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Culmination

Culmination was an eye opening experience. In the beginning we thought we had our idea for what we wanted to do for the culmination set and ready. Then we introduced our culmination idea to our technical advisor Hosni Auji. He felt that we weren't focusing on a specific feature. That it was just a game with a bunch of mechanics. So then we went back to the drawing board. We brainstormed together for a while. We wanted to create something with some meaning and would challenge ourselves. We took some ideas from the previous idea and brought it into this one. We decided to create a lowploy puzzle/exploration game based on a mermaid. Once we decided this it got the ball rolling. This really taught me when it comes to first brainstorming a project you need to closely examine what you would like into the project. You can't just add things to a project because you believe it would be cool. You have to make sure that features you would like to add work together.

Once this was solved I was able to dive deep into my role which was to be our main 3D modeler. My responsibility was to create as many assets as possible ,an oil tanker that will appear in level two, and the most important asset is our mermaid. The creation of the mermaid is something I knew was going to be the most difficult. Even our technical advisor said so. So he advised me to try and tackle that first. I've never done character modeling before I viewed documentation in order to understand what I would have to do and understand the process. After observing documentation. I started 3d modeling different segments of the mermaid body. Before starting any of the parts of the mermaid I made sure to gather references for that body part and look at documentation on how others have approached it. I went from the body to the arms. Then made the hand and the tail. The most difficult part of modeling the mermaid was the head. It was really difficult to manage the typology of the head. I eventually had to take a break and come back to it. Once I came back to it I viewed documentation created by others on how to craft a face. Eventually through being resilient, trial and error, and viewing documentation. The face is modeled in such a way so that in the future I can add facial animation. Once I had each body part I attached them together. Then I cleaned up the typology a little and textured the mermaid. Once this was done I brought it into unity to make sure the mesh wasn't broken. Thankfully it wasn't. All of this was a lot more time consuming than I thought. Especially since I was taking a lot of things I was new too. So in order to relieve some of the stress I handed off some of the smaller assets to our other 3D modeler.

Once the modeling portion of the mermaid was done. I took a break from it since it made me pretty stressed out. I went to work on the oil tanker that was needed. It was fun creating the oil tanker since it had to be interior. I had experience making interiors before, but never made an

asset like this before. Not only was the overall structure unfamiliar. I also had to add damage to the structure.In order to make sure I understood the structure of the asset. I viewed a lot of references that I gathered. I wasn't sure how I was going to do this without breaking the mesh. So I remembered some documentation I saw. I just added line segments before putting cuts into the mesh. I put the model together as quickly as possible so I can get back to the mermaid. Once I finished I sent it to our project. Then moved back to the mermaid.

Once I came back to the mermaid it was time to get over another big hurdle. I had to start rigging. Rigging is something I've never done before. It was something I had to tackle. Since the mermaid had a unique physique I had to manually rig the mermaid. I looked at a lot of documentation. After understanding the documentation the best I can I started the process of rigging. I added the joints to the model which are basically the bones of the model. It allows the model to be animated. I had to place the joints in certain positions so that the model would bend and move in ways that don't seem unnatural. This wasn't the only part of the rigging part. I had to add controls which control the individual limbs. Controls are UI that have influence over certain parts of the rig. After that came weight paint. Weight painting was very time consuming. Weight painting is where you paint the influence a specific joint had on the model. Trying to figure out the correct amount of influence that each joint needs took a lot of time. So I had to cut back on some features that I was going to add. Once I noticed how much time I had I moved on to animation.

Finally I made it to animation. This was something else I had no understanding of since I've never done character animation. So I asked my technical advisor for help. After he told me how I should do it. I looked at videos of people swimming and dolphins. I then tried my best to make animation that flowed well together. I struggled with making the animation pace correctly so it was either too fast or slow. Eventually I figured it out by problem solving. I then exported the mermaid and animations into unity. Once in unity I had to use the animator in unity to get the animations to work and transition from one another. After viewing and understanding documentation I looked up. I began to work. I eventually noticed some things that needed to be changed in the animations so I had to go back into maya then re-export. The reason is the transition would be a bit off or in unity the pace of the animation is different. When I noticed this I did the same thing again and again and again. Eventually the transitions of the animations and how they played overall was perfect.

Overall this project was a big eye opener for me. Even though this project stressed me out a lot. It taught me that I truly do want to become a 3D modeler. It has inspired me to keep on going. It taught me skills of problem solving. It improved my skill of finding documentation and references. It also definitely improved my skills as a 3D modeler. I can definitely take these skills and apply them to my future career as a 3D modeler.