Week 13 | Intro to JavaScript

What is JavaScript?

HTML = scaffolding

(Bones / building blocks)

CSS = facade

(Paint / design / what the world sees)

JavaScript = wiring / plumbing

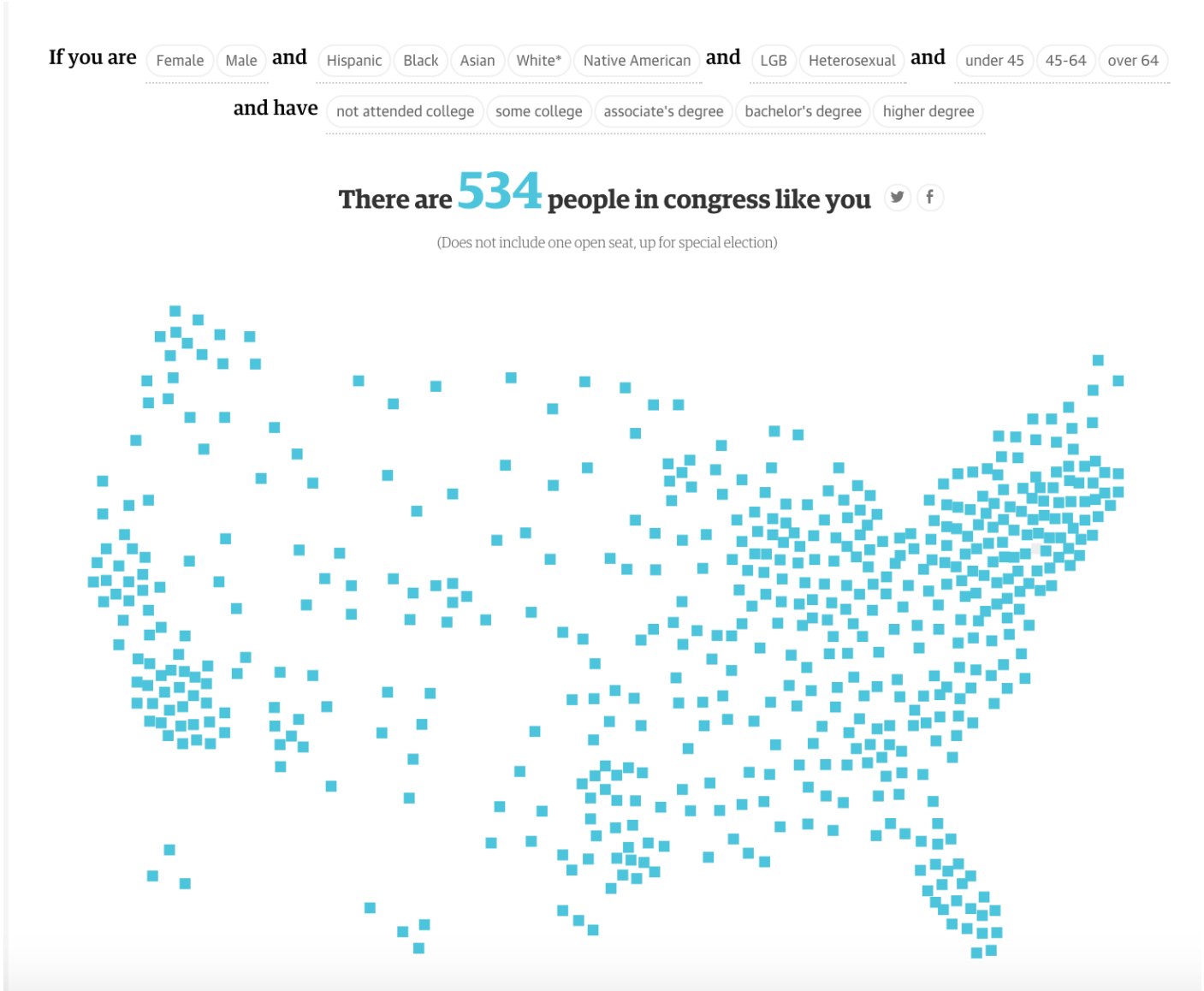
(What makes interactivity work!)

Or, in other words ...

HTML !== programming

HTML is a *markup* language, not a programming language.

