

JavaScript (JS) – Recitation 6

You've all learned HTML and CSS so far, meaning that you know how to put things on a webpage and make them pretty! With JavaScript, you can move things around on your webpage. Look at this awesome one-paged website to see what JavaScript can do: <http://www.webleeddesign.com/>

How and where do I program in JavaScript?

You add `<script></script>` tags in your HTML page (**remember the basic HTML structure**), and then you put all the JavaScript in between those tags:

```
<html>
  <head>
  </head>
  <body>
    <!--OTHER HTML STUFF GOES HERE-->
    <script type="text/javascript">
      // YOUR JS GOES HERE!
    </script>
  </body>
</html>
```

****You could technically put your `<script>` tags anywhere in the html file. Some people even like putting it in the head, but I recommend putting it right before the closing `</body>` tag. Where you put it is where it loads.**

After you have your basic structure typed out like above, within the `<script>` tags, do this:

```
<script>
  alert("Hello world!");
</script>
```

Save your file as `helloworld.html`, open it up in your browser, and see what happens!

How do we work with variables? Declare, initialize, and assign it to a value.

****Note:** JavaScript is CASE-SENSITIVE (eg. `hello` is different from `HeLLo`)

-Declaration: set the variable without giving it a value; you're basically introducing the variable

-Initialization: FIRST time assigning a value to a variable; can be done in the same line as the declaration step

-Assignment: Replacing the old value of a variable with a new value

```
<script>
  var x; // declaration
  var y = 2; //declaration and initialization
  x = 3; //initialization
  y = 10; // assignment
  x = 4; // assignment
</script>
```

Example: prompt() and alert():

```
<script>
    var name=prompt("What is your name?");
    alert(name);
</script>
```

Putting quotes around something triggers the JavaScript String object. Whenever you want to use a variable that you defined earlier, put '+' symbols around the variable.

Example: JavaScript String Object

```
<script>
    var name=prompt("What is your name?");
    alert("Hello, " + name + "!");

</script>
```

Example: JavaScript String Object

Note: Using // will comment out text!

```
<script>
    //var name=prompt("What is your name?");
    //alert("Hello, " + name + "!");
    alert("4 + 5");
    alert(4 + 5);
</script>
```

Example: prompt(), document.write(), and JavaScript Number Object

```
<script>
    var numBooks=prompt("How many books do you want?");
    document.write("I want " + numBooks + "!");
</script>
```

Output on the page: "I want NaN"

NaN stands for "not a number"

To fix this, try:

```
<script>
    var numBooks=1*prompt("How many books do you want?");
    document.write("I want " + numBooks + "!");
</script>
```

By multiplying by 1, we're telling the variable numBooks that it is storing a number object.