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Game Design III

Retrospective Project Plan and Analysis

This report is to outline, evaluate and analyze the process of making a turn-based combat game and the milestones reached when making the game. There are four milestones reached for this were data design, communication design, level design and feedback loops. The first three will be evaluated but greater emphasis will be looked at regarding the feedback loop.

Milestone 1: A Data System

To start, a data system would need to be designed for the game. The design was to be done over a week, with three days used for researching and designing the system a day of rest and the remaining time for designing the system. This time allotment was more time than needed as a very basic system was used to be a springboard for further ideas to be developed in the future. Taking influence from *Pokemon*, basic systems were created to handle player and enemy data which will all be handled by a state machine facilitating turn order and the actions done by the player. There were some struggles with creating the system in terms of connecting all the systems which ate into development time but not too much time was taken. Additional time was taken to experiment with the values of the player and enemy data for the state machine and gameplay. This simplified approach also applied to the player actions with basic attacks given. Healing mechanics were thought but at this point in the development of the system the data adjustments from it would have led to balancing issues later.

Overall, the design process was not very troubling. It went along quite well and aside from a few small hiccups in the production.

Milestone 2: Communication design

This section deals with the communication of information and data towards the player. Like the above, a week was given to create the communication design. The first route of communication the data was through game UI. Two to three days were given to UI while the rest of the week would be delegated to the visuals.

The approach to the UI would have been a standard turn-based game layout with a panel of buttons on the screen the player can click and would activate the actions. Coroutines were used to give space between the player and enemy actions and gave the players time to make sense of what has happened in the current game state and view. The panel would also give text to inform the player over what actions have taken place. The UI would also use sliders placed above the player and the enemy to give representation to the visual state of the player and enemy health and would react to the player and enemy actions. The buttons were placed at the bottom of the panel to allow for adequate spacing for the buttons and the text on the panel. The text was also used to inform the player of actions done by both the player and the computer.

When it came to the visual UI design, simple white blocks and arial fonts were used as a place holder until an aesthetic could be made. With this there was issues with the ordering in the hierarchy which led to interaction problems and buttons not being available for use, negatively affecting the UX for the player but this was a very simple fix. Further addition to the visual communication was different colored particle effects to indicate to the player what action is being done. The red effect is a standard attack and blue is the special attack.

Milestone 3: Level Design

This milestone deals with creating a level. The approach to the level design was the idea of linking interactions with the game's core mechanics to create levels. The core mechanics of this game was turn-based combat. How these interactions would be handled is to have the player create the interactions by interacting with the enemy NPCs. A "hub" level would be created that the player could move around in and if they moved into an enemy NPC, the battle would begin and would transition into the turn-based battle system. This is similar to the system seen in *Pokemon* where trainers would interact with NPCs to start a battle. To add incentive for the player to fight the opponent, a door was added and would be opened once they defeat the enemy player.

This was where the aesthetic of technology and stickmen was created as it was interesting allowed for quick sprites. This was to be done over a week also. The creation of the base of the level would take three to four days and the remainder done for sprites. This section of the development was rather quick, and no problems arose. Only changes to code were to add to the data to monitor if the player was able to pass through the door or not.

Milestone 4: Feedback Loops (Analysis)

Intent

The intent for this part of the design was to use the above to create a feedback loop for the turn-based combat game.

Process

To create a feedback loop for this game, attention to the data systems was brought up. This would be expanded upon for the creation of feedback loops. A week was to be used for this, but five days of that week was wasted to a lack of idea for expanding on the data system for a feedback loop. Eventually, modifications were made to the game data system design and the communication design to help define the feedback loops in the game.

A special attack counter was added to the player system that would be monitored by the state machine to prevent the player from abusing the special attack. The special attack counter was added to the game view as a text-based UI. When the player used a special attack, the counter would decrease by 1. If the counter reached zero, special attack button would be disabled and prevented the player from using it. This created negative feedback and made the game a little harder for the player to win as the game would progress. Another negative feedback loop is the addition of the limit break for the player to use when their health reaches a certain level. When used, it deals a lot of damage to the enemy NPC and will be only usable once. For this to be done, a third UI button for the limit break was made but was inactive until the player health was lowered enough. When the health threshold was crossed, the limit break button was activated and used. Additional variables were added to the player data system for the state machine to monitor if the player's health was low enough and if the limit break was used. When the limit break is used, the system will pick up on it and deactivate the limit break button. Additionally, an orange/gold particle system was used to made to represent this.

Reflection

The lack of time to create this led to a lack of ideas being used such as healing and items and the enemies getting stronger as they take damage to add to the loop, but while there was a lack of time for implementation, there would have been less for balance. Also, a lack of polish is prevalent which ideally would have been addressed.

Appendices

- Game Freak. (1996). *Pokemon.* [video game]. Gameboy. Kyoto, Japan: Nintendo.
- Brackeys, 2021. *Turn-Based Combat in Unity.* [video] Available at: <https://www.youtube.com/watch?v=_1pz_ohupPs&t=1052s> [Accessed 24 March 2021].