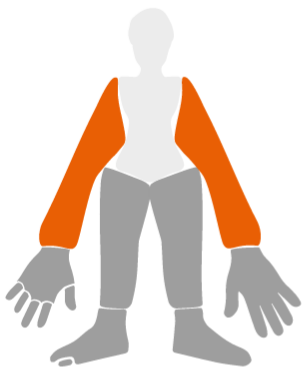
A *programming* language has logic and makes decisions based on that logic



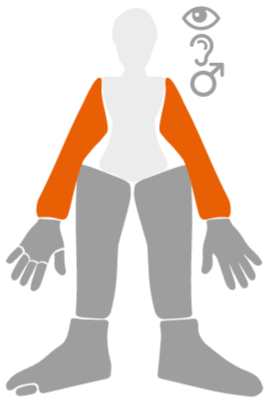
Via Guardian

The average maximum compensation for one **Arm** in **The USA** is **$169,878**

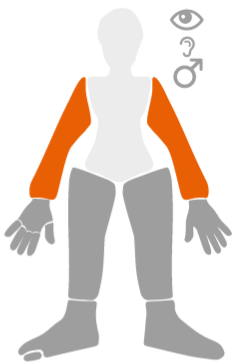
Nevada
$859,634



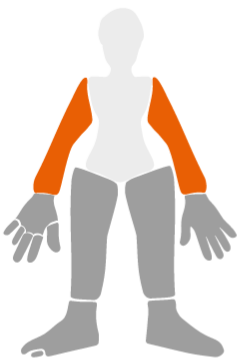
Federal
$588,647



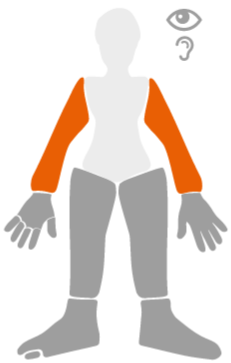
Illinois
