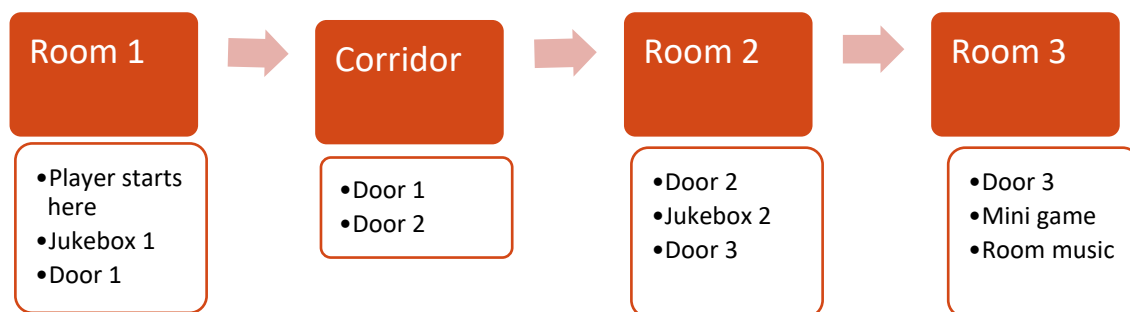


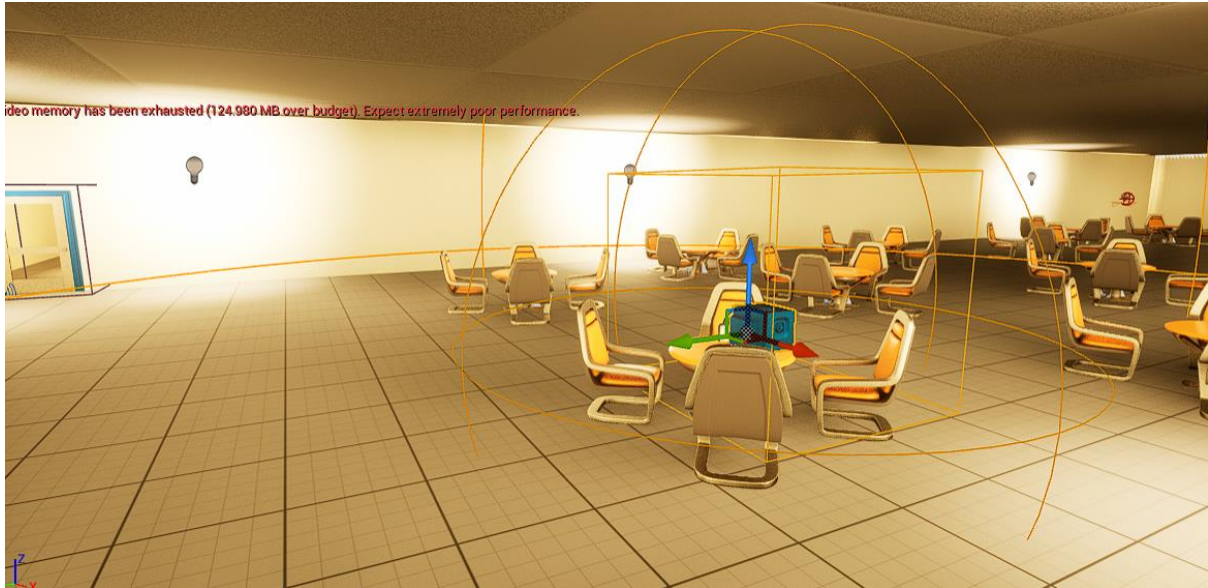




This is an FPS game I have made with unreal engine 5. The level consists of 3 rooms and a corridor and below is the process of the game flow channel.



