



Sprint 3 Planning Document

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Sprint Overview

For Sprint 3, the goal is to implement the main selling point of our app: the random generation of a user to talk to everyday (We call this randomly generated user the “CB”). This will require us to create an algorithm to generate the CB, a backend that runs asynchronously and generates a user every 24 hrs, and a way to lock the user out of communicating with friends who are not the CB. This will be the bulk of the sprint, but other than that the goal is to add extra features and perks for users that reward them using the app.

Scrum Master: Luke Lawson

Meeting Plan: Sunday at 9:00 pm, Wednesdays at 1:30-2:20 pm as needed

Risks and Challenges:

The main challenge of this sprint is creating the CB algorithm. It will be mathematically intensive and require a lot of thought on how best to generate a random user everyday without repeats or redundancy. Another challenge is implementing the Python Flask backend with Firebase and Android Studio, because we have not yet tested out the functionality of the interaction and problems are bound to arise. Lastly it will be hard implementing everything while simultaneously making the app look clean. We not only have to focus on functionality, but also aesthetics.

Current Sprint Detail

User Story #1

As a user, I would like to be able to search for other users on the platform

#	Description	Estimated Time	Owner
1	Create dedicated UI for finding and listing searched users	2 Hrs	Sooha
2	Create search button and search bar for finding users	1 Hrs	Sooha
3	Create backend functionality for button, search bar, and UI interface.	2 Hrs	Luke
4	Test Acceptance Criteria	1 Hr	Luke

Acceptance Criteria:

- Given that the search bar is implemented correctly, the user should be able to enter a username into the search bar and press the “search” button for all users with similar usernames to be listed.
- Given that the user searches for another user and presses the “sort” button, the listed users should be sorted alphabetically.
- Given that the user presses the profile page of a listed user, the user should be able to see the profile page of the selected user.
- Given that the user presses the profile page of a listed user, the user should have the option of sending the selected user a friend request.

User Story #2

As a user, I would like to have users recommended to me to friend

#	Description	Estimated Time	Owner
1	Create UI for listing mutual friends	2 Hrs	Ethan
2	Create algorithms and backend functionality that finds mutual friends	3 Hrs	Ethan
3	Create backend that refreshes mutual friend listing	2 Hrs	Ilhoon
4	Test Acceptance Criteria	1 Hr	Ilhoon

Acceptance Criteria:

- Given that the user navigates to the page listing recommended users, the page should always be populated with 8 users in which the user and the listed users have a mutual friend.
- Given that the user selects the profile page of one of the listed users, the user should be able to view the selected user's profile page.
- Given that the user presses the profile page of a listed user, the user should have the option of sending the selected user a friend request.

User Story #3

As a user, I would like to be locked out of messaging friends who are not my randomly selected friend.

#	Description	Estimated Time	Owner
1	Create frontend graphic to indicate the user is locked out of messaging certain friends.	3 Hrs	Aidan
2	Create backend implementation for locking the user out of messaging friends who are not the CB.	3 Hrs	Aidan
4	Test Acceptance Criteria	1 Hr	Aidan

Acceptance Criteria:

- Given that the UI is correctly implemented, when the user navigates to a friend who is not the CB then there should be a graphical indicator to communicate to the user that the friend is locked out.
- Given that the user selects a locked out friend, then the user will not be able to enter messages into the chatroom with the selected friend.
- Given that the user selects a locked out friend, then the user will be presented with a popup message stating the selected user is locked out.

