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**WSOA3003A**

**Assignment 1: Turn Based micro-project reflection.**

The aim of this assignment was to create or emulate the foundation of a turn-based game and then to expand upon them. The secondary aim was to approach this with a rapid prototyping workflow in mind; remaining in scope but able to discard and restart at a moment's notice. The third aim was to create a layout and framework on which other mechanics and principles can be applied seamlessly without extra effort when integrating.

The project, titled *Dungeon Dwellers,* met these criteria successfully, it contains a singular turn-based game loop using a state machine to allow the player to fight against a simple AI. The reason a single encounter or loop was created was due to technical constraints, these being the lack of power over the course of three days and going overboard on the original iteration.

This first iteration used a grid-based movement system, allowed for two players to compete with multiple and varied units. While this would have been an approachable project the constraints forced it to change to a simpler version that could be finished in time. The final project was adapted from the Brackey's Turn-Based combat tutorial. This tutorial aimed to show how to create a simple game loop like that which is found in Pokémon. I based my UI off of that, the player and opponent facing off against each other. Stat bars show the characters level, name and healthbar. The assets used to create the level and represent the player were downloaded from Itch.io and made by the user 0x72.

The gameloop of *Dungeon Dwellers* is simple and meets the requirements but does not have the desired potential. It proved difficult to integrate more than basic attacks into the AI, this is the fault of the developer's lack of practice with Unity and programming in general but in future iterations the AI will be more complex and challenging. Currently the AI attacks the player on its turn, with a chance to either crit or miss. This gives the player a reason to heal or use their skill; currently there is only one skill implemented but in the future the player will be able to choose weapons, skills, and support items to change how the combat proceeds.

Had time and other external factors permitted the game would have had two separate loops, the first allowing the player to wander the level; possibly collecting items and other pickups while the second loop would start once a player encountered an enemy. This second loop would be the turn-based combat loop, like the random encounters in Pokémon but the player would be able to choose their opponents for most encounters.

In conclusion the systems found in *Dungeon Dwellers* meet the criteria of the project, it allows for turn based combat while representing important data such as the health of each character and the number of healing items the player still has. It falls short on its lack of depth or progression; the victory condition is defeating a single enemy but that was more due to lack of time then poor-planning or ability. The Unity project is setup to allow for additional mechanics and modules to be added seamlessly to the game allowing for progression and depth to be added.

# References

Brackeys (2019). *Turn-Based Combat in Unity.* Available at: https://www.youtube.com/watch?v=_1pz_ohupPs (Accessed: 24 March 2021)

0x72, 2018, *16x16 Dungeon Tileset,* Itch.io, viewed March 24 2021.<source: https://0x72.itch.io/16x16-dungeon-tileset.>