**IM3080 Design and Innovation Project (AY20xx/xx Semester x)**

**Individual Report**

Name: Lim Jia Le

Group No: 3

Project Title: JIO

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

Planning:

Since I was one of the few persons who play games extensively, I spearheaded the initial planning stages simply because it will be efficient for me to explain the standard requirements for a game such as JIO to the rest of the team. From there, we established our use-cases and HUDs for the game.

Design:

We did not have a solid plan on the map we were going to utilize for our game. Initially a few of the team members wanted to find and use a tile set on the Unity store. However, I was adamant that we design our own tile set to promote flexibility and avoid having our game look generic, it would also be easier to create additional tiles in the same style if need be. Thus, I went ahead to design v1.0 of the tile set and presented it in the following meeting. Subsequently, I created the first tile map and added more tiles after feedbacks and discussions and contributed to the final tile set.

We also wanted to have point lights instead of just global illumination in our game. Since our game is in 2.5D, we needed a way for the tiles to recognize directions. Fortunately, Unity3D allows us to seamlessly insert a normal map on top of our tile set. A normal map is basically a tile set but with the original colors switch out for the directional colors on the color wheel. Thus, I went to work creating a normal map as well.

Coding:

My biggest contribution in coding was probably establishing a MySQL database using AWS and integrated it into our game. We needed it for authentication purposes and to save inventory.

**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:**

1. Engineering knowledge
2. Problem Analysis
3. Investigation
4. Design/development of Solutions
5. Modern Tool Usage
6. The Engineer and Society
7. Environment and Sustainability
8. Ethics
9. Individual and Team Work
10. Communication
11. Project Management and Finance
12. Lifelong Learning

Point 1: Individual and Teamwork

I found that I dislike working in a group as large as 10. As they say, too many chefs spoil the broth and that cannot be any more accurate. It is relatively harder to coordinate 10 persons and have everyone on the same page. Distributing tasks is also a chore with so many individuals, it is hard to find a balance and we ended up having multiple people doing a job where I think 1 person could have handled. I hate doing double job, so it took extra effort to make sure no one was doing someone else’s job. Might just be my preference, but we got the job done anyways.

Point 2: Modern Tool Usage

Even though one of our previous modules did briefly touch on Unity3D, I do not think it helped with this project at all. We basically had to learn it from scratch. Fortunately, Unity3D comes with a plethora of tutorials since it is so popular. It also harbors many intuitive functions which make game development easier and the whole experience smoother. Even though it was not the focus of this module, I am glad I tried my hand with AWS and created a database instance on the cloud for the first time. I am sure these skills will ease transition into work life in the future. It has also made me realize how irrelevant most of our course content is. Independent learning is definitely the name of the game.