AGENDA

Intro to jQuery

Using jQuery

Method Chaining

Debugging

Lab

INTRO TO JQUERY

BECOMING A PROGRAMMER

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!

Focus on understanding the key concepts

Be resourceful. Google is your best friend

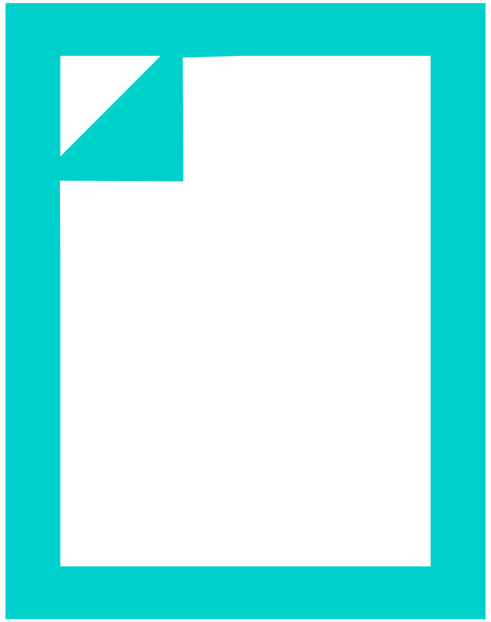
Practice, practice, practice

JQUERY

THE BASICS

INTRO TO JQUERY — YOUR NEW BEST FRIEND!

jQuery is a JavaScript file you include in your pages.



INTRO TO JQUERY — YOUR NEW BEST FRIEND!

CROSS-BROWSER COMPATIBILITY

Works the same
in all browsers

FAMILIAR SYNTAX

Use more familiar,
CSS-style syntax

MORE CONCISE

Write way less code to
achieve the same tasks

JQUERY VS. JAVASCRIPT

jQuery will ensure that our code works the same in different browsers.

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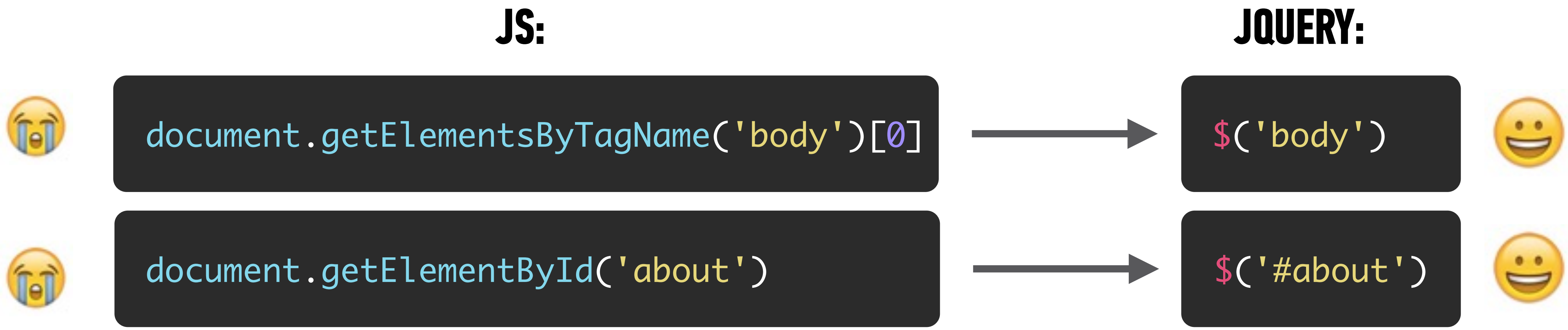
JQUERY VS. JAVASCRIPT

