Interview Task – Report

This document provides a description of the system developed for the Unreal Developer interview task, my thought process during implementation, and a self-assessment of my performance.

System Description

The prototype is a small 3D skateboarding simulator created in Unreal Engine 5.3 using only C++. The system includes full character control: movement, pushing to gain speed, braking to reduce speed, and jumping with an animation obtained from Mixamo. A simple environment with obstacles was designed, where the player accumulates points by successfully jumping over each obstacle. The project also features a basic user interface that displays the score and enables essential interaction with the system.

Thought Process

My approach was to divide the requirements into clear milestones:

- Character control and movement mechanics – implementation of basic locomotion, pushing, braking, and jumping.

- Environment design – creation of a small park with ramps and obstacles to test the mechanics.

- Scoring system – tracking points for jumping over obstacles.

- UI integration – displaying the score on screen through a C++ widget.

- Testing and polishing – verifying the stability and responsiveness of the mechanics.

During development, I prioritized code clarity and modularity, organizing classes to allow for easy expansion. I used incremental commits on GitHub to reflect progress and facilitate review.

Self-Assessment

Overall, I am satisfied with the result, as the main objectives were achieved within the allocated time. The project demonstrates my ability to implement mechanics entirely in C++, organize code, and transform open-ended instructions into a functional prototype. With more time, I would expand the level design, refine the physics for more realistic skateboarding, and improve the interface with additional animations.

Time Spent

- Character mechanics: 12 hours

- Environment design: 3 hours

- UI and scoring system: 2 hours

- Testing and polishing: 2 hours
   Total: 19 hours