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## **ChatMaps Deliverable 1**

Stephen Goodridge, Clark LaChance, Nicholas Pease, Joseph Gallant, Aidan Bradley

COS420

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**Updated Project Description**

**App Name:** ChatMaps

**Category:** Social Communication Web App

**Members:** Stephen Goodridge, Clark LaChance, Nicholas Pease, Joseph Gallant, Aidan Bradley

**General Overview**

ChatMaps is a web-based social networking service that allows users to connect to others in their local geographic area. It will implement an interactable mapping utility to show general user locations relative to other users, as well as a chat room feature that allows users to start public conversations based on a specified topic. ChatMaps is primarily intended for use in densely populated areas, such as college campuses or metropolitan areas, so people of similar interests can start conversations. The goal of this project is to create a web app that plots locations, gives a radius of the local area, and connects users into different topic-based chat rooms.

This service will implement user login and profiles, allowing users to add each other as friends and start private conversations. There will be several default chat rooms of varying topics, but users will also have the ability to create their own topics that will be viewable by other users. For example, a user at the University of Maine could create a joinable chat room titled “COS420”, which would be visible to others near this campus.

This app shares some similarities to other social networks that implement location-based content. ChatMaps’ novel approach is to utilize user location to facilitate real-time communication with others within a given radius.

**Comparable Apps**

*YikYak*

Yik Yak is an iOS exclusive chatting platform where users can opt to join multiple communities, such as their verified college campus. Verification is completed via a check of the user's location. Previous versions of this app strictly allowed users to communicate anonymously with those in a 5 mile radius of the user. Our proposed application shares some similarities with YikYak in both its former and present iterations due to several factors. Mainly, the core concept of location based communication is similar to our proposed app. We had discussed both an avatar-based user approach and an anonymous-based approach to user management, both of which YikYak has implemented in some way.

Our project’s differentiation stems from its platform, as our platform is a web based service, as well as the use of live chat rooms as opposed to the forum structure of YikYak. We are pursuing a real time messaging approach rather than communications akin to a discussion board. Additionally, we intend to implement user profiles, whereas YikYak is primarily anonymous communication.

*Snapchat*

Snapchat is a cross platform communication service where users primarily communicate through “snaps” and “chats”. Snaps are photos taken from a mobile device and sent to others to be viewed once, whereas chats are more persistent, like traditional instant messaging systems. Snapchat and our application share the concept of keeping track of a user's location to aid in social networking. However, Snapchat uses locations as a feature for users to socialize with friends they have already made. Our app uses location to connect users with those around them and to enable users to view chat rooms from anyone in their area. Our platform aims to be usable on desktops and mobile devices as a web app. While Snapchat limits some features to their mobile apps and some features to their desktop application, our application intends to be fully functional on both devices.

*Omegle*

Omegle was an anonymous social chatting website that would allow users to chat one on one with someone else from around the world. The user would be paired with someone random based on an optional shared interest without the need to create an account or login. Omegle supported text-based chat rooms as well as video-based chat rooms using a webcam. Our app has some similarities, such as chatting with other users based on similar interests of their choosing. Another similar trait is the text based chat where users can engage in conversation before moving on.

Our app differs from Omegle as our app will exclusively focus on text communications, as well as implementing chat rooms that vary in size. Another difference is that Omegle didn’t require users to login and always kept chatters anonymous. Our app will allow users to login to personalize themselves and have the option to add friends with other chatters that they meet.