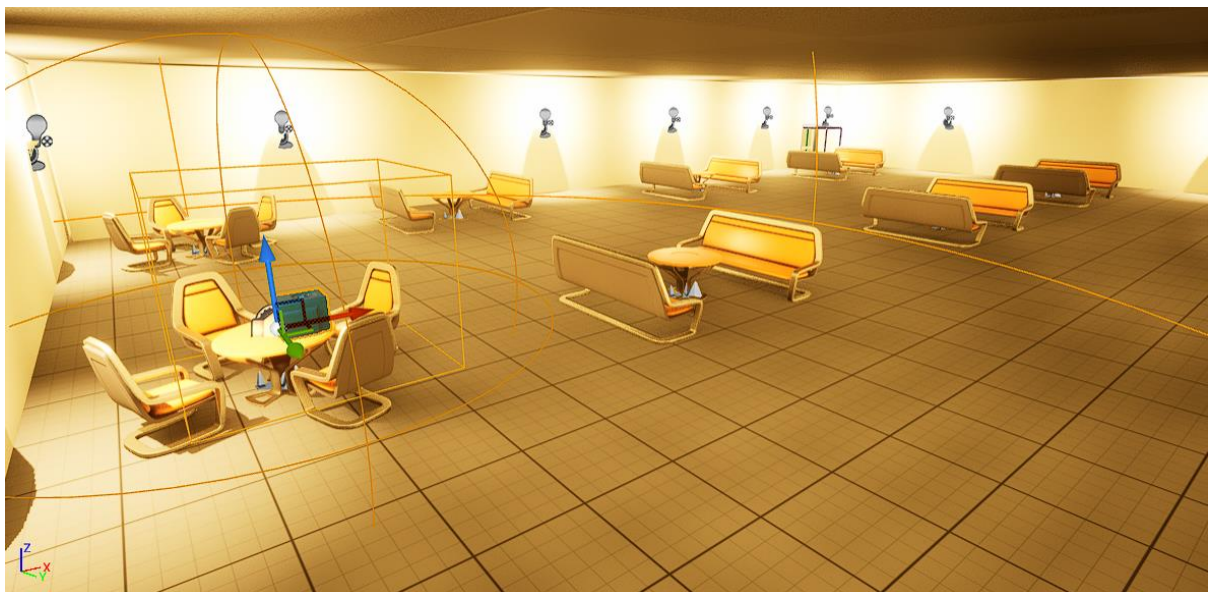
Room 1 is where the game starts and there is a gun placed in front of the player for the player to collect. Jukeboxes and doors are coloured in blue to indicate where they are located. Room 1 has a jukebox on one of the tables near the door to the corridor.



Press F key or gamepad- right analog stick button to turn the jukebox on or off to play the given music.

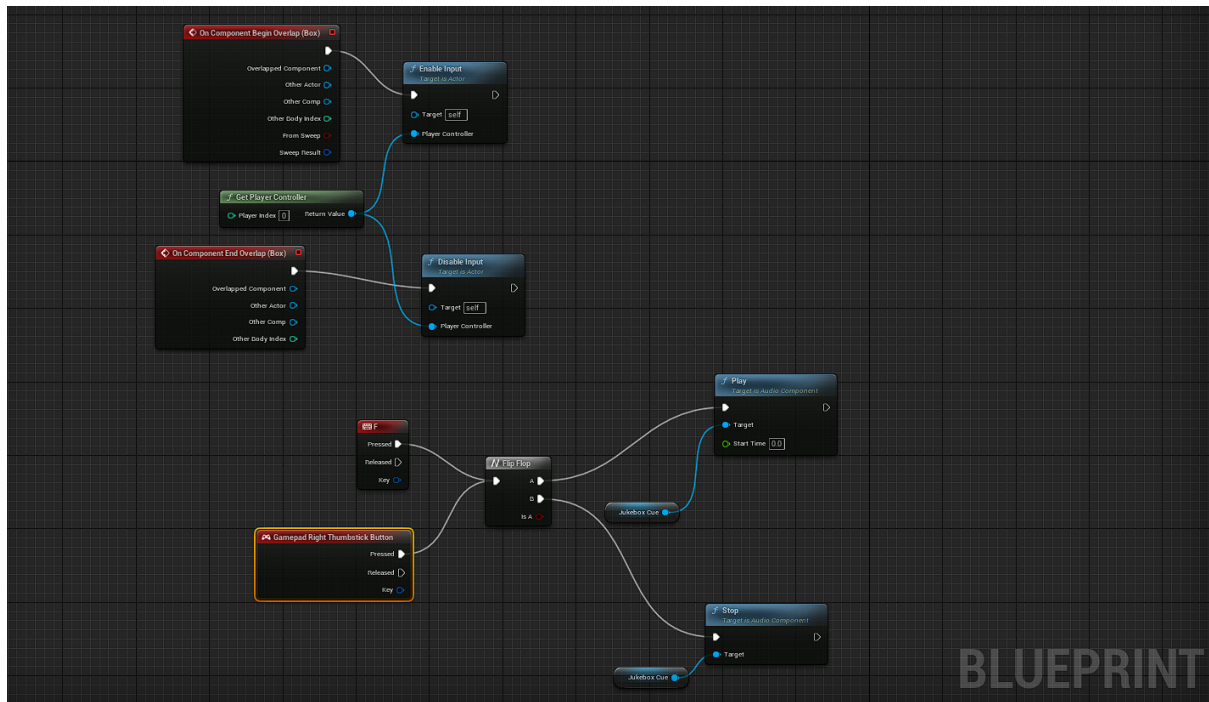
I have also added in some attenuation logic to make the music from the jukebox sound spatialized. Its perception changes based on the listeners position which creates an immersive 3D audio environment. By using the fall off distance and inner radius, I was able to get a comfortable sounding 3D audio balance.

