
*I would love if there was a list of Javascript
tags/elements*

There is a list of jQuery METHODS
[jQuery docs](#)

*I want to learn about the things that you put in
js functions, like getElementbyID and what
exactly that means*

[https://developer.mozilla.org/en-US/docs/
Web/JavaScript](https://developer.mozilla.org/en-US/docs/Web/JavaScript)

*can flexbox replace most if not all of the
positioning stuff we learned today?*

Nope. Flex box is used for a grid system also,
not always supported in browser

FEWD

REVIEW

Le Steps

1. Write your HTML (use [HTML5 Flowchart](#) for guidance in picking elements)
2. Get things into place. (Add floats, clear: both, get columns set up, etc.)
3. Add base styles. (Font-family/color for the body, remove text-decoration under anchors and add a base anchor color, remove bullets for list items, etc.)
4. Work through the page section by section and start "filling in the details." Resist the urge to be a perfectionist at this point.
5. Polish things up! Compare the design with your page. Are you using the right fonts? Colors? Is any of the spacing off?

PLANNING 101

<div>Developers</div> <div>Designers</div> <div>How it Works</div> <div>Our Team</div> <div>Blog</div>		
<div>Startup Matchmaker</div>		
Because two heads are better than one.		
		<div>Meet your Match!</div> <div>Have a great idea for a product, but need help making it a reality? We're here to help. Startup Matchmaker is the best place for designers and developers to find each other.</div> <div>Create a Profile</div>
<div>Create a Profile</div>	<div>Find a Developer</div>	<div>Find a Designer</div>
Are you a Designer? Put yourself out there so that others can find you!	Looking for a developer to work with on the next big thing? Look no further.	Need someone who can make a product intuitive and appealing? Get ready.
<div>Sign up Now</div>	<div>Start Your Search</div>	<div>Start Your Search</div>
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*Pro tip: adding a border to everything on the page can help during this process: *

```
{border: 1px solid black; }
```

PLANNING 101

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PROGRAMMING

WHAT IS A PROGRAM?

- ▶ A program is a set of instructions that you write to tell a computer what to do

WHAT IS PROGRAMMING?

- ▶ Programming is the task of writing those instructions in a language that the computer can understand.

HOW COMPUTERS “THINK”

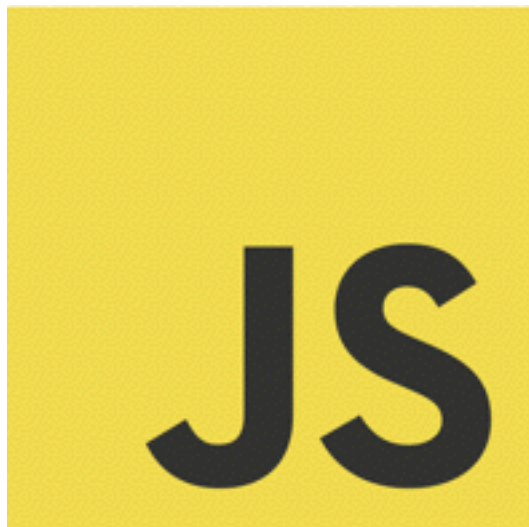
- ▶ Short answer — they don’t think!
- ▶ While computers don’t think, they *act as if they do*, by sequentially executing simple instructions.
- ▶ The only things a computer knows are the things we tell it.
- ▶ A computer doesn't learn to perform tasks like you and I — it needs to follow instructions every time it performs the task.

PSEUDO CODE

- ▶ When we write a program, we need to figure out a way to translate the ideas that are in our heads into code
- ▶ Pseudo code is a way to 'plan out' your program before coding it
- ▶ **Pseudo code** is a detailed yet readable description of what a computer program must do, expressed in plain english rather than in a programming language

JAVA VS JAVASCRIPT

*Just a quick note! We're learning **JavaScript** in this class, not Java. Java and JavaScript are actually two different languages.*



!=



WHAT JAVASCRIPT CAN DO!

1

Access
Content

2

Modify
Content

3

Program
Rules

4

React to
Events

jQuery

AGENDA



- Intro to jQuery
- Using jQuery
- Method Chaining
- Debugging
- jQuery Documentation
- Lab

LEARNING OBJECTIVES

- Differentiate between jQuery and JavaScript, describe benefits of using them.
- Recognize jQuery syntax
- Use selectors and jQuery functions to effectively manipulate the DOM.

FEWD

INTRO TO JQUERY

PROGRAMMING

*It isn't about the programming language!!! It
is about changing how you think.*

YOUR RESPONSIBILITIES

Don't feel like you have to sit down and memorize the syntax!

