Project Name: Carbon Counter

Problem addressed: Public awareness of individual environmental impact through carbon footprint tracking of daily activities. Provide tips and suggestions to lower your carbon footprint.

Description of project: Carbon Counter is a mobile application that will allow the user to track their carbon footprint in various categories that coincide with various elements of daily life. This will address the problem of Climate Change by allowing users to take responsibility for their actions. Beyond helping people reduce their carbon emissions it will also bring attention to the Climate Change crisis.

Carbon Counter comprises multiple elements consisting of back end, front end, and logistics. Firstly, the back end will be utilizing SpringBoot and MySQL to develop databases and server support to retain user information and develop statistics to provide appropriate feedback to the user. Next, front end development will be focused on a mobile platform such as Android devices to host the application. Development will be mainly done through programs such as Android Studio and other Java supported IDEs for testing and debugging. Finally, Logistics will be facilitated through Webex teams for TA communication, Discord for daily communication, and GitLab for a version control system to easily establish an online workflow between members.

Complexity:

Client-Side: Approximately 6 pages including, Login page, Create User page, Quiz page, Results page, Account page, and Browse Remedies page. Using a local database to keep track of User's past data. The client side will be complex as our team has limited experience developing user interfaces.

Server-side: Permissions, Recommended "Remedies" based on the user's quiz results. Our team has limited experience developing databases and using servers so this will be another challenge we will have to overcome.

Languages used: Java including Spring boot and Android Studio. We think this project is complex for our team because no one on our team has used Android Studio or Spring Boot.

Database: Local database to store User specific data, Server Side database to manage permissions and remedy suggestions.

Web/Mobile framework: We plan on developing this as an Android application.