User Story #4

As a user, I would like to be able to see previous conversations with past chosen individuals

#	Description	Estimated Time	Owner
1	Create backend to maintain chatting data after new CB chosen	2 Hrs	Ian
2	Create UI to allow user to enter non-CB's chatrooms	4 Hrs	Luke
3	Test Acceptance Criteria	1 Hr	Dawon

Acceptance Criteria:

- Given that the user is locked out of chats that aren't the CB for the day, the user should still be able to enter other friends chat room
- Given that the user is able to enter the chatroom, they should be able to scroll through chat and see previous messages
- Given that the user enters the chatroom, they should receive a popup message reminding them "Not your CB! Cannot send messages"
- Given the user enters the chatroom they should not be able type anything into the chat

User Story #5

As a user, I would like to have a conversation prompt selected from a database to be sent to me and my friend

#	Description	Estimated Time	Owner
1	Create UI that shows conversation prompts	4 Hrs	Ethan
2	Implement backend of storing prompts	2 Hrs	Ethan
3	Implement randomization of prompts that are selected	2 Hrs	Ethan
4	Test Acceptance Criteria	1 Hr	Ethan

Acceptance Criteria:

- Given that the user wants a prompt, there should be a button to request a prompt
- Given that the user presses the button, then a prompt should be displayed to both users in the chatroom
- Given the user presses on the prompt, then the user should be given the option to remove the prompt
- Given the user presses to remove the prompt, then the prompt should be removed from the chatroom

User Story #6

As a user, I would like the database of conversation prompts to be regularly updated

#	Description	Estimated Time	Owner
1	Create backend to hold different prompts	3 Hrs	Dawon
2	Create randomization to select prompt	3 Hrs	Aidan
3	Test Acceptance Criteria	1 Hr	Luke

Acceptance Criteria:

- Given that the user clicks the button to request a prompt, there should be a new and different prompt than before
- Given that there are prompts unseen by the user, when a prompt is requested, the user should see a new prompt (non-repeat)
- Given that there are no new prompts left, the user will see repeat prompts

User Story #7

As a user, I would like to have an algorithm that chooses a friend based on my activity and the time since my friend and I last connected

#	Description	Estimated Time	Owner
1	Create an algorithm to pair users	3 Hrs	Luke
2	Calculate the user's interactivity with the other users on their friend list	3 Hrs	Aiden
3	Develop a ranking system for each user's friend list	4 Hrs	Ilhoon
4	Design a function that chooses a friend based on this ranking system while preventing duplicate CBs	4 Hrs	Ethan
5	Implement a simple frontend website to test the behavior of the backend	2 Hrs	Ilhoon
6	Test Acceptance Criteria	1 Hr	SooHa

Acceptance Criteria:

- Given that the frontend website is implemented correctly, when the user clicks the choose friend button, the user should be given a list of paired friends.
- Given that the frontend website is implemented correctly, when the user clicks the choose friend button, the list should also contain users with no CBs.
- Given that the frontend website is implemented correctly, when the user clicks the choose friend button again, the page will render a new list of paired friends.

User Story #8

As a user, I would like to see my chosen friend on the main page with the time left to chat and a button to enter the chat room

#	Description	Estimated Time	Owner
1	Design a connection between the backend server and	5 Hrs	Dawon

	the app		
2	Implement method to assign CBs to individual users	3 Hrs	Aidan
3	Implement the main page to display the CBs information	2 Hrs	Luke
4	Test Acceptance Criteria	1 Hr	Luke

Acceptance Criteria:

- Given that the user logs in to the app, they will be presented with a profile image of the CB, time left to chat with that CB, and a button to enter the chat room with that CB.
- Given that the friend-choosing algorithm works correctly, when the user enters the main page, the main page should render an actual account profile image that was chosen by the algorithm.
- Given that the UI was implemented correctly, when the user clicks the enter button, the user should be sent to a chatroom with the chosen CB.

User Story #9

As a user, I would like my friend to be selected daily at the same time as all other users

#	Description	Estimated Time	Owner
1	Create a method that is provoked every 24 hours	3 Hrs	Dawon
2	Implement the algorithm within the above method	3 Hrs	Ian
3	Update database to change the state of CBs for all users.	3 Hrs	Ian
4	Test Acceptance Criteria	1 Hrs	Ian

Acceptance Criteria:

- Given that the algorithm is correctly implemented, when the time is 12:00 AM in eastern time, the user should see a different CB than before on their main page.
- Given that the algorithm is correctly implemented, when the time is 12:00 AM in eastern time and the user logs into another account, the user should also see a different CB than before on their main page.
- Given that the algorithm is correctly implemented, when the time is 12:00 AM in eastern time and the user logs in as the CB of the above user, the main page should display the above user.