It's important that you:

- Focus on understanding the key concepts
- Are resourceful — we'll work on honing your Google-ing skills
- Get as much practice in as possible

FEWD

THE BASICS

INTRO TO JQUERY — YOUR NEW BEST FRIEND!

WHAT IS JQUERY?

- ▶ jQuery is a JavaScript file you include in your pages.
- ▶ Makes it faster and easier to write cross-browser JavaScript
- ▶ “*Cross browser*” - works the same in all* browsers.
- ▶ Allows us to find elements using CSS-style selectors and then do something to them using jQuery methods
- ▶ Your new best friend!



JQUERY VS. JAVASCRIPT

- ▶ jQuery allows us to use the CSS-style selectors that we know and love! Yay!

JS:



```
document.getElementsByTagName('body')[0]
```



```
document.getElementById('about')
```



JQUERY:

```
$('#body')
```



```
$('#about')
```



JQUERY VS. JAVASCRIPT

JS:

```
document.getElementById('heading').innerHTML = "Your Name";
```



JQUERY:

```
$('#heading').html('Your Name');
```



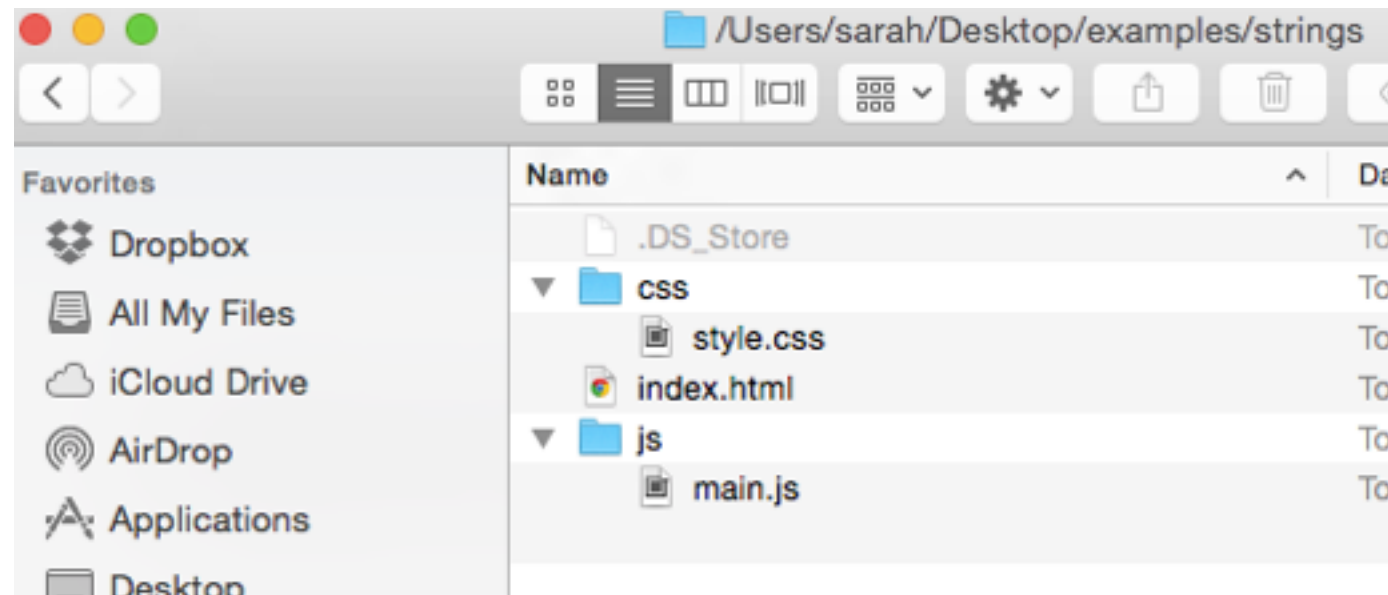
You could do everything jQuery does with plain-old vanilla Javascript

FEWD

ADDING JQUERY TO YOUR PROJECT

KEEP IT ON THE UP AND UP!

- ▶ It is considered **best practice** to keep Javascript files organized in one folder.
- ▶ Usually people name this folder 'scripts', 'js', or 'javascript'.
- ▶ Use an underscore or dash between words in folder names instead of a space. And try to avoid characters/symbols in file names (*really_cool_page.html* or *really-cool-page.html*).