**Updated User Stories**

1. As an unregistered user, I want to be able to view chat rooms near me so that I can talk to people in my community.
2. As a registered user, I want to be able to include my interests in my profile so that like minded people can find me.
3. As a registered user, I want to be able to create my own chat room so that I can talk with friends in private.
4. As a registered user, I want to be able to add other users so that I can reach out to them in the future.
5. As a registered user, I want the ability to delete previous messages that I sent in the case that I mistakenly write to the wrong chat.
6. As a registered user, I want to be able to filter my search for chat rooms by using keywords so that I can find where I belong.
7. As a registered user, I want to be able to appear offline so that I won't be disturbed.
8. As a registered user, I want to be able to see a short list of users when I hover over a chat so that I can see if I know anyone.
9. As a registered user, I want to receive chat notifications so that I can respond back promptly to friends.
10. As a registered user, I want to be able to paste GIFs in chat so that I can reference funny memes.
11. As a registered user, I want to be able to send direct messages to other users so that I can chat with them in private.
12. As a registered user, I want to be able to view who’s online so that I know who I can chat with.
13. As a registered user, I want to be able to set language filters for my chat rooms so that I can limit explicit language.
14. As a registered user, I want to be notified when a new user joins the chat so that I can greet them.
15. As a registered user, I want to be able to logout of my account at any time so that I can keep my messages secure.
16. As a registered user, I want to be able to visually see how big a chat room is so that I can avoid busy chat rooms.

**Sprint Review 1**

Features Implemented:

* Setup frontend and backend server hooks
* Setup test conditions for API parsing and routing
* Added a website template to have a foundation for ChatMaps.
* Setup multiple branches for testing
* Created a logo for ChatMaps.

Issues fixed:

* Fixed a typo in the frontend tests. “name: Buide” to “name: Build”.
* Fixed missing .gitignore after folder restructuring
* Updated README

Implementation Review:

* Overall, most of the implementation this week went smoothly for ChatMaps. We setup the project repo using Next.JS, giving us a template to work off of. Lots of backend work was completed. Formal processes were put in place for updating the main branch as well. Some minor issues arose when testing a build of the frontend but was ultimately solved by a small typo. We got the template working rather quickly as a foundation for our web application. Lastly, we created a logo to add style to ChatMaps.

Changes Made:

* Restructured files and folders for ease of use (Frontend and Backend).
* Set up the environment for backend and frontend.
* Setup a web page template.
* Tested some web page changes on a separate branch.

Plans for next sprint:

* Change the current web template to our UI design
* Implement the register/login page and storing a username and password to a database for future login. (Possibly allow the user to login via their google account)
* Implement chat room matching by current location algorithm

Scrum Review:

* Our team communicated mainly via discord and showed our strengths to contribute to each section of Deliverable 1. An improvement would be checking in a few times a week on discord by voice call to update each other on any individual updates being implemented to ChatMaps.

**SRS Document**

**Functional**

1. The system must allow users to register with a username and password.
2. Additionally, the system must allow users to sign in using their credentials.
3. The system shall keep users personal information on their account private
4. The system shall allow users to customize their profile
5. The system shall show users a local map of their area
6. The system shall only show the general location of the user's friends on the map.
7. The system shall have a separate tab, showing unfriended users and the current chat room they’re in.
8. The system shall allow the user to add friends via their username.
9. The system shall let users invite friends to chat rooms that they’re currently connected to.
10. The system shall have a friends list to show who is currently online.
11. The system shall have the option to create private chat rooms to only be accessed by invitation.
12. The system shall have default chat rooms with varying general topics.
13. The system shall let users create chat rooms with a specific topic for other users in the area to join.
14. The system shall have a topic filter to find specific chat rooms the user would want to join.
15. The system shall support multiple languages.

**Non-functional**

1. The system shall be capable of recognizing the users location and provide real-time updates 95% of the time.
2. The system shall have an intuitive UI for ease of access 95% of the time.
3. The system shall be available at all hours of the day 99% of the time.
4. The system shall be capable of handling a large influx of users connected to chat rooms 95% of the time.
5. The system shall be capable of keeping users’ information private 99% of the time.
6. The system shall be capable of recommending chat rooms in the users area based on their interests 90% of the time.
7. The system shall be capable of showing the user different chats their friends are currently in 95% of the time.
8. The system shall be capable of prioritizing chat rooms that the user has common interests in 90% of the time.
9. The system shall be capable of recognizing if no users are in a chat room and terminate them after some time to ensure chat rooms that are available have other users in them 95% of the time.
10. The system shall comply with relevant laws and regulations, such as data protection regulations 99% of the time.