Unreal Programmer Task Document

My approach to create the Skateboarding Simulator Game was using Unreal Engine's Physics for all movement, jump, etc. Could be better create a custom physics system for the game, to make better game feeling and control. For the level design, I use some meshes and textures from an assets pack I bought some time ago, the materials were created for me. The level itself is very basic, also the art is full blockout because I'm more confused in the code, which is my stronger field. The UI is also very basic, it is just a widget with the score points. All the code is created using C++, the only part I use Blueprints is in the Animation Blueprint, the animations are from mixamo adapted to the character model I use, in the Animation Blueprint I create a small state machine that blend the Idle/run animation to the Jump or Impulse ones. In the input I decided to use the Enhanced input system that is included in Unreal Engine since the 5.1 version, creating some Input Actions and binding to them events that are called once each action is triggered. For the points system I decided to create a Component that can be attached to many obstacles of many shapes, each one has a delegate that is broadcast when detect a collision with the player, the Game State is subscribed to each Components delegate, and increments the score once the event is fired.

Hours expend in each assignment:

1. Movement Functionality **~ 5 Hours**
2. Small Designed Level with Jumping obstacles **~ 1 Hour**
3. Jumping **~ 2 Hours**
4. Pushing Functionality - Speed up **~ 4 Hours**
5. Slow Down Functionality **~ 1 Hour**
6. Points system **~ 1 Hour**
7. Design a suitable UI for the prototype **~ 1 Hour**