IM3080 Design and Innovation Project (AY2021/22 Semester 1)
Individual Report

Name: Loh Jeng (U1922083A)

Group No: 4

Project Title: BusMeet

Contributions to the Project (1-2 page)

1. **Prototyping**
   In week 2 of the project, the team was split up into report/weather, meet me and avatar to look at what functions we wanted to have in the app, and I was allocated to report/weather. Figma was used and by referencing other weather applications I helped the team to create a draft of the weather and reporting mockup. Which after discussions with the others was improved on as we met.

2. **Experimenting with codes to implement host perspective**
   I was assigned to be under the coding team to implement the Host Perspective of the application.
   I was initially very lost on what I was supposed to do and ended up working on the same things as Yan Qin and Serena as well as trying to do location sharing by myself as I initially thought we were working on it ourselves first before coming together and I did not ask them about it. Through looking at online resources like YouTube tutorials as well as sites like:
   - https://pusher.com/tutorials/geolocation-sharing-react-native/
   - https://medium.com/@joycecyoj01/how-to-build-a-location-sharing-feature-using-react-native-and-socket-io-496413ee8065

   Unfortunately, while I was able to use Google's Maps API to display the host's location, I was unable to set it such that the host is able to see his friend's location as well.

3. **Preparation and presenting of presentation slides**
   I edited and added content to the slides that I was presenting on and ensured that the format of my slides was consistent with the others.

Reflection on Learning Outcome Attainment

Reflect on your experience during your project and the achievements you have relating to <u>at least two</u> of the points below:
- (a) Engineering knowledge
- (b) Problem Analysis
- (c) Investigation
- (d) Design/development of Solutions
- (e) Modern Tool Usage
- (f) The Engineer and Society
- (g) Environment and Sustainability
- (h) Ethics
- (i) Individual and Team Work
- (j) Communication
- (k) Project Management and Finance
- (l) Lifelong Learning

Point 1: Communication

Initially it was very confusing on what had to be done as we were all assigned to the group randomly and did not know each other. The team also consist of a big group of 11 people. Which caused communication to be quite poor at the start as we were all lost on how to start doing the project and the task delegation was not very clear. However, after a few rounds of meetings with the supervisors and some of us taking charge to lead the team, the project started to move along more smoothly. It was also important to clarify any doubts with each other and not assume that the other party know exactly what you are doing. Setting weekly goals were also important as it help to guide the team on what needed to be done.

Point 2: Problem Analysis

From this DIP I have learnt quite a bit on how to tackle problems when building this application. Initially I was unsure of how to start on improving the SGBusLeh app. So, I decided to download and use the app for a day to try and identify any problems I could encounter. Afterwards I studied the app and tried to look at how the developers intended for the app to be used and why it did not manage to meet the user's needs. I had to keep in mind that any additional functions or improvements I wanted to add had to be useful and user friendly to the user.

Point 3: Modern Tool Usage

Through this project I had to learn many new tools like Javascript, React Native, Github etc. As I have never used these tools before, and I struggled a lot with managing to include time to learn these new tools. I had to search for a lot of resources and examples to use as reference aids. I experienced a lot of troubleshooting involve as well in setting up the React Native as there was 2 ways you could set up Expo CLI and React Native CLI. Initially I could not run the emulator

as I did not know there was a difference between the two. I feel that through this project I have gain a few more tools I could use and the process of learning the new tools will definitely help me in the future as I encounter newer technologies.