cis3.5, fall 2009, lab II.3 / prof sklar.

This lab will expose you to HTML forms and some basic Javascript. Refer to notes posted on the class web page. As you work through this material, you will notice some commonalities between Javascript and Processing. For example, both languages use *variables*, *functions*, *branching* statements (like `if..else`) and *iteration* statements (like `for` loops).

Note that javascript is embedded in HTML files, and so you will write code using a *text editor*, such as **Notepad** on a PC or **TextEdit** on a Mac. On Linux, you can use **pico** or **nano** or **emacs** or **vi**.

1 HTML form buttons and javascript

1 Look at the following HTML file:

```
<html>
<body>
<p>
<form name="form1">
<input type="button"
name="mybutton"
value="press me"
onclick="alert('hello are we done yet?')" />
</form>
</body>
</html>
```

2 Modify the example so that it uses three different buttons, labeled "RED", "BLUE" and "GREEN" (instead of "press me"). Note that you must give each button a different **name** as well as value (i.e., the button label is what is displayed on the button).

3 Modify the **onclick** function call for each button so that when you click on each button, a window pops up and displays a message like "you clicked on the RED button" (or something more creative than that), instead of the message "hello". Whatever message you use, it must contain text that indicates which color button you clicked on and the message must be different for each button!

4 Save the file and name it with the **.html** extension. If you are using a PC, remember to tell TextEdit not to put the "txt" extension after ".html"!

5 Try opening the file with a browser and see how it works. If any of the elements above don't work, go back into the text editor window, and edit the file to fix them. The reload the file in your browser. Keep doing this until everything works just perfectly :-)

2 Image maps and Javascript

1 Open a new file in the text editor.
In the file, you will write HTML and Javascript code to do the things listed below.

2 Look at the second half of the HTML file below:

```
<html>
<body>
<hr>
this is an example of using links (a href...) to make it easy for a
user to go from one web page to another
<p>
my favorite colors are:
<ul>
<li> <a href="blue.html">blue</a>
<li> <a href="purple.html">purple</a>
<li> <a href="grey.html">grey</a>
</ul>
<hr>
this is an example of using an image map to make it easy for a
user to go from one web page to another
<p>
my favorite colors are:<br>
<img src="mymap.jpg" width=300 height=100 usemap="#mymap">
<map name="mymap">
<area shape="rect" coords="0,  0,100,100" href="blue.html">
<area shape="rect" coords="100,0,200,100" href="purple.html">
<area shape="rect" coords="200,0,300,100" href="grey.html">
</map>
<hr>
</body>
</html>
```

3 Modify the example so that it uses the image file: **mymap2.jpg** linked on the class syllabus page.

4 Replace the **href=...** sections of each `<area...>` tag with **onclick=alert('...')**. You can fill in the *argument* to the **alert()** function using the text you put in the previous step. The *argument* is the text between the single quotes ('), in the case of this example, the argument is 'hello'.
Note that you will need to update the size of the image in the `<img...>` tag and the corresponding coordinates in each `<area...>` tag.
Also note that you will need to create a fourth `<area...>` tag since there are four colors in the image.

3 Ready for more?

1 Try working through the examples in the javascript notes posted on the class web page. Type in the examples and test them to make sure they work. Then play with them, modifying them to do different things you can think of.