T-Rex Runner

What is our GOAL for this MODULE?

We created a jumping and running Trex Dinosaur for our Trex Game.

What did we ACHIEVE in the class TODAY?

- Made jumping and running Trex.
- Learned to scale the images in the game.
- Learned to indent the code correctly to make it more readable.

Which CONCEPTS/ CODING BLOCKS did we cover today?

- Adding animation to a sprite
- Using code to add gravity effect to sprites.
- Adding indentation to code.
- Identifying bugs in the program.
- Debugging the code.

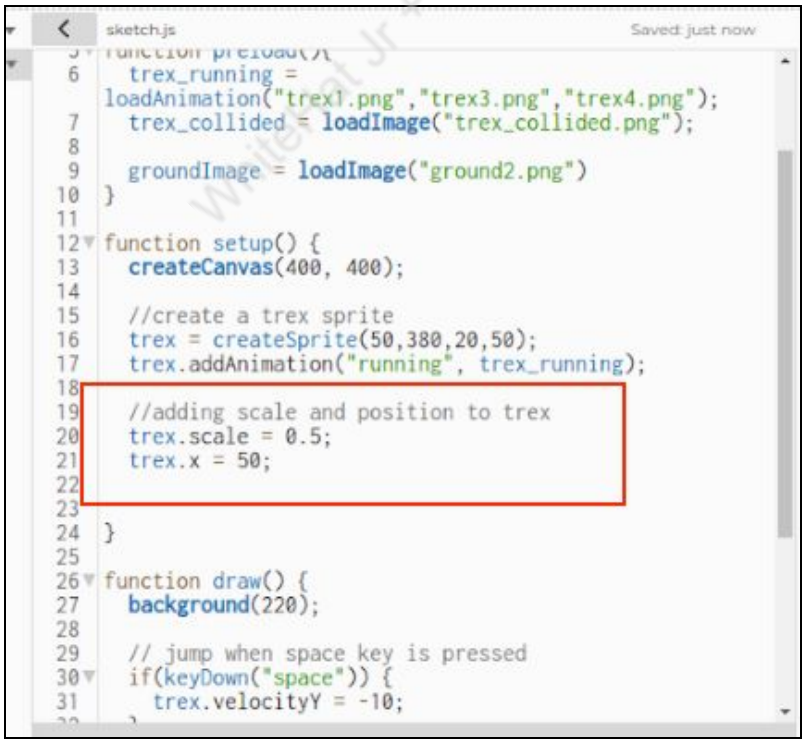
How did we DO the activities?

1. Create a Trex sprite and load a running Trex animation.

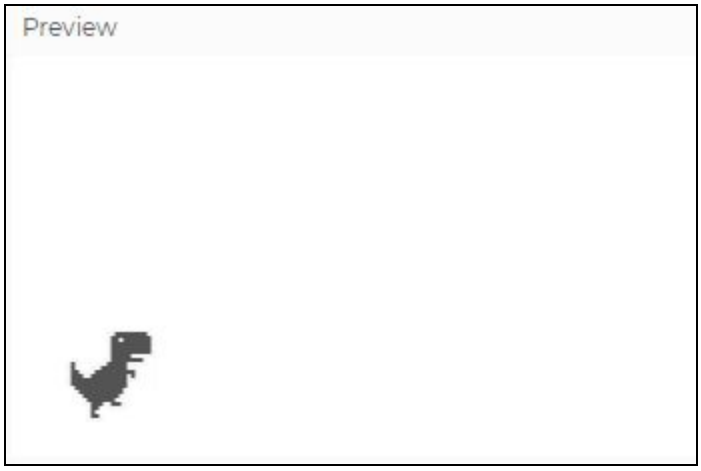
```
1  var trex, trex_running;
2
3  function preload(){
4    trex_running =
   loadAnimation("trex1.png","trex3.png","trex4.png");
5  }
6
7  function setup(){
8    createCanvas(400,400);
9    trex = createSprite(200,350,20,50);
10   trex.addAnimation("running",trex_running);
11 }
12
13
14 function draw(){
15   drawSprites();
16 }
```

2. Scale the dinosaur to the right size.

Code:



