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12/11/2021

ENT 4499

My Reflection of Battle Of The Elements

This culmination project has been one of the most ambitious things I have ever done; the reason I said that, because me and my group, Joel, Quenton, and Qunicy, have been working on this before this semester. That's right, we've been working on this since the summer of 2021 and it was my first time I ever experienced something at this level, but during the summer was mostly management, because my group and I had a management class during the spring semester of 2021. So we were having this ready and prepared for the culmination class albeit, some updates to fit its needs. The things that we did during the summer were figuring out what to make first; so we used a game design document to get the project started and ideas rolling. Quenton had an idea we all liked, which was making a fighting game using elements; elements such as earth, air, fire, and water; we made a sub-category of elements such as shadow, grass, tornado, and so on. It was cool to talk about it, but I was afraid that ideas would be too many ideas and I didn't want to fall into an ocean of ideas. After that, we went into location, fighting style, history and lore, which Quenton loves, and how the project should look.

There was a lot going on, but we managed to finish the game design document in one piece. The next thing we did was project budget, and materials; this one was easy to do because there was not much to put on the budget; it was mostly software and it's free. The calendar we used had issues before; we had to adjust the timing and the scheduling, requiring some help from Hosni, he's our technical director that helped us with our project. Once that was done, there was another issue; remember when I said I didn't want to fall into the ocean of ideas? Well, it was way too much when Hosni pointed that out. We ended up cutting back the ideas and made it simpler; now we have to make one map, one character, and completely focus on getting the core working, which is the fighting. This doesn't mean we're scrapping some of the ideas, it just means that we can't do all of it within three months of the semester. So we're sticking by it for the future.

Once the semester came, we got started working on the project using Unity3D, and made the foundation. I got started on the code for hitboxes and attackboxes; Quincy was doing the 3D modeling and animation, Quenton was still doing the UI, history and lore, and Joel was creating the map; the location we decided to do is a volcano map. On my side, creating a hitbox script was a challenge; in the beginning, I needed to create an interaction by using Unity's 3D collider, which would turn into a hitbox and another 3D collider that would be an attackbox. From this, I can make them interact with each other through the code. If the attackbox hits the hitbox, damage will be made depending what hitbox it hit; for example, the punching will have more damage to the head than the leg. I would like to thank Quenton for helping me understand how hitboxes and attackboxes work; he showed me one of his games he liked to play and it had a training room where it shows how the hitboxes and the attackboxes work. It was pretty advanced and amazing to see. Besides that, I made it work and attached the script to the attackboxes so we could have the option to change the damage. However, there were issues that came with it and it was the fact that it was always on; I needed to figure out the timing of the hits, which was really important. To create the timing, I used a code called "waitforseconds", this forces the call to wait for whatever seconds you put in the code. It took me a while to get it to work and it was a little bit complex, but it worked until Hosni pointed out that there was an easier and best way to do the timing than what I was doing and it was using the animation event Unity3D had built-in. The reason it was a better way was because, the animation event stayed in frame of the animation; the one I did for the code could desync the timing, which was a no go, and it was overcomplicated; therefore it was scrapped out. So I learn a thing or two about this along the way. Once the timing was done, I needed health for the players and the button to play the animation of the hitting; luckily Quincy was the one that did the animation so it was already made. For the health script, it was fairly simple; I basically made a health value and used the damage value to subtract the health; I also made an option to change the health value to whatever they want as well because, in the future, the characters will have different health values instead of one hundred health for all characters.

In conclusion, I have to admit, this project was way too ambitious for this semester. I felt that it was a test of real work as a game developer; I used the skills I learned over the years and put it to the test of how I will be in the future when I get into the gaming industry. I wouldn't say that I'm fully confident, I'm a bit nervous about it, but I'm confident enough to be out there and show what I got because I'm ready for what comes next.