Skateboarding Game Mechanics

In this document, we detail the mechanics implemented in a skateboarding test game. The game features various functionalities that emulate the dynamics of skateboarding while incorporating unique elements to enhance gameplay experience.

1. Skateboard Movement:
The movement system try to replicate the physics of a skateboard, allowing players to control the direction and velocity of the character. By understanding the mechanics of rotation and gaining velocity. This task it didn't take a lot of time because it was more polish the way it movement works trying to be more like an skateboarding so it was not that hard
Hours take: 1 Hour.

2. Speed Control:
The speed control mechanism enables players to accelerate or decelerate the character based on input. The character's velocity will dynamically change and also I added a Field of View augment when the player starts to gain velocity and it reduces when the player release the key Shift.
This task is something relatively basic in character movement mechanics so I knew how to do it.
Hours it took : 2 Hours.

3. Braking Functionality:
The Braking can slow down or completely stop the character's movement, facilitating navigation through terrain and obstacles.
There are some ways to do it so I tried to keep the best way in terms of gameplay feeling.
Hours it took : 30 minutes.

4. Points System:
The points system makes you win points for successfully jumping over obstacles. Each obstacle jumped it will make the player gain a random number of points between 0 and 25. The system communicates between GameMode and HUD to track score and show it on UI. Also the GameMode has a Component that is the ScoreManager that is tracking inside all the data about the score.
Hours it took : 2 Hours.

5. Jump Mechanism:
It was hard to take a mixamo Jump that feel good with the skate and how skate jump works. So it was a challenge to try to make it look good.
I downloaded a lot of animations and some of them had problems and others were not the best but I tried my best to make it at least decent.
Hours it took : 1 Hour.

6. Designed Level:
The art of City Park Environment Collection where used to make the level. I tried my best to make it at least a little bit funny and to show all the mechanics made like Movement, Speeding, Slow Down and Jumping.
Hours it took : 2 Hours.

Art Implementation:
I used significant time and effort to ensure the animations didn't break and look good when blended. I had a lot of import problems with character animations because of bones so I spent time trying to fix it.
Hours it took : 6 Hours.

In conclusion, the integration of these mechanics, coupled with the emphasis on art implementation and polished movement mechanics it ends on a prototype that feels like a skateboarding game