

Things I modified

1. I change the color of the paddle to yellow for both player and AI.
2. I added a score display on the center top of the screen and added an AI level display on top right of the screen for progression visualization.
3. First feature that I added is an obstacle in the map. I put two random size and speed paddle-like obstacles to create terrain difficulty in the game.
4. Second feature that I added is an item pickup system where players can pick up a random spawn item which results in increasing ball speed for 3 seconds.

I implement two type of AI system as following:

Weak AI (Easy AI)

If the distance in x-axis of the ball and AI paddle is less than 200, then the AI will move to that ball position.

Strong AI (Hard AI)

The AI paddle just constantly follows the ball y axis position.

Lastly, I ensure that the system run according to the following state machine:

