

# **IM3080 Design and Innovation Project (AY2021/22 Semester 1)**

## **Individual Report**

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Group No: 6

Project Title: Cohab

### **Contributions to the Project (1-2 page)**

During our 1<sup>st</sup> meeting, everyone contributed different ideas to get started on the project.

When we decided to do a roommate app, I contributed to craft the google form to get feedback from our peers about our app idea. As I stay in hall too, I could relate better when crafting the question which could help us get more in depth answers we need when we are creating the app. Once the form was done, I approached my hall friends for feedback to see if they liked our app idea and their pain points living in hall.

Initially, our group was split into coding, design, and presentation team. I was in the presentation team and presented in week 3. We presented our current findings based on the survey and introduced the different functions of our app.

However, by week 6, we restructured our team into UI, 3D and Development. I was in the 3D team, and we had to create 3D object using blender. I was in charge of the washing machine that you see on our app in the home screen page.

By week 8, I moved to the development team as they had a lot of screens to code. It was a struggle for me as I was not very proficient at coding, especially when I had to learn a new language. Our team used react native which is a new language to me, but I was able to pick it up and managed to do my part for the coding. The screen I did was the task screen and I worked with Rachel and Jeremy for that part. I created the modal for the claim task button and edit task button which included the picker for the dropdown button. I was also able to code certain functions for the task screen such as the different modal popping up based on whether user has input a "set deadline" or a "fixed deadline" as well as the modal disappearing when user click on the "save" button. I also helped with styling of the task screen for some parts.

Since I was done with the task screen, I moved on to help with the avatar dialogue for the group and home screen. Jixiang, Rachel and I helped to craft the speech bubble the dog avatar says and created the step-by-step tutorial when the dog is pressed.

Finally, my last contribution was to create the video and poster for the final presentation along with the group report.

For the video, I brainstormed ideas for our storyboarding and acted in some scenes with Khin. We filmed the scenes in my dorm and some in NS. I also did the edits for the animated part of the mobile app using premiere pro.

For the poster, I drafted out some designs using canva. After discussions with the rest of the team, I combined Rachel's work with mine and changed the color scheme to fit the theme of the

slides. We referenced to many other app posters on the internet to finally settled on the final one.

For the group report, everyone contributed by writing their part that they did since the start of the project. We document as much as we could to ensure our group report was as detailed as possible.

## **Reflection on Learning Outcome Attainment**

**Reflect on your experience during your project and the achievements you have relating to at least two 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: Modern Tool Usage**

Through this project, I've picked up many new skills and knowledge. From only knowing how to code java, c++ , etc I learned another new syntax called react native that is very useful in coding mobile apps. I code react native using visual studio code, we chose visual studio because it combines the simplicity of a source code editor with powerful developer tooling, like IntelliSense code completion and debugging.

Previously, I knew how to use android studio to code an app, so I found it interesting to learn a new coding syntax. Surprisingly, I liked coding using react native as it I found it much faster and more efficient to view the final product while I'm coding. Compared to android studio, the emulator takes a long time to load and sometimes crashes. With react native, I can choose to open the app using expo go on my mobile phone or the android studio emulator.

In order for all of us to collaborate and combine our codes together, we made use of GitHub. It was a challenge at the start as most of us were not familiar with the functions of GitHub but with the help of some of our group mates, all of us is able to navigate GitHub by now. I also learnt how to upload and create branches on GitHub which is a good skill to learn for future collaboration which other coders.

In addition, I also learnt how to use blender to create 3D objects. Through watching many crash course video on YouTube for blender, I learnt how to use many basic functions in blender in a short

time. Unfortunately, I could not master the skill fast enough to create my own object with many added details. Hence, I ended up taking a template online and modifying it instead.

Following that, in week 12, I used premiere pro to create the animation part of the video. It was another new skill I picked up as video editing is new to me. In poly, I fiddle around with adobe rush which is quite different from premiere pro as there are more functions in premiere pro. Because of this project, I had the chance to try my hands on editing video and learning how to use premiere pro.

## Point 2: Problem Analysis/ development of solutions

During our preliminary discussions, we chose the app Roommate to work on. We wanted to streamline their current functions and improve the overall app interface. If possible, we wanted to add in gamification to make the app more fun and provide incentive for users to use the app frequently.

Subsequently, we listed down the pros and cons of the app and cross reference to other similar apps to see what other functions we could add in. After collating all the feedback gathered from students staying in hall, we narrowed down the pain points students faced.

The root problem that my group wanted to tackle first was the overall UI interface of the app. Even as a user myself, I would definitely use apps that I feel looks nicer and functional more often. Thus, we worked hard to make the UI aesthetic and yet workable. It was easy to design many different screens, but the challenge was to be able to code it out.

In comparison with the other app, Roommate, our app wanted to tackle other problems such as making payment through the app and also adding in a calendar within the app to view everyone's schedule more easily. Due to time constraints and our limited knowledge of gamification, we were not able to add in gamification in our app.

Overall, this project has taught me a lot about focusing on the needs of our target audience as at the start, the group had differing opinions on our main target users. But we settled on a generic one in the end as focusing on roommates alone limit the usage of our app. With a clear objective in mind, it was easy to visualize our end product and what functions to create on the app.