**Game Programming -Learning Journal**

**07/10/23 -Storyboard**

Creating a storyboard idea for what prototype game I want to make.

- horror themed -flashlight feature -enemy ai reacting to light.

**17/10/23 - Timer**

Having a timer to countdown to add a sense of urgency, for this I looked at multiple tutorials on YouTube of other people making timer clocks.

For this I took aspects from the different videos I watched and chose what I thought would be best for my prototype game. I tried to have the timer start when a door would open but when I changed the code it would not work. It wouldn’t read the code I had and would just get to the end of the code. I tried making it read a tag of the door so that it would start when that tag is hit, but with this failing and the timer not working. I just took it back to it starting when the game starts, I just extended the time limit.

**24/10/23 -Player Movement**

Player movement seems to just work so far with W, A, S, D and not being able to turn on X or Y.

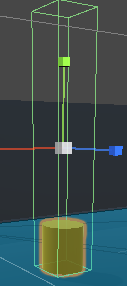
**27/10/23 -Player movement 2.0**

Tried fixing the movement for the playable character because yet the player still fall through the floor and the speed just makes it go of the map.

To start with I slowed down the play speed but with the new speed it would still speed off the map, it was hard to understand where the issues was. As some movements would make the player fall through the floor and some movements made the player fly off. I had rotation code on so the player could rotate but this didn’t work, I was only able to move my play back and forth with “W” and “S”. the two pieces of code I had were not working together, and I couldn’t figure out why that was. (Still to this day I don’t know I believe it was because each code was trying to move the player but as they were both trying too nothing would work.)

**1/11/23 – Fixed Movement**

Looking back at the broken code I deleted half of it just to see if that would make the player move with “W, A, S, D” key inputs. And with that success the player movement was stabilised and would stay on the map, having 2 different codes basically doing the same thing I believed made it stop working so scrapping some code and just following on tutorial video made it easier to understand.

**07/11/23 -Key Pickup**

For the Key pickup I was having trouble with the code, the player couldn’t see the key with the raycast. Because I have my camera in a 3rd person view, it was too far back for the collider to see. It had a cylinder collider on so to fix the problem I turned it to a box collider as it would be bigger, and it pulled it up so the player could see it. As I turned the raycaster coming from the player instead of the camera. So that there is no way of missing it. It can now pick up the key and go to the door and unlock it. So, I learned that it was easier to destroy an object and for it to then tick a box on the person saying it picked it up, instead of having it on screen being picked up.

**14/11/23 -Enemy AI**

A screenshot of a computer program

Description automatically generatedWith the enemy AI patrolling and chasing my player with the code I had inputted my enemy wouldn’t move. With this trouble I could find the right way to fix it as I already followed someone else’s code, but for this I had to change up the sight range of the enemy when it would see the player. Because it would just go to the last known location of the player instead of patrolling and looking for it. To fix this I changed it to walk to a random location, I created a gizmos to show where the enemy will move next. It still just stops it place sometimes and sometimes the gizmos will send the player to a wall where it will get stuck, the only way this is fixed is having the player character go by the enemy in their radius and this make it start the chasing code.

I increased the navmesh agent so it wouldn’t go into the walls and get stuck, the only problem is that sometimes it still wants to go into the walls because the ground is active there.

**15/11/23- Main menu UI**

When creating the main menu UI I didn’t come aross anything that was tricky or challening I found the UI part of it all so far the easiest.

A screenshot of a video game

Description automatically generated18/11/2023- enemy ai

So far with the enemy ai they will get to close and push the playable character into the air where it gets stuck. I wanted to add gravity, but I didn’t think I need it as I was going to make a radius around my player so that the enemy ai cannot enter.

-Flashlight

With the flashlight I had it so the enemies would stop once they get in the light, and for this I had it when they reached a collider that was in the light they would stop. But to start with the enemies would just not stop when they go into the light ( collider) so I had to make it much bigger in the light so it was easy to find.

21/11/2023 -Game over screen

I just followed what I did for the main menu UI but changed what I need to.

28/11/2023 -Sprint bar.

Tried adding a sprint bar to my game but it would just slide from left to right along the bottom of the screen and not stay in the corner, I tried on the rect transform to pin it the left side, but it would just keep sliding all over the screen. so, I took it out complete. If I have time near, then end I may put it back in. but as I do not fully need it it’s fine being left out.

05/12/2023- Batteries pickup

For the batteries that I will need for the flashlight, I came across a problem of it not being able to pick up the object, I had the player reach for the item to pick it up. In my code I had a bool inReach; meaning if the player is in the reaching zone it will pick the object up. I had a tag on the reach object so it could see it and be able to pick it up. And I made a reaching tool for my player that is just a cube that I put in front of the body and turned the mesh renderer off so you won’t be able to see it, I made an input manager called Interact so when the player gets in the zone of the object would react to it with the right key input. With this tool the reach arm couldn’t find the battery pick. With this not working I just changed it to pick up distance, so when the player is in the right distance away from the object you press the interacted key, and you can pick it up. With this working I just got rid of the in Reach I was trying to work on.

08/12/2023 – Sanity bar

My enemies have now stopped effecting my sanity bar when they look at the player. I will change this to when the player looks at them instead. I found out I had 2 scripts basically doing the same thing so that was affecting each other. Both of them was trying to lose sanity whilst increasing at the same time, so to fix this I just keep one script and I increased the max sanity, so I goes down more smoothly.