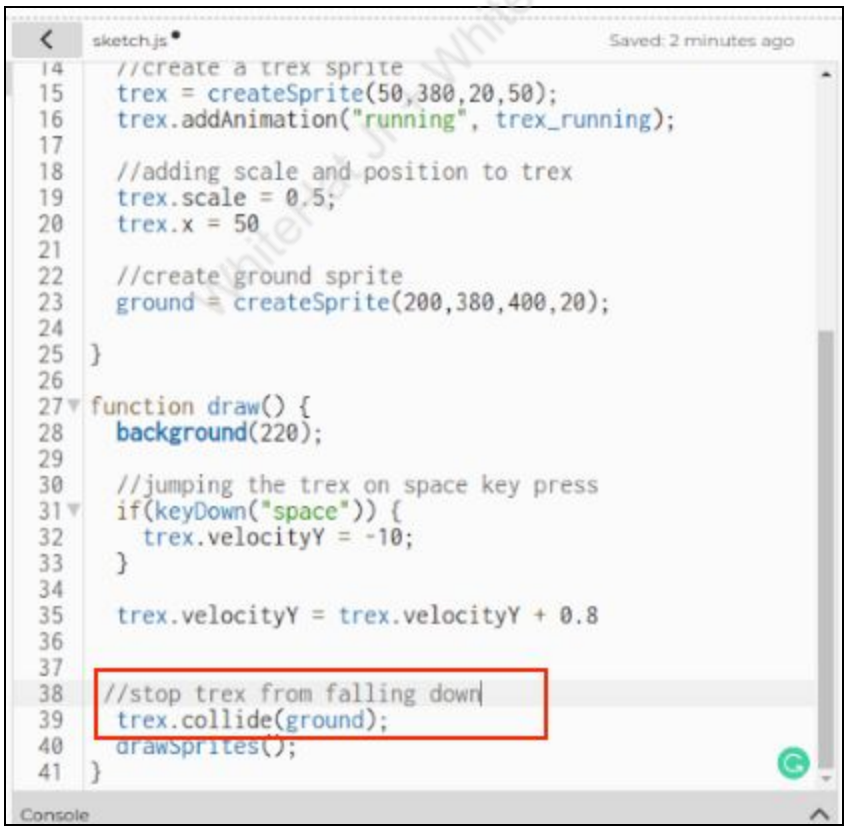
Output:



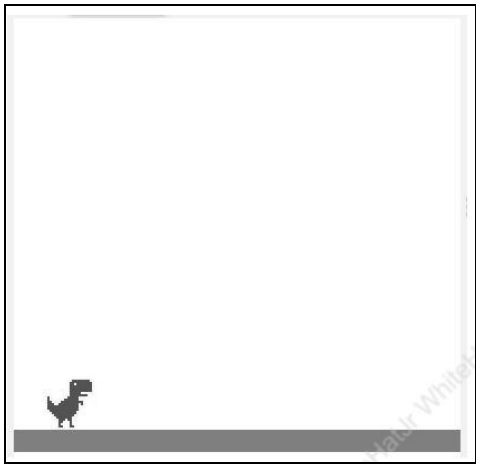
3. Make the Trex jump and add gravity effect to it. Ensure the Trex falls on the 'ground'.

```
trex = createSprite(50,180,20,50);
trex.addAnimation("running", trex_running);

//adding scale and position to trex
trex.scale = 0.5;
trex.x = 50

//create ground sprite
ground = createSprite(200,180,400,20);


function draw() {
  background("white");

  //jumping the trex on space key press
  if(keyDown("space")) {
    trex.velocityY = -10;
  }

  trex.velocityY = trex.velocityY + 0.5;

  //stop trex from falling down
  trex.collide(ground);
  drawSprites();
```

4. Create a rectangular sprite called ground. This is where the T-Rex dinosaur will run. The ground sprite should ideally cover the entire screen.



Output:



5. Leave a space after every meaningful line of code.

```
sketch.js*                                                    Saved: 8 minutes ago
function setup() {
  createCanvas(400, 400);

  //create a trex sprite
  trex = createSprite(50,380,20,50);
  trex.addAnimation("running", trex_running);
  trex.scale = 0.5;

  //create a ground sprite
  ground = createSprite(200,380,400,20);
  ground.addImage("ground",groundImage);
  ground.x = ground.width /2;
  ground.velocityX = -2;


}

function draw() {
  background(220);

  //jump when the space key is pressed
  if(keyDown("space")) {
    trex.velocityY = -10;
  }

  //add gravity
  trex.velocityY = trex.velocityY + 0.8

Console
```

6. Leave an even space after every instruction contained inside another block of code.

```
sketch.js
21  ground.addImage("ground",groundImage);
22  ground.x = ground.width /2;
23  ground.velocityX = -2;
24
25
26
27  }
28
29  function draw() {
30    //set background color
31    background(220);
32
33    //jump when the space key is pressed
34    if(keyDown("space")) {
35      trex.velocityY = -10;
36    }
37
38    //add gravity
39    trex.velocityY = trex.velocityY + 0.8
40
41    if (ground.x < 0){
42      ground.x = ground.width/2;
43    }
44
45    trex.collide(ground);
46
47    drawSprites();
48  }
```

Output:

What's next?

We will fix the problem of limited game space.

Extend Your Knowledge:

1. Animation in JavaScript: Read more about how to use animation in Javascript.