$439,858



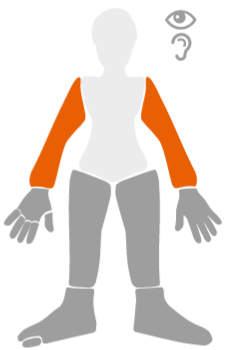
Kentucky
$402,277



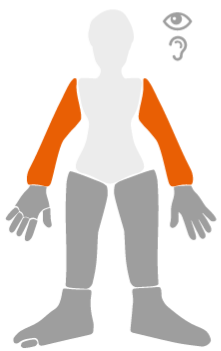
Pennsylvania
$389,910



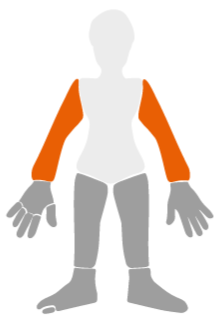
Iowa
$361,750



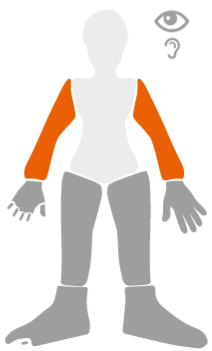
District of Columbia
$342,305



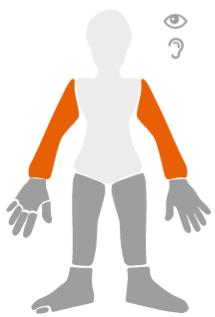
Tennessee
$309,096



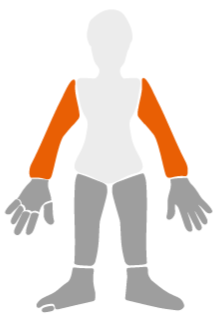
Maryland
$301,600



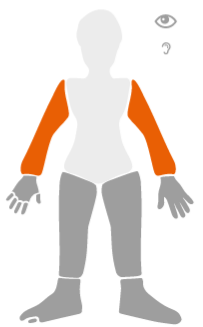