STEP 1: ADD JQUERY TO YOUR WEBSITE

1. Download the [jQuery](#) script (version 2.x) and include it in your project. Keep things organized by placing it within your js folder.
2. Include jQuery in your HTML page before the closing `</body>` tag by adding a `<script>` element with a `src` that points to the jQuery file
3. Make sure to include jQuery **before** any other js files that use it!!!

```
<body>
  <!-- HTML content here -->
  <script src="js/jquery-1.11.2.min.js"></script>
  <!-- Javascript file will go here -->
</body>
```

STEP 2: ADD A JAVASCRIPT FILE

1. Create a Javascript file. This process will be similar to creating an HTML or CSS file, but this time the file should have a .js extension (example: main.js)
2. Link to the Javascript file from your HTML page using the `<script>` element. We'll almost always want to add this script element **right before the closing body tag**.

```
<body>
  <!-- HTML content here -->
  <script src="js/jquery-1.11.2.min.js"></script>
  <script src="js/main.js"></script>
</body>
```



ORDER IS IMPORTANT!!!!

PRO TIPS

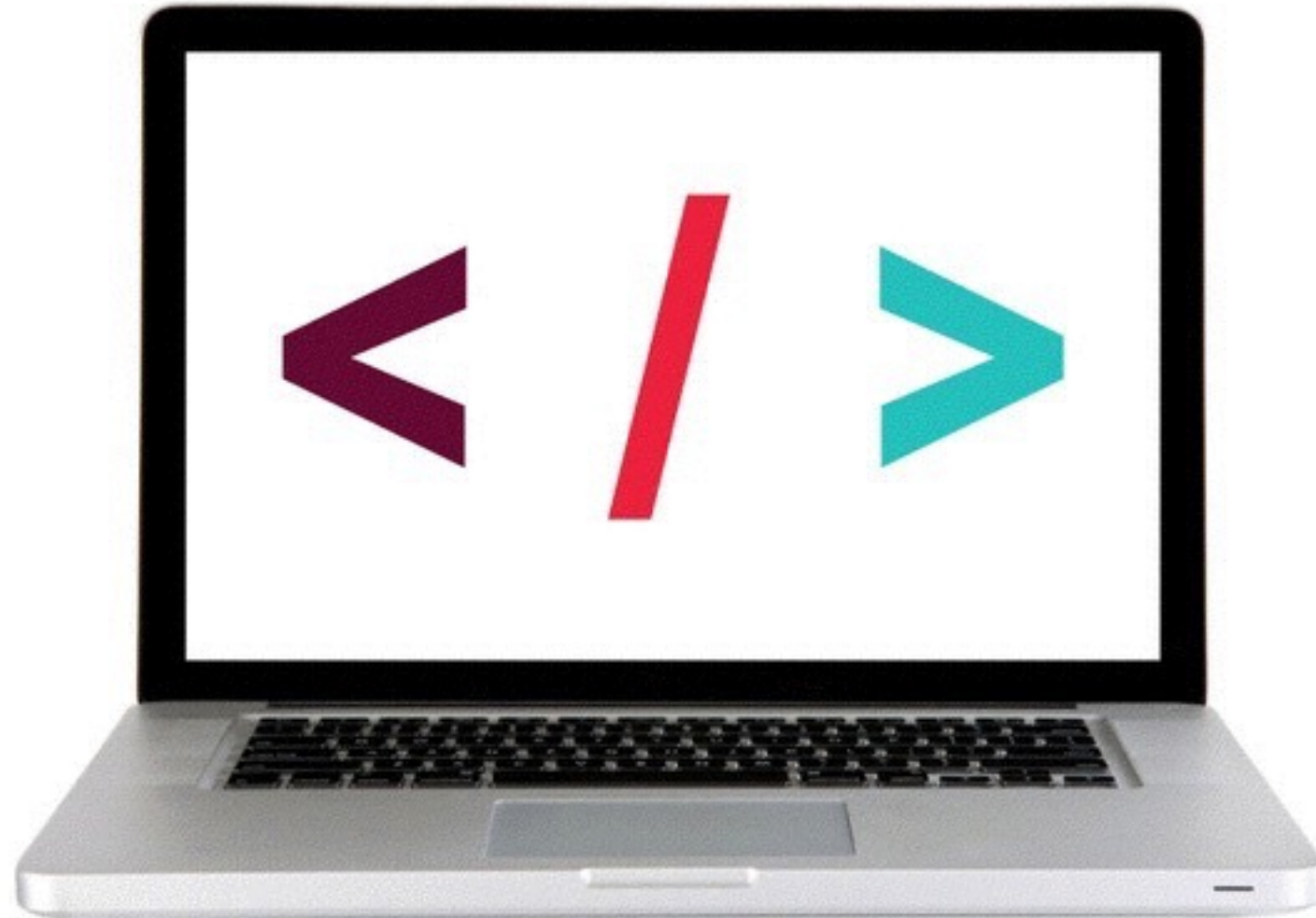
TO MAKE SURE YOUR JS IS HOOKED UP PROPERLY:

- ▶ Add an alert to the top of your JS file and load the page in the browser

```
alert('Hello from JS!');
```

- ▶ If you don't see an alert pop up when you load the page, you know you have linked your files incorrectly.

