

Jumping for JS

The Coding Bootcamp |

Today's Class

Objectives

In today's class we'll be covering:

- The Art of Pseudo-Coding
- Building Rock-Paper Scissors
- JavaScript Functions

Basics Recap

What is JavaScript? ***(And what is it used for?)***

JavaScript Definitions

- **JavaScript** is the third of the three fundamental programming languages of the modern web (along with HTML, CSS)
- JavaScript allows developers to create **dynamic** web applications capable of taking in user inputs, changing what's displayed to users, animating elements, and much more.



Please... Don't Pick Me.

What is a Variable?

(And how do we declare one?)

Basic Variables

- Variables are the nouns of programming.
- They are “things” (Numbers, Strings, Booleans, etc.)
- They are composed of variable names and values

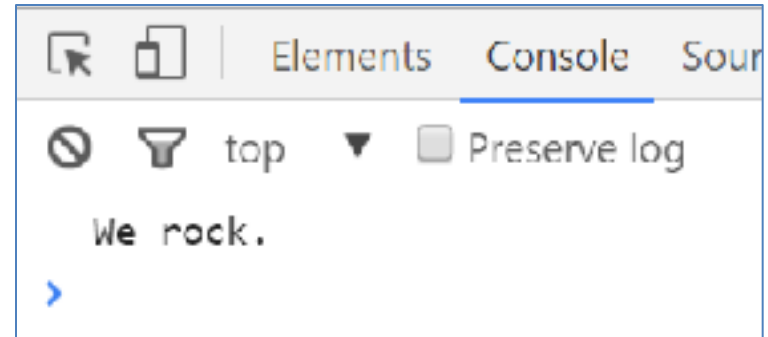
```
var name = "Snow White";  
var dwarfCount = 7;  
var isSleeping = true;
```


What is meant by console.log?

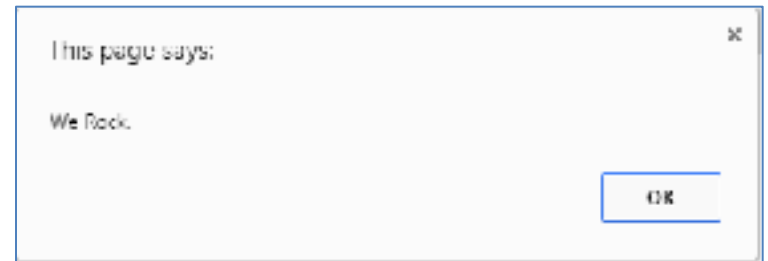
*(And how does it differ from an alert,
prompt, or confirm?)*

Basic Variables

```
console.log("We rock.");
```



```
alert("We Rock.");
```

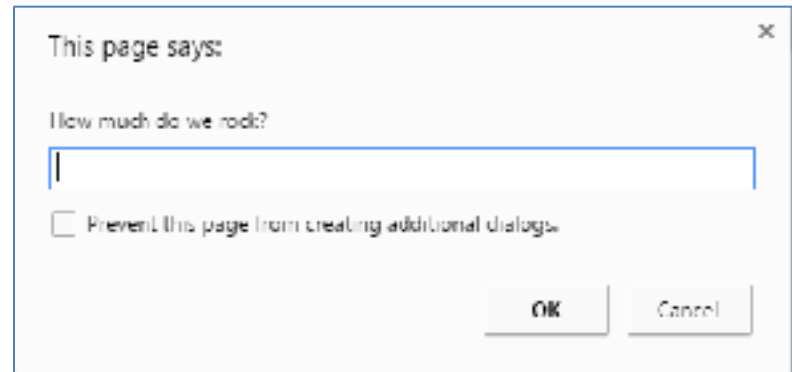
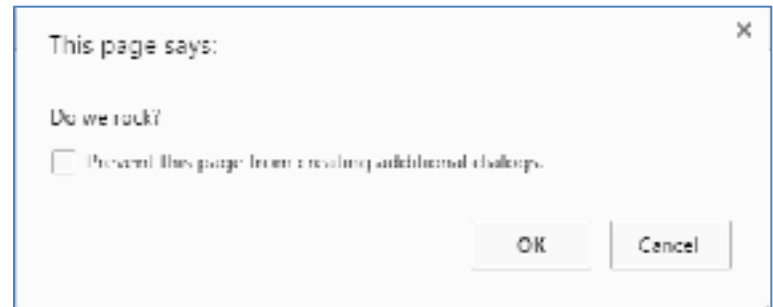


- **Console.log** displays discreetly to the debugger.
- **Alert** displays a pop-up message to the user.

