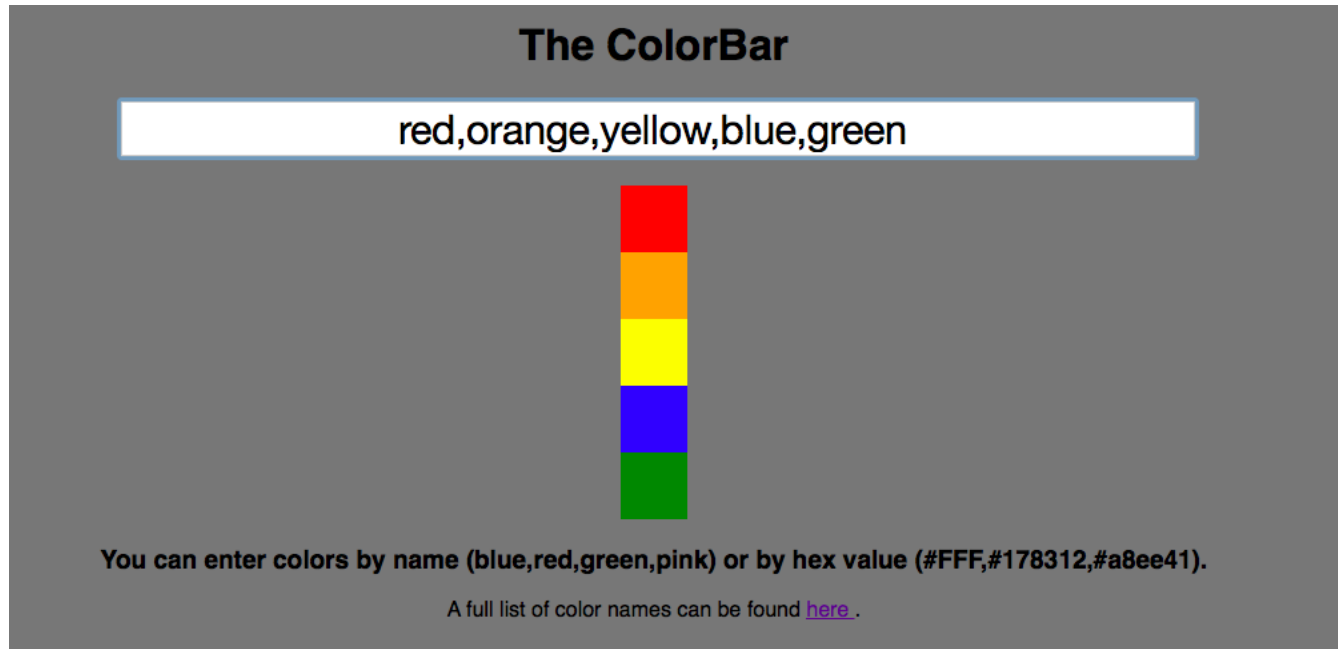Mini-Project: ColorBar

This mini-project involves building a complete HTML 5 application that uses HTML, CSS, and Javascript together. It uses the ideas of loops, functions, and arrays that we've developed over the past few classes.

You can view the page presented at the beginning of class at http://jsfiddle.net/emwdx/528t8L58/5/embedded/result/.

The files **color-bar.js, library.js, color-bar.css,** and the jQuery library are already contained within the **/js** directory**.**
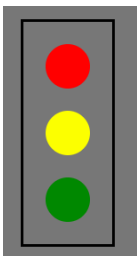
You must create or edit the following files:

color-bar.html: Create the complete code shown on the next page
color-bar.js: Add the code on page 3 to the file. Look at each function to understand what it does.

When all of the code has been added correctly, the page should function like the demo shown at the beginning of the class.

Completing this task will earn you a 4.5/5 for this challenge. Want to earn a 5? Do one or more of the following **Extras:**

- Can you change the CSS so that the bar appears as a set of circles instead of squares?
- Adjust the CSS and the content of the page so that the color bar looks like a stop-light when it is opened (see left)
- Right now, the function **stringToArray()** looks for commas to separate the colors in the list. This makes it so that you can't use colors in RGB format like **rgb(50,10,200)** since there are commas in the command. Make one small change to the **stringToArray()** function to eliminate this problem.

color-bar.html:

```html
<!DOCTYPE html>
<html>
<head>
<title>ColorBar</title>
<script src = "js/jquery-1.11.0.min.js"></script>
<script src = "js/library.js"></script>
<link rel = "stylesheet" href = "css/color-bar.css">
</head>

<body>
<header><h1>The ColorBar</h1></header>
<section id = "form">

<input type = "text" id = "color-list" placeholder = "Enter a list of colors separated by a comma" value = "red,orange,yellow">

</form>
</section>

<div id = "color-container"></div>

<section id = "message">
<h3>You can enter colors by name (blue,red,green,pink) or by hex value
(#FFF,#178312,#a8ee41).</h3>
A full list of color names can be found <a href =
"http://www.w3schools.com/cssref/css_colornames.asp" target = "_blank">here </a>.
</section>
</body>
</html>
<script src = "js/color-bar.js"></script>
```

color-bar.js:

```javascript
buildColorBar();

//This function runs any time a key is pressed in the input box with id of 'color-list'
$('#color-list').on('keydown',function(e){

buildColorBar(); //This function builds the bar from the text in the input box, and is called
whenever the key is pressed

});

function removeBoxes(){

 $('.color').remove(); //Clears out all of the colored boxes

}


function buildColorBar(){

removeBoxes(); //Removes all boxes from the page

var colorText = getFormText('#color-list'); //Gets the text inside the input box

var spacesRemoved = removeSpaces(colorText); //Takes spaces out of the text inside the box

var colorsArray = stringToArray(spacesRemoved); //Makes an array of all of the colors typed
into the input box

setColorsFromArray(colorsArray); //Makes a box for each color in the array

}

function setColorsFromArray(colors){

for(i=0;i<colors.length;i++){
//For each color named in the array...

addColorBox(i,colors[i]);    //Create a box of that color

}

}

function addColorBox(id,color){
var divString1 = '<div class = "color" id = "color'
var divIndex = id;
var divString2 = '"></div>';

var newDiv = divString1+divIndex+divString2;

$('#color-container').append(newDiv);
$('#color'+divIndex).css({'background-color':color});

}
```

Grading Rubric:

5	Page functions like the demo, but includes at least one of the upgrades mentioned in the **Extras** section.
4.5	Page looks and functions exactly like the demonstration.
3	Page does not function or look like the demonstration.