User Story #10

As a user, if I consistently use the app, I would like to be rewarded with other options of chat themes.

#	Description	Estimated Time	Owner
1	Lock certain themes until a streak count is reached	1 Hrs	Ethan
2	Display a progress bar for how long until a user unlocks certain themes.	2 Hrs	Ian
3	Test Acceptance Criteria	1 Hr	Ethan

Acceptance Criteria:

- Given that the user's streak count increases, when the user logs in, their progress bar should be updated.
- Given that the user has not unlocked all the possible themes, the user should be able to see the name of the next unlockable theme.
- Given that the user has accumulated a certain number of streaks, the next unlockable theme should be added to the user's options of themes.
- Given that the user unlocks a new theme upon signing in, a popup message should appear congratulating them for unlocking the new theme.

User Story #11

As a user, I would like to obtain more reactions the more streaks I have.

#	Description	Estimated Time	Owner
1	Display how far away from Reaction Rewards a user is	2 Hrs	Dawon
2	Create new reactions	1 Hr	Luke
3	Create UI to select an image and make it a reaction	2 Hrs	Luke
4	Test Acceptance Criteria	1 Hr	Dawon

Acceptance Criteria:

- Given that the user reaches a certain number of streaks, the user will have a new reaction added to their message reaction options.
- Given that the user has over 50 streaks, then they will unlock the availability to create a reaction from a picture on their phone.
- Given that the user unlocks a reaction, a popup message should appear congratulating them on unlocking the reaction.

- Given that one user in the chat has these unlocked reactions, when the friend opens the chat, they should be able to see these reactions, even if they have not unlocked them yet.

User Story #12

As a user, I would like to see a list of users that I have blocked.

#	Description	Estimated Time	Owner
1	Create a page with the list of a user's blocked accounts	2 Hrs	Sooha
2	Create UI for the user to access the page from their profile	1 Hr	Ethan
3	Test Acceptance Criteria	1 Hr	Ethan

Acceptance Criteria:

- Given that the user has not blocked any users, when they access this page, it will be empty.
- Given that the user has blocked other users, when the user accesses this page, they will see the list of users they have blocked.
- Given that the user blocks or unblocks more users, when they access this page, their list will update in real-time.

User Story #13

As a user, I would like to be able to unblock a user that I have already blocked.

#	Description	Estimated Time	Owner
1	Add unblock button to blocked profiles	2 Hrs	Dawon
2	Add confirmation popup with cancel and confirm buttons	3 Hrs	Luke
3	Removing a user from another's block list in the backend	3 Hrs	Aidan
4	Test Acceptance Criteria	1 Hr	Aidan

Acceptance Criteria:

- Given that the block feature is implemented correctly, there should be an unblock button when viewing a blocked profile.

- Given that the press functionality of the button works, a confirmation message asking the user if they want to unblock this profile will appear.
- Given that the confirm button is tapped on the confirmation popup, the profile being viewed will be removed from the user's block list.
- Given that the cancel button is tapped on the confirmation popup, no changes will be made to the user's friend list.

User Story #14

As a user, I would like to be able to receive notifications when my friend for the day (CB) is chosen.

#	Description	Estimated Time	Owner
1	Add an extra switch in notification settings to toggle notifications for CB generation	1 Hrs	SooHa
2	Implement functionality to the new switch	3 Hrs	Aidan
3	Create notification to alert user that their friend has been chosen	2 Hrs	Ethan
4	Adding functionality to jump from the notification to a chatroom	3 Hrs	Aidan
5	Test Acceptance Criteria	1 Hr	Aidan

Acceptance Criteria:

- Given that the user opens their settings, there should be an option to turn off notifications for when their daily friend is chosen.
- Given that the user has notifications on, the user should receive a notification every day at the same time when their friend is chosen.
- Given that the user taps on the notification, the app will take them to the chat page.