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')
```

😀

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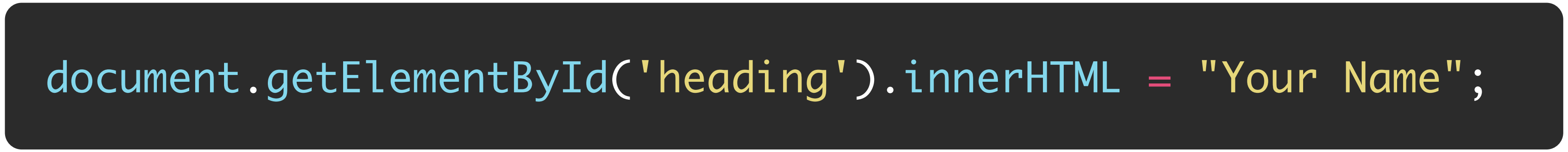
JQUERY VS. JAVASCRIPT

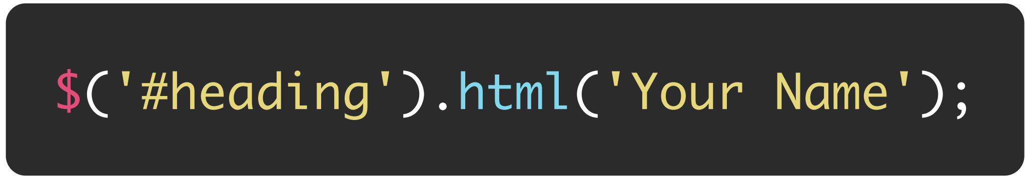
JS:



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

😭

JQUERY:



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

😀

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

JQUERY VS. JAVASCRIPT — A COMPARISON OF BENEFITS

JQUERY

- Write way less code to achieve the same tasks
- Cross-browser compatibility
- Use more familiar, CSS-style syntax

PURE JAVASCRIPT

- Better performance
- Faster

ACTIVITY

EXERCISE

KEY OBJECTIVE

- Summarize the difference between the jQuery library and the JavaScript language, and describe benefits of using each.

TYPE OF EXERCISE

- Turn and talk

AS A CLASS

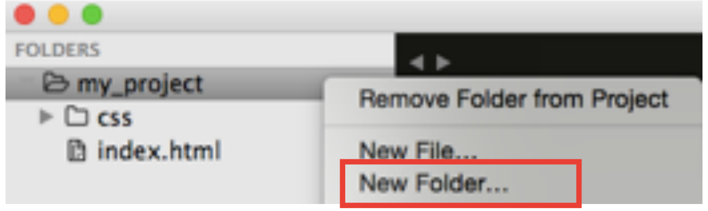
1 min	Discuss the above question with a partner.
2 min	Discuss as a class

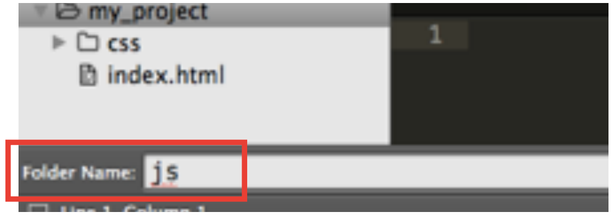
ADDING JQUERY TO YOUR PROJECT

STEP 1: ADD JQUERY TO YOUR WEBSITE

1. Download the jQuery script (version 3.x, compressed).

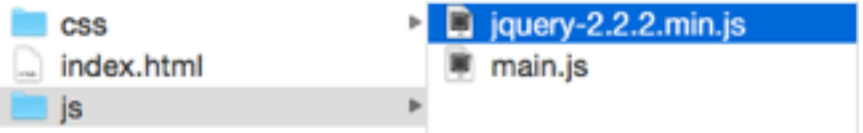
2. Add a js folder to your project





Folder Name: js

3. Move the jQuery file to the js folder



4. Use a <script> tag to include the jQuery file after your HTML content and before any other JavaScript files that use it.

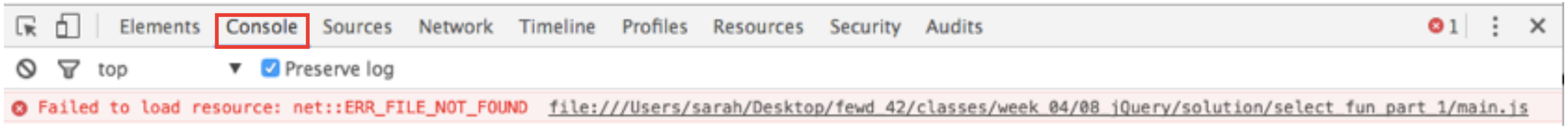
```
<body>
  <!-- HTML content here ->
  <script src="js/jquery-1.11.2.min.js"></script>
  <!-- Javascript file will go here ->
</body>
```

MAKE SURE YOUR JS IS HOOKED UP PROPERLY

- **Method 1:** Add an alert to the top of your JS file. When you open the page in your browser, an alert will pop up if your JavaScript file is properly hooked up.

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

- **Method 2 (preferred):** Open the page in Chrome. Go to view > developer > developer tools. Click on the console tab and make sure there are no errors.



