Learning Journal (Games Programming)

03/10/2023

Paul is giving an introduction into games programming with the introduction of using the ‘pomodoro technique’ into our learning, github and basic introductions into programming along with a memory game to test our short term memory.

10/10/2023

I was not in university for this weeks lesson but I did follow through with practicing with unity tutorials following through with the VLE to then create one complete project from those tutorials made.

17/10/2023

Started planning my tutorials and what to do for my video game prototype. I was planning on doing a timer/ 2D platformer game similar to the side scroller games. The aim is to make a game prototype with teleporters, jump pads and dashing movement with a timing system.

24/10/2023

Started off with basic character movement using 2D box colliders and a sprite renderer (used to create platforms). Mainly using a Rigidbody 2D for my base character and a 2D box collider with ‘no friction’ as the material; allows the character to not phase through the platform. My First tutorial will be a 2 in 1 tutorial that will display character movement and dashing mechanics.

31/10/2023

I have added a ground check to my character as well as adding a trial renderer for my dashing mechanic for my prototype. I used ‘SerializeField’ to document my private variables such as the groundcheck layer and rigidbody. Using ‘if’ intervals to get the jumping power and velocity as well as the dashing mechanics and basic character movement.

07/11/2023

I mainly had issues with some movement especially with the groundCheck layer with my scene. My character would sometimes phase into the floor and not stand on it. The fix I made to this is by assigning my ground tag to the platform so the ‘groundCheck’ can be applied my player with its 2D box collider.

14/11/2023

I started a new script to create jump pads for my prototype. I did this by creating a sprite and adding a box collider 2D to it as well as setting up a script for it. It went well at first but will continue to experiment on private floats to see how it would go for my jump pad script.

21/11/2023

Finished my jump pad script, the script mainly targets the ‘player’ and use it as an object to collide with the jump pad sprite for the jump pad to work. By using private floats to determine the bounce from the jump pad and using the player’s Rigidbody2D to collide with the sprite. Overall, it was a very simple script to write and the jump pad work very well.

28/11/2023

I started off planning my final tutorial which is a teleporter. I am researching ways I can make this work as well as it being easier to code. My main insight to this is to use colliders to detect when a player is next to the teleporter and by pressing a key it will allow the player to use the teleporter.

05/12/2023

Finished the teleporter script for my final tutorial, the script consists of using a Serilizefield to get the destination of the teleporters with a key input (pressing the key ‘E’) to trigger the code to teleport the player to the targeted location which is the other teleporter. There were several of problems with it at first but it was mainly issuing tags to the player sprite and teleporter sprites.

12/12/2023

Finished the layout of my game prototype and ready to submit. Due to lack of time I could not add a points system in place but will do so in my own time. The map is set up to have several of jump pads and a dashing mechanic to get to other platforms easier and a teleporter to teleport players to other platforms. Overall, I have happy with the result of my programming, everything is smoothed out and there are no issues with the code/ script.