

Junior Knights Pygame Assignment #2 - Racketball

In class you saw two demos in pyGame with movement:

- a) Bouncing Ball - which displayed a ball bouncing in a window, following the law of reflection.
- b) Tennis - which displayed a ball being randomly shot towards from the right to the left of the screen and the user controlling a "racket" in an attempt to make contact with the ball before it got past the left edge of the screen.

Using the ideas in these two examples, you can create a basic racketball like game. Your screen size will be 1000 x 600 pixels.

Your game will have two players - one will have a "racket" that can slide up and down on the top half of the screen while the other will have a racket that can slide up and down on the bottom half of the screen. Each racket will be 50 x 10 pixels. (So the top racket's y pixel value can range from 0 to 300 while the bottom racket's y pixel value can range from 300 to 600.)

To start each point, a ball will be shot from the point (1000, 300) in a random direction moving left. (You can create a random direction vector generating a dy ranging from 1 to 5 and a dx ranging from -3 to 3.)

The ball should bounce off all sides of the screen except the left side. It should also bounce off the divider previously mentioned.

If a ball travels past the left edge of the bottom half of the screen, then the player controlling the paddle at the top half of the screen gets a point. Alternatively, if the ball travels past the left edge of the top half of the screen, then the player controlling the paddle at the bottom half of the screen gets a point.

For anything not specified in this write-up, make decisions on your own about the implementation. You may choose the criteria for winning, whether or not there are different levels, the speed of the ball, etc.

A screen shot is included of the game in progress on the next page:

Alternatively, you can make up your own game that uses some sort of moving ball and paddle or similar object.

