

William Valentin

ENT 4499: Culmination Project

Project Name: The Journey Ahead

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Culmination Reflection

During the fall 2022 semester, I worked on my culmination project “The Journey Ahead.” For me to accomplish this I had to put on different hats and play multiple roles in order to get through all the needed aspects I wanted to include. Mainly I focused on the programming and scripting aspect of the project to get the mechanics needed for a 2D platformer game. However, I still had to be a game designer, level designer, animator and complete audio sound effects. As mainly a programmer and not too proficient as an artist it was challenging to visualize how I wanted to layout the level and animate both the player and the enemy sprites. Also, I am generally used to working in a 3D environment in Unity, so I had to familiarize myself with the different aspects of how a 2D environment works. For example, designing the level used tile maps that create a grid system in the scene that allowed me to put the art assets of the level into each tile of the grid until I had a full level designed. I knew how I wanted to start and end the level but I was unsure what I wanted to put in between or where the enemies should be so I can have a healthy balance of traversing the platforms and battling enemies. To find a work around and start figuring out solutions I decided it would be the best route to build the level around the mechanics I could include within the game. Focusing on jumping, wall sliding/jumping, and attacking the enemies. Putting enemies spread a medium distance apart from each other so that the player can move around the platforms and make precise jumps with wall slides really helped in how I wanted the flow of the game to be. When it came to the animation, it was more of a learning experience rather than a frustrating one because it was not as difficult as I thought it would be. On the other hand, I did have some issues with my code and the facing direction of where the animations were playing. Simply put I just needed to re slice the sprites I had to keep everything centered on the enemy sprite and change small bits in the lines of code to get it working. Thankfully my tech advisor Hosni was there to guide me towards solutions when I ran into these issues. After laying out what kind of mechanics I wanted in the game I then had a basis of what scripting had to be done for the project. Movement and running were essential because I wanted my game to have fluent movement like very popular platformers like Hollow Knight and Celeste. Most of my inspirations came from these two games so it was challenging to code movement that can be responsive to the player input. Safe to say my code broke the game many times when I tried to add more things to the game. I often had to look over what was going wrong and consult with my advisor for direction on how things can be scripted better for certain situations. Solutions did not come easy but with perseverance and looking over the documentation I was able to get the mechanics I wanted into the game. As for the sound effects and background music, it was difficult to outsource sound effects for jumping and attacking which would give some more life to the game. There were so many different jump sounds and

sword swipes that it was tough to choose what would be the right fit that matched the game's aesthetic. As for the background music there are not many free options that don't have something within the sound or one that is generic and just doesn't play how I wanted it to. Luckily after a while I was able to find a music track that went along with the platformer style gameplay and look. Going forward I definitely want to spend more time with the audio because I feel that it can really bring more life to my project and create more immersion. Handling all the different tasks and aspects of what goes into a project like this without a group was eye opening with how difficult it can be to handle things alone, but the creative freedom was refreshing knowing that I had full control to push forward or dial back ideas that I couldn't accomplish in time. I have a basis for a game that I can build upon and continue to add story and build out the world if I wanted to in the future. Overall, this semester and working on this culmination project has been a great experience and I would like to thank my advisor as well as my professor for always being available to meet when I needed them and to everyone for allowing me to present my work and showcase this project.