User Story #15

As a user, I would like to get a copy of my chat logs

#	Description	Estimated Time	Owner
1	Create UI to display user's chat logs	3 Hr	Dawon
2	Create a button in the chat room to direct to the UI	<1 Hrs	Aidan
3	Get chat data from the database and display it on the	4 Hrs	Aidan

	UI		
4	Test Acceptance Criteria	1 Hr	Aidan

Acceptance Criteria:

- Given that button is implemented correctly, when user clicks the button, it will direct to the chat log UI that matches the appropriate friend
- Given that the UI is implemented correctly, the user can scroll up and down to see the chat logs
- Given that the chat data is collected correctly, the user should see the chat log in chronological order.

User Story #16

As a user, I would like some sort of time indicator to inform me of my remaining time to contact my chosen friend

#	Description	Estimated Time	Owner
1	Create an algorithm that calculate the remaining time the user have	3 Hrs	Ilhoon
2	Create an layout to show the remaining time	2 Hrs	Ilhoon
3	Display the remaining time in the chat room	<1 Hrs	Luke
3	Test Acceptance Criteria	1 Hrs	Luke

Acceptance Criteria:

- Given that the user implemented the algorithm correctly, when the user view the time indicator, the user will be able to see a accurate remaining time to contact with chosen friend
- Given that the user layout is implemented correctly, the time indicator will be visible for the user and update periodically
- Given the user enters the chat room of the CB, the user should able to see the remaining time on the toolbar

Remaining Backlog

Functional Requirements

1. User accounts

- 1.1. ~~As a user, I would like to register for a ClapBack account with an email address, username, and password~~
- 1.2. ~~As a user, I would like to delete my ClapBack account~~
- 1.3. ~~As a user, I would like to be able to log in to my ClapBack account~~
- 1.4. ~~As a user, I would like to be able to log out of my ClapBack account~~
- 1.5. ~~As a user, I would like to be able to view my own account and have the option to edit it~~
- 1.6. ~~As a user, I would like to be able to change my ClapBack account nickname, password, description, and email~~
- 1.7. ~~As a user, I would like to be able to recover my account if I forget my password~~
- 1.8. ~~As a user, I would like to be able to upload a profile picture of my choice to represent my account~~
- 1.9. ~~As a user, I would like to be able to add a description about me on my profile and be able to show some of my favorite media in my profile description (games, songs, movies, TV shows, books, etc.)~~
- 1.10. ~~As a user, I would like to be able to link other platforms where I can be contacted if I wish to continue the conversation with a person after the day is over~~

2. Friends list and requests

- 2.1. ~~As a user, I would like to be able to search for users from my friend list~~
- 2.2. ~~As a user, I would like an interface to scroll through my friend list~~
- 2.3. ~~As a user, I would like to be able to search for other users on the platform~~
- 2.4. ~~As a user, I would like to be able to send friend requests~~
- 2.5. ~~As a user, I would like to be able to view another user's profile (username, nickname, bio)~~
- 2.6. ~~As a user, I would like to be able to receive notifications when I receive a friend request~~
- 2.7. ~~As a user, I would like to be able to accept or deny a friend request~~
- 2.8. ~~As a user, I would like to be able to remove friends~~
- 2.9. ~~As a user, I would like to be able to report other accounts~~
- 2.10. ~~As a user, I would like to have mutual friends recommended to me~~
- 2.11. ~~As a user, I would like to block certain users from sending me friend requests~~

3. Messaging

- 3.1. ~~As a user, I would like to be able to send messages to a friend.~~
- 3.2. ~~As a user, I would like to be locked out of messaging other people who are not my randomly selected friend~~
- 3.3. ~~As a user, I would like a comprehensive messaging interface to communicate with friends~~
- 3.4. ~~As a user, I would like to be able to reply to a specific message in a conversation~~
- 3.5. ~~As a user, I would like to be able to send read receipts~~
- 3.6. ~~As a user, I would like to be able to react to messages~~
- 3.7. ~~As a user, I would like to be able to edit the appearance of the messaging interface~~

