Final Project

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CS4610: Computer Graphics

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My final project was creating a game inspired by the sport of pro-bending from *Legend of Korra*. It features one human controlled player versus a computer controlled player on a platform. The players fight by throwing boulders at each other until one player is hit three times or falls off of the platform.

Creating the characters turned out to be fairly simple. I used Mixamo to import the characters and animations featured in the game. I needed a character for the human controlled player and the enemy, then running, jumping, and throwing animations for the actions. I added the rocks from the Unity Asset Store.

For the movement, I used the Input.GetAxis function to determine if the user is trying to input a direction on the keyboard. This function allows users to use WASD or the arrow keys for movement by default. I used these inputs to determine the direction to move the player and used the transform function to actually move them. When one of the movement keys is pressed, I set the running boolean to true to start the running animation, and set it to false to stop it. I also rotate the player in the direction they’re moving using transform.rotation. For jumping, I just added an upwards velocity to the character and let gravity bring them back down.

For throwing, I have the user click when they want to do it. I first had to create a rock prefab using the rock asset I imported. Once the user clicked, I spawned the rock right in front of the user moving away from them. I also triggered the throwing animation at the same time.

I didn’t have the time to make an intelligent AI, so it really just goes randomly. I used basically the same functions for the controls as I did for the human, but instead of relying on inputs it just randomly generates a number to decide the action.

For the health, I used the OnCollisionEnter function. It creates a Collision object, which I then use to check if it’s between a rock and a player. If it is, I decrease the health. If the health hits zero, the game restarts.

GitHub link: <https://github.com/dwrechtien/ProBendingGame>

YouTube: <https://youtu.be/NyXsdM8d66o>