

ANIMATION AND SOUND



What is our GOAL for this MODULE?

We added sound effects and animation to convert the pong game to a Soccer game.

What did we ACHIEVE in the class TODAY?

- Added sound effects in the game:
 - When the ball hits the paddles or the ball
 - When the ball hits the top/bottom edge.
- Added animation to convert the game of Pong into a Soccer practice game

Which CONCEPTS/ CODING BLOCKS did we cover today?

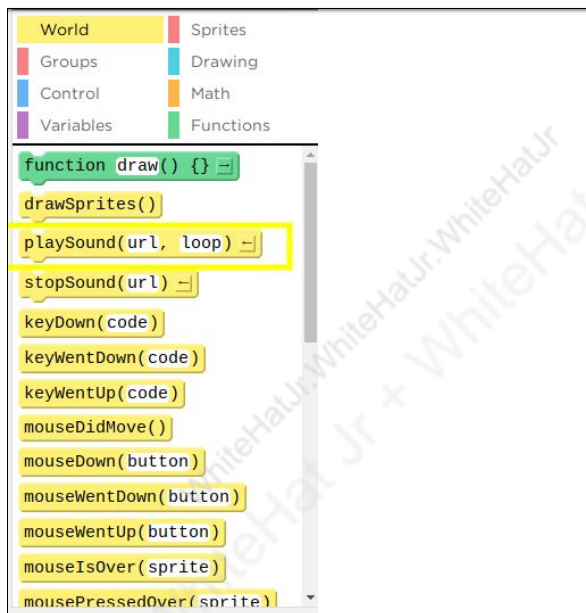
- Sound effects
- Animation

How did we DO the activities?

1. Add a condition to check if the **ball** is hitting the **playerPaddle** or the **computerPaddle**.

```
14 function draw() {  
15   //clear the screen  
16   background("white");  
17  
18   if(ball.isTouching(computerPaddle) || (ball.isTouching(playerPaddle))) {  
19     |  
20   }  
21  
22   //less is 5, rest is the rest
```

