

Instituto Federal Goiano - Campus Ceres
Bacharelado em Sistemas de Informação
Prof. Me. Ronneesley Moura Teles

Eduardo de Oliveira Silva
Fernando Maciel da Silva
Gleyson Israel Alves
Gusttavo Nunes Gomes
Ianka Talita Bastos de Assis

HTML5 Canvas e Javascript

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Sumário

HTML5 Canvas e Javascript

```
1 <!DOCTYPE HTML>
2 <html>
3   <head>
4     <style>
5       body {
6         margin: 0px;
7         padding: 0px;
8       }
9     </style>
10  </head>
11  <body>
12    <canvas id="myCanvas" width="578" height="200"></canvas>
13    <script>
14      window.requestAnimationFrame = (function(callback) {
15        return window.requestAnimationFrame || window.
16        webkitRequestAnimationFrame || window.mozRequestAnimationFrame
17        || window.oRequestAnimationFrame || window.
18        msRequestAnimationFrame ||
19        function(callback) {
20          window.setTimeout(callback, 1000 / 60);
21        };
22      })();
23
24      function drawRectangle(myRectangle, context) {
25        context.beginPath();
26        context.rect(myRectangle.x, myRectangle.y, myRectangle.
27        width, myRectangle.height);
28        context.fillStyle = '#8ED6FF';
29        context.fill();
30        context.lineWidth = myRectangle.borderWidth;
31        context.strokeStyle = 'black';
32        context.stroke();
33      }
34      function animate(myRectangle, canvas, context, startTime) {
35        // update
36        var time = (new Date()).getTime() - startTime;
37
38        var linearSpeed = 100;
39        // pixels / second
40        var newX = linearSpeed * time / 1000;
41
42        if(newX < canvas.width - myRectangle.width - myRectangle.
43        borderWidth / 2) {
44          myRectangle.x = newX;
45        }
46
47        // clear
48        context.clearRect(0, 0, canvas.width, canvas.height);
49
50        drawRectangle(myRectangle, context);
51
52        // request new frame
53        requestAnimationFrame(function() {
54          animate(myRectangle, canvas, context, startTime);
55        });
56      }
57      var canvas = document.getElementById('myCanvas');
```

```

53     var context = canvas.getContext('2d');
54
55     var myRectangle = {
56         x: 0,
57         y: 75,
58         width: 100,
59         height: 50,
60         borderWidth: 5
61     };
62
63     drawRectangle(myRectangle, context);
64
65     // wait one second before starting animation
66     setTimeout(function() {
67         var startTime = (new Date()).getTime();
68         animate(myRectangle, canvas, context, startTime);
69     }, 1000);
70 </script>
71 </body>
72 </html>

```

recursos/codigos/move_retangulo.html

```

1 <head>
2 <style>
3     body {

```

recursos/codigos/move_retangulo.html

Para criar uma animacao usando HTML5 Canvas, nós usamos o *requestAnimationFrame* que habilita o navegador determinar o FPS adequado para cada animacao. Para cada frame de animação, nos atualizamos os elementos do canvas, limpando e redesenhando solicitando nova animação para dar aspecto de movimento.