CS 405 Assignment 2

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Introduction:

In this assignment, we were tasked with changing a given fragment shader's color from red to blue.

Methodology:

This assignment was not particularly challenging. As a first step, I have downloaded the folder from SUCourse, and then imported it into my existing git repository for CS 405 assignments. Thereafter, I have opened the downloaded folder in Visual Studio Code and started working on it. There were two files, namely *Assignment2.html* and *redbox.js*
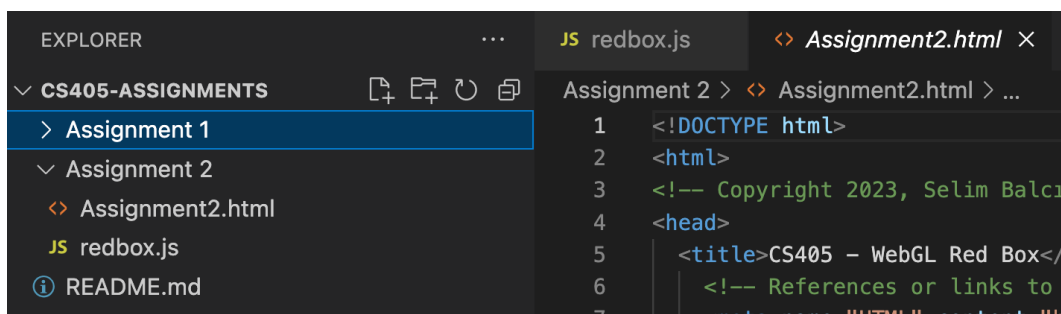
We were asked to not change anything in *Assignment2.html.*

When I first opened the HTML file, the output was the following:
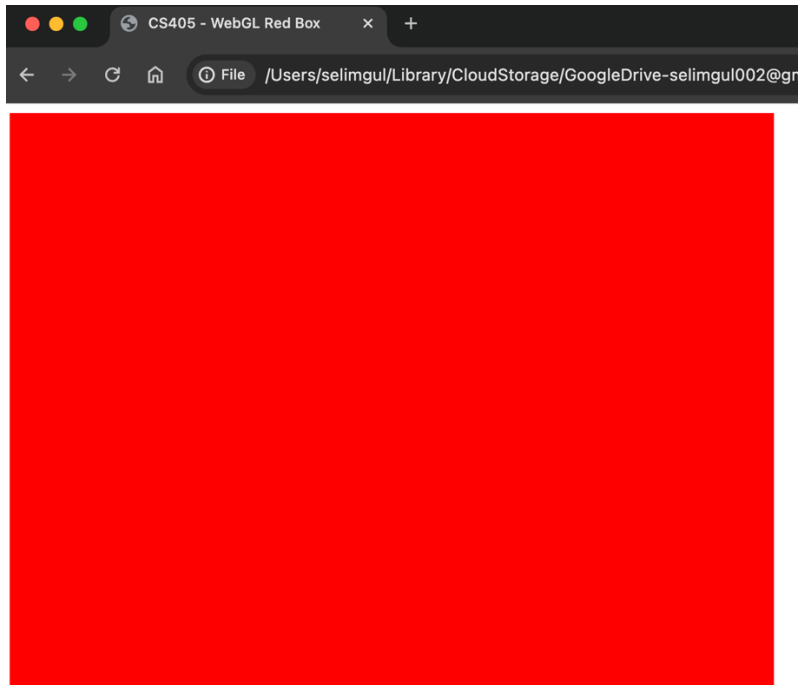
We were asked to change the color of this rectangle from red to blue. Its color was defined in the following way:

The vec4 on line 7 is a function creating a four-component vector, which is being assigned to *gl_FragColor*. These four components represent different properties of the color:
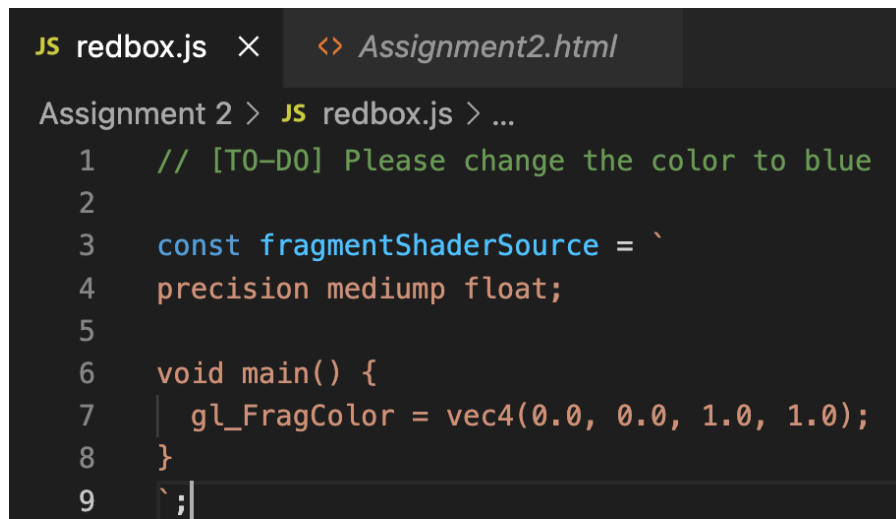
R (Red): The first value 1.0 represents the red component of the color. The range is from 0.0 (no red) to 1.0 (full red).

G (Green): The second value 0.0 is for the green component of the color. The range is from 0.0 (no green) to 1.0 (full green).

B (Blue): The third value 0.0 is for the blue component of the color. The range is from 0.0 (no blue) to 1.0 (full blue).

A (Alpha): The fourth value 1.0 represents the alpha component, which is essentially the opacity of the color. The range is from 0.0 (fully transparent) to 1.0 (fully opaque).

Using this knowledge, I have changed the R (Red) component to 0.0 and B (Blue) component to 1.0 to achieve the given task.

```
JS redbox.js  ✕      <> Assignment2.html

Assignment 2 > JS redbox.js > ...
  1    // [TO-DO] Please change the color to blue
  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    `;
```

Finally, the output was the following: