Week 2 Team Report

A. Team GeoUnity

Team Members
Bence Danko (Next Lead), Da Thao Trinh (Lead)

Project Description
Our project is a web based application. GeoAttendance leverages geofencing technology to enhance the accuracy and convenience of attendance tracking. Geofencing involves creating virtual boundaries in real-world geographic areas, only the users within thhe boundaries will be able to check-in. Upon checking-in, the users will receive an email which confirms their attendance status. Our website also provides real-time updates on attendance and historical attendance data as well.

B. GeoAttendance
https://github.com/bencejdanko/GeoAttendance

C. Job Assignments
• Bence: Setup APIs, Backend work, Deployment & Testing.
• Da Thao: UX/UI Design, Frontend work, Deployment & Testing.

D. Milestones
Milestones:
• Milestone 1 (2/5 - 2/16): Initialize technology frontend, backend development environments.
• Milestone 2 (2/12 - 2/23): Build User API, UI for Login and Registration Forms.
• Milestone 3 (2/26 - 3/8): Implement Geolib library, UI for Attendance Check-ins & Testing.
• Milestone 4 (3/11 - 3/22): Implement Attendance API & Testing.
• Milestone 5 (3/25 - 4/5): Complete prototype & Testing.
• Milestone 6 (4/8 - 4/16): Deployment.
• (Stretch) Milestone 7 (4/17 - End of semester): Integrate Facial Recognition Techonology.

E. Technologies Used

[Frontend] HTML, CSS, React, JavaScript

[Backend] Nodejs, PostgreSQL

F. Algorithms/AI Schemes

GeoLib Library (https://github.com/manuelbieh/geolib)

G. Market Space and Selling Point

•   The application streamlines attendance tracking for professors and other hosts.
•   Geomarking and online maps allows attendees to easily find meeting spots through their phone, without the hassle of going through manual instructions.
•   An online application would easily allow the host to update events, or modify sign-ups. All attendees would simultaneously be able to track any changes or updates immediately, such as if a location were changed.
•   (Stretch) Use facial recognition technology to improve the accuracy of the attendance tracking process.