IM3080 Design and Innovation Project (AY2021/22 Semester 2)
Individual Report

Name: Chen Ruokun

Group No: 2

Project Title: Kopimon Game Application

Contributions to the Project (1 page)

- Added status effects system to pokemon battle
- Coded NPC pokemon trainer behaviour and trainer battles
- Coded pokemon party system and integrated into battle; allows players to have multiple pokemons for battle
- Creation of video call function for previous ideas (not implemented in final verison)
- Programmed pokemon catching system
- Added XP/leveling up system for player pokemon
- Added feature to allow player pokemons to learn new moves
- Designed quest flow for single player and multiplayer interactions
- Added a quest and dialogues
- Edited sprites in Hawker outdoor scene
- Integrating multiplayer functionality to game
- Wrote game manual for player reference

Reflection on Learning Outcome Attainment

Reflect on your experience during your project and the achievements you have relating to <u>at least two</u> 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: Learn game scripting in C# and 2D game development in Unity2D
State the area : Engineering knowledge, Modern Tool Usage

I have learned about 2D game development in a modern game engine such as Unity and how to implement behaviours of characters using C# scripts. Throughout the process, I managed to apply knowledge and skills from courses such as Object-Oriented Programming and Introduction to Design and Innovation Project to implement battle system, enemy behaviours, etc. I have also learned that production codes are not always perfect and can be revised from time to time to improve code readability and efficiency.

Point 2: Player manual and guiding new players
State the area : Communication

I have learned that game manual writing is a process of communicating the main idea and mechanics to new players. I believe this process is important in improving player experience. It is important to guide new players at the start so that they feel a sense of accomplishment and are more willing to finish the game. Should players get stuck at some point in the game, game manual functions as guide that helps them get past difficulties.

Point 3: Code source control and collaboration using Unity Collab and Github
State the area : Modern Tool Usage, Project Management and Finance

I have learned about code source control using Github and game version control using Unity Collab. I managed to update game asset and scene changes to the cloud via Unity Collab, so that the group is working on the latest version of game and can avoid repeating works. I also pushed code to Github to reflect changes in C# scripts. I believe have working knowledge on version control improves the efficiency of project and reduces the cost of communication because the changes are handles by tools like Github and Unity Collab. This also gives us more time to work on game features.