Report

The interview was delivered at 9 am through email. However, I expected to receive the Unity Programmer Task due to a small misunderstanding during the Google Meet session. I lacked the necessary tools to begin the project until around 6 pm. Because of it, I had to start the project much later than expected, in a software I was less prepared to use.

After finally having access to the Unreal Engine, the project was initiated in a GitHub directory using Unreal Engine 5.2, using Visual Studio 2022 as compiler and Visual Studio Code as script editor.

As I was unaccustomed to C++ Unreal Projects, I had to spend a few hours relearning how to use it. Afterwards, my first step was to work on the character movement, starting by the acceleration function, followed by the break function.

The next step was to program the jump function and finish the working character movement as requested by the task. After that, I tried to import assets to my project, but the Mixamo animations couldn't be imported due to a lack of bone tracker. Since I am not very knowledgeable with animations in Unreal, I decided to skip to the next step and import models.

I opted for assets I already had available at Epic Store, the skateboard coming from Assetsville Town and the rest from POLYGON – City Pack. Afterwards, I created the map for the prototype and cleaned the unused assets from the project. Then, I started working on the obstacles, and, with the time still available, I sticked to the specific requirements of the task.

Since it only required score increases once the player jumps over the obstacles, I created a collision box that was placed over multiple props in the scene, allowing the player to gain points by jumping over almost anything.

Finally, I made a simple HUD, only to show the current score of the player. I wasn't able to add animations to the project as there was no time left to learn about them properly.

The entire project was made in around 26 hours, 4 h to relearn about C++ and Unreal, 3 h for character movements, 30 min to camera controls, 2 h creating the map, 2 h creating the obstacles, 2h creating the HUD, 30 min to import assets and clean unused assets and the remaining 12 hours were spent fixing issues in every step.

Despite having many difficulties along the way, I managed to overcome most challenges and relearn enough about C++ and Unreal Engine to complete this task following my instructions to the best of my habilities.