

JavaScript Crash Course

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Colorado School of Mines
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JavaScript is **NOT** Java ¹

- JavaScript was written was created in 10 days in May 1995 by Brendan Eich.
- JavaScript was originally called Mocha and was renamed to LiveScript before being renamed again to JavaScript.
- Why **Java**Script? Because Java happened to be popular then (that was before people realized how awful it is) and JavaScript looks syntactically similar at a glance.
- JavaScript is standardized² by Ecma International and there have been a number of ECMAScript versions. The latest is ECMAScript 6, but it is not fully supported by any browsers, including Firefox which only has partial support.

¹ Lots of this slide's information is from: https://www.w3.org/community/webed/wiki/A_Short_History_of_JavaScript

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Variables

- `var name;` - creates variable `name` with value `undefined`.
- `var name = 'Sumner';` - you can initialize a variable when you declare it.
- Variables have types, but they can change.

There are two scopes in JavaScript: global and function.¹

Variables are *hoisted* to the top of a function.

¹In ES6, variables declared with `let` are actually block scope.

Arrays

JavaScript arrays are basically vectors.

Objects

JavaScript objects are basically maps.

Functions

Functions are just objects with two special properties: a context (scope) and the function code.

Functions: Closure

JavaScript is Pseudoclassical.

Truthy, Falsy and == vs ===

JavaScript has the notion of being *truthy* and *falsy*.

JavaScript has two equality operators:

- == compares without checking variable type.
- === compares and checks variable type.

Pitfalls

There are **lots** of JavaScript libraries. One of the most widely used is jQuery (<http://jquery.com/>). It has good documentation and is really good for DOM manipulation.

I also have a few nice prototype overloads in a repository at <https://github.com/sumnerevans/js-utils> (MIT License).

DOM Manipulation

The *Document Object Model* is an API used by JavaScript to interact with the elements of an HTML document.¹

¹https://en.wikipedia.org/wiki/Document_Object_Model

Additional Resources

A lot of this presentation was based off of *JavaScript: The Good Parts* by Douglas Crockford. This is an essential read for anyone interested in learning JavaScript for anything more than writing a few simple scripts.

MDN is the best resource for JavaScript documentation (<https://developer.mozilla.org/en-US/>).