Planning Document Writeup
Project 03A

Core Elements:
Splatoon 2 (3D game and 3rd person shooter)

Tenta Missiles

https://splatoonwiki.org/wiki/Tenta_Missiles

1. Player can lock onto up to four opponents using a very large reticle
2. Special has a set duration for the weapon to be fired (10 sec)
3. Fire a set of homing missiles per opponent locked onto
4. Crosshairs tracking the opponents are visible to the player until the missiles land
5. Missile do direct and splash damage
6. Animation, audio, and effects for the firing sequence

Implementation Steps:
Tenta Missiles

1. Build a sandbox map
2. Build player controller
   a. I plan on using Mixamo Animations and Rigs combined with the Cinemachine Camera system to get fluid movement. The character will be controlled with Rigidbody movements and have a 3rd person camera view
3. Build basic weapon ability
   a. For the weapon, I will instantiate a game object that is destroyed on collision. A sprite image of paint will appear at the collision point
4. Build special powerup and behavior
   a. I plan on making a gameobject replica of the Tenta Missile weapon
   b. I will use a UI image renderer to simulate the enemies location
   c. The weapon will have a set of missile game objects that will be instantiated
      i. Missile Behavior
         1. I will calculate a parabola that takes in the last current position of targets and the player's current position to
         2. I will add a force to the rigidbody of the missile game object and particle system (with trails enabled) that will follow along the parabola
         3. I will use an image sprite to simulate the missile impact
         4. Missile destroys on collision with target point
5. Build enemy controller and behavior
   a. Opponents will move around using a rigidbody component
   b. Opponents try to avoid missile target points but if too close, will take damage
   c. A direct hit from a missile will kill and destroy that enemy gameobject

6. Add animation and audio feedback
    a. Player animations
    b. The weapon will play an audio when it's taken out and when it's fired. The missiles will have an audiosource that plays while flying through the air and on impact