

Team 1 Project Backlog

ClapBack

Team Members:

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Project Title:

ClapBack

Problem Statement:

Keeping up with friends after high school/college is hard. No longer is interaction forced amongst peers through group projects and seating arrangements, which in turn makes building and maintaining friendships significantly more difficult. ClapBack remedies this issue by providing the user a messaging system that randomly generates an individual every day to chat with, providing no other alternative but making it fun through given prompts and incentives. There are many messaging apps on the market, but none purposely manages the user's contact with their added friends and encourages keeping contact with past relationships.

Background Information:

Audience

Social media is used to connect people from all different areas of life together. It allows people to maintain relationships regardless of distance and helps people develop relationships otherwise impossible to make. Thus ClapBack aims to connect people of all ages, races, and backgrounds and help make life-long relationships with peers regardless of differences

Similar Platforms

There are many other messaging apps that connect people based on similar interests, images, or ideas they share. Snapchat and BeReal are two popular messaging apps that feel the most similar to the idea of ClapBack. Snapchat and BeReal focus on showing friends what is going on in one's life and allow friends of the user to comment on shared

pictures. They differ in that Snapchat has more messaging features, with a whole page dedicated to direct messaging and group chats, while BeReal only has two main pages dedicated to photos and no direct messaging. Instead, BeReal prompts the user to post daily at a given time to candidly capture what the user is doing at the time.

Limitations

While these existing platforms provide the user with all the comfort and flexibility to contact their friends whenever and wherever, none push their users outside of their comfort zone by restricting their access to their added friends. People are rarely pushed out of their comfort zones to interact with people they are not as comfortable with, such as acquaintances, mutual friends, or people they have simply grown apart from. Other messaging apps' "limitation" is their breadth: They give the user full reign and no focus, but with that comes a lack of direction.

ClapBack's goal is to provide direction that's missing in competing apps and better motivate the user to maintain relationships.

Functional Requirements:

1. As a user, I would like to register for a ClapBack account with an email address
2. As a user, I would like to delete my ClapBack account
3. As a user, I would like to be able to log in to my ClapBack account
4. As a user, I would like to be able to log out of my ClapBack account
5. As a user, I would like to be able to change my ClapBack account nickname
6. As a user, I would like to be able to change my ClapBack account password
7. As a user, I would like to be able to change my ClapBack account email
8. As a user, I would like to be able to recover my account should I forget my password
9. As a user, I would like to be able to create and modify a unique username
10. As a user, I would like to be able to upload a profile picture of my choice to represent my account
11. As a user, I would like to be able to add a description about me on my profile
12. As a user, I would like to be able to change the description about me on my profile
13. As a user, I would like a brief walkthrough of the app to understand its goals and incentives
14. As a user, I would like to be able to keep track of consecutive days I have used the app (i.e. streaks)

15. 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
16. As a user, I would like to be able to search for users from my friend list
17. As a user, I would like an interface to scroll through my friend list
18. As a user, I would like to be able to search for other users on the platform
19. As a user, I would like to be able to send friend requests
20. As a user, I would like to be able to view another user's profile (username, nickname, description)
21. As a user, I would like to be able to receive notifications when I receive a friend request
22. As a user, I would like to be able to accept friend requests
23. As a user, I would like to be able to deny friend requests
24. As a user, I would like to be able to remove friends
25. As a user, I would like to be able to report other accounts
26. As a user, I would like to be able to view my list of friends
27. As a user, I would like to be able to see the number of friends I have
28. As a user, I would like to have mutual friends recommended to me
29. As a user, I would like to be able to send messages to a randomly selected friend each day
30. As a user, I would like a comprehensive messaging interface to communicate with friends
31. As a user, I would like to be able to reply to a specific message in a conversation
32. As a user, I would like to be able to have read receipts
33. As a user, I would like to be able to react to messages
34. As a user, I would like to be able to edit the appearance of the messaging interface
35. As a user, I would like to be able to unsend a message
36. As a user, I would like to be able to see previous conversations with past chosen individuals
37. As a user, I would like to be able to see my friend composing a response in the chatroom
38. As a user, I would like to be able to edit the nickname of my friends (visible to me)
39. As a user, I would like to be able to send pictures to my friends
40. As a user, I would like to be able to receive notifications on when my friend for the day is chosen and when they send me a message
41. As a developer, I would like to restrict users to only being able to message one specific friend every day

