

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

Individual Report

Name: TEY KAI LI

Group No: Group 7

Project Title: joINTU

Contributions to the Project (1-2 page)

As the Overall Team Leader, I was responsible for preparing the meeting agenda for weekly group meetings and leading the team in discussions to ensure that we stay on track. With the support of my team members, I managed to ensure that every meeting ran smoothly which hastened our decision-making processes and ensured that deadlines were met.

Additionally, I was involved in the ideation process together with the rest of the team members where I came up with ideas for the application, features, wireframe of the UI designs, poster, video and color schemes, before the meetings. During the meetings, I presented these ideas to the group while allowing each member to pitch their own ideas systematically, allowing our group to have constructive and efficient dialogue.

Initially, we intended to create a supermarket application before we decided on joINTU. As part of the exploration process, I created the User Interface (UI) for 3 of the pages for the initial supermarket application on Figma, which consist of the camera page, search found page, and the specific product page.

After we finalized our application idea to NTU App, I was part of the Coding Team 2, where my responsibilities include backend coding for the application. I used Android Studio and Firebase for the backend coding, by allowing users to create folders for each modules needed.

Halfway during the project, I noticed that none of us was assigned to the frontend team, so I moved to the frontend team for Coding Team 2 together with Siew Ting.

For the frontend code, I created the pages for the avatar, chat (individual and groups) and community pages which consists of the Social, CCA and Gather pages.

Afterwards, our initial plan was to combine our code through GitHub. However, we faced many challenges and bugs along the way as we tried to download the file from our groupmates, as the bulk of the team members were unfamiliar in its usage and tried to solve it for many days. To resolve this issue, I volunteered to be the person combining all the codes.

This led to me overseeing the project from a macro perspective, as I then focused on the “big picture” by collating and combining the backend and frontend codes followed by connecting it to our main database on Firebase. This proved to be a challenge as every individual has different coding styles and I had read through to understand their codes as well as to debug the code whenever there’s problems. Also, I had to make sure the codes are as consistent as possible and make the frontend looks as similar as the one the design team designed on Figma.

In addition, whenever there’s presentation, I worked alongside my team members to put the presentation slides and content together, and presented the demo part during week 11’s presentation. I also contributed to the group for miscellaneous and ad-hoc taskings such as report writing for the final submission, recording the demo as a backup demo for week 8’s presentation, and did the voiceover for our promotional video for our application.

Whenever my team members encountered any issues, I would also be there to assist them in their work.

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: Project Management / Communication / Individual and Teamwork

As this is my first time leading and working with 11 people in a team, it was hectic as I lacked experience in leading a team. However, as a group leader, I had a clear goal which was to create a functional and useful application to the best of my capabilities.

Communication is of paramount importance in any group project. For example, without sufficient communication and proper task delegation, team members may end up doing double the work which hinders progress and delays the project timeline. Consistent updates of their work to the whole group are also needed to allow the rest of the team members to know our progress. As I am the person combining the codes, I had to communicate with the coders to understand their codes better to ease the combining process.

In addition, to maximize efficiency in the group, I split the team into 3 sub teams, 2 coding teams and a design team to ensure each member is working at their maximum capacity/capability at any given time. Splitting up into different teams also allows members to work on a part of the project that they feel they could excel in. With a proper organizing structure, tasks can be completed at a faster pace and increase the productivity of weekly meetings where each team gives an update on their tasks at hand.

To add on, all of us in the group have different coding and designing abilities, however, we managed to come together and tapped on each other strengths to make the project better.

All of us were also very supportive of each other and we could turn to each other whenever we need help.

Point 2: Modern Tool Usage / Lifelong Learning

Coming into DIP, I was looking forward to doing hardware or being in the design team. However, we were tasked to create a software application due to covid. Regardless, I was able to put into practice the software I learnt in the past such as Android Studio, although I wasn't super confident of my software skills. But through this project, I was able to learn more about frontend and backend development of android studio which I could say that I am proud of. Despite having knowledge in other software, DIP gave me the opportunity to learn new software such as Figma and Firebase to optimize the application. By using Figma, it gives me an opportunity to use other UI designing software other than Adobe XD which I have been using in the past.