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1  const box = document.getElementById('box');
2
3  /*-----set the initial time-----*/
4  var startTime = new Date().getTime();//this allows the var to be used in the restyleBox
function
5  console.log("initial time is; " + startTime);
6
7  /*-----function to return a random colour -----*/
8  function getRandomColor() {
9      var letters = "0123456789ABCDEF".split('');
10     var color = "#";
11     for (var i = 0; i < 6; i++) {
12         color += letters[Math.round(Math.random() * 15)];
13     } //ends for loop
14     return color;
15 } // ends getRandomColor Function
16
17 /*-----function to return a random size -----*/
18 function getRandomSize(){
19     var maxSize = 200;
20     var randomSize = Math.random()*(maxSize) + 30 + "px"; //+30 for a min size
21     //alert(randomSize);
22     return randomSize;
23 }//END random size Function
24
25 /*-----function to return a circle or a square -----*/
26 function circleOrSquare(){
27     if (Math.random() > 0.5){
28         borderRadiusSize = "50%";
29         //console.log(borderRadiusSize);
30         return borderRadiusSize;
31     } else{
32         borderRadiusSize = "0%";
33         //console.log(borderRadiusSize);
34         return borderRadiusSize;
35     }
36 } //END circle or square function
37
38 /*-----function to return a random position -----*/
39 function getRandomPosition (){
40     var maxSize = 550;//sets limit on the screen size
41     var randomPosn = Math.random()*(maxSize) + "px";
42     //alert(randomSize);
43     return randomPosn;
44 }//END random position function
45
46 /*-----function to return a random time delay----*/
47 function randomDelay(){
48     var time=Math.random();
49     time=time*3000;
50     return time;
51 }//END random time delay function
52
53 /*-----function to restyle the box/circle -----*/
54 function restyleBox(){
55     box.style.display ="block";//make the shape reappear
56     var randomSize = getRandomSize();
57     box.style.borderRadius = circleOrSquare();
58     box.style.left = getRandomPosition();
59     box.style.top = getRandomPosition();
60     box.style.backgroundColor = getRandomColor();
61     box.style.width = randomSize;
62     box.style.height = randomSize;
63     startTime = new Date().getTime();
64     console.log("new start time is: " + startTime);
65 }//END restyleBox function
66
67 /*-----function insert a random delay then call restyleBox function -----*/
68 function appearAfterDelay (){

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69     setTimeout (restyleBox,randomDelay());
70 }//END appearAfterDelay function
71
72     appearAfterDelay();
73
74
75 function startGame(){
76     var endTime = new Date().getTime();//time recorded whenplayer clicks the shape
77     console.log("end time is: " + endTime);
78     box.style.display ="none";
79     var timeTaken = (endTime - startTime)/1000;
80     console.log("time from shape appearing to being cliked is " + timeTaken);
81     document.getElementById("printReactionTime").innerHTML="Your Reaction Time is: " +
82     timeTaken + "seconds";
83     appearAfterDelay();
84 }//END startGame onclick function
```