**IM3080 Design and Innovation Project (AY2020/21 Semester 1)**

**Individual Report**

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Group No: 3

Project Title: JIO

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

Design of application

* Consolidated functions of forest, main work functions and key features
* Researched on functions and interface of gather
* Came up with use 3 use case diagrams
* Coded isometric character movement in 3D space (including resolution of yz axis on an isometric plane)

Art & UI/UX

* Made HUD design and layout
* Toggle mode function art sprites
* Created UI/UX colour palette
* Designed and created chat boxes, UIUX sprites
* “MacRitchie” tile map 1.0
* “Chinese Garden” tile map sprites
* “Chinese Garden” tile map

Report

* Background and motivation
* Objectives
* Review of literature/technology
* User flow description
* Conclusion
* Sustainability (recommendations)
* Proofreading and editing

As a leader

* Coordinate and led weekly meetings
* Set timelines and ensure the group can adhere to it
* Took down weekly meeting notes
* Weekly Presentation Slides (week 3,5,6,7,8)
* Weekly Script Proofreading (all weeks)

**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: Problem Analysis

For our group’s project, it was slightly more complex than just modelling after an existing app then building upon it for a 2.0 version, since we wanted to combine the standout features of 2 apps. Therefore, a lot more work had to be put into structuring the app and making sure that the functions we wanted to incorporate makes sense. We had to apply knowledge previously acquired from software engineering specifically, drafting out use case scenarios and flowcharts in order to ensure the logically of the functions implemented. Also, we had to stay open minded and flexible along the course of developing the app, since we may need to alter and tweak certain functions as we resolved clashes in logic.

Developing a set of use cases for the app was also challenging in the beginning, since everyone had different ideas for what they wanted the app to be. As the group leader, I had to step in at times to resolute conflicts in ideas. Also, I had to consolidate everyone’s ideas and consider individual considerations to ensure that the final product would be something everyone was proud of.

Point 2: Communication

As the group leader of a 10-member group, staying on top of everything while managing different groups of people was not exactly easy. Since everyone had different schedules and some may even be unresponsive for long period of times, I have learnt that it is imperative that I am firmer and clearer on expectations such that even if members are not mentally present in meetings, they can understand what needs to be done through meeting notes that I take down every week.

Also, I regularly checked on groupmates that were silent in meetings, to ensure that their views were taken into consideration and that they were not lost on the group’s discussions. After finding out that they could be just shy, I tried to get them to participate more actively in the form of contributing through the text channels instead.

Since there were many aspects of the app to tackle, more often than not, different sub-groups would be working on completely different things. Therefore, I also had to stay on top of everything and ensure that the progress of the art and coding side were progressing at reasonable paces, such that when it came time to incorporate the two together, we would not waste time idling. It was also important that I clarified everyone’s deadlines for different modules since it would be unwise to demand work from people that didn’t have the time to spend on it.