The jukebox in room 2 also contains the same logic and is placed on one of the tables.

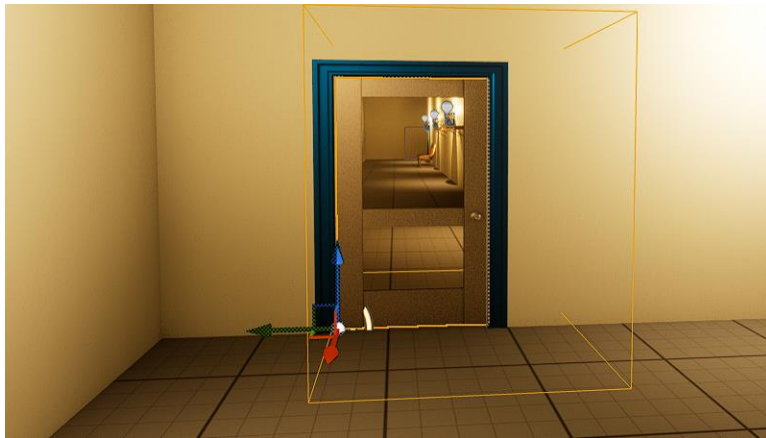


My Jukebox blueprint event logic is fairly simple. I created a box trigger that waits for an overlap with the player, so that the turn music music on or off when the relevant key/button is pressed can be

initiated.



I have 3 doors in the level which share the same logic with each other. They have a blue door frame colour which will enable you to find them easily in the game. Door 1 leads to the corridor, door 2 leads to the 2nd room, and door 3 leads to the room with the mini game.



