CONNEC+

Project Backlog
Connec+ (ConnectPlus)
Team 9

Cameron Glass, Calvin Henry, Victoria Oldson, Nirali Rai, Joey Vinyard

Problem Statement

Current social media platforms are designed around the concept of communicating with those you already know. However, most form connections based on the desire to develop romantic relationships rather than friendships around common interests. This is especially apparent on college campuses, where thousands of students come from various backgrounds, and may find it difficult to find others similar to them. Our solution will solve this providing students the opportunity to meet new people near them who share interests, classes, and hobbies. By combining the worlds of technology and real life, we can expand students' social network while helping them to have a healthier college experience.

Background Information

Our targeted users, college students, spend a lot of time on Facebook, Twitter, Instagram, Snapchat and other social media platforms. However, this method of communication often leaves students feeling alone, and with fewer meaningful friendships, contributing to high rates of loneliness. For example, many students coming from different parts of the world don't know any other students who attend their university, and this application can allow them to find those from the same country or region. Much of the interactions that these students experience occurs over phones and computers, and lacks the companionship that spending time in person can provide. Our goal as developers is to encourage face to face interaction between students and make new friends that they may have otherwise not met.

The domain of this problem arises from new technology that allows people to always be connected. At any moment in time, students can open the internet and get connected. This causes them to avoid actually meeting people in person, instead choosing to stay in their comfort zones and communicate with those they already know online.

Our project incorporates many aspects of other current applications, such as the map element from Snapchat and the common connections feature of many dating applications such as Tinder. However, Tinder focuses on forming romantic relationships of users in the area instead of their interests and careers. Snapchat's *"Snap Map"* shows a map of where your friends are located, but provides little information about them. This is because it is designed to show you who is around that you are already connected to, rather than those you could potentially meet. Also, MeetMe is an application that allows you to create a very simple profile linked to your Facebook profile. It allows you to meet people with similar interests, but acts more like a dating application, where romantic interest plays a large role. This app appears to focus more on chatting with matches made with the app, and doesn't encourage face to face interaction.

Requirements (Backlog)

Functional - *Web Stories*

As a user, I would like access to have a sign in page, so that I can create an account.
As a user of the web app, I would like to be able to give an email address so that I can use it to login, or in case of a forgotten password.
As a user, I would like access to have a sign in page, so that I can and login.
As a user, I would like to be able to manually enter data about my social, and school life.
As a user, I would like to be able to link my Connec+ account to my Facebook account so that I can connect with people who have friends in common with me.
As a user, I would like to be able to link my Connec+ account to my LinkedIn account so that I can connect who I share connections with.
As a user, I would like to be able to link my Connec+ account to my Blackboard account so that I can connect with people who have classes in common with me.
As a user, I would like to be able to link my Connec+ account to my Instagram account so that I can connect with people who have I see on Instagram.
As a user, I would like to have a settings page so that I can change features of the app, and whether or not I am visible to others in my area.
As a user, I would like to see a connections screen where nearby users of the app are visible so that I can connect with people nearby.
As a developer, I would like to have test cases to check the functionality of the sign in page in the web app so that I can confirm the robustness and functionality of the sign in page.
As a developer, I would like to have test cases to check the functionality of the broadcast feature in the web app so that I can confirm the robustness of broadcast feature.

If time allows - *Web Stories*

As a user, I would like to be able to select from multiple languages when using the web app
As a user, I would like to be able to be able to broadcast a message from the web page to those close to me, so I can easily form new connections with people already in my immediate area.
As a user, I would like to be able to respond to a broadcast from the web page so that I can quickly ascertain their location and meet-up with them.
As a user I would like to have a feature on the web app to easily clear and reload new classes so that it is easier for students to use the app across multiple semesters.
As a developer, I would like to implement a feedback feature to allow users to report back their thoughts on the web page so that updates can reflect what the user base wants.
As a developer, I would like to have test cases to check the functionality of the sign in page in the web app so that I can confirm the robustness and functionality of the sign in page.
As a developer, I would like to have test cases to check the functionality of the broadcast feature in the web app so that I can confirm the robustness of broadcast feature.

