Reflective Report on Carbon Footprint Tracer Application

This report reflects the learning progress of building an android application. The application built for the course is for users to track CO2 emissions of their journey and provides offsetting approaches. Instead of grouping with other classmates, I made it on my own due to part-time job commitment.

The application design came out as expected, not far away from prototypes from last week, except for the set-up wizard and card payment which were excluded. Functionalities included sign-in, user dashboard and navigation drawer, recording and offsetting emission of journey.

One of the most difficult parts of the assignment was getting familiar with Android Studio that was structure-wise closer to IntelliJ while from the start of the course we have been using Eclipse. I failed to include a graph library from github to dependencies. The codes from some templates were also hard to follow as I have not seen some of the keyword and classes. Layouts were tricky when I tried to display the same application on phones of different screen sizes. Besides, the slow processing speed made testing on android phone extremely difficult. The laptop was not capable of loading Emulator which would lead to crushing of Android studio.

That said, I still felt proud of the application that came out at last after countless times of testing and debugging. There were still some parts of it that could be improved but was unlikely to happen in the given time frame. I tried to build a firebase for user data but it did not work out so I probably would leave it to after submitting the program. The username and email address displayed in navigation and dashboard were consistent by intent put and get extra method.

Checked to list:

* Navigation was realized through gesture
* Linear, Relative and Constraint layouts were used and thirteen screens in total
* Different images – file copies and android system icons
* Multiple strings in the resources file strings.xml and were translated to Chinese
* Support for various screen sizes but not landscape
* Support for back button
* Settings menu (could just be language setting or dark mode) – language setting could be modified
* Advanced features
* Translations of strings for at least 1 additional language, failed with images
* Accesses online data or sources – web views of emission offset programs

Screenshots were attached from next page for visualising most functionalities.

















