

Javascript Specialist Designation Program

Lab Exercise #4

Now that you got If, Else, and Else If statements out of the way, we can work on combining them with Javascript loops!

Lab Instructions

- 1) Run your Brackets development environment.
- 2) With Brackets running, create a new file and quickly save it under the file name **fourth_javascript_lab.html**
- 3) Key in the basic document structure. Be careful to key in the HTML5 code below exactly as it appears.

```
<!DOCTYPE html>
<html>
  <head>
    <title>Lab #4</title>
  </head>
  <body>
  </body>
</html>
```

We're using **Lab #4** as the content for the title tag in this case.

- 4) In the body of the document add a heading 1 tag with the content " Type in your name several times along with a bunch of random words" Your code should look like this:

```
<h1>Type in your name several times along
with a bunch of random words</h1>
```

- 5) Now we're going to add one button and one

input box. Using a button tag, add a "Find!" message. Next, type the input tag and give it a type equal to text.

Afterwards, give the button an id of "findNameBtn" and give the input an id of "inputNameBox". Your code should look something like this:

```
<input id="inputNameBox" type="text" />
<button id="findNameBtn">Find!</button>
```

- 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 create function which will search for an element with the id "findNameBtn". The event listener will call a function named "lookForName".

Your code should look something like this:

```
window.onload = function() {
  document.getElementById("findNameBtn").ad
  dEventListener("click", lookForName);
};
```

- 9) The "lookForName" function has not yet been created, so let's go ahead and create the response function that will run the loops and search for your name.

Inside the "lookForName" function start by declaring and initializing three variables. The first variable will hold your name in a string, the second variable will be the counter, and the

third variable will hold the input box's value.

```
function lookForName() {  
  
var myName = "Joe";  
  
var timesFound = [];  
  
var text =  
document.getElementById("inputNameBox").value  
  
}
```

10) Then, create a FOR loop that starts at 0, continues until it reaches the end of text, and increments by 1 each time.

Inside the FOR loop you will put an IF statement to make sure the function checks the IF statement each time it moves forward through the loop. Have the IF statement check for something identical to the first letter of your name (capitalized).

Alright, here is the last loopy step: add another IF FOR loop, this time inside the body of your statement.

You'll want to set your second loop's iterator to start at the first one, so it picks up where that one left off. Your loop should stop when it hits the value of the first iterator plus the length of your "myName" variable.

Lastly, in the body of your loop, use the .push() method of "timesFound". Just like the strings and arrays have a .length method, arrays have a .push() method that adds the thing between parentheses to the end of the array.

```
for (var i = 0; i < text.length; i++) {  
  if (text[i] === "J") {  
    for (var j = i; j < (myName.length + i); j++) {  
      timesFound.push(text[j]);  
    }  
  }  
}
```

12) Great job! One last step, set up an if/else statement. If you don't have any hits, alert "Your name wasn't found!". Otherwise, alert the variable "timesFound".

```
if (timesFound.length === 0) {  
  alert("Your name wasn't found!");  
  
} else {  
  
  alert(timesFound);  
  
}
```

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.

In the input box, type a bunch of different words and insert your name as many times as you would like. Click Find and voilà!

Challenge Yourself

Enhance your skills by attempting the exercises below.

1) Play around with While loops. Use a while loop instead of a for loop and try to get the alert to work the same way!

2) Put your site on the web. We've arranged a special deal with Blue Host. Visit <http://www.bluehost.com/track/learntoprogram/> 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.