Functional - *Android Stories*

As a user of the Android app, I would like to have access to a sign in page, so that I can create an account.
As a user of the Android app, I would like to be able to give an email address so that I can use it to login, or in case of a forgotten password.
As a user of the Android app, I would like to have access to a sign in page, so that I can log in.
As a user of the Android app, I would like to be able to manually enter data about my social, and school life so that others can.
As a user of the Android app, I would like to be able to link my Connec+ account to my Facebook account so that I don't have to load that data manually.
As a user of the Android app, I would like to be able to link my Connec+ account to my LinkedIn account so that I can connect who I share connections with.
As a user of the Android app, I would like to be able to link my Connec+ account to my Blackboard account so

that I can connect with people who have classes in common with me.
As a user of the Android app, I would like to be able to link my Connec+ account to my Instagram account so that I can connect with people who have I see on Instagram.
As a user of the Android app, I would like to be able to be able to broadcast a message to those close to me, so I can easily form new connections with people already in my immediate area.
As a user of the Android app, I would like to be able to respond to a broadcast quickly so that I can quickly ascertain their location and meet-up with them.
As a user of the Android app, I would like to have a settings page so that I can change features of the app, and whether or not I am visible to others in my area.
As a user of the Android app, I would like to see a connections screen where nearby users of the app are visible so that I can connect with people nearby.
As a user of the Android app, I would like to be able to be able to use the android app to broadcast a message to those close to me, so I can easily form new connections with people already in my immediate area.
As a user of the Android app, I would like to be able to respond to a broadcast on the android app so that I can quickly ascertain their location and meet-up with them.

If time allows - *Android Stories*

As a user of the Android app, I would like to be able to select from multiple languages when using the android app.
As a user of the Android app, I would like to have a feature on the web app to easily clear and reload new classes so that it is easier for students to use the app across multiple semesters.
As a developer, I would like to implement a feedback feature to allow users to report back their thoughts on the android app so that updates can reflect what the user base wants.
As a user of the Android app, I would like to have an option to reset my password on the android app if I forget it.
As a developer of the Android app, I would like to have test cases to check the functionality of the sign in page in the web app so that I can confirm the robustness and functionality of the sign in page.
As a developer of the Android app, I would like to have test cases to check the functionality of the broadcast feature in the web app so that I can confirm the robustness of broadcast feature.

Functional - *Back-End Stories*

As a developer, I would like to have the login page communicate with the backend so that we can verify usernames that are not taken and valid passwords.
As a developer, I would to have a secure database in which to store usernames, emails, password hashes and user connections so that we can store user data with which the app will identify new connections.
As a developer, I would like to integrate Firebase, so that both our database, along with our authentication, are all in a single package. This will limit the number of dependencies our project has on outside sources.
As a developer, I would like to build a custom API to interact with all of our external services, so that our API keys will not be available to malicious end users.
As a developer, I would like to create an efficient sorting method to pull only the user data that is relevant, so that we decrease the load on both the server and the client.
As a developer, I would like to be able to connect users based on their Facebook connections.
As a developer, I would like to be able to connect users based on their Blackboard connections.
As a developer, I would like to be able to connect users based on their Instagram connections.
As a developer, I would like to be able to connect users based on their Linkedin connections.

If time allows -*Back-End Story*

As a developer, I would like to have an option available to verify user identification without a password, and allow them to rest their password so that users are not locked out of their account.

Non-Functional

Architecture-
The application will be developed with a separate frontend and backend in order to more efficiently separate tasks between developers. The front end for the web application will be done in JavaScript and will call the backend via API calls. The backend will utilize other third-party APIs for connection to other social media accounts such as Facebook, Instagram, Blackboard, and LinkedIn.

Usability-
Emphasis will be put on making the interface of Connect+ usable by every user, regardless of experience with similar interfaces. This is why it is required that significant time is spent on making the interface well designed, and scalable to multiple device sizes including laptops, tablets, and smartphones. Also, rather than requiring a user to input every detail about themselves manually, Connec+ will utilize APIs from other social media platforms in order to automatically populate as much, or as little information as the user wants.

Platform Compatibility-
Connec+ will be written first as a web application, meaning that it should be expected that it will work on all currently used Web Browsers. This will then be ported to an Android application and later, if time permits, an iOS application. This will expand the usability as it will allow users to access Connec+ from the computers at home, or on their smartphones while on the go.

Security-
As with any application dealing with personal information, Connec+ has a priority on keeping this information secure. This is why all user information will be stored by Firebase, which is more secure than anything we could locally host. This is because Firebase is backed by Google, which is a large tech firm with years of experience in security.

Documentation-
Documentation will be made available in a form of help section of the app in order to provide users with answers to possible questions or concerns. If issues arise that are not addressed in this section, ways to contact support will be supplied. This is important to us as we strive to keep user experience positive for all users.

Data Usage-
Connec+ will be written in order to limit the size of data that is being transferred when users make various requests. This will improve user experience, as it will avoid using a majority of their data plan while on smartphones, or overloading their home internet connection and making it slow for other members of the household.

Hosting-
For the sake of this project, Connect+ will be hosted for free as a GitHub Pages website, and will be accessible via a custom domain. This will make deployment easier as we are utilizing GitHub as our code repository. Also, linking a custom domain will allow outside users to locate our service easier than if it were to remain a GitHub Pages subdomain.