```
Failed to load resource: net::ERR_FILE_NOT_FOUND  file:///Users/sarah/Desktop/fewd_42/classes/week_04/08_jQuery/solution/select_fun_part_1/main.js
```

This error means the file can't be found. Check your url in your script tag. Make sure the file exists.

LEARNING OBJECTIVES

- Differentiate between the jQuery library and the JavaScript language, and describe benefits of using each.
- Add jQuery to a project.
- Recognize jQuery syntax.
- Use CSS selectors with the jQuery or $ method to select and update elements in the DOM.
- Write jQuery code to detect and react to events in the DOM.

USING JQUERY

PART 1 — SELECT AN ELEMENT

USING JQUERY TO MANIPULATE THE DOM

1

Select an element/elements

2

Work with those elements

```
$('#info')  =  jQuery('#info')
```

JQUERY OBJECTS — FINDING ELEMENTS: SOME EXAMPLES

	CSS	JQUERY
ELEMENT	`a { color: blue; }`	`$('a')`
ID	`#special { color: blue; }`	`$('#special')`
CLASS	`.info { color: blue; }`	`$('.info')`
NESTED SELECTOR	`div span { color: blue; }`	`$('div span')`

JQUERY — WORKING WITH THOSE ELEMENTS

Parameter(s)

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

Method

JQUERY METHODS

Be forewarned!

There are a lot of methods!

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

JQUERY METHODS — WORKING WITH THOSE ELEMENTS

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

FIND ELEMENTS

GET/SET CONTENT

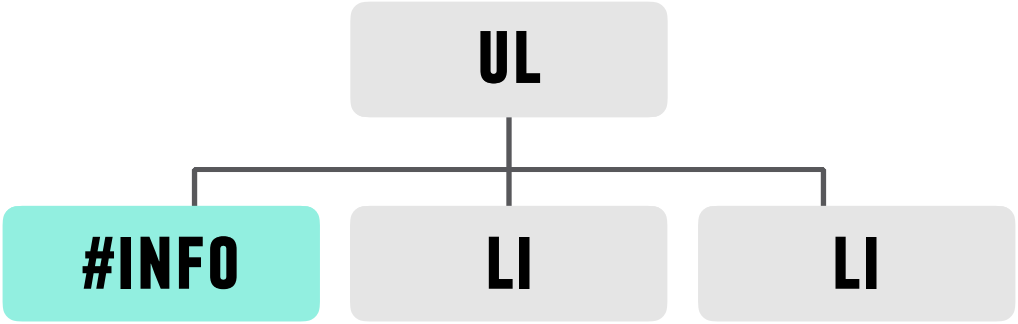
ADD EFFECTS/ ANIMATION

CREATE EVENT LISTENERS

See your handout, pages 304-305 in the textbook, or the [jQuery docs]() for list!

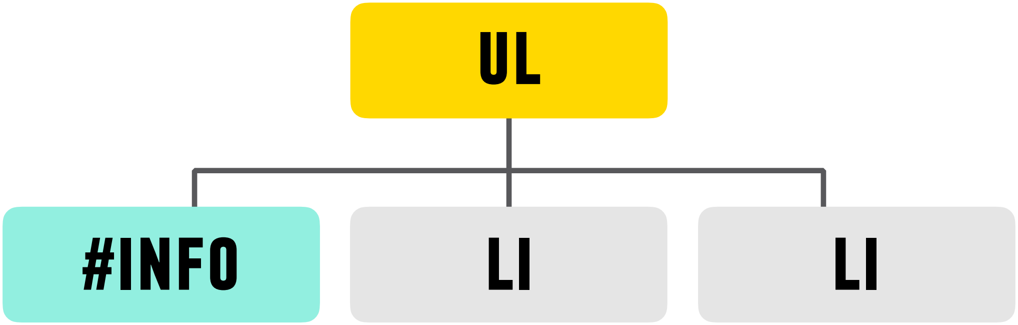
TRAVERSING THE DOM?

```
$('#info').parent();
```



TRAVERSING THE DOM?

