

Computer Graphics

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Daniel Silva

Overview

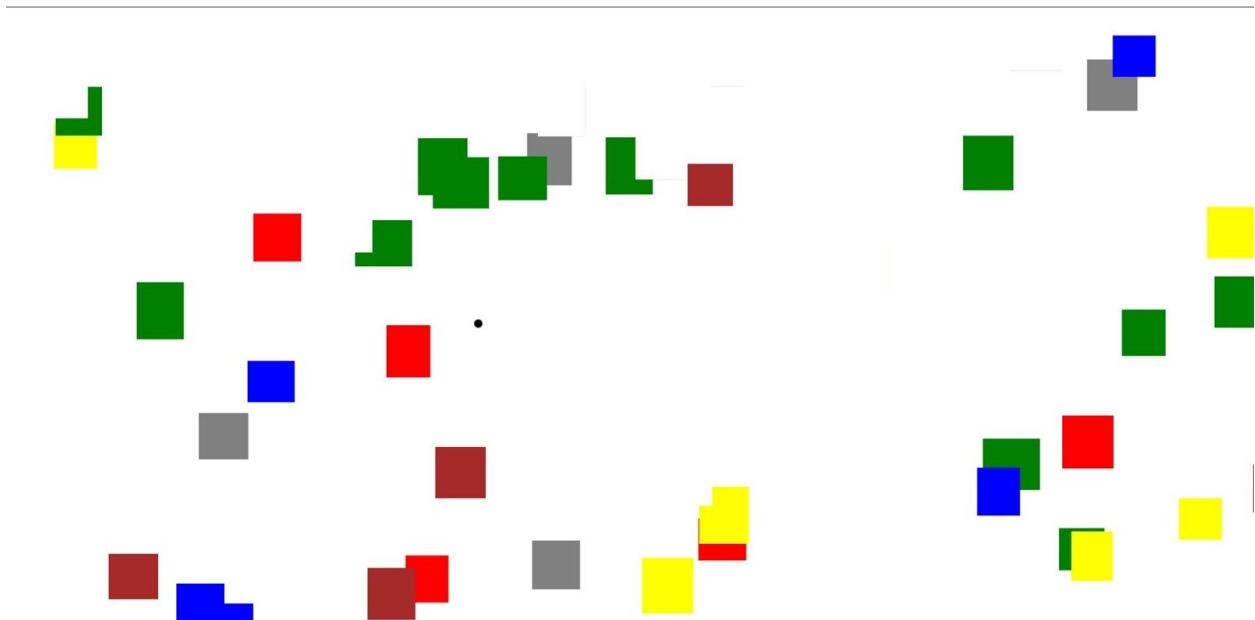
This document describes what this project is based on. I had some difficulties in learning some details but I managed to find solutions in my own way, they may of course not be the best. I did everything by myself as you can fix bugs and performance problems.

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IDEA

The project consists of a ball that is moving and that has obstacles along the way. The objective is to touch all obstacles so that they disappear. At the end there is a transformation of the ball and a text appears saying that the game is over.



So here it goes some code and i will explain:

```
function Circle(){  
    this.display = function(color, x, y, r){  
        //alert((x-1)+ " | "+ (y-1)+" | "+x+" | "+y)  
  
        c.fillStyle = color;  
  
        c.beginPath();  
        c.arc(x, y, r, 0, Math.PI * 2, true);  
        c.closePath();  
        c.fill();  
        c.closePath();  
    }  
  
    this.setReferencePoint = function(x,y){  
        this.X0 = x;  
        this.Y0 = y;  
    }  
}
```

This is the function of the ball that is in motion, the aim is for both the size and the position to be variable.

```
function Rect(){

    this.display = function(color, x, y, W, H ){

        c.fillStyle = color;
        c.fillRect(x, y, W, H);

    };

    this.setReferencePoint = function(x,y){

        this.X0 = x;
        this.Y0 = y;

    }

}
```

This is the function that defines obstacles, it also has variable parameters so that not all obstacles are the same.

```
//clearRect(x,y,w,h)
c.clearRect(x, y, 7, 7);
c.clearRect(x-7, y-7, 7, 7);
c.clearRect(x-7, y, 7, 7);
c.clearRect(x, y-7, 7, 7);
```

This part of code is for the ball not to leave a trace.

```
function over(){
  c.transform(1, 0.00099, 0, 1, 0, 0);
  c.clearRect(0,0, window.innerWidth, window.innerHeight);
  c.font = "30px Arial";
  c.strokeText("GAME OVER", window.innerWidth/2, window.
    innerHeight/2);

  setTimeout(function(){ clearInterval(realTime); },2000);
}
```

This is where the transformation takes place. In which it gives the impression that the ball falls and also the text.



CONCLUSION

For me, this work had some difficulty in carrying out because I have some difficulties in learning and this was all very new for me which only got worse. But putting the difficulties aside I really enjoyed learning and working in this world of javascript canvas, I could better understand how the graphic world of the internet works.

BIBLIOGRAPHY

<https://www.w3schools.com/>

<https://stackoverflow.com/>

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