LET'S TAKE A CLOSER LOOK



FEWD

USING JQUERY

STATEMENTS

- ▶ Last class we chatted about how scripts are a series of instructions that are executed one-by-one
- ▶ Each individual step is called a **statement**

```
var today = new Date();  
var hourNow = today.getHours()  
var greeting;  
  
if (hourNow > 18) {  
    greeting = 'Good evening';  
} else {  
    greeting = 'Good afternoon';  
}  
  
document.write(greeting);
```

- 1.Begin on a new line
- 2.End with a **semicolon**

JS SYNTAX

Syntax: Spelling and grammar rules of a programming language.

- ▶ Like any language, there are formal rules around how to write Javascript. This is the syntax.



COMMENTS

```
// this is a single line comment
```

```
/*  
this  
is  
a  
multiline comment  
*/
```

Sublime shortcut: 1) Highlight what you want to comment 2) command + /

PART 1 — SELECT AN ELEMENT

USING JQUERY TO MANIPULATE THE DOM

1

Select an element/elements

2

Work with those elements

JQUERY — SELECTING ELEMENTS

Selector

```
$('li').addClass('selected');
```

jQuery Function

jQuery Function:

- ▶ Lets us find one or more elements in the page
- ▶ Creates a *jQuery object* which holds references to those elements
- ▶ We'll be using the shorthand in this class: `$()`
- ▶ `$(selector)` is the same as `jQuery(selector)`

JQUERY OBJECTS — FINDING ELEMENTS: SOME EXAMPLES

- ▶ You can use your CSS-style selectors!!!

SELECTOR-		CSS:	JQUERY:
	CLASS	.className	\$('.className')
	ID	#idName	\$('#idName')
	MULTIPLE SELECTORS	h1, h2, h3	\$('h1, h2, h3')
	DESCENDANT	li a	\$('li a')

& tons more!!!

PART 2 — ADD A METHOD

USING JQUERY TO MANIPULATE THE DOM

1

Select an element/elements

2

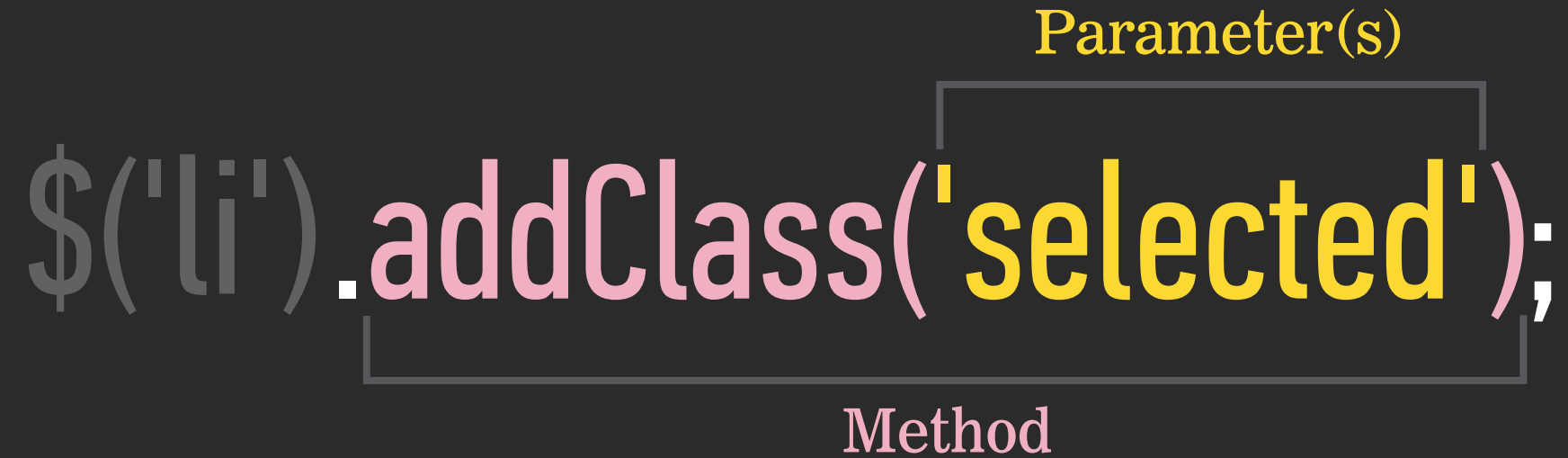
Work with those elements

JQUERY — WORKING WITH THOSE ELEMENTS

Parameter(s)

```
$('li').addClass('selected');
```

Method

The image shows the jQuery code snippet `$('li').addClass('selected');` with two annotations. A bracket above the string `'selected'` is labeled "Parameter(s)" in yellow text. A bracket below the `addClass` method name is labeled "Method" in pink text. The `$('li')` part of the code is rendered in a lighter gray color.