Basic Variables

```
confirm("Do we rock?");
```

```
prompt("How much do we rock?");
```



- **Confirm** displays a True/False popup.
- **Prompt** displays a prompt with a text-box input.

Please... Don't Pick Me.

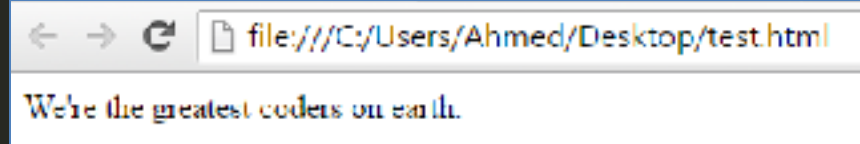
***How do we “write” text
to the HTML itself?***

Writing to HTML

- We can use JavaScript to directly write to the HTML page itself using **document.write()**.
- Later we will go over *much* more advanced approaches for writing HTML using JavaScript and jQuery.

```
1 <!DOCTYPE html>
2 <html lang="en-us">
3   <head>
4     <meta charset="UTF-8">
5     <title>Document Write</title>
6   </head>
7   <body>
8
9     <script type="text/javascript">
10
11       document.write("We're the greatest coders on earth.");
12
13     </script>
14
15   </body>
16 </html>
```

Test.html (chrome)



Test.html
(sublime)

Please... Don't Pick Me.

***How do we check
conditions?***

If/Else Statements

- If/Else statements are critical.
- Each statement is composed of an if, else-if, or else (keyword), a condition, and the resulting code in { } curly brackets.

```
// If the user likes sushi (confirmSushi === true), we run the following block of code.
if (confirmSushi) {
  alert("You like " + sushiType + "!");
}
// If the user likes ginger tea (confirmGingerTea === true), we run the following block of code.
else if (confirmGingerTea) {
  alert("You like ginger tea!!");
}
// If neither of the previous condition were true, we run the following block of code.
else {
  document.write("You don't like sushi or ginger tea.");
}
```

Please... Don't Pick Me.

What is an array?

Basic Arrays

- Arrays are a type of variable that are collections.
- These collections can be made up of strings, numbers, booleans, other arrays, objects, anything.
- Each element of the array is marked by an index. Indexes always start with 0.

```
var nickCharacters = ["Tommy", "Doug", "Oblina"];  
var diceNumbers = [1, 2, 3, 4, 5, 6];  
var mixedArray = ["Zoo", 12, "Carrot", 3];
```

Functions

Code Dissection: Array Building

- Run the program sent to you via slack.
- Then, with a partner, fill in the missing comments for each line of code.
- Make sure both of you can fully explain what each line means.
- Be prepared to share with the class.

Instructor: Demo

(SuperHeroLogging_NoFunctions.html | 26-SuperHeroLogging)

Mondo Repetitive...

```
// For Loop for Brands
for (var i = 0; i < brands.length; i++) {
  console.log(brands[i]);
}
console.log("-----");

// For Loop for Heroes
for (var i = 0; i < heroes.length; i++) {
  console.log(heroes[i]);
}
console.log("-----");

// For Loop for booksOnMyShelf
for (var i = 0; i < booksOnMyShelf.length; i++) {
  console.log(booksOnMyShelf[i]);
}
console.log("-----");

// For Loop for thingsInFrontOfMe
for (var i = 0; i < thingsInFrontOfMe.length; i++) {
  console.log(thingsInFrontOfMe[i]);
}
console.log("-----");

// For Loop for howIFeel
for (var i = 0; i < howIFeel.length; i++) {
  console.log(howIFeel[i]);
}
console.log("-----");
```

**Who
wants to
maintain
this??**

Hint: No one.

Instructor: Demo

(SuperHeroLogging_withFunctions.html | 26-SuperHeroLogging)

Much Better with Functions!

```
// Here we create a "Function" that allows us to "call" (run) the loop for any array we wish.  
// We pass in an array as an "argument".  
function consoleInside(arr) {  
  
    // We then loop through the selected array.  
    for (var i = 0; i < arr.length; i++) {  
  
        // Each time we print the value inside the array.  
        console.log(arr[i]);  
    }  
    console.log("-----");  
}
```

Squeaky Clean Code.

Minimal repetition

Code Creation: Function Building

- Working in pairs and using the starter file sent to you via slack—fill in the missing **functions** and **function calls**.
- Note: Try to finish all four functions if you can, but don't be distressed if you only get 1 or 2. The important thing is that you get at least one function fully done.
- HINT:** Look back to the previous example if you need help.

Questions
