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WSOA3003A

Game Design III

Analysis: Micro Assignment Data Design

Intent

The intent for this assignment is to create and develop a turn-based battle system seen in many role-playing games. This system is to use data to facilitate and allow gameplay between the player and the computer, with each taking turns to make their own moves to secure victory. The data will also be monitored to ensure that there are certain actions the player can or cannot take unless the data requirements are met to use it. The data will also be used to determine a victor at the end of the battle.

Process

The main mechanics of the game is turn based combat system. Battle takes place between the player and the computer who both have a number of health points(HP). The system will monitor the HP of both parties and whoever has their HP reduced to zero will be the loser and the party that has HP remaining will be the winner. Players and the computer will have abilities that can reduce the opponent's HP. The player uses a standard attack that will reduce a set number of HP and they have a special attack that reduces even more HP from the computer. The computer can only use a standard attack; however, it will remove more than the standard attack of the player. This is to not sway the direction of the game too far to the side of the player. An additional mechanism in to further prevent this mechanical imbalance from becoming too great is limiting the uses of the special attack.

The system was created by creating a state machine to create game states and set the handle the combat and gameplay progression. The main states used are for player and enemy turns and states in the case of whether the player wins or loses. An additional system was made for the player and enemies where the amount of HP and their attack values could be defined and monitored and the functions for their attacks removing HP are set up. For the player there is an additional variable for the special attack uses. This additional system is then linked so that the state machine system can call the functions and variables. The player turn will call the values in the player system and the enemy turn will call the enemy system and its values. When either the player or the enemy computer attacks, the system will run a check on the values after the attack and if their opponent still has HP left it moves to the next turn state. If the

player has no HP left, then the player lose state is active and if the computer has no HP then the player win state is active. Also, when the player uses a special attack, the system will check if the player has any uses left. If there is then it will be used. If not, then it is unusable. While it also prevents the player from repeatedly using the attack it also encourages the player to experiment with attack patterns. Additionally, there is another variable in the system checking if the player HP has reached a certain number. When it does the player can use a limit break and deal a lot of HP damage, which can also add to the experimentation of tactics in the game by the use of the limit break, special and normal attacks. To further add to this, the limit break can only be used once.

Reflection

Other additions to the data system would have been to use a healing system where the player would have been able to recover lost health points if possible. It would have been shared with the uses of magic points and would have added some dynamics to the player gameplay. Another addition would have been variety in the computer attacks with differing types of attack and special attacks and a block mechanic to prevent the loss of HP. The same would have been added to the player. Items to recover HP, special attack uses and increases in attack strength and deal bonus damage outside of attacks.

Appendices

- Game Freak. (1996). *Pokemon.* [video game]. Gameboy. Kyoto, Japan: Nintend0.