42. As a developer, I would like a program that chooses the friend based on the activity of the user and the time since the two users connected
43. As a developer, I would like the above program to run daily at a set time
44. As a developer, I would like a program that selects conversation prompts from a database to provide to the user
45. As a developer, I would like to be able to edit the database of conversation prompts
46. As a developer, I would like to track the number of messages sent in order for users to access additional features (See stories 57 and 58)
47. As a developer, I would like to be able to ban users for extreme misbehavior
48. As a user, I would like some sort of time indicator to inform me of my remaining time to contact my chosen friend
49. 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
50. As a user, I would like to be able to show some of my favorite media in my profile description (games, songs, movies, TV shows, books, etc.)
51. As a user, I would like to be able to send videos to my friends (If time allows)
52. As a user, I would like to be rewarded with other options of interaction for continued conversation with my chosen individual (See stories 53 and 54)
53. 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
54. 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
55. As a user, I would like to be able to sync my contacts with ClapBack (If time allows)
56. As a user, I would like to be rewarded through incentives for my consistency in-app (if time allows)
57. As a user, I would like to edit my interface to be in “dark mode”
58. As a user, I would like to customize the app’s theme

Non-Functional Requirements:

Architecture and Performance

We are planning to develop a mobile application with a separate backend service. This application will use Firebase as the backend service to facilitate the development process and increase performance. The frontend will be an Android application written in Kotlin

using Android Studio. By utilizing Kotlin, it is possible to target not only Android but other platforms such as iOS and Java desktop applications. Moreover, Android's open source aspect opens us to developing flexible applications that are customized to fit the user's needs.

Firebase is a backend as a service (Baas) that provides a variety of tools, such as authentication, a realtime database, and hosting, to help develop high quality applications. In addition, Firebase is categorized as a NoSQL database, which has a huge advantage in terms of scalability, flexibility, and performance. Developing with Firebase will allow us to solely focus on the frontend and implement high quality features instantly and spontaneously.

Our application will directly communicate with the realtime database in Firebase to create the main chat service and authentication system. Hosting will be carried out through Firebase.

Security

Security is important for ClapBack since it will contain sensitive information, such as personal information and private messages with friends. Users will have their own password and be able to request a password only by passing preset security questions. Instead of the password being directly stored in the database, we will encrypt it by hashing and storing it in the database with the password salt. Furthermore, Firebase, which is built on top of Google's infrastructure, provides us with the Firebase Authentication SDK that supports multiple sign-in methods using accounts from other social media platforms. This single sign-on method improves the overall security by allowing users to use merely one set of credentials to log in.

Usability

The interface will be intuitive for users and easy to quickly navigate and contact the chosen friend. The goal is not to make the routine of contacting the generated friend a chore, but rather something that the user can look forward to. Elements of similar applications' GUIs will be used in ClapBack to provide the user with a familiar and welcoming interface so no barrier exists for them to instantly engage in the app. The simpler the GUI, the better.

Deployment

The backend will be deployed through the Firebase platform, as the platform itself provides hosting functionalities. The frontend, the Android application, will be deployed using internal build libraries in Android Studio, which outputs an APK file.

Scalability

Instead of individual conversations, users can be matched with several friends and have a group chat for that day. Few of a user's friends are added and friends of the user's friends can be added to the group chat. The chat can be made in various ways such as everyone's name and profile in the chat might become anonymous. If a user wants to chat more with another user, the user can select only one of the people in the group chat and see their profile. If the profile is already in the user's friend list, then the opportunity is gone.

Another option is implementing an option where you can allow mutual friends to be added to your pool of people that can be chosen. This is for users who want to meet new people, and for two mutuals to be paired would require both to have this option selected.