New Hampshire
$294,840



Vermont
$290,871



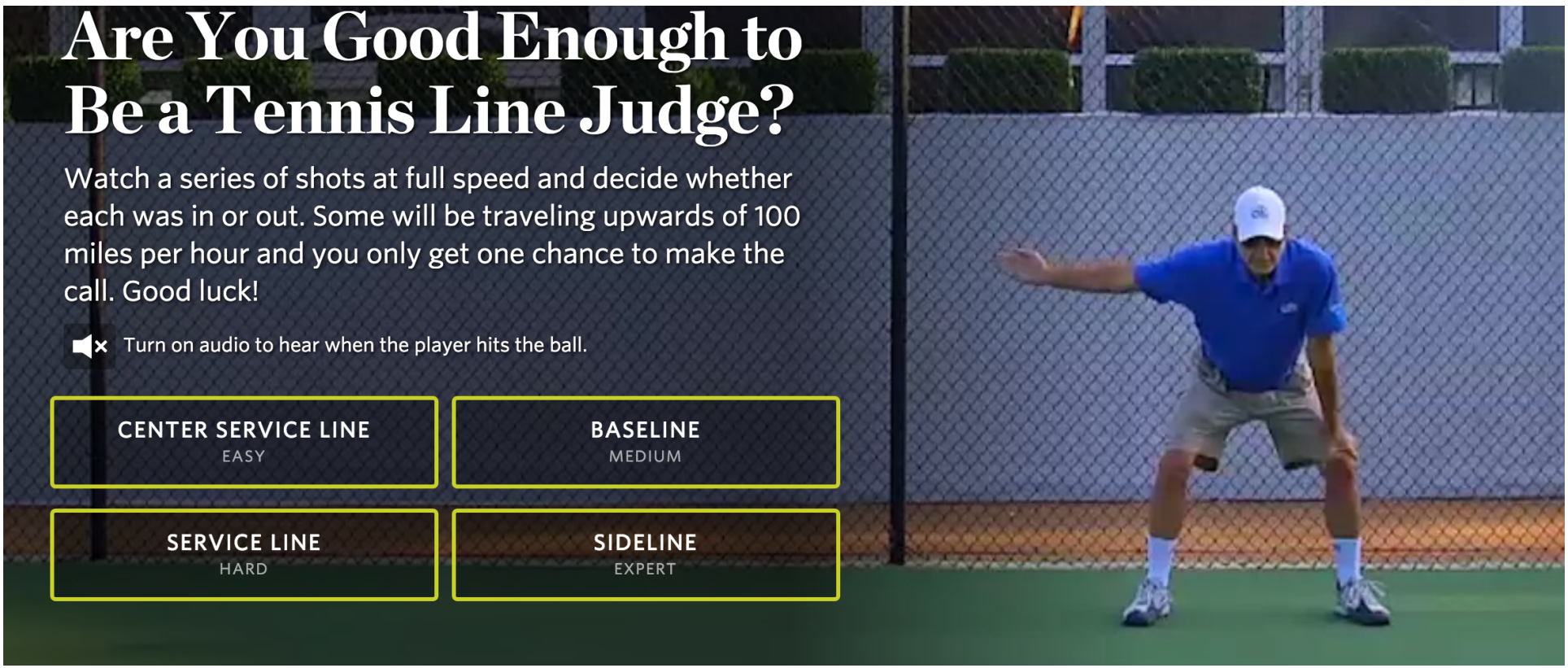
New Jersey
$268,983



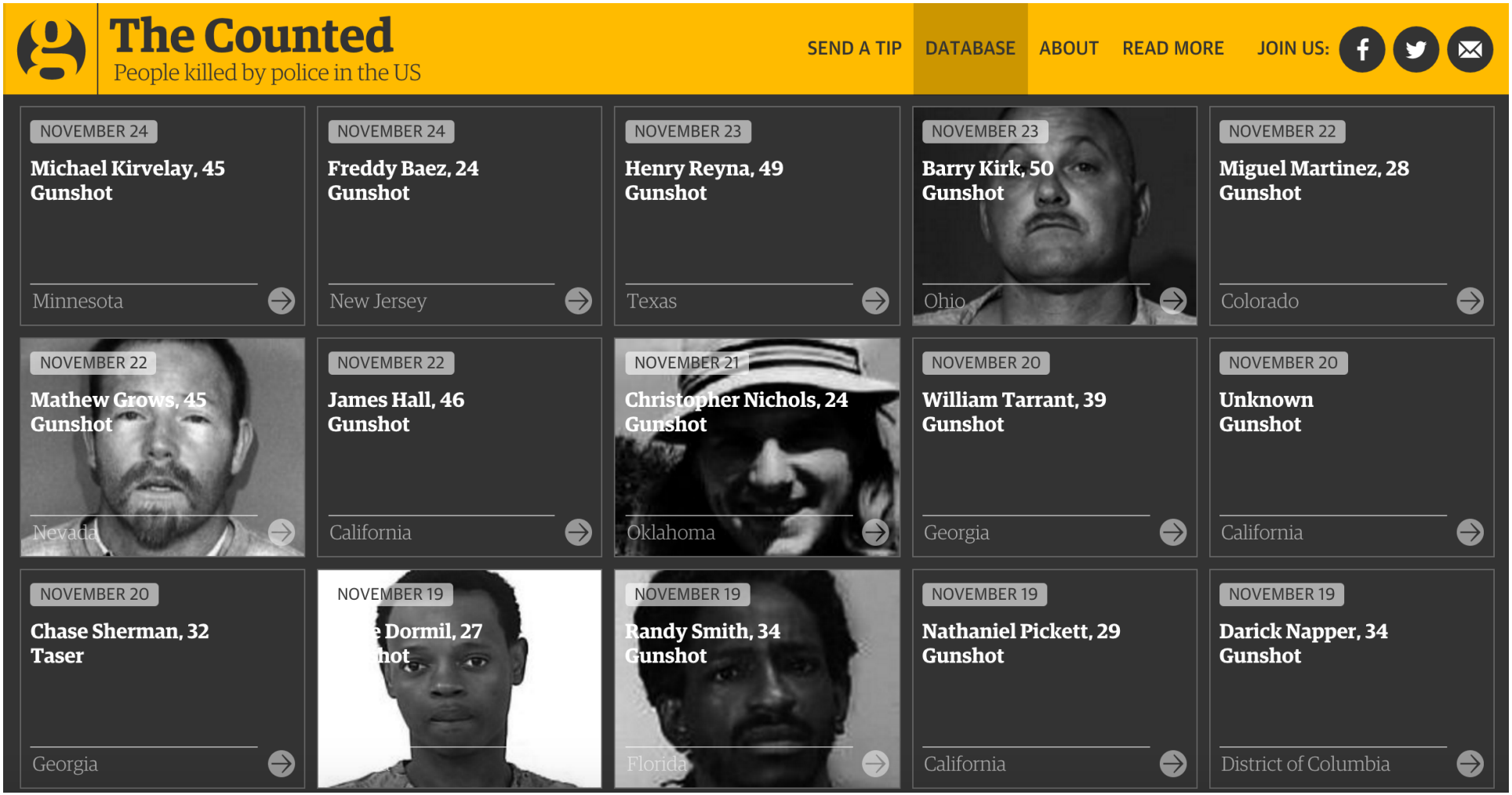
Via ProPublica


EN
FR
ReBuilding Haiti
Four years after the earthquake, how is Haiti rebuilding itself? If you were part of the process, would you be able to make the right choices? Find out with this multimedia interactive story.
↓ Start reading
1
2
3
4
5
6

