

PROFESSIONAL & CONTINUING EDUCATION

UNIVERSITY of WASHINGTON

# LESSON 02: INTRO TO RESPONSIVE WEB DEVELOPMENT



## JAVASCRIPT & RESPONSIVE DESIGN



# LESSON 02, SECT. 1

## INTRO TO JAVASCRIPT

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# JAVASCRIPT & RESPONSIVE DESIGN



# JAVASCRIPT

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- > Web Pages are like houses
  - HTML provides the structure
    - > foundation, frame
  - CSS provides the style
    - > color of the walls, interior design
  - JavaScript makes things work
    - > wiring, plumbing, etc.



# WHAT IS JAVASCRIPT?

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- > A cross-platform, object-oriented scripting language
- > Used to make webpages interactive
  - ex: complex animations, clickable buttons, popup menus, etc.
- > There are also more advanced server-side versions of JavaScript such as Node.js
  - These allow more functionality to a website than simply downloading files
  - ex: real-time collaboration between multiple computers

MDN web docs JavaScript Introduction: <https://developer.mozilla.org/en-US/docs/Web/JavaScript/Guide/Introduction>



# WHAT IS JAVASCRIPT?

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**JavaScript** (often shortened to **JS**) is a lightweight, interpreted, object-oriented language with first class functions, and is best known as the scripting language for Web pages, but it's used in many non-browser environments as well. It is a prototype-based, multi-paradigm scripting language that is dynamic, and supports object-oriented, imperative, and functional programming styles.

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



# WHAT IS JAVASCRIPT?

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Technically JavaScript is known as ECMAScript, but is shortened to ESx. Currently all major browsers support ES5, but more and more are catching up to ES6.

While the names are similar, and the syntax is somewhat similar, Java and JavaScript are used in different manners. In the web world more often than not, Java is the language of choice for back ends, and JavaScript for the front-end and for servers.



# HOW DO WE USE IT?

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- > There are a few places we can code in JavaScript:
  - The console of Chrome
  - Downloading and running Node
    - > A program for running JS outside of the browser, which we won't use in the course, but is heavily used in the real world
  - Code sandboxes
    - > Great for experimenting and trying new things out
      - I prefer CodePen [[codepen.io](https://codepen.io)]



# HOW DO WE USE IT?

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## > Running JS in Chrome

- Easy to do
- On Mac `cmd-option-J`
- On Windows/Linux `Ctrl + Shift + J`

## > Let's do it now, and see what it looks like.

- Fun warning on facebook.com





# HOW DO WE USE IT?

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## > Node

- Runs a lot of backend services and servers that send information out to websites
- Asynchronous I/O is a form of input/output processing that permits other processing to continue before the transmission has finished



# HOW DO WE USE IT?

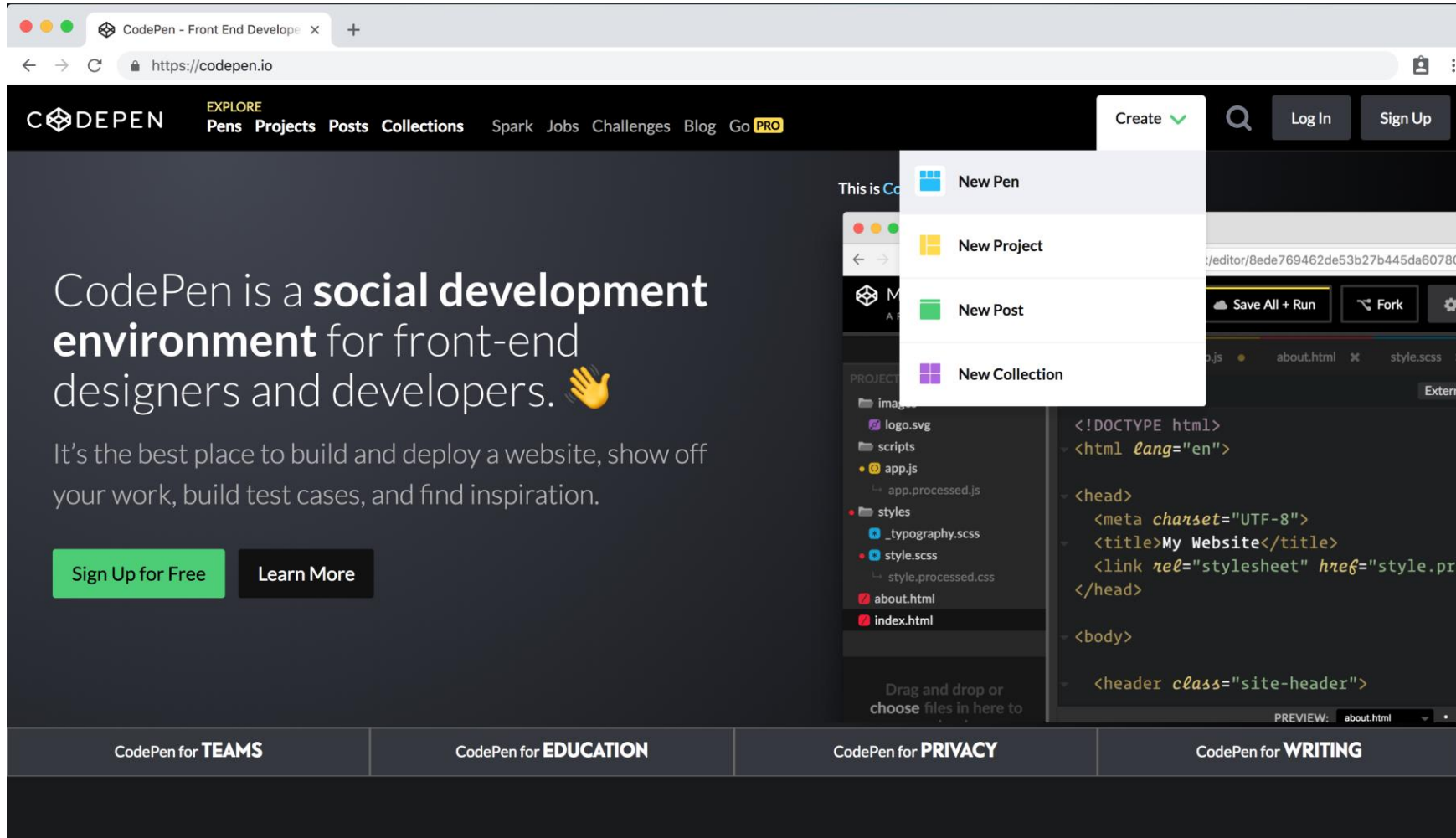
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## > Code Sandboxes

