Circle

Leena Loo and Ivanna Pena

Project Title
Circle

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Overview
At NYU, there is a struggle to stay connected to our classmates, and have a sense of community due to our unique academic setting, campus, and culture. Throughout these unprecedented times, this has only been intensified, here at NYU, and in college communities across the country. Students are struggling to keep up with classes, find assistance with their work beyond zoom lectures, and reach out to their other classmates. Many are resorting to unique avenues of communication and community building to stay entertained and connected. Our solution is to make a social networking app to help our own NYU community, and other colleges, stay connected in a more casual way than current class discussion boards even after the pandemic ends.

This application will allow users to create accounts and profiles if they are students at an accredited university, and interact with other students strictly from their university. This will be done via forums, messaging and video chats categorized by different interests, classes, or majors. Within each interest group, there will be an option to randomly chat with other individuals in the group who are also online. Our first iteration of the app will be limited to just NYU students and will have more basic functionalities.

Intended Audience
The intended audience of the application is students attending accredited colleges and universities. Students will be able to talk with other students outside of online lectures to find a tutor or group project members, or to meet classmates and other people in your major. Other use cases include discovering students with similar interests, and sharing a multitude of things such as friend codes for video games, recipes, and virtual events. For testing purposes, the first version release will be limited to NYU students to ensure that the app works properly, and to receive feedback on different features.

Technical Challenges and Resources Needed
As a social networking app, security is a main priority that will become even more important as we scale. With this in mind, some technical challenges related to security include user verification, content moderation, and mitigating abuse. To handle our issue with user verification, we plan to implement email verification capabilities through Firebase. In terms of content moderation and abuse mitigation, at first, certain keywords will be restricted, and we will manually moderate public forums. As we scale, we will implement different content moderation APIs with iOS functionalities such as the GetSocial API or Amazon Rekognition, Amazon Textract, and Amazon Comprehend under the AWS SDK. We also plan to add the functionality

for users to report spam, or report/block other users to ensure that users have control of their experience.

The differentiating feature of our app is the video chat capability with active users in interest groups. A lot is currently unknown about how we will implement this, and whether or not it is feasible. We plan to experiment implementing this functionality with Twilio Video SDK, Agora Video SDK, and Vidyo.io SDK, and deciding what SDK works best with our application based on pricing, video quality, and seamless integration into our app experience.

Another challenge we expect to face is having to create many test profile accounts to ensure our different features are functional, our application is secure, and our user experience is as desired before releasing to the public.

Partner Responsibilities and Role

Leena Loo will work on the UX design of the app, focusing on the different views and appearance of features, as well as integrating Firebase for User Profiles and Group Data, and Video SDK for Video Chat Functionalities. Ivanna Pena will work on implementing Group and Private Messaging features, and implementing app security, as well as integrating Firebase for User Profiles and Group Data, and Video SDK for Video Chat Functionalities. These responsibilities are subject to change, dependent on technical challenges, yet we intend to work together on most app features.

