Javascript Specialist Designation Program

Lab Exercise #6

We've been using Javascript events for the past 5 lessons and now we've gone over what they are. Let's practice!

Lab Instructions

1) Run your Brackets development environment.

2) With Brackets running, create a new file and quickly save it under the file name **sixth_javascript_lab.html**

3) Key in the basic document structure and set **Lab #6** as the content for the title tag.

4) In the body of the HTML document we're going to add two div tags and style them to look like boxes. The first div will have a message saying, "Click me" and the second div will say "Hover over me".

Give the first div an id of "eventBox1" and give the second div an id of "eventBox2".

Your code should look something like this:

```
<div id="eventBox1">Click me</div>

<div id="eventBox2">Hover over me</div>
```

5) Since we do not cover CSS in this course, simply copy and paste this code inside your HTML body. This will style your divs into unique boxes.

```
<style>
    #eventBox1 {
        background-color: blue;
        width: 200px;
        height: 200px;
        margin: 5px;
        color: white;
    }
    #eventBox2 {
        background-color: red;
        width: 200px;
        height: 200px;
        margin: 5px;
        color: white;
    }
</style>
```

6) Let's add some Javascript.

For best practice, we will go ahead and create a separate Javascript file and quickly save it as **main.js**.

7) Create a script tag right above the body tag and link it to the Javascript file.

```
<script src="main.js"><script>
```

8) Open your **main.js** file and create the window.onload function.

Inside the window.onload function, you will declare and initialize 2 variables, as well as create 3 event functions. The first variable will be called "randomBox1" and will be attached to the div with the id "eventBox1". The second variable will be called "randomBox2" and will be attached to the div with the id "eventBox2".

Your variables should look something like this:

```
var randomBox1 =
document.getElementById('eventBox1');

var randomBox2 =
document.getElementById('eventBox2');
```

9) We'll be working with 3 events, "onmouseover", "onkeypress" and "onclick".

Still inside the onload function, let's create our first event function.

Grab "randomBox2" and register a "onmouseover" event. Inside this function, create an alert saying, "You hovered over the red box!"

```
randomBox2.onmouseover = function() {
 alert('You hovered over the red box!');
};
```

For our second event function, grab "randomBox1" and register an "onclick" event with the event object as a parameter, name it "e". Remember that "e" represents the event object.

Inside this function we will shoot an alert that will display the x and y coordinates of the mouse pointer depending on where you click.

Remember: Inside the event object, the X coordinate is under clientX and the Y coordinate is under clientY.

```
randomBox.onclick = function(e) {
alert('X=' + e.clientX + ' and Y=' +
e.clientY)
}
```

The last event function will be "onkeypress" and will listen for any key pressed on the keyboard, anywhere in the window.

Grab the window and register the "onkeypress" event. Inside the function we will give an alert that says, "You pressed a key"
```
window.onkeypress = function() {
 alert('You pressed a key!');
}
```

Your final code should look something like this:

```
window.onload = function() {
 var randomBox1 =
 document.getElementById('eventBox1');
 var randomBox2 =
 document.getElementById('eventBox2');

 randomBox2.onmouseover = function() {
  alert('You hovered over the red box!');
 }

 window.onkeypress = function() {
  alert('You pressed a key!');
 }

 randomBox.onclick = function(e) {
  alert('X=' + e.clientX + 'and Y=' +
e.clientY)
 }
}
```

11) Click File Save to save the current version of your document. Navigate to the HTML document using your operating system and double click it. The document should open in your default browser.

Play around with the boxes and press any key on your keyboard!

Challenge Yourself

Enhance your skills by attempting the exercises below.

1) Console.log the event object and look through all of its properties. Play around with some of the data it gives back and see if you can display it on an alert!

2) Put your site on the web. We've arranged a special deal with Blue Host. Visit **http://www.bluehost.com/track/learntoprogra m/** and click "Get Stated Now." You will be able to access web hosting plans as low as $3.49 a month. Once Blue Host takes you through the process of creating your domain and web server upload your lab and post the URL for the others in the class to see.