JQUERY METHODS

Be forewarned!

There are a lot of methods!

Do not feel like you need to sit down and memorize these. The important thing is knowing that they're there and **being able to look them up** in the documentation.

See the [jQuery docs](#) for list!

JQUERY METHODS — WORKING WITH THOSE ELEMENTS

After we've selected elements, we can use jQuery methods to:



**FINDING
ELEMENTS**

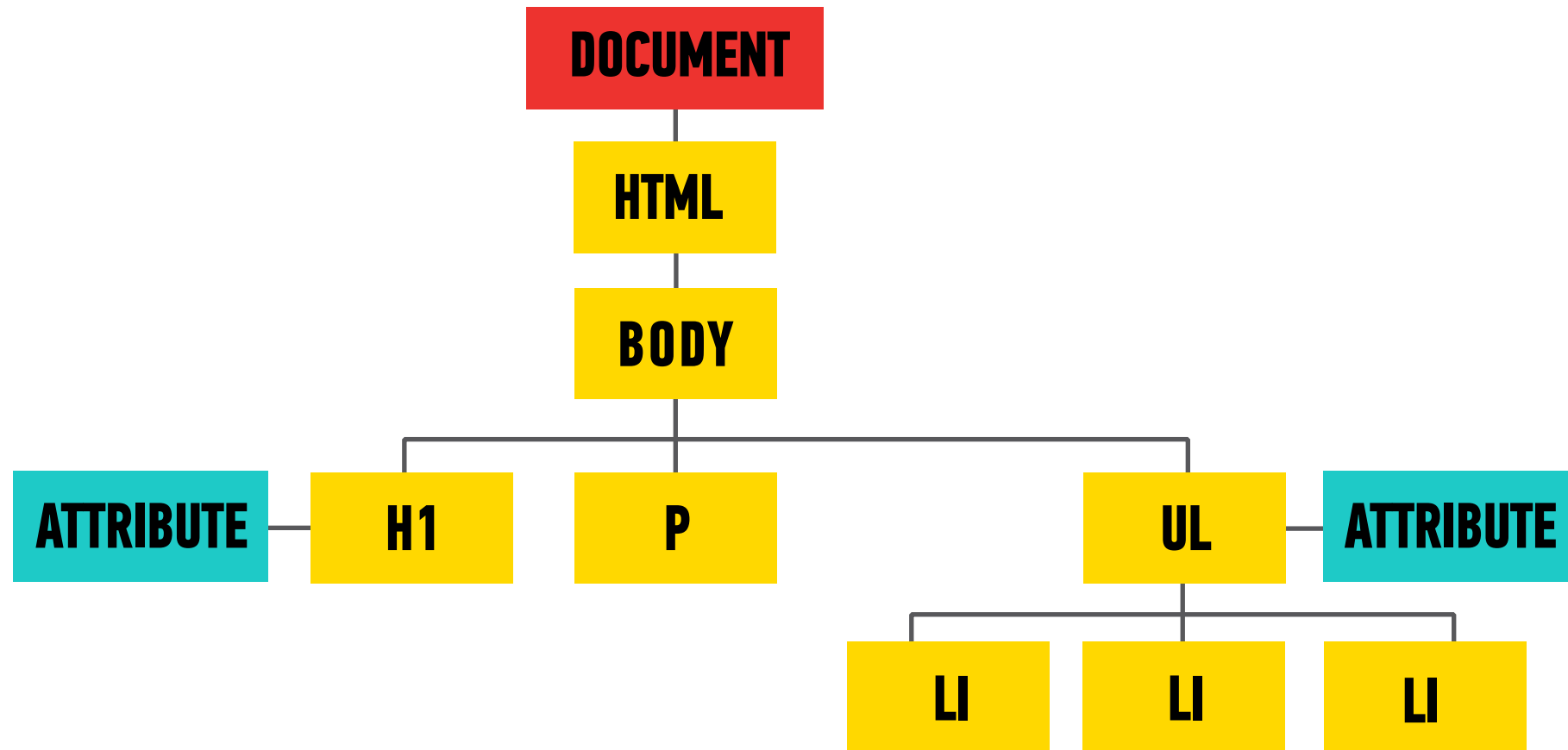
**GET/SET
CONTENT**

**ADD
EFFECTS/
ANIMATION**

**CREATE
EVENT
LISTENERS**

See the [jQuery docs](#) for list!