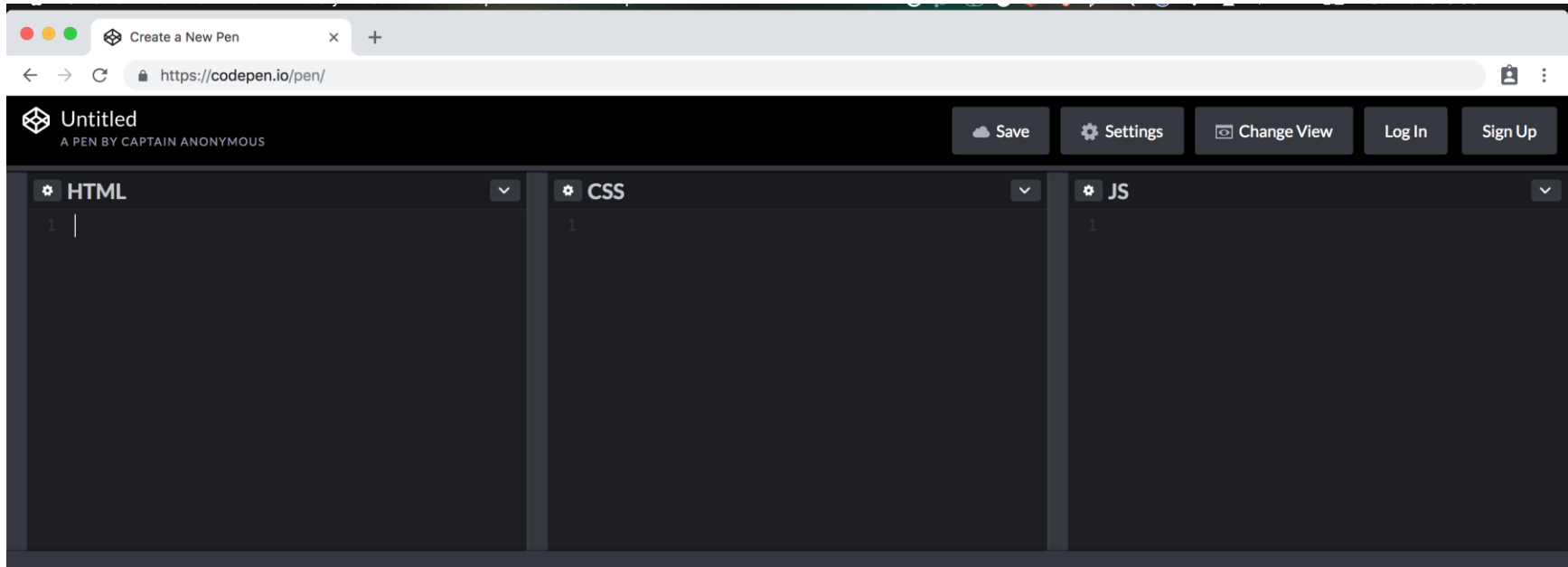
- Websites that allow for code experimentation
- Great for trying out ideas without worrying about the project you're currently working on
- Great for teaching....we'll use one for JS basics



# JAVASCRIPT: HOW TO USE CODEPEN



# JAVASCRIPT: HOW TO USE CODEPEN



Click here to show console



# JAVASCRIPT