Projected Features to be Implemented by May 4th

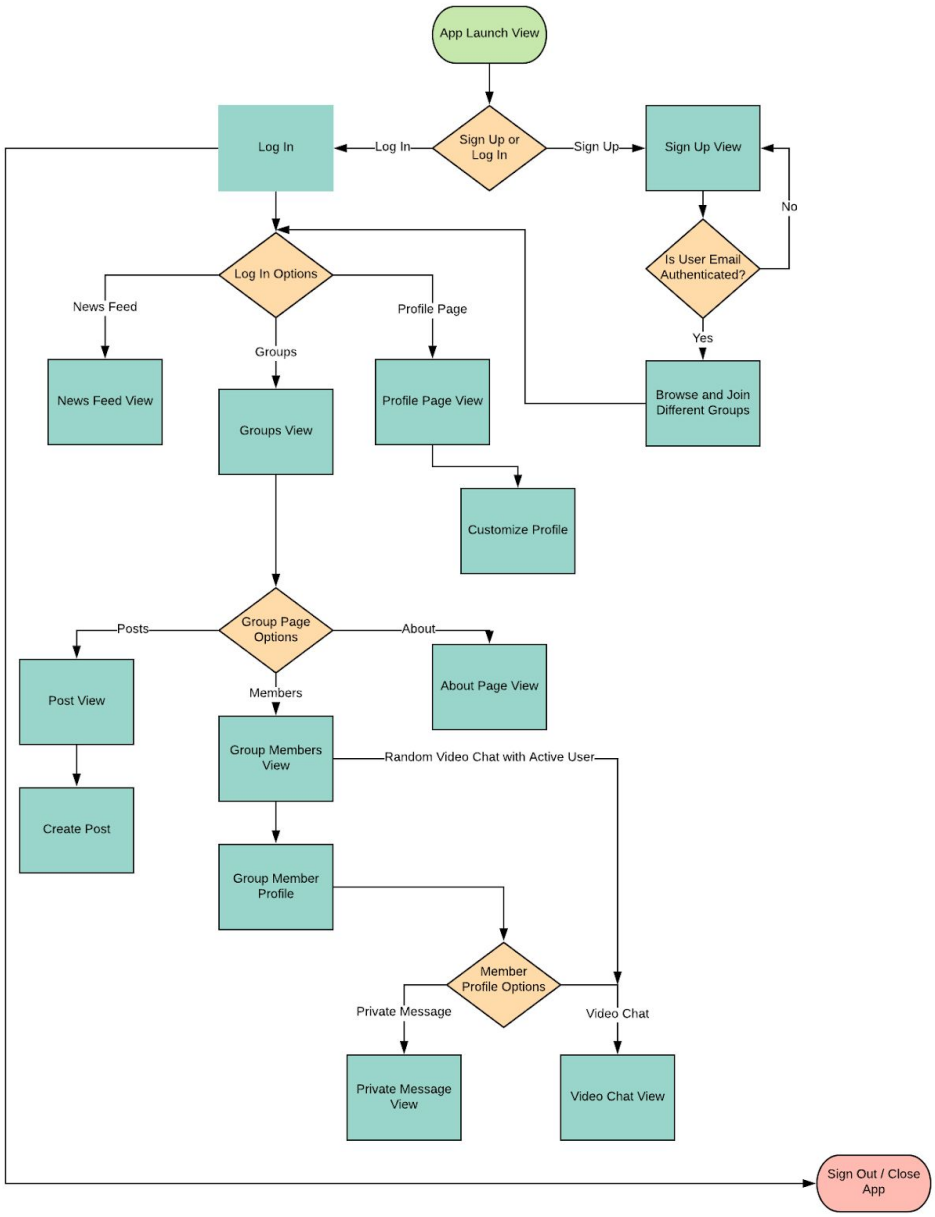
By May 4th, we intend to have functioning **email authentication** to ensure users are students at accredited colleges and universities, have functioning **profile pages** with ability to view whether a user is active, and other information such as groups they are a part of, the ability to **join groups,** and have different features within groups such as **group messaging**, **private messaging, video chatting** with Group Members. We plan on investing time early on our **video chat** feature to determine whether this is a feature that can be implemented by May 4th, or in the coming months.

Additional Features to be Implemented in the Coming Months

In the coming months, we plan on expanding our video chat capabilities to **randomly match active users** that wish to chat. We also plan on having a bigger scope by being able to have **different schools** on our app, not just NYU, so that students at other schools can have the same functionalities. With security as a top priority, we also hope to expand our **security measures** for our application to ensure our users are having a safe experience. We also hope to include the functionality for users to **create their own groups** based on their own interests.

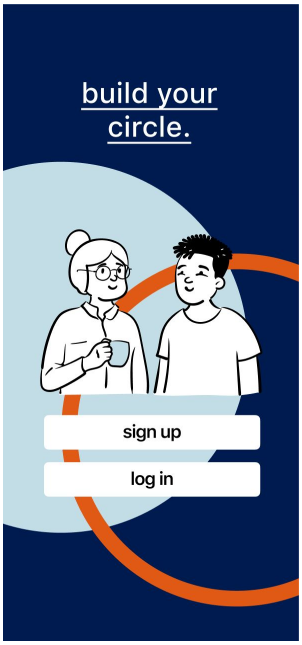
Overall Logic and High-Level Flowchart

At launch, users will be prompted to sign up with a .edu email, and verify email to ensure the student is enrolled in an accredited college/university. Following sign-up, the user will be prompted to customize their profile page with their graduation year, school, major, timezone/current city, and different groups the user is a part of. Once the account/profile is set up, the user can browse through different categories of groups to find the ones that they want to join. Sample groups include computer science majors, intramural sports, cooking, gaming, etc. Once a user has joined a group, they can see what other users are a part of the group, and what users are active, post in the group forum, message other users, and be randomly matched to video chat with an active user.

