 | Sam | 32 hrs |
| 2 | Harshini | 35 hrs |
| 3 | Elena | 33 hrs |
| 4 | Aditi | 32.5hrs |
| 5 | Pooja | 30 hrs |
| **Total Team Time:** | | **162.5 hrs** |

**Remaining Backlog:**

**Functional Requirements**

User account:

1. ~~As a user, I would like to be able to create an account on BookXchange with a unique email, unique phone number, and unique and appropriate username.~~
2. ~~As a user, I would like to be able to create an account through a Google account.~~
3. ~~As a user, I would like to be able to login and manage my BookXchange account.~~
4. ~~As a user, I would like to be able to reset my password.~~
5. ~~As a user, I would like a verification email sent to my email account after registering.~~
6. As a user, I would like a verification text sent to my phone number after registering.
7. As a user, I would like to be able to utilize two-factor authentication (if time allows).
8. ~~As a user, I would like to be able to delete my account.~~

User profile:

1. ~~As a user, I would like to be able to create a profile with my name and bio.~~
2. ~~As a user, I would like to be able to change my profile’s name and bio.~~
3. ~~As a user, I would like to be able to pick my preferred genres from the provided options when setting up my account.~~
4. ~~As a user, I would like to be able to take a photo with my phone camera to use as my profile photo.~~
5. ~~As a user, I would like to be able to upload a profile photo from my gallery.~~
6. ~~As a developer, I would like to retain a database of users’ profiles.~~
7. ~~As a developer, I would like to automatically log out a user who hasn’t been on the app for a while.~~
8. ~~As a user, I would like to be able to invite someone to the app via phone number or email.~~
9. ~~As a user, I would like to be able to share my profile on social media.~~

User library:

1. ~~As a user, I would like to be able to manually upload a picture of my book to my library.~~
2. ~~As a user, I would like to be able to manually enter the title, author, isbn, and genre of my book to my library.~~
3. ~~As a user, I would like to be able to scan the UPC on my book and upload its information (if time allows) to my library.~~
4. ~~As a user, I would like to be able to manually enter the ISBN number of my book and have the book information auto-populate.~~
5. ~~As a user, I would like to be able to remove books from my library.~~
6. ~~As a user, I would like to see a visual display of the books in my library.~~
7. ~~As a user, I would like to be able to edit the information on the books in my library.~~
8. ~~As a user, I would like to be able to change the status of a book to available or out for loan.~~

Reporting/managing users:

1. As a user, I would like to be able to report other users who are misusing the app.
2. As a moderator, I would like to be able to delete books posted by users.
3. As a moderator, I would like to be able to delete users.
4. As a user, I would like to be able to give other users a rating based on my interactions with them so that other users can see this rating when they match with that user.
5. ~~As a user, I would like to be able to see other users’ community ratings.~~
6. As a user, I would like to be able to block other users so their books don’t appear on my swapping page.
7. ~~As a user, I would like to be able to report an issue with the application to the administrators.~~

Profile interaction features:

1. ~~As a user, I would like to see my most recent messages at the top of the page.~~
2. ~~As a user, I would like to retain my chat history from people whose books I’ve matched with.~~
3. ~~As a user, I would like to have a chat feature open up when I’ve matched with another user’s book.~~
4. ~~As a user, I would like to be able to send and receive messages with users whose book I’ve matched with.~~
5. ~~As a user, I would like to be able to unmatch with other users’ books.~~
6. ~~As a developer, I would like to be able to suggest a nearby public location for users whose books have matched to meet up to swap.~~
7. As a user, I would like to receive a notification when I have matched with someone for a book, when a match has messaged me back, and when I have not been active on the app in a while.
8. As a user, I would like to disable push notifications.
9. ~~As a user, I would like to ‘heart’ other peoples’ messages.~~
10. ~~As a user, I would like to see the profiles of users whose books I’ve matched with.~~
11. ~~As a user, I would like to see a visual display of all the books I’ve swapped with.~~

Swiping feature:

1. ~~As a user, I would like to be able to swipe left (dislike book) and right (like book) on books on my personal feed.~~
2. ~~As a developer, I would like another book to immediately pop up after the user has swiped on the previous book.~~
3. ~~As a user, I would like the books on my bookshelf, books relating to my preferred genres and authors, and books whose users are in my general area to influence what types of books appear on my personal feed.~~
4. As a user, I would like to see an animation on the screen when I match with someone for a book (if time allows).
5. ~~As a user, I would like to set a preferred radius of distance for other books’ locations for my personal feed.~~
6. ~~As a user, I would like to be able to change my geographic location.~~
7. ~~As a user, I would like to be able to reset my personal feed algorithm.~~
8. ~~As a user, I would like to be able to enter my personal information to create my profile.~~

**Non-Functional Requirements:**

* Response time:

Since users will be potentially swiping through many book suggestions and reaching out to other users, it’s crucial that the response time be fast. Its server-side lag should be less than 300 ms so that users have accurate, up-to-date information about what books are available. Algorithm book recommendations and swiping should have a minimal amount of lag time to make the user experience as smooth as possible. The messaging feature should also have a very short time delay so that users can exchange information in real-time.

* Scalability:

We plan to design the app in a way that allows seamless integration of new features further enhancing the user experience. This will occur without consequence on the functionality of other features or errors on the client side.

* Usability:

The app will be user-friendly so users can easily navigate the interface and be able to easily manage their library, swipe books, message other users, and report concerns. The iOS app will be compatible with all iOS devices and have a seamless UI.

* Security:

Security is essential to the user experience on Book Exchange. The app will not be sharing the locations of users and will make sure that users will have privacy in terms of their profile information. The user’s password will also be stored in a secure manner, utilizing Firebase.