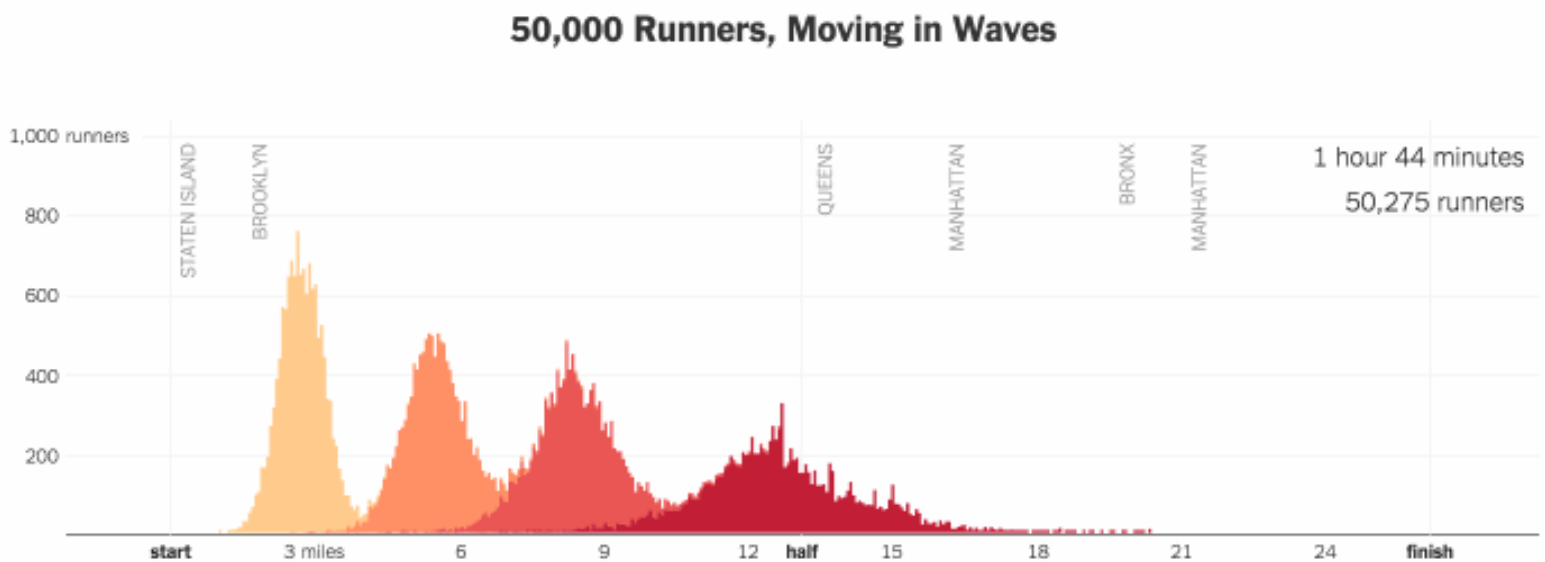
Via Rue 89



Via Wall Street Journal



Via Guardian


50,000 Runners, Moving in Waves
1,000 runners
800
600
400
200
STATEN ISLAND
BROOKLYN
QUEENS
MANHATTAN
BRONX
MANHATTAN
1 hour 44 minutes
50,275 runners
start
3 miles
6
9
12
half
15
18
21
24
finish

Via NY Times

When to use interactivity:

- to allow users to explore the data (ex. hover)
- to show multiple views of the data
- to better explain a concept (ex. through animation)
- when user input helps to better understand the story

Bottom line:

- use interactivity to make your page or graphic more engaging
- use it to help the reader understand the story better

When NOT to use interactivity:

- when it adds confusion rather than clarity
- when it's cool, but doesn't add anything to the reader's understanding
- when it leads to information overload
- when user input doesn't give a new/better experience

So what is programming?

Giving the computer a set of instructions to do something

JavaScript = programming language

A common set of instructions that both the computer and you can understand

"Computer, draw a line."

"Computer, hide this box when I click."

"Now, make the box red. And make it bigger."

"The amazing thing about JavaScript is that it is possible to get work done with it without knowing much about the language, or even knowing much about programming."

– Douglas Crockford, author of JavaScript: The Good Parts

Though… "It is even better when you know what you're doing."

Today we'll cover how to:

- show/hide elements
- change colors
- swap out text
- perform different actions based on different conditions
- make some calculations

To begin, let's open our browser consoles …

… and alert the world that we're learning JavaScript!

1. How to hide elements with JavaScript

Function

A block of code that tells the computer to execute a particular task

```
function doSomething ( ) {

// write code here!

}
```

2. How to change colors and other styles

3. How to swap out text


LG

4. How to make conditional statements (if/else)

Variables

Containers for storing data values

```
var name = "Nadja";
```

Data types

- Numbers (1, 2, 3.14, 100000, etc.)

```
var num = 3.14;
```

- Strings ("Nadja", "I love my pet cat, Wally.", etc.)

```
var sentence = "I love my pet cat, Wally.";
```

- Boolean values (True, False)

```
var isCUNYinstructor = true;
```

5. How to calculate!

Comparison operators:

- `>` Greater than
- `<` Less than
- `<=` Less than or equal to
- `>=` Greater than or equal to
- `===` Equal to
- `!==` **Not** equal to

BREAK!

Today's exercises:

http://bit.ly/js-exercises