TRAVERSING THE DOM?



JQUERY METHODS — TRAVERSING THE DOM

TRAVERSE THE DOM

jQuery provides us with methods to find/select elements to work with & traverse the DOM

Some methods available to us:

- ▶ `.find()` (finds all descendants)
- ▶ `.children()`
- ▶ `.parent()`
- ▶ `.siblings()`

What goes in the parentheses?
A css-style **selector**

Examples:

```
$('h1').find('a');  
$('#box1').parent();  
$('p').siblings('.important');
```

**Think of this as part of the selection process, must come directly after another selection*

JQUERY METHODS — WORKING WITH THOSE ELEMENTS

After we've selected elements, we can use jQuery methods to:



**FINDING
ELEMENTS**



**GET/SET
CONTENT**



**ADD
EFFECTS/
ANIMATION**



**CREATE
EVENT
LISTENERS**

See the [jQuery docs](#) for list!

SEPARATION OF CONCERNS

Our JavaScript should focus on *behavior* and not on *presentation*
(that's what our CSS is for!)

JQUERY METHODS — GETTING/SETTING CONTENT

GET/SET CONTENT

Get/change content of elements, attributes, text nodes

Some methods available to us:

- ▶ `.html()`
- ▶ `.attr()`
- ▶ `.css()`
- ▶ `.addClass()`
- ▶ `.removeClass()`
- ▶ `.toggleClass()`

What goes in the parentheses?

The **html, styles, classes** you want to **add/change**

Examples of **adding/changing** content:

```
$('h1').html('Content to insert goes here');  
$('img').attr('src', 'images/bike.png');  
$('#box1').css('color', 'red');  
$('p').addClass('success');  
$('p').removeClass('my-class-here');
```

JQUERY METHODS — WORKING WITH THOSE ELEMENTS

After we've selected elements, we can use jQuery methods to:



**FINDING
ELEMENTS**

**GET/SET
CONTENT**

**ADD
EFFECTS/
ANIMATION**

**CREATE
EVENT
LISTENERS**

See the [jQuery docs](#) for list!

JQUERY METHODS — EFFECTS/ANIMATION

**ADD
EFFECTS/
ANIMATION**

Add effects and animation to parts of the page

Some methods available to us:

- ▶ `.show()`
- ▶ `.hide()`
- ▶ `.fadeIn()`
- ▶ `.fadeOut()`
- ▶ `.slideUp()`
- ▶ `.slideDown()`
- ▶ `.slideToggle()`

What goes in the parenthesis?
An **animation speed**

Examples:

```
$('h1').fadeOut(200);  
$('#box1').slideDown('slow');  
$('h1').fadeIn();
```

JQUERY METHODS — WORKING WITH THOSE ELEMENTS

After we've selected elements, we can use jQuery methods to:



**FINDING
ELEMENTS**



**GET/SET
CONTENT**



**ADD
EFFECTS/
ANIMATION**



**CREATE
EVENT
LISTENERS**

See the [jQuery docs](#) for list!

JQUERY METHODS — EVENTS!

**CREATE
EVENT
LISTENERS**

The `.on()` method is used to handle all events.

Syntax: `$('.selector').on('event', code_that_should_run);`

Example:

```
$('.li').on('click', function() {  
    // your code here  
});
```

JQUERY METHODS — EVENTS!

