IM3080 Design and Innovation Project (AY2022/23 Semester 1)
Individual Report

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Group No: 1

Project Title: NyMe Carpooling Application

Contributions to the Project (1 page)

Did research on the topic selection, which included (1) Carpooling, (2) Study Buddy, and (3) Match-Maker Bot. The main research is the advantages and disadvantages of each option, based on their current, market-available options, and also what are the possible new selling points. We were split into 3 groups (1) UI, (2) Frontend, and (3) Backend. I am in the Frontend team.

I have tried to learn React Native for the next two weeks through YouTube videos, which is the main framework we used. It was a steep learning curve for me, one because it is new to me, and another because it is hard to start learning from scratch with nothing to work on.

I managed to come up with components for the application, mainly for the rider screen. This includes (1) LocationBar.js, (2) DestinationBar.js, (3) FindDriverButton.js and (4) BackButton.js. The BackButton.js also includes the function of going to the previous screen or exiting the application.

Subsequently, I updated some parts of the DriverPutRouteScreen_Android.js. The purpose of this screen is to make sure that it is working similarly to the DriverPutRouteScreen.js, which is meant for iOS. The main update is to prevent data updates to the database. The data update prevented is the selected start and destination by the driver. This is because the driver may still choose to change his/her start or destination, hence it will result in the database having too many unused datasets. The data will only be sent after the driver selected his preferred riders' routes and has clicked confirm on the final confirmation screen.

There were certain things which I was tasked to do but did not manage to fully complete due to my lack of knowledge of React Native. I was tasked to do the (1) Recommended Route Screen (ReccomendedRouteScreen.js) and (2) Notification Function (PushNotification.js). However, because there were some things that I was not very sure of, I did not manage to fully complete them. For example, I was not fully sure of the map functionalities at that point in time, hence I was not able to incorporate the map screen into the Recommended Route Screen. Another is that I was confused about what token was for the notification function using expo notification.

I also added the icons used in the application. The icons include the (1) Calendar, (2) RiderMap, and (3) DriverMap.

Reflection on Learning Outcome Attainment

Point 1: Communication
Communication is important for a project with ten people. Everyone will be doing their own work, and it is also impossible for one person to do everyone's work too.

It is important that we have a rough idea of the progress of each team (UI, Frontend, Backend). This will reduce the confusion and conflicts between teams. Communication within the team is also important so that we can also get a rough estimate of the time required to finish the task, or if anyone requires any help with the work.

Point 2: Lifelong Learning
Lifelong learning is important because there are endless things to learn. I got exposed React Native Framework, and also get to use Git, which I have not used before as I only used Bitbucket before.

I have not coded using React Native and JavaScript before, not even using React before this project. This resulted in a steep learning curve for me compared to my other team members who have had some experience in react at least.

This made me realise that whatever is taught in class is not all, there are much more coding languages other than Java and C, and I should be more open to learning other languages during my free time because different languages and frameworks have different uses and can be applied in various circumstances. It is important for me to keep learning new things and not just stop at one point.

I manage to get exposed to React Native Framework through this project, and I believe that there are other frameworks that I can learn, such as Flutter Framework.

Point 3: Individual and Team Work
There is work that can be done individually and work that cannot. As mentioned in the previous point, there is a steep learning curve for me in learning React Native, which is the main framework used. Initially, I wanted to minimize asking others for help, or how to do certain things. However, I realised that it gets really hard to complete my tasks when I require help to understand certain codes or syntaxes used because I have to apply and use them, not just copy them.

Hence, that is where the teamwork comes in where I should ask when I require help and work together as a team to complete the task. This not only improves efficiency, and also saves time from additional research.

I learnt that some work can be done more efficiently and effectively in a team rather than individually. As the saying goes, "two heads are better than one", working as a team for something new for me, definitely makes me learn more than working alone.