

Agenda

- Function review
- Scope review
- Best practices for managing scope
- Introduce Arrays
- Intro to Objects
- Reading and working with JSON

Working with arrays

- How to define arrays, assign values, and determine stuff about arrays and elements
- How to iterate across arrays
 - for loop with `for(var i=0; i < array.length; i++)`
 - forEach loops with `forEach(function (element, index, array)`
- Manipulating arrays
 - Adding elements with `.push(itemToAddToEnd)` and `.unshift(itemToAddToBeginning)`
 - Remove elements `.pop()` and `.shift()`
 - Reverse array order with `.reverse()`
 - Sort array elements with `.sort()`
- Using `.splice()` to remove, add, and replace elements in an array
- Converting arrays to strings and strings to arrays
 - Split a string into an array with `.split('')`
 - Join array elements into a string with `.join('')`

Introducing objects

- Intro to objects
 - Objects group data and functionality
 - Data items in an object are its properties
 - Functions on an object are called methods
- Creating our own objects with object literal notation
- Setting and accessing properties on objects with dot notation
- Think about some things which may feel like objects already...
 - When we do `"a string".length`, `length` accesses a property.
 - And `"some string".toUpperCase()`, `toUpperCase()` is a method.
 - Think about the CSS you've written. Look at Bootstrap CSS. It looks like an object literal!
 - Imagine using CSS selectors like variables that point to specific **objects** on your page.
- Defining functions on objects (methods)

JSON - JavaScript Object Notation

- Demo the GitHub api in the browser.
 - Start at <https://api.github.com/orgs/twbs/repos/>
 - Find the url for the api for the basic Bootstrap repository and go there.
 - Scan the JSON, how many open issues do you see? How many subscribers?
 - Go to <https://api.github.com/users/your-username/repos> and check it out!