ITE 505 Journal Entries, Spring 2022 Ben Willcox

\*New to old journal entries from top to bottom of the document.\*

**Weeks 13-14:**

At the beginning of week 13 I turned in the video that I finished up at the end of week 12. These weeks were focused on the presentation for the conference, as well as writing up the paperwork to turn in for ITE505. The remainder of this time will be spent meeting with Dr. W and finalizing all the paperwork.

I should also note that I implemented level indicators for the player so that they will know what level they are currently in, as well as some new controls to send the player back to the first level or main menu. A few additional alterations were made to respawn objects.

**Week 12:**

This week I did the video for the Mass. Undergraduate Research Conference. I also finalized some level work and don’t plan on adding anything significant to the game at this point since I have to focus on presenting it.

**Week 11:**

I added another level at the start of the week and tried to get my hamster to lock rotation in the sphere, so that it didn’t look like he was just getting thrown around. I was unable to do this and decided that spending more time on it would be a waste of time. In my 10th level I also introduced a teleporter object, and in the next one I added a locked door object that requires the player to spend a certain amount of coins to get through.

**Week 10:**

This week I implemented some online textures into my levels that I found at the end of last week. I also added zoom control using the scroll wheel of the mouse. I finally began the game manual as well, starting with descriptions of various game objects. There was also a lot of struggle when it came time to import the blender-made player model with animations.

**Week 9:**

I was away for most of this week, but I got some levels done when I got back as well as looking into copyright free textures/materials for the game.

**Week 8:**

I was busy with midterms and such this week. I got some more level work done.

**Week 7:**

Not a lot gone done this week. I don’t have much to say about it, its just that I was busy with personal stuff, work, and other schoolwork all at the same time. The only thing that really made progress was my player model, which is in the works.

**Week 6:**

At the beginning of this week, I am realizing that time is going to start passing even faster, at least perceivably. So, I added another level to introduce another concept to the player. I am going to try my best to stick to creating a new level every 2 days, and if I must miss that deadline, I will create a level every day when I am available. For example, on days that I don’t have work. I will keep doing this until have at least 20 levels in total.

I added a “spring” object, that absorbs the player’s fall damage that they would have taken if they hadn’t landed on it. This allowed me to experiment with the code a bit until I got it to work correctly.

I ended up adding a couple of more levels, as planned. I also added in a moving piston object, that pushes the player in whichever direction I aim it. I figured out how to use animation in a way that allowed me to circumnavigate the issues I was having a few weeks back with that moving platform object. I got falling damage sounds to work, which makes the game more immersive. I also ended up proposing to pay a buddy of mine to make a model for the player. I will post updates on that in the coming weeks.

**Week 5:**

I started out this week trying to figure out how to make fall damage work with my health bar. My struggle is trying to make the concepts and processes that I used to add the coin display to the player script apply to my new situation. This is where the learning curve seems to be. I can follow tutorials and figure out processes easily but implementing them with what I already have in my game is tricky.

I ended up getting my health bar to work with fall damage, and I made my player controller script work so that my player resets at the start of the level when his health runs out. Once I finally figured this out, I felt relieved, because I was struggling with it for well over an hour.

**Week 4:**

I tried implementing moving platforms but decided to come back to that later. My main issue is that using the built-in animation function for a moving platform messed up my player physics.

I fully implemented a health bar for the player and set it to use a key to test how it works when the player will take damage. The next step is to implement fall damage, which will add more difficulty to the game.  **Week 3:**

This week I started to experience the complexities of combining the elements that I had explored and implemented thus far. For example, making my script to allow the player to pickup coins work with the script to display them on the UI object. I also learned about scriptable objects and serialization, which allows my character to save coins between loading multiple scenes, and when the game is closed and loaded again. This was an “aha” moment because now I could attempt to use this feature with the player’s position, or currently loaded scene, to make a load game feature in the future.

I updated the main menu scene so that it reset the player’s coins when you click “new roll”, the next step is to load the player’s coins when you hit load game.

**Week 2:**

At the start of this week I began looking at other possibilities for projects, this time just for myself. My main idea was making a game through Unity.

On Tuesday I got started on the game, decided to go down the 3d route. I started out with looking up good concepts and code examples for programming movement and gravity in for my main character. As the week progressed, I put in a lot of hours to the project since we were still meeting online. I knew by the end of the week that the project would take at least a hundred more hours to complete, and even then it wouldn’t be ‘complete’.

The main thing that I accomplished this week was laying out the foundations for the game and writing down concepts that I wanted to implement. So far, the most difficult part is combining functionalities across scripts, so I need to learn about serialization. Static variables aren’t always the best for storing data.

I would like to note here that I am passionate about this project, no matter how it turns out in the end, and game design and general, and from this experience I am learning a lot about the time that it takes to do solo game development. This week I easily put 7+ hours a day into the project on average for 3 days straight.

**Week 1:**

This week Edwin and I met with Gail, the CIO. We discussed a rough estimate of how much money it would take to fund our project if we went forward with it. Edwin brought up a point about not wanting to go forward with the project because he was uncomfortable with using that much money. This was brought up to me first and then to Dr. W. I agreed that I was uncomfortable using the university’s money for a project that we would have to be learning about along the way, but I wasn’t quite ready to jump ship yet. Edwin seemed pretty convinced though.