

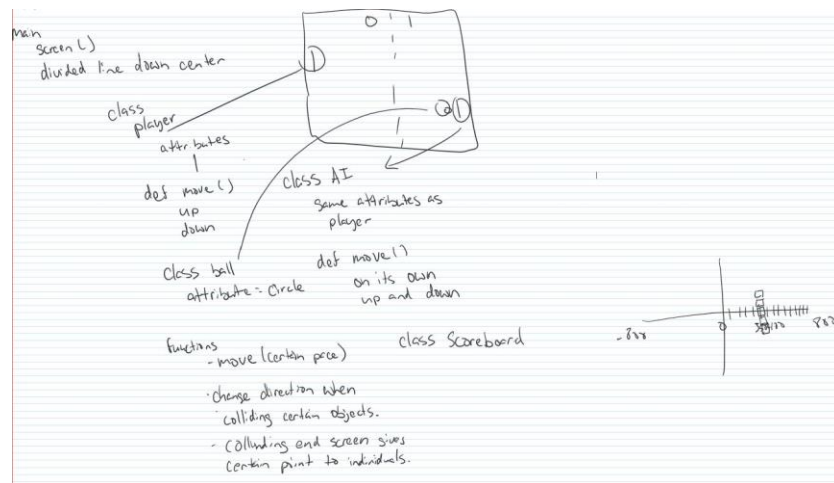
Austin Lee

9/11/2021

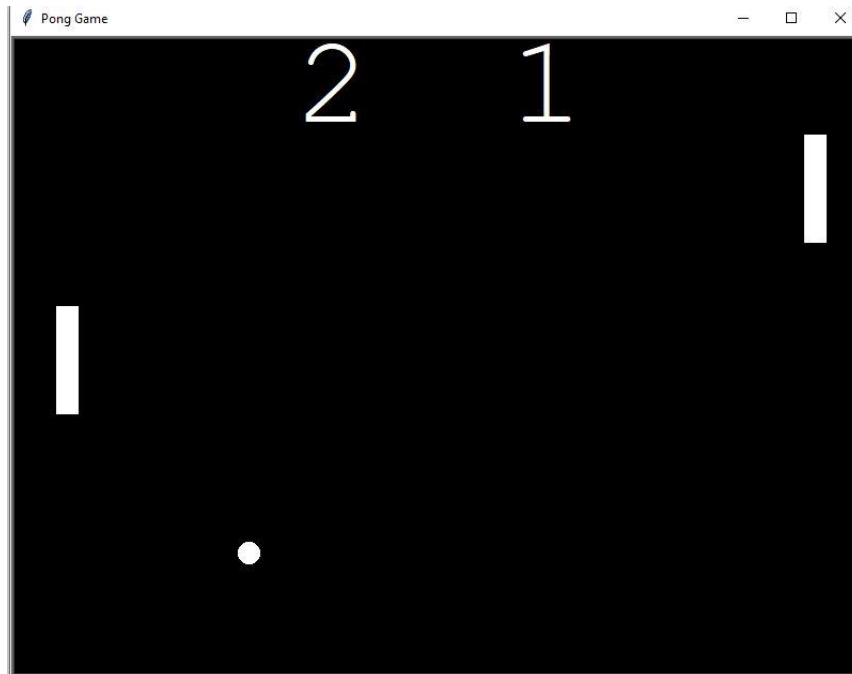
1. Introduction

The key features of this classic game of Pong are designed for users to interact with a ball to play a game of ping pong. Two paddles are created on each side, one for one player and the other paddle for the second player. The ball becomes made at the center and moves towards a player's side. The game's goal is to prevent the opposing player from scoring by deflecting the ball and redirecting it to the opposite end's goal.

2. Design and Implementation



Initially, I had to draw out how the game would look. By looking at just simple classic screenshots of pong games, I broke down the classes I would have. From there, I thought of methods that I would need for these classes to do. It was much easier to draw out the design and see every moving object I was dealing with. The most significant difficulty was learning how to read documentations. Because I was working with python's built-in library Turtle, I had to familiarize myself with all the different types of functions. The time-consuming part of implementing code was understanding what I could do with the turtle object and how it could interact with other objects. For example, creating the ball and having it move and "bounce" off the wall. I had to think about how to traverse the x and y-axis to simulate the "bounce" motion when the ball collides with a physical object.



3. Conclusions

I wanted to challenge myself by creating a game with a screen interface but simple enough for me to learn back-end development. I felt like my strength and confidence in coding has been taken to the next level by keeping things simple. There were times in the project where I felt frustrated because I could not get it to work. I took steps to take a break, but the project's thought and trying to solve the solution was still wrapped in my mind. Eventually, I learned activities to keep my mind off it and revisit the problem with a fresh mind and attitude.

The game's best feature would have to be how the game recognizes when to have the ball detect wall collision. Personally, as a person who loves to play video games, I never took the time to understand wall collisions with objects. I felt like coding the pong game created a better understanding of objects detecting a "wall."

Some features that I would like to add would be allowing the user to start the game. Right now, the game automatically starts with the ball moving. Another feature would be to give players options to select a big, small, or normal size paddle. Lastly, I would like to implement a "high score" function where if you closed the game, you could reopen it to see the high score. Right now, scores are not saved.