



jQuery Begins

Web Development Boot Camp

Lesson 5.1



Admin Items

Admin Items

- **Weeks 2 and 3 are a big hurdle:** it stays challenging but by now you know what to expect
- **Homework 2:** let's turn something in tonight (stay in office hours?)

Get a grade and move on

- **#mugshots** - gift postponed (Jen had to cancel tonight)

Last week's activities

1. **Todos App - Activities 25-28:**

Solutions are in the class repo. This code will be useful for Homework 4

2. **Timer App - Activity 29:**

Review solution. This code will also be useful Homework 4

Death by PowerPoint: **Not the Way to Learn Coding**



A close-up photograph of a person's hands typing on a laptop keyboard. The laptop screen displays a code editor with CSS code. A yellow arrow points from the text 'True Way to Learn Coding' to the code on the screen. The code includes various CSS properties like font-size, margin, border, and transition. The background is slightly blurred, showing a desk and some papers.

True Way to Learn Coding

```

    font-size: 10px; margin-left: 3px; border-radius: 5px !important;
    background: #fff !important;
    border-top-color: #fff !important;
    border-bottom-color: #fff !important;
    border-left-color: #fff !important;
    border-right-color: #fff !important;
    border: 1px solid #ccc !important;
    transition: all 0.5s ease-out 0s;
    user-select: none;
    -moz-user-select: none;
    -o-user-select: none;
    user-select: none;
  }

  .user_language {
    width: 50px;
  }

```

jQuery \$(Begins)

[illegible]



Be prepared to have classes that are increasingly “**just code.**”

(You will appreciate it in the long run.)

Today's Class

Agenda

In today's class we'll be covering:



DOM manipulation using plain JavaScript



DOM manipulation using jQuery



Responding to click events

DOM Manipulation

Understanding the DOM

Basic Example: todomvc.com



Every HTML page begins as static content.



However, with Javascript/jQuery, we can **modify the DOM** and change this static content in real time.



This allows us to build dynamic sites.

DOM Manipulation Steps

01

Get reference(s) to DOM Elements

In order to change the DOM, our Javascript needs a way to refer to DOM elements.

We store these references in **Javascript variables**:

```
var userNameEl =  
document.querySelector("#user-name");
```

02

Make changes to those elements

Ways we can change a DOM element (among others)?

```
userNameEl.textContent = "John Yaya";  
userNameEl.innerHTML = "<h1>John Yaya</h1>";  
userNameEl.setAttribute("class", "big-text");  
userNameEl.classList.add("class",  
"is-hidden");  
var newEl = document.createElement("span");  
newEl.textContent = ", Esquire";  
userNameEl.appendChild(newEl);  
userNameEl.addEventListener("click",  
function(event) {  
    console.log(event.target.textContent);  
});
```



Activity:

Generating HTML with Plain JavaScript

Suggested Time:
15 minutes



Activity: Generating HTML with Plain JavaScript



Using the file sent to you as a starting point, add the missing code so that your JavaScript generates HTML content that displays all drink options.



Hint: You will need a for loop. Inside the for loop, you will need to use each of the following methods: `createElement`, `innerHTML`, and `appendChild`.

Suggested Time: 15 minutes



Intro to jQuery

Intro to jQuery

jquery.com

jQuery is a cross-platform **JavaScript library** designed to simplify client-side HTML scripting.



Query Helper Library

jQuery can be useful for tasks such as:



Dynamically inserting, updating, or removing HTML



Registering click or other change events



Animating HTML elements



Downloading data from databases



And much more!

Working with jQuery

01

Include a CDN (Content Delivery Network) link to the jQuery script.

```
<script src="https://code.jquery.com/jquery-3.5.1.min.js"
integrity="sha256-9/aliU8dGd2tb6OSsuzixeV4y/faTqgFtohetphbbj0="
crossorigin="anonymous"></script>
```

02

Utilize the jQuery specific (\$) selector.

```
$("#clickMe")
```

03

Apply jQuery methods on the selected elements.

```
$("#clickMe").on("click", function(){
    // Trigger an alert.
    alert("I've been clicked!");
})
```



Instructor Demonstration

DOM Manipulation with jQuery

DOM Manipulation Steps with jQuery

01

Get reference(s) to DOM Elements

We select items in the DOM with the `$()` function using CSS selectors.

