

W03D1: JavaScript Variables and Errors

Lesson Objectives

JavaScript Variables

1. `var` vs `let` vs `const`
2. Naming rules
3. Common naming conventions

JavaScript Errors

1. Learn to understand them
 - a. Common error types and how to interpret them
2. Learn to love them

**Basically just
names for
stuff**

**Javascript
Variables**

Javascript Variables: `var` vs `let` vs `const`

There are essentially three variable types in Javascript, but generally speaking you should mainly only be using two of them.

1. `var theVar = "I'm not used as much these days"`
 - a. The “old” way to declare a variable.
 - b. Creates a function-scoped or globally-scoped variable
 - i. We'll talk in-depth about scoping later
2. `let theLet = "You'll probably use me and const more"`
 - a. Creates a block-scoped local variable
3. `const theConst = "Called 'constant' for a reason"`
 - a. Declares a block-scoped *constant*
 - i. These cannot be changed or redeclared.
 - ii. If it is assigned to an Object or Array, its properties or items can be changed or removed

Javascript Variables: Naming Rules

Anywhere you'll work may have their own different rules (or "conventions") for variables. But there are a few hard rules for variable names that everyone has to follow:

1. Can't contain spaces
2. MUST start with a letter, _ (underscore), or \$ sign
3. Can ONLY contain letters, numbers, _ (underscores), or \$ signs
4. They are case-sensitive
5. Cannot be a reserved keyword
 - a. https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Lexical_grammar#keywords

Javascript Variables: Conventions

Naming conventions are rules about naming variables usually put in place by a development team or company. If you violate these, not much will break except possibly the spirit of your senior devs, or your relationship with the rest of the team.

A few general rules that are fairly common in the industry are:

1. Should be concise, and make sense for what they are assigned to
 - a. `let twelve = 12;` ← Good!
 - b. `let fourPlusFourPlusFour = 12;` ← Bad!
 - c. `let nine = 12;` ← Really Bad!
 - d. `let shaun_of_the_dead_is_the_best_zombie_movie = 12;` ← True, but also bad!
2. Local variable names usually start with a lowercase letter
3. Global constants usually are in all caps, separated by underscores:
 - a. `const WEE_00_WEE_00 = "WEE! 00!";`
4. When multiple words are in a variable name, they are usually separated with casing, or underscores:
 - a. `this_is_called_snake_case`
 - b. `thisIsCalledCamelCase`

VARIABLES DEMO AND PAIRING WORKSHOP

BREAK TIME

**Javascript
doesn't let
you get away
with anything**

**Javascript
Errors**

Javascript Errors

With HTML & CSS, you saw that the browser tries to fix a lot of stuff for you. Unclosed tags, mis-typed styles, etc.

What's more, it won't try to tell you what's wrong. It will just show you a broken or weird looking page with no explanation.

Javascript:

- Cuts you no slack when it comes to errors
- Tries to tell you what and where the error is so you can fix it

A really great resource for trying to understand an error you see:

<https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Errors>

ERRORS DEMO AND PAIRING WORKSHOP