

# Pong Game

The purpose of Pong Game is to score on the other opponent by controlling one of the paddles.

The user must control the paddle to prevent the ball from going out of bounds and to try to hit the ball and score on the opponent controlling the opposite paddle.

There were several key features that I had to focus on to make the game work. For the pong game I used Python 3.11 with the Pycharm IDE.

The first step was to import the Turtle and Screen classes from the turtle module. After that I created the screen where the game is going to be played in using the Screen class. The background color is set to black and chose to go with a width equal to 800 and a height equal to 700.

The next step was to create a paddle class. In the paddle class I created a paddle with the help of the Turtle class from the turtle module. The paddle was created using specific dimensions for the length, width, and height. The Turtle shape was set to be a square and the color white.

After creating the paddles, I created two methods within the paddle class to give the paddles the up and down movement functionality. Then used the Turtle listen() and the onkey() method to allow the paddles to move up and down when pressing on the up and down arrows.

A ball class was created with the help of the Turtle class to create the pong ball. The ball was created giving the Turtle a circular shape and choosing white as its color. Also created a method that gives the ball movement. I included another method that makes the ball bounce when it hits the top or bottom of the screen.

The next functionality was to detect ball and paddle collisions. When the ball is a certain amount of pixels close to the paddle it will bounce back the opposite direction.

The last steps were to detect when the ball goes out of bounds. If the ball goes out of bounds in the right side then the left paddle gets a point and vice versa. I also created a scoreboard class to keep track of the score.