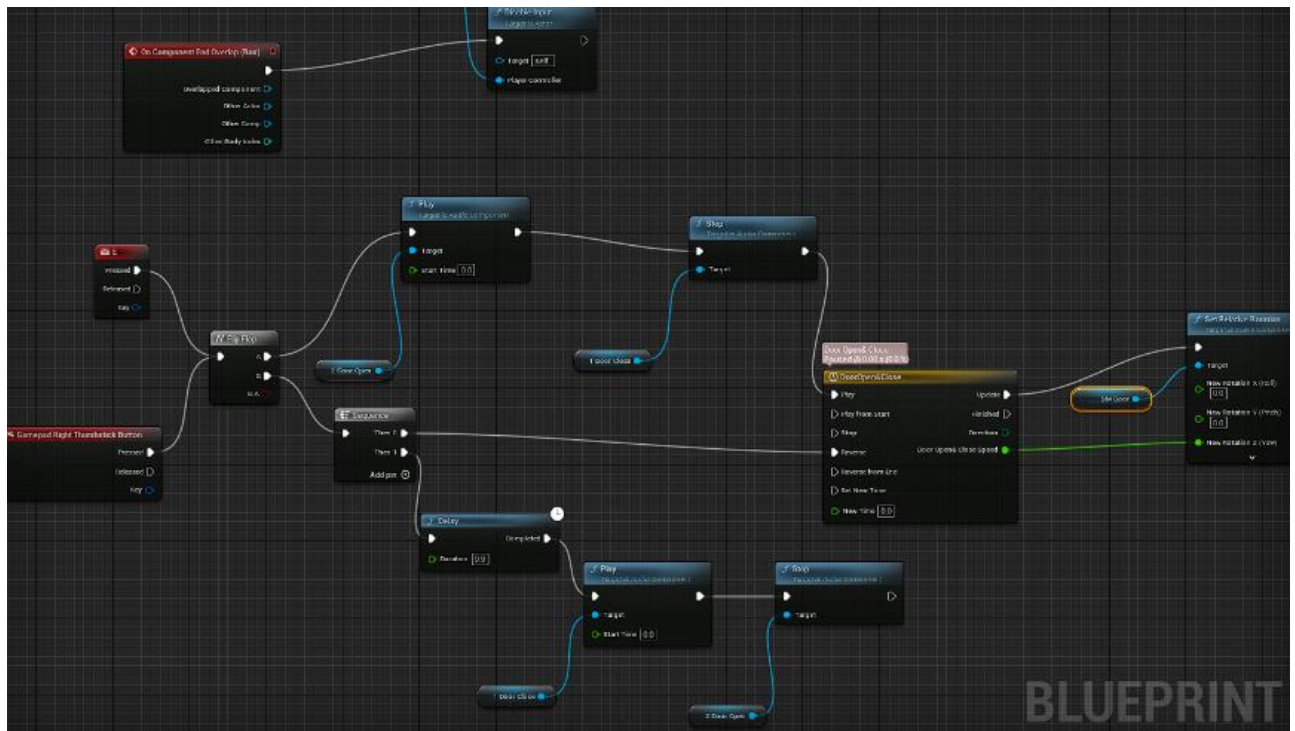
(door1)



(door2)

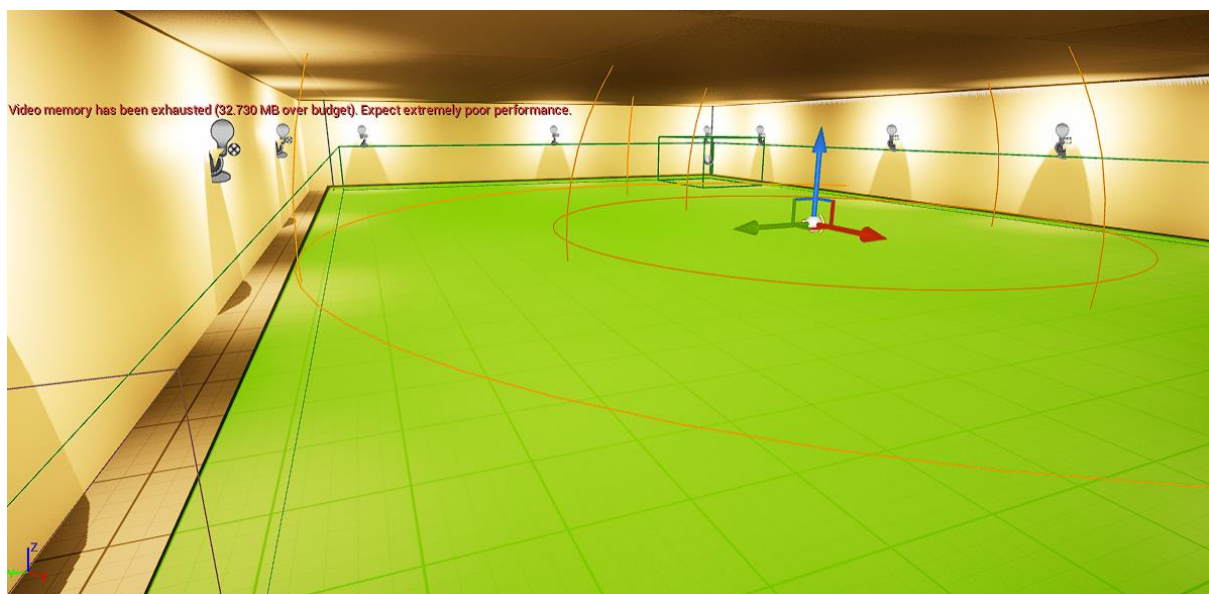
All the doors share the same logic but this was tougher to implement. I implemented a box trigger overlap within my door logic to detect the player so that the relevant actions can take place within that space. I set up a timeline of how fast the door opens and closes so that it would fit with the provided audio assets. I also set up a relative rotation to calculate the appropriate door opening rotation angle so that it looks realistic. This helped the door look right and **SOUND** right.