CREATE
EVENT
LISTENERS

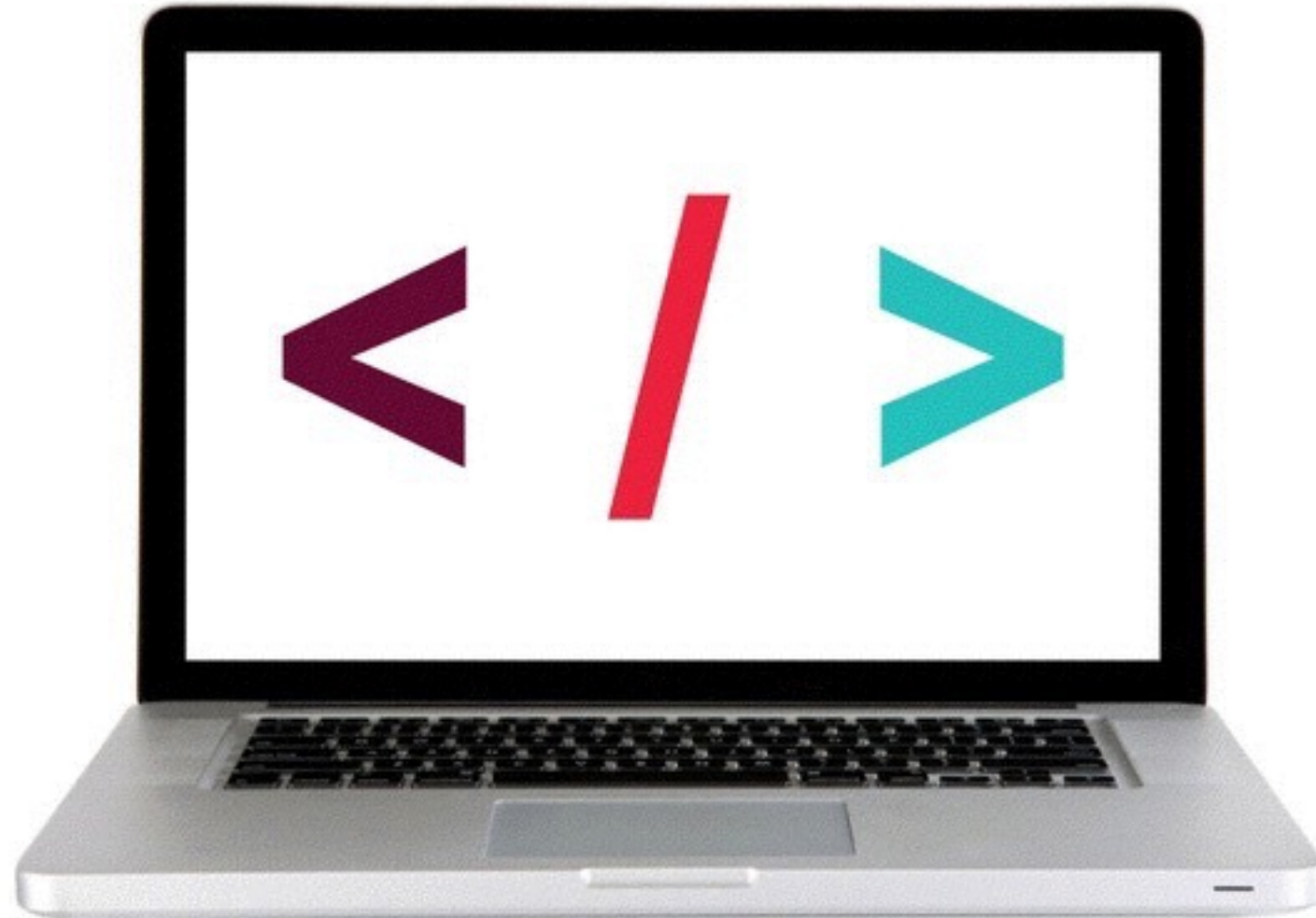
Some events that `.on()` deals with:

- ▶ **UI:** focus, blur, change
- ▶ **Keyboard:** keydown, keyup
- ▶ **Mouse:** click, mouseup, mousedown, mouseover
- ▶ **Form:** submit
- ▶ **Browser:** resize, scroll



```
$('.li').on('eventGoesHere', function() {  
    // your code here  
});
```

LET'S TAKE A CLOSER LOOK



FEWD

METHOD CHAINING

JQUERY METHODS — METHOD CHAINING

```
$('.item').find('h2').slideUp(300)
```

JQUERY METHODS — METHOD CHAINING

```
$('#main').children('p').fadeOut('slow')
```

JQUERY METHODS — METHOD CHAINING

```
$('#h3').siblings('p').show()
```

FEWD

VANILLA JS VS. JQUERY



WHY ISN'T IT WORKING?

DEBUGGING — WHERE TO START

Always start by defining the problem.



THE IMAGE IS NOT MOVING



NONE OF MY CODE WORKS

DEBUGGING — WHERE TO START

This will tell you where to start your hunt.



THE IMAGE IS NOT MOVING

*Find the code that makes
the image move*



NONE OF MY CODE WORKS

** Syntax error, check console*

DEBUGGING

To access debugging console:

Open the Chrome Inspector, click the Console tab

DEBUGGING — LEVEL 1

Check for errors in console

- The location may not be correct but is a good place to start.
- Ex: Unbalanced brackets or parentheses



Uncaught SyntaxError: Unexpected token)

main.js:13



DEBUGGING — LEVEL 2

▸ `console.log()` can be used to display variable values in the console. This is useful for debugging.

```
console.log($('h2'));
```

This should print the element to the console.
If it doesn't, there's probably something wrong with your selector.