```
$('#info').parent();
```



JQUERY METHODS — TRAVERSING THE DOM

TRAVERSE THE DOM

- Think of these as filters, or part of the selection process.
- They must come *directly after another selection*

METHODS	EXAMPLES
`.find()` *finds all descendants*	`$('h1').find('a');`
`.parent()`	`$('#box1').parent();`
`.siblings()`	`$('p').siblings('.important');`
`.children()`	`$('ul').children('li');`

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

JQUERY METHODS — WORKING WITH THOSE ELEMENTS

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GETTING/SETTING CONTENT — PART 1

GET/SET CONTENT

Get/change content of elements and attributes

METHODS	EXAMPLES
`.html()`	`$('h1').html('Content to insert goes here');`
`.attr()`	`$('img').attr('src', 'images/bike.png');`
`.css()`	`$('#box1').css('color', 'red');`

What goes in the parentheses?
The **html or styles** you want to change.

GETTING/SETTING CONTENT — PART 2

GET/SET CONTENT

Get/change content of elements and attributes

METHODS	EXAMPLES
`.addClass()`	`$('p').addClass('success');`
`.removeClass()`	`$('p').removeClass('my-class-here');`
`.toggleClass()`	`$('p').toggleClass('special');`

What goes in the parentheses?
The **classes** you want to change.

JQUERY METHODS — GETTING/SETTING CONTENT

GET/SET CONTENT

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

NO PERIOD!!!

ACTIVITY

EXERCISE

KEY OBJECTIVE

- Utilize jQuery to access and manipulate DOM elements.

TYPE OF EXERCISE

- Individual/Partner

AS A CLASS

5 min

Exercise is in starter_code_lesson_12 > jquery_code_along

1. Follow the instructions under part 1 in main.js
2. Use cheat sheet/slides as a guide for syntax

JQUERY METHODS — WORKING WITH THOSE ELEMENTS

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

FIND ELEMENTS

GET/SET CONTENT

ADD EFFECTS/ ANIMATION

CREATE EVENT LISTENERS

See your handout, pages 304-305 in the textbook, or the jQuery docs for list!

JQUERY METHODS — EFFECTS/ANIMATION

ADD EFFECTS/ ANIMATION

Add effects and animation to parts of the page

METHODS	EXAMPLES
`.show()`	`$('h1').show();`
`.hide()`	`$('ul').hide();`
`.fadeIn()`	`$('h1').fadeIn(300);`
`.fadeOut()`	`$('.special').fadeOut('fast');`
`.slideUp()`	`$('div').slideUp();`
`.slideDown()`	`$('#box1').slideDown('slow');`
`.slideToggle()`	`$('p').slideToggle(300);`

What goes in the parenthesis?
An animation speed

JQUERY METHODS — WORKING WITH THOSE ELEMENTS

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

FIND ELEMENTS

GET/SET CONTENT

ADD EFFECTS/ ANIMATION

CREATE EVENT LISTENERS

See your handout, pages 304-305 in the textbook, or the jQuery docs for list!

JQUERY METHODS — EVENTS!

CREATE EVENT LISTENERS

We can use the `on()` method to handle all events in jQuery.

JQUERY METHODS — EVENTS!

CREATE EVENT LISTENERS

method for all events

```
$      .on(
  // your code here
});
```

JQUERY METHODS — EVENTS!

CREATE EVENT LISTENERS

type of event

```
$          'click'
  // your code here
}
```

JQUERY METHODS — METHOD CHAINING

```
$('li')
.slideUp('slow')
```

JQUERY METHODS — METHOD CHAINING

```
$('li').slideUp('slow');
```

JQUERY METHODS — METHOD CHAINING

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

JQUERY METHODS — METHOD CHAINING

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

JQUERY METHODS — METHOD CHAINING

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

DEBUGGING

DEBUGGING

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

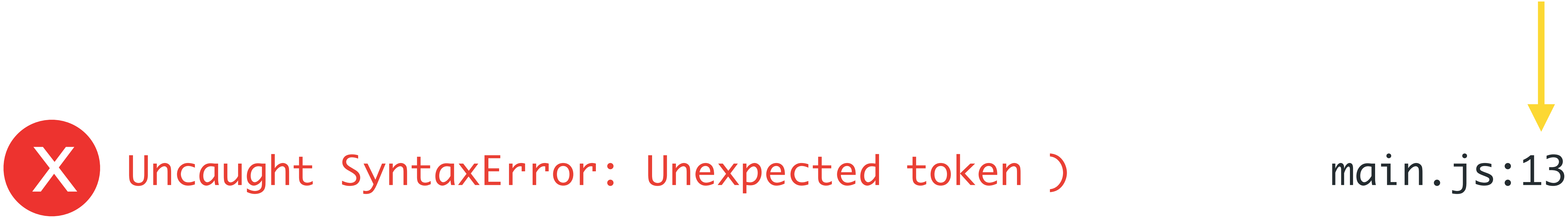
To access debugging console:

PC: CTRL+SHIFT+J
Mac: COMMAND+OPTION+J
Click the error

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

Do some Googling!

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

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 9:20

Lab is in starter code > 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_12> select_fun_part_2)