- 3.8. ~~As a user, I would like to be able to delete a message and have it display that it has been deleted~~
- 3.9. ~~As a user, I would like to be able to edit a message and have it display that it has been edited~~
- 3.10. ~~As a user, I would like to be able to see previous conversations with past chosen individuals~~
- 3.11. ~~As a user, I would like to be able to see my friend composing a response in the chatroom~~
- 3.12. ~~As a user, I would like to be able to edit the nickname of my friends (visible to me)~~
- 3.13. ~~As a user, I would like to be able to send pictures to my friends~~
- 3.14. ~~As a user, I would like to have a conversation prompt selected from a database to be sent to me and my friend~~
- 3.15. ~~As a user, I would like the database of conversation prompts to be regularly updated~~
- 3.16. ~~As a user, I would like to be able to send videos to my friends (If time allows)~~
- 4. Friend-choosing system (placeholder name)
 - 4.1. ~~As a user, I would like to have an algorithm choose a friend based on my activity and the time since my friend and I last connected~~
 - 4.2. ~~As a user, I would like my friend to be selected daily at the same time as all other users~~
- 5. Gamification system
 - 5.1. ~~As a user, I would like to be able to keep track of consecutive days I have used the app (i.e. streaks)~~
 - 5.2. ~~As a user, I would like to be rewarded through incentives for my consistency in-app (if time allows)~~
 - 5.2.1. ~~As a user, I would like to track the number of messages I sent in order to access additional features (see next)~~
 - 5.2.2. ~~As a user, I would like to customize the app's theme, e.g. dark mode interface~~
 - 5.3. ~~As a user, I would like to be rewarded with other options of interaction for continued conversation with my chosen individual (See stories next)~~
 - 5.4. ~~As a user, I would like to play in-chat "Would-You-Rather", where it's a simple prompt with two buttons that provides the asker information~~
 - 5.5. ~~As a user, I would like to play in-chat "20 Questions", in which one player has a secret word and the other player must guess the secret word in 20 yes or no questions~~
- 6. Miscellaneous
 - 6.1. ~~As a user, I would like a brief walkthrough of the app to understand its goals and incentives~~
 - 6.2. ~~As a user, I would like to be given the option to either start chatting immediately upon opening the app or to access other functions first~~
 - 6.3. ~~As a user, I would like to receive a notification when I receive a message~~
 - 6.4. ~~As a user, I would like to be able to turn off notifications for some or all features~~
 - 6.5. ~~As a user, I would like to be able to receive notifications on when my friend for the day is chosen~~

- ~~6.6. As a user, I would like to get a copy of my chat logs~~
- 6.7. As a user, I would like to be able to sync my contacts with ClapBack (If time allows)
- ~~6.8. As a user, I would like some sort of time indicator to inform me of my remaining time to contact my chosen friend~~

Non-Functional Requirements

1. Platform and Performance
 - a. I want the application to work as an Android mobile application.
 - b. I want the application to be responsive and handle several concurrent users.
2. Architecture
 - a. I want the application to use Flask/Firebase as the backend service to facilitate the development process and increase performance.
 - b. I want the application to communicate through Flask with the real-time database in Firebase to create the main chat service and authentication system.
 - c. I want the front-end of the application to be written in Kotlin to target not only Android but other platforms such as iOS and Java desktop applications.
3. Usability
 - a. I want the application to be intuitive for users and easily navigable so that a user can contact their friend.
 - b. I want the application to have a short tutorial of the app so that users can quickly learn its features.
 - c. I want the action of messaging a friend for the day to be as easy as possible.
 - d. I want the application's GUI to be very simple and not cluttered.
4. Security
 - a. I want the application to encrypt and hash user passwords in a database with a password salt.
 - b. I want to store the number of messages sent between users to implement gamification, but not store the content of the messages.
 - c. I want the application to recover my forgotten password if I correctly answer preset security questions.
 - d. I want the application to allow me to edit my password.