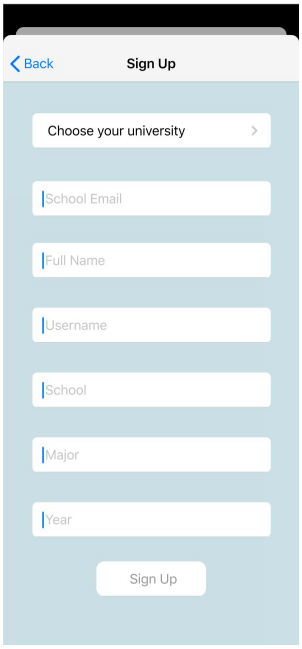


Mock-up of Major Screens and Views

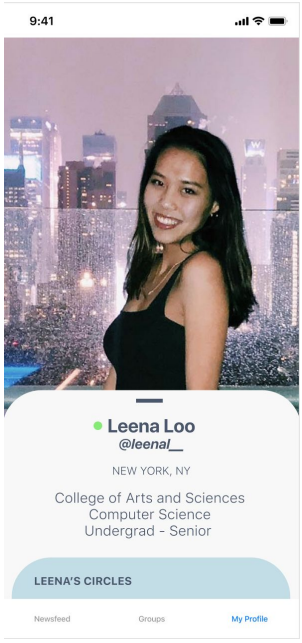
App Launch View

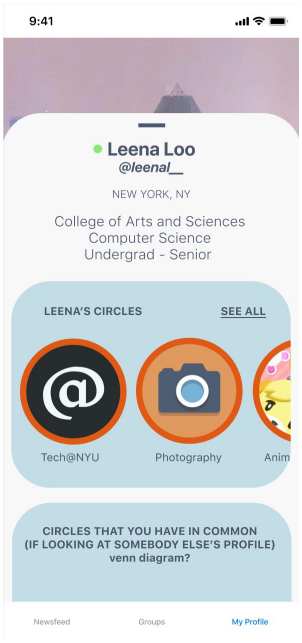


Sign Up View



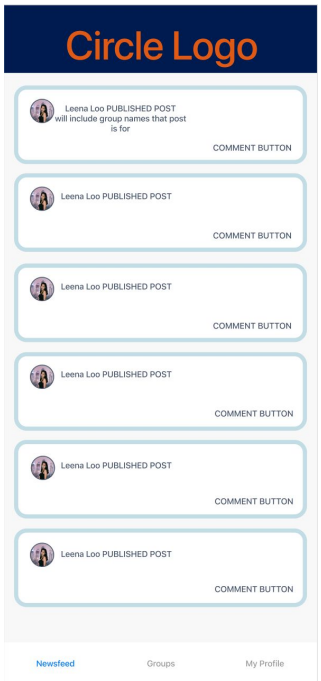
Sample Profile Page Views



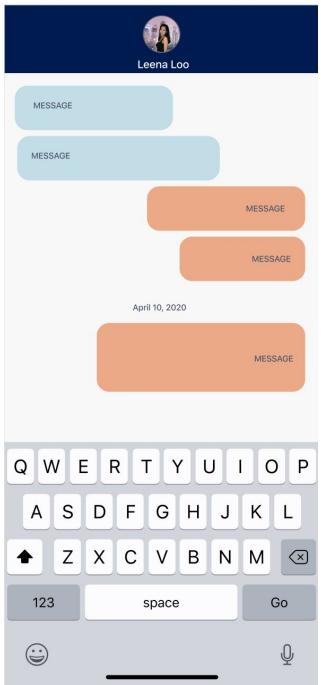


Video Chat View

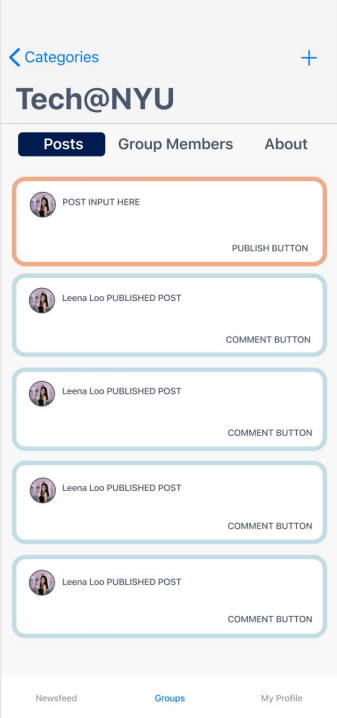
News Feed View



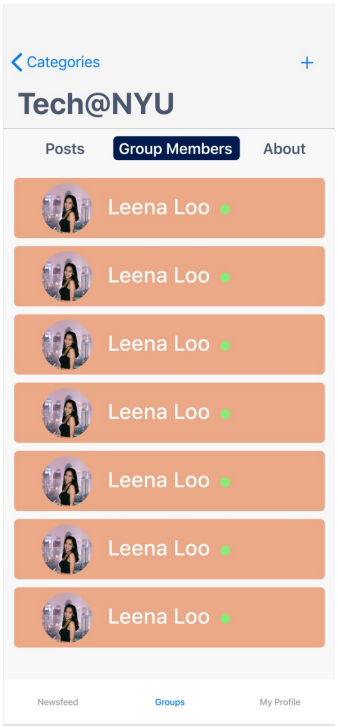
Private Message View



Group Forum View



Group Members View



Group About Info View