# Web Advance: JavaScript

PGTE: 5505 | Section E | CRN:

6455

Instructor: Karla Polo

Week 1: Introduction to JavaScript

#### Today's Menu

- Introductions. Get to know you.
- Let's talk about the Syllabus.
- Github class repo.
- Refresh your memory with some coding.

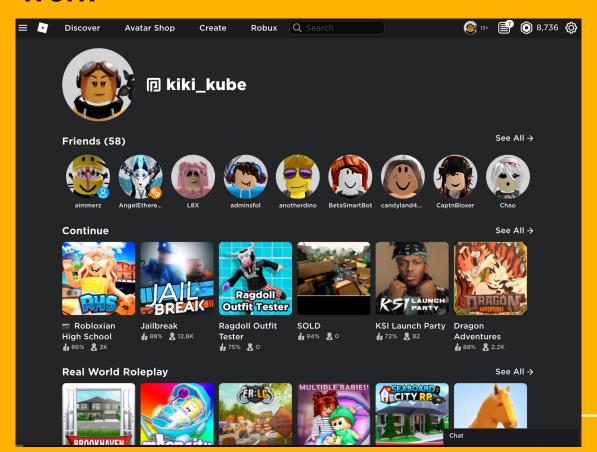
### Who am !?

Karla Polo (she/her)

karla@newschool.edu

https://karlapolo.com

#### Work



#### Fun



### Who are you?

- Are you registered or are you on the waiting list?
- Preferred Name Pronouns?
- MFA 1st / 2nd year? BFA?
- Any previous experience with HTML, CSS, JS?
- What do you hope to learn in this class?
- Hobbies? I won't judge!

## Syllabus

https://github.com/KayPolo/WebAdvanced-JS-Fall2021/

blob/main/Syllabus%20and%20Resources/PGET 5505

\_CRN7792\_POLOKARLA\_FA21.pdf

### WHY CODING?



#### But really, why coding?

Age of Specialization.

Many available tools to generate code.

Coding is difficult to master.

#### **But** ...

Better understanding of the process needed to build.

Better control in defining execution params.

Create better and more efficient designs.

#### **Brief History of JS**

#### 1995

Internet was becoming popular

Web page were static

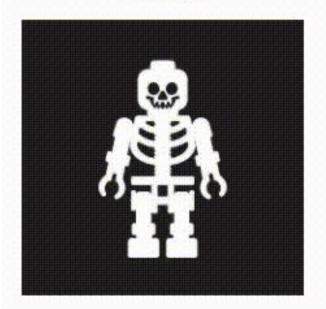
Netscape builds first commercial web browser.

Marc Andreessen felt that the web needed to become more dynamic

Brendan Eich first project at Netscape was to create a programing language that could run naively in the browser In 10 days Eich created Mocha which became LiveScript, which was renamed to JavaScript (Not to be confused with Java)

JavaScript is today "THE" programming language of the web.

HTML structure



CSS presentation/appearance



JavaScript dynamism/action



#### What is JS?

- Is a Programing Language
- Runs in your browser, not in a server like most programing languages.
- Provides Interactivity
- Provides real-time content updates
- Enables animations
- Allows for many approaches to Design Patterns
- Frameworks: Angular, Vue, Ionic...
- Libraries: React, jQuery, D3, Three, P5...

<sup>\*</sup>Java & Javascript are not related. They are two different programing languages.

#### What Can Javascript do?

**Generative:** 

http://color-wander.surge.sh/

**Practical:** 

https://codepen.io/TheVVaFFle/projec

t/editor/ZRbWaG#0

https://codepen.io/giana/pen/GJMBEv

**Informative** 

http://www.histography.io/

Apps

http://uber.com

**Functional** 

http://kenwheeler.github.io/slick/

3D

http://alteredqualia.com/three/exa

mples/webgl city.html

#### **Tools of the Trade**

#### **Text Editors**

Visual Studio Code: https://code.visualstudio.com

<u>Sublime Text: https://www.sublimetext.com/</u>

Atom: <a href="https://atom.io/">https://atom.io/</a>

Chrome DevTools: <a href="https://developer.chrome.com/devtools">https://developer.chrome.com/devtools</a>

#### **Browsers (latest versions)**

Chrome: <a href="https://www.google.com/chrome/">https://www.google.com/chrome/</a>

Firefox: <a href="https://www.mozilla.org/en-US/firefox/">https://www.mozilla.org/en-US/firefox/</a>

Vivaldi: <a href="https://vivaldi.com/">https://vivaldi.com/</a>

#### Debugger

(Built in browser Developer Console)

JS Bin: <a href="https://jsbin.com">https://jsbin.com</a>
Jshint: <a href="http://jshint.com">http://jshint.com</a>

#### Other tools

Codeshare: <a href="https://codeshare.io/">https://codeshare.io/</a>

# Let's set up Github

https://github.com/KayPolo

# 15 Minutes!

If you are not registered yet, email me

karla@newschool.com

# Let's Refresh!

#### HTML

- -Semantic HTML tags
- -Newer HTML5 tags: <section> <header>
- <nav> <footer> <article>, etc
- -Including CSS
- -Including JS
- -Importing custom fonts and other assets

#### **CSS**

- -Inline, Internal, External Styles
- -Basic CSS Selectors
- -Values & units (px, %, em, rem)
- -Basic web color principles (RGB, RGBA, hexadecimal color, HSL)
- -CSS Layout (The Box Model)
- -CSS Positioning
- -Floats and clearfixes
- -New CSS Features (box-shadow, text-shadow, etc)
- -Responsive CSS with media queries

#### **JS: Back to Basics**

- JS definitions
- -Variable and Data types
- -Arrays vs Objects
- -Iteration
- -Conditionals
- -Functions: Declarations and Expressions
- -Scopes and Closures
- -Timing functions

# Let's Code

### HW

1. Codecademy: Introduction to JavaScript

https://www.codecademy.com/learn/introduction-to-javascript

Mandatory: Complete lessons 1-3 (Only those sections that are free) Submit the higher badge you get to Canvas. If you have already done these lessons in the past, complete from 4-6.

Bonus: Try to go as far as you can, this is going to help you to create a solid foundation for the Web Advanced class.



2. Midterm Project
Define what project you are going to be developing during the
semester from now until you midterm presentation.

Submit your concept and rough ideas to Canvas