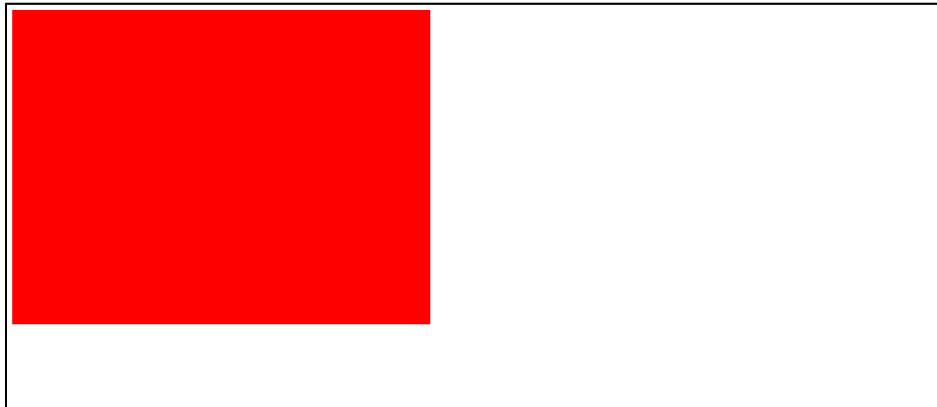# CS 405 HW2 Report

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For this assignment, our task is quite simple just changing the color of a box object from red to blue. We can solve this problem by changing only one line of the code. Since it is small I would like to explain the methodology and segments of the given code and what they are doing.
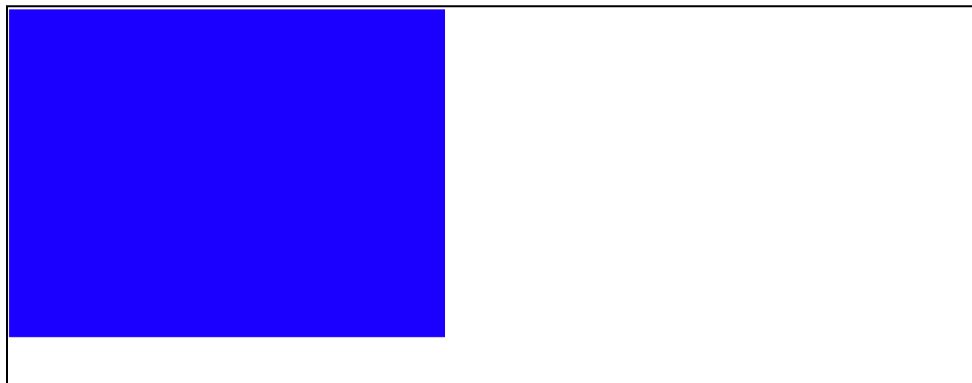
Methodology:

After downloading the code from SUCourse, I added it to my local CS405 folder. Later, I open the homework codes using VSCode. There are two files in this homework, redbox.js and Assignment2.html. One of our constraints for this assignment is not to change the Assignment2.html file. Therefore, I did not change any line in the Assignment2.html.

In the initial state of the assignment, there was a red box on the top of the screen.

After changing the respective code segment in the redbox.js file it became a blue box object.

To accomplish this, I changed the following part of the redbox.js file.

```
 2
 3     const fragmentShaderSource = `
 4     precision mediump float;
 5
 6     void main() {
 7       gl_FragColor = vec4(0.0, 0.0, 1.0, 1.0);
 8     }
 9     `;
10     |
```

In the given context of the assignment, gl_FragColor returns an RGB color with the Alpha. In the beginning, the values of the RGB were 1.0, 0.0, 0.0, 1.0. They represent a red color with full opacity. After changing the color to 0.0, 0.0, 1.0, 1.0 it started to represent a blue color with full opacity. In Assignment2.html this fragmentShaderSource object used for creating a fragmentShader. As a result, it is used for coloring purposes.