Week 14

Name: Da Thao Trinh, Bence Danko
Team Project Title: GeoAttendance
Course: CS 161 Section 01
Date: 05/05/2024
GitHub URL: https://github.com/bencejdanko/GeoAttendance

Final Status

- Features:
    - Landing Page
    - Login Page
    - Sign-up page
    - Profile Page
    - Profile Pictures
    - Group Details
    - Event Dashboard
    - Event Details
    - Checkin
    - Contact Us
- Unfinished Features:
    - AI face-analysis
        - Valuable for extra verification on attendees and whether or not they really attended the event

Deployment

https://geoattendance.32kb.dev

Feedback, Cumulative

Void

- *Are you planning on doing something like Bluetooth range?* -Team Jump and Launch
    - The current web spec does not include capabilities for Bluetooth tracking so we do not consider the usage of Bluetooth at this time.

- Have you considered (referring to manual check-in options) providing a feature so the professor can ask a personalized question — e.g. question about content or to enter their name? - Team XMarksTheSpot
    - As of right now, our main focus is on facilitating the attendance tracking process. Until the features for attendance tracking are completed, we are not planning to add a feature for the host to ask personalized questions. We will keep this in mind and consider this for future tasks.
- Since the location is taken while creating the event, what if the event creator is unable to be at the "meet up" location? How can they still create the event at the right location? - JumpAndLaunch
    - They can enter in the address of the location using Google Maps
- Is creating 2 events in the same place possible? (What if someone wants to troll and made an event called "CS161" at the same location as the actual "cs161" class?) - JumpAndLaunch
    - Unique codes distributed by the host should avoid troubles with duplicate names

Bug

- Issue with manually checking in users
- Found out last week that there was no way to indicate if a new user is a host or an attendee.
    - Solution: added a prompt on the registration page to ask if the new user is registered as a host or attendee.
- Troubles with building instructions for Windows - JumpAndLaunch
    - Clarify Instructions for each operating system
- .env file addition may need more explanation - JumpAndLaunch
- Fixed issue with dashboard page not showing the event's group names correctly.
- Remove group code entry.

Enhancement

Short Term

- *Can facial recognition recognize photos or masks from real faces?* - Team Jump and Launch
    - The AI recognition technology will be an algorithm that detects the number of faces from an uploaded photo, such that the host can verify the number of attended students.
- clarify in the README.md which exact file should be downloaded from the Pocketbase downloads during the backend build process
    - We will update the README.md for clarification

- So in terms of a visual attendance tool, facial recognition would only help gather general class data (as it doesn't recognize by face)? Or would it compare against those that have been able to check in to create a clearer set of data (not just individual check-in but a secondary method of ensuring people are truly there) - Team XMarksTheSpot
    - Yes, for now we are interested in the number of attendees who physically show up at an event. Facial recognition will help us count how many faces shown on a picture.
- Can you add a google log-in? (Jump and Launch)
    - Yes we can add this later on when the main feature of the project is fully built.
- Is there a way to "connect" to a class right now? Like how can people connect to their class so that the prof can check their attendance? (Jump and Launch)
    - Host will be able to create multiple event groups.
    - Each group has a list of attendees.
    - Each event created can be associated with a group.
    - This way we can connect the events to a class.
- Is there an easier way to implement Pocketbase directly to the backend so user's don't have to install it themselves? - JumpAndLaunch
    - Containerize project for easier deployment
- clarify in the README.md which exact file should be downloaded from the Pocketbase downloads during the backend build process (XMarksTheSpot)
    - We will update the README.md for clarification

Long Term

- *How are you going to specify a location if it's in a building with more than 1 floor? How can you track to see if the student is on the right floor?* - Team Jump and Launch
    - Currently we only support tracking using geofencing, which means that we only verify if an attendee is within the accepted radius. In order to improve the correctness of the attendance tracking process, we plan to implement a facial recognition feature, allowing the host to take a picture of all attendees and use our system to verify the attendant status of each person.
- Is this mobile friendly? (Not everyone will be carrying around their laptop when going to places)
    - A phone should be able to access the same site and enter in a code, but a mobile-friendly UI could be developed to make this easier

Valuable enhancements not implemented

- AI facial recognition
    - For better verification
- Bluetooth:
    - could use Bluetooth web spec for enabling tracking for easier verification
- Mobile-friendly frontend
    - Could be easier to checkin via phones if no laptop available
- Password resets
    - In case you must recover an important account
- Google-Login
    - Simpler login, and may be safer due to OAuth