

Lab #8

1. Write a description of the problem you're working on

- a. I decided to work on the word counter problem, in order to create a text box, that when populated with text, counts the number of words in the text

2. What are the variables

- a. var count, is a reference to the id of the count
var input, is a reference to the id of the textarea
var text, which keeps track of the user's input, and
var wordCount, which keeps track of the words as they increment

3. What are the inputs and outputs

- a. The input is the text being input by the user into the text box
- b. The output is wordCount, which represents the number of words in the text box. The wordCount is printed to the screen being displayed in the web browser (see example image below)

4. Think about what the solution will look like.

a. Did you use any data structures?

The data structure I used was a for loop.

b. What is the logic for solving the problem?

The for loop keeps track of the number of ' ' (empty space characters) in the text box and associates that number with the number of words in the text document.

c. Did you use any formulas?

I simply incremented the value of wordCount every time the program detected the user inputting a space key in the text box between words.

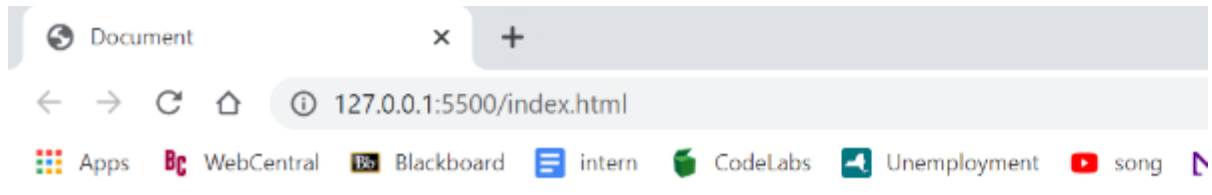
5a. This is `index.html` file, which specifies to pull from `index.js` (line 14)

```
<> index.html X JS index.js
<> index.html > html > body
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta http-equiv="X-UA-Compatible" content="IE=edge">
6      <meta name="viewport" content="width=device-width, initial-scale=1.0">
7      <title>Document</title>
8  </head>
9  <h1>Lab 8 by Ann Liberman for CISC 3140 </h1>
10 <body>
11     <h2>Word Count: <span id="count">0</span></h2>
12     <textarea id="input" rows="10"></textarea>
13
14     <script src="index.js"> </script>
15
16 </body>
17 </html>
```

5b. This is `index.js` file, it contains JavaScript code for the word counter

```
<> index.html JS index.js ●
JS index.js > wordCounter
1  //the counter will update as the user enters text
2  //so we grab a ref to the id of both the textarea and the count
3  var count = document.getElementById('count');
4  var input = document.getElementById('input');
5
6  //keyup is fired when user's hands have left a previously pressed key
7  input.addEventListener('keyup', function(e){
8      wordCounter(e.target.value);
9  });
10
11 //wordCounter function takes in one argument text
12 //text is the user's input
13 function wordCounter(text) {
14     var text = input.value;
15     var wordCount = 0; //start at 0 words before we type anything
16
17     //increments wordcount every time new word is typed
18     //new word is recognized by the space separating words
19     for (var i = 0; i <= text.length; i++) {
20         if (text.charAt(i) == ' '){
21             wordCount++;
22         }
23     }
24     count.innerText = wordCount;
25 }
```

5c. This is what the web browser screen looks like when running my JavaScript code



Lab 8 by Ann Liberman for CISC 3140

Word Count: 16

```
Hello this is an example for Lab 8. Every word I write  
increments word count by 1.
```