**Shortcut to access console: cmd + opt + j*

DEBUGGING — LEVEL 3

Do some Googling!

- ▶ Try Googling it
- ▶ Be ready to clearly articulate the problem (Write out what your problem is)

DEBUGGING — LEVEL 4

Get help!

If you still can't find a solution, ask your fellow classmates and instructors.
Help us help you!

1. Upload work to Github.
2. Post in Slack in the class channel.
3. Be descriptive about the problem.
4. Tell us what you've already done to try to figure it out.
5. Link to your specific file from Github that you're having issues with.

FEWD

JQUERY DOCUMENTATION

JQUERY VS. JAVASCRIPT

Help! There's too much to learn! I feel overwhelmed!

A good developer is one that can look things up!!!

1. The [jQuery Examples](#) page has an example for almost every method!
2. [jQuery documentation](#) — Look things up

FEWD

LAB

LAB



ACTIVITY



EXERCISE

KEY OBJECTIVE

- ▶ Utilize jQuery tree traversal techniques to access and manipulate DOM elements.

TYPE OF EXERCISE

- ▶ Partners/small groups

AS A CLASS

Until 8:50

Lab is in `starter_code_lesson_7 > select_fun`

1. Follow the instructions in `main.js`
2. Use cheat sheet as a guide for syntax and look up any methods you're not familiar with in the jQuery documentation.
3. **Bonus:** Complete part 2 of the lab for more practice (`starter_code_lesson_7 > select_fun_part_2`)

LEARNING OBJECTIVES

- Differentiate between jQuery and JavaScript, describe benefits of using them.
- Recognize jQuery syntax
- Use selectors and jQuery functions to effectively manipulate the DOM.

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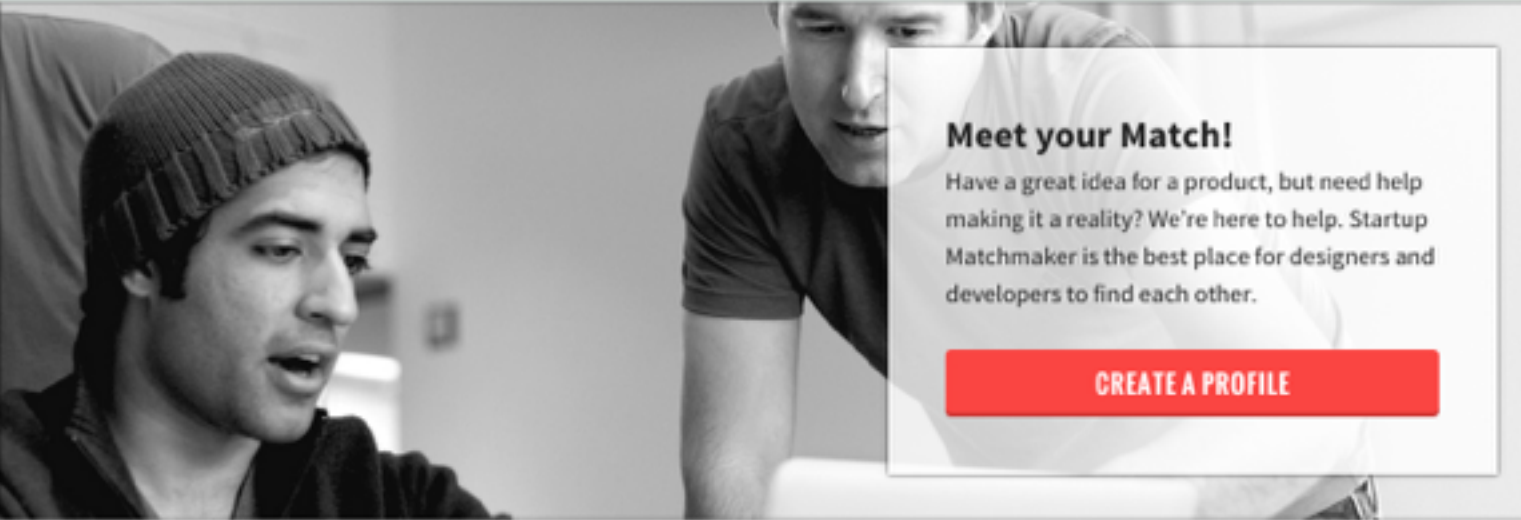
HOMEWORK

LAB — STARTUP MATCHMAKER

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Find a Designer

Need someone who can make a product intuitive and appealing? Get ready.

[START YOUR SEARCH](#)

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HOMEWORK

- **Starter match maker**
- **Select fun 2**

PSEUDO CODE

EXIT TICKETS