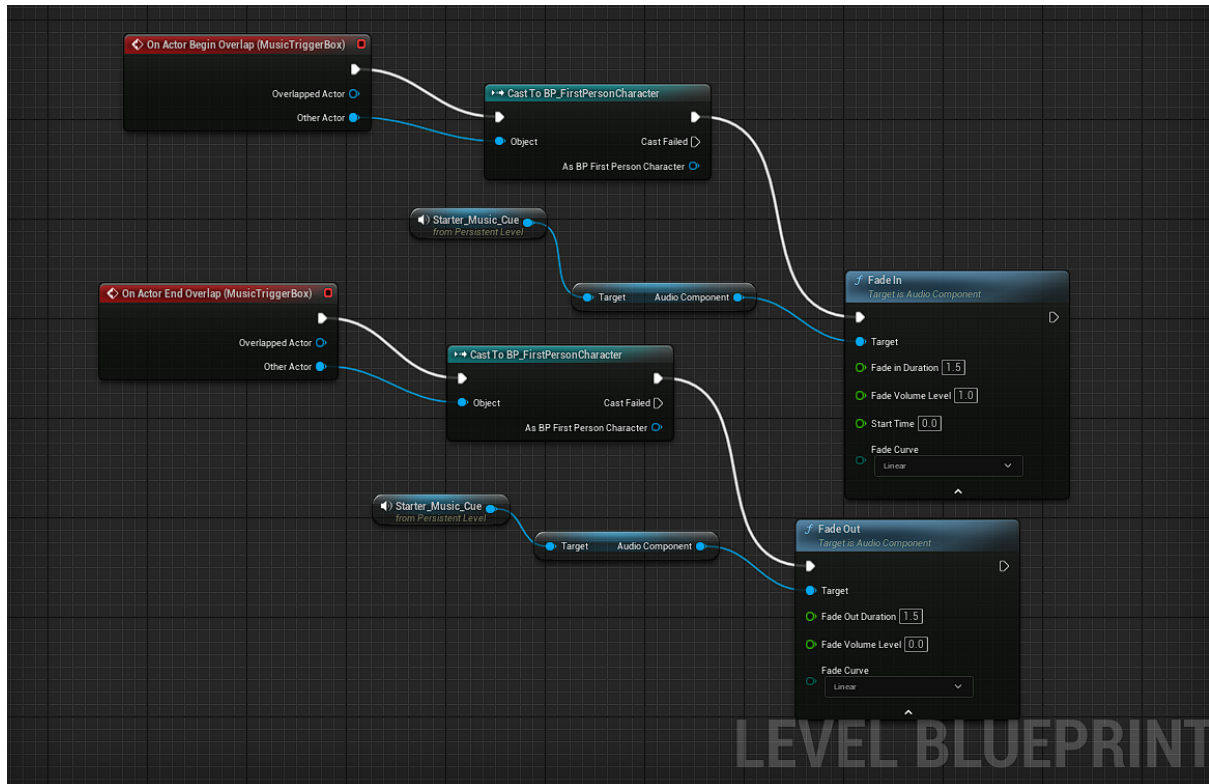
Press E or gamepad right analog stick button to open doors



(Blueprint logic for the doors)

I made an empty room that contains a mini game for players to have fun and shoot yellow cubes that spawn from the top right corner. This room has AI navigation pathfinding that allows the cubes to follow the player around the room and the room also contains its own music with attenuation implemented. The music sounds louder in the middle of the room as that's where the inner radius is positioned.





The music for room 3 is implemented within the level blueprint. The music fades in when you enter the room and fades out when you leave the room or attenuation fall off zone.

I hope you enjoy playing the game and testing it out

Stephen Babu