It's a lot like `document.querySelector`

```
var userNameEl = $("#user-name");
```

(In fact, before `querySelector`, jQuery was the preferred way to do DOM manipulation)

02

Make changes to those elements

Ways we can change a DOM element (among others)?

```
userNameEl.text("John Yaya");
userNameEl.html("<h1>John Yaya</h1>");
userNameEl.attr("class", "big-text");
userNameEl.addClass("is-hidden");
var newEl = $("<span>");
newEl.text(", Esquire");
userNameEl.append(newEl);
userNameEl.on("click",
function(event) {
    console.log(event.target.textContent);
});
```



Activity:

Generating HTML with jQuery

Suggested Time:
15 minutes



Activity: Generating HTML with jQuery



Refactor (rewrite) your previous `drinkList` code from earlier, but this time use jQuery to complete all of the same tasks.



Your final code should NOT have any of the following methods: `createElement`, `innerHTML`, or `appendChild`.



Hint: Don't forget to “incorporate” jQuery before you begin.



Bonus: Instead of using a for loop, look up how to use the jQuery `.each` method.

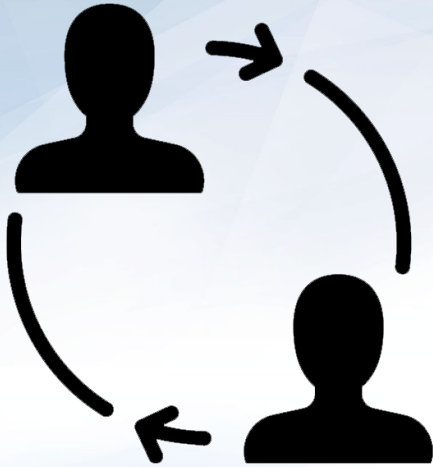
Suggested Time: 15 minutes





Instructor Demonstration

On-Click Basic



Partner Activity: Sandwich Clicking

Suggested Time:
20 minutes



Partner Activity: Sandwich Clicking

Add the missing code so that clicking any of the sandwiches causes:



An alert message that says something snarky about the sandwich type.



An alert message that displays how many of a specific sandwich the user has eaten.



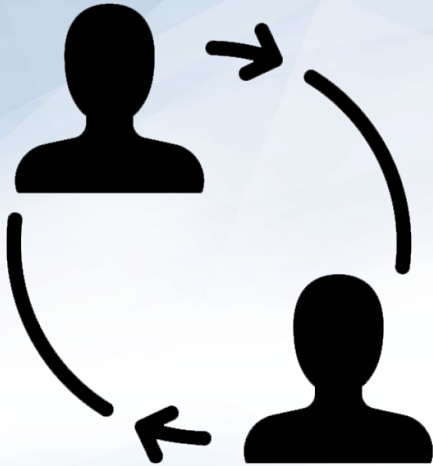
Hint: You will need counter variables.



Bonus: Add an image to the `image-div` on the click event.

Suggested Time: 20 minutes





Partner Activity: Trigger Random

Suggested Time:
12 minutes

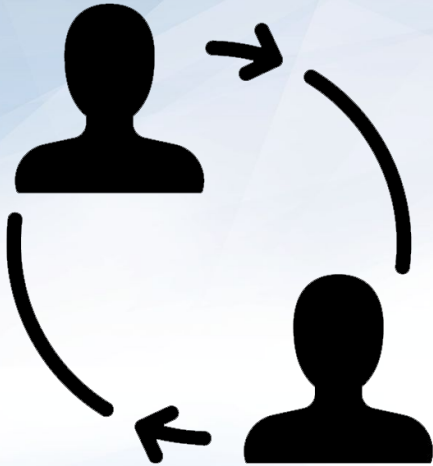


Partner Activity: Trigger Random

Add the missing code so that clicking the big blue button triggers a random number (between 1 and 1,000) to be selected and prominently displayed in the `randomNumber` div.

Suggested Time: 12 minutes





Partner Activity: Lottery Generator

Suggested Time:
20 minutes



Partner Activity: Lottery Generator

Use the code from the previous random number generator to create a lottery generator.



The lottery generator should select 9 random numbers (and always 9 numbers).
Example: 886563264



Display this number in the `randomNumber` div.



When the user clicks again, create a new row with the most recent number at the top.

Suggested Time: 20 minutes





Challenge:

Number Checker

Suggested Time:
20 minutes



Challenge: Number Checker

Based on the demonstration, create an application in which:



A computer selects a random number between 1 and 4.



The user clicks buttons numbered 1 to 4.



If the user's number matches the computer's number, display text informing them of this in the Result panel. Otherwise, display text informing them that they lost.



Bonus: If you finish early, try to improve the aesthetics of your app.

Suggested Time: 20 minutes





Questions?