

## Assignment 4 Process Work

GAME CLONE CHOSEN: Pong

Step by step process on how I recreated one of the first commercial successes in Video Games using Unity:

- Created my art assets using paint. I created a 64x64 square image.
- I imported my square to Unity and added it to the center of the screen.
- This first square will be used as the playing ball for the game.
- I then duplicated the square 3 times to create player 1 and 2's paddle, as well as the surrounding walls on the scene.
- I scaled each of the surrounding walls to 30 and set each of their positions.
- I added the box collider 2D component to all of my assets to create collision boxes.
- For each of the players, as well as the ball I added the Rigidbody 2D component, setting the gravity scale to 0.
- I then used the same 64x64 square to create the middle line and grouped all of the gamefield components together into a folder.
- I then added the controls via the input settings on Unity, setting S & W as Player 1's positive buttons, and Up & Down arrow keys for Player 2.
- I then created a C# script for the paddle. I added a bool to isPlayer1, distinguishing between each of the players. I set the speed for how fast the player can move with a reference to the rigidbody component. I used a private movement float to determine whether the paddles move up and down. For the update I used an if statement for player1, the movement is equal to Input.GetAxisRaw of Vertical. And for player 2 movement is equal to Input.GetAxisRaw of Vertical2.
- Using Rigidbody I set the velocity to new Vector 2.
- After getting the paddles figured out, I created another C# script for the ball.
- I added the speed of the ball to 5 with a reference to the Rigidbody component. I then created a Launch method setting each of the velocities.
- I created a physics material 2D to allow the ball to bounce. Friction was set to 0 and bounciness to 1.
- To make sure the ball bounces correctly, I added the bounce to the rigidbody2D of the ball and set the Freeze Rotation to Z, and for the players I set them to X and Z.