2. Use instruction **playSound()** gives an option to choose the sounds.

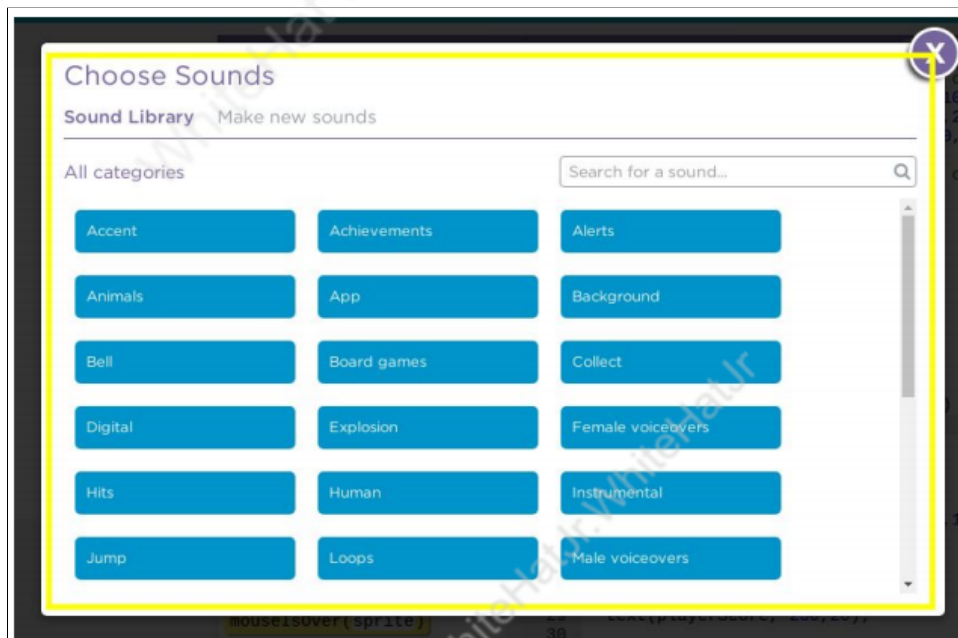


3. Click on **Choose** to select the sound to be played.

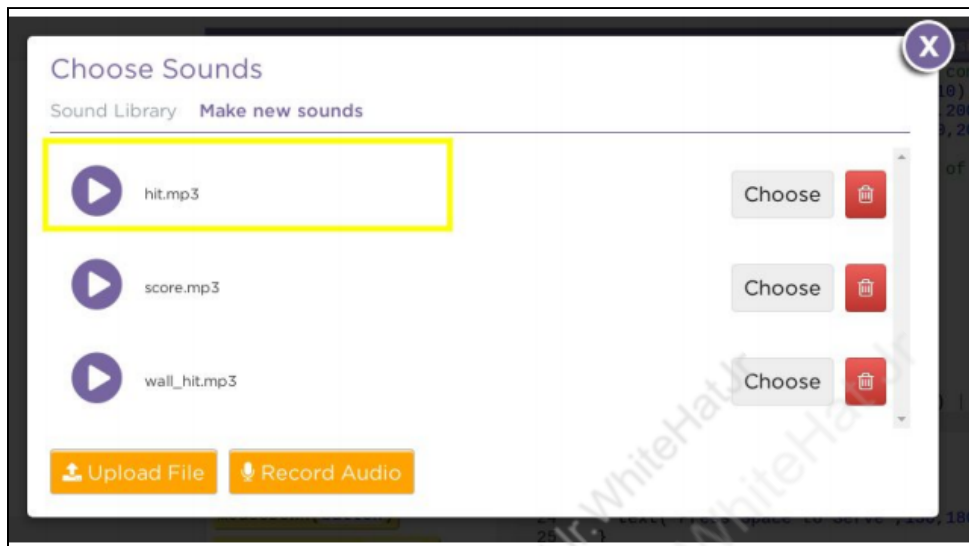


```
1 //create the ball, playerPaddle and computerPaddle as sprite o
2 var ball = createSprite(200,200,10,10);
3 var playerPaddle = createSprite(380,200,10,70);
4 var computerPaddle = createSprite(10,200,10,70);
5
6 //variable to store different state of game
7 var gameState = "serve";
8
9 //variables to keep the score
10 var compScore = 0;
11 var playerScore = 0;
12
13
14 playSound(url, loop)
15 The URL to a sound file. Can be a project asset name or external URL.
16 Choose... See examples
17
18 if(ball.isTouching(computerPaddle) || ball.isTouching(player
19   playSound();
20 }
21
22 //place info text in the center
23 if (gameState === "serve") {
24   text("Press Space to Serve",150,180);
25 }
26
27 //display scores
28 text(compScore, 170,20);
29 text(playerScore, 230,20);
30
```

4. Select a sound under the **Sound Library** or click on **Make new sounds** to access sounds created by you.



5. Select a sound.



6. Add sound effects when the **ball** hits the **topEdge** and the **bottomEdge**.

```
45
46
47 //create edge boundaries
48 //make the ball bounce with the top and the bottom edges
49 createEdgeSprites();
50 ball.bounceOff(topEdge);
51 ball.bounceOff(bottomEdge);
52 ball.bounceOff(playerPaddle);
53 ball.bounceOff(computerPaddle);
54
55
56 if(ball.isTouching(topEdge) || ball.isTouching(bottomEdge))
57     playSound("wall_hit.mp3");
58 }
59
60 //serve the ball when space is pressed
61 if (keyDown("space") && gameState === "serve") {
62     serve();
63     gameState = "play";
64 }
65
66
67
```

7. Add animation to the ball.



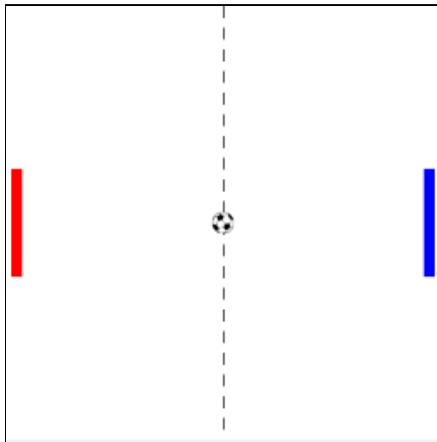
Code:

```

1 //create the ball, playerPaddle and computerPaddle as sprite objects
2 var ball = createSprite(200, 200, 10, 10);
3 ball.setAnimation("ball");
4
5 var playerPaddle = createSprite(300, 200, 10, 70);
6 var computerPaddle = createSprite(10, 200, 10, 70);
7
8 //variable to store different state of game
9 var gameState = "serve";
10
11 //variables to keep the score
12 var compScore = 0;
13 var playerScore = 0;
14
15
16 function draw() {
17   //clear the screen
18   background("white");
19
20   if(ball.isTouching(computerPaddle) || ball.isTouching(playerPaddle)) {
21     playSound("hit.mp3");
22   }
23
24   //place info text in the center
25   if (gameState === "serve") {
26     text("Press Space to Serve", 150, 180);
27   }
28

```

Output:



8. Add **if()** block to check if the ball is touching to or bottom edge and play the sound.

```
41  
42   createEdgeSprites();  
43  
44   if(ball.isTouching(topEdge) || ball.isTouching(bottomEdge))  
45   {  
46     playSound("wall_hit.mp3");  
47   }  
48  
49   ball.bounceOff(topEdge);  
50   ball.bounceOff(bottomEdge);  
51   ball.bounceOff(computerPaddle);  
52   ball.bounceOff(playerPaddle);
```

9. Add the animation for the **playerPaddle** and the **computerPaddle**.

```
1 //create the ball, playerPaddle and computerPaddle as sprite objects
2 var ball = createSprite(200,200,10,10);
3 ball.setAnimation("ball");
4
5 var playerPaddle = createSprite(370,200,10,70);
6 playerPaddle.setAnimation("player");
7
8 var computerPaddle = createSprite(35,200,10,70);
9 computerPaddle.setAnimation("robot");
10
11
12 //variable to store different state of game
13 var gameState = "serve";
```

Output:



What's next?

We will build another more complex game where you will be writing the code on your own!

Extend Your Knowledge

Refer to the following link to get more information about adding sound and animation to the game.

1. [Game Tutorial](#) for sound.
2. [Game Tutorial](#) for animation.