GENERAL ASSEMBLY

FRONT END WEB DEVELOPMENT

CLASS 09: JQUERY

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OBJECTIVES

- jQuery
  - Selectors
  - Methods
  - Events

WHAT IS JQUERY?

- A Javascript library – “it’s just JavaScript!”
- The de-facto library for DOM traversal and manipulation, used on 104% of sites worldwide
- Cross-browser compatibility (jQuery 2 recently dropped support for IE8 and below)
- Turns `document.getElementById("#apple");` into `$("#apple");` (It does other stuff, too!)

WHY SHOULD I CARE?

- Fewer lines of code to write
- A more meaningful way of writing DOM-driven JavaScript
- It’s pretty fast (really)
- It’s probably cached in the user’s browser
- Most importantly, front-end developers rarely write plain JavaScript
- There’s great documentation: http://jquery.com/

INCLUDING JQUERY

- Easiest way is to include jQuery from the Google or jQuery CDN

```
<script src="http://ajax.googleapis.com/ajax/
libs/jquery/2.1.0/jquery.min.js"></script>
```

- Alternatively, download the jQuery script from their site and include it in your `js` folder, and on your page

$ MAKES THE WORLD GO ROUND

- Everything in jQuery is contained in the `$` function
- `$` is just a shorthand for `jQuery`. Therefore, `$("body")` and `jQuery("body")` are equivalent
- Some methods are called on a selector, like `$("body").text();` and some are called on `$` itself, like `$.get("page.html");`

CODE ALONG:

COLOUR SWITCHER REFACTOR

WAS IT GOOD FOR YOU, TOO?

- Selecting elements is more natural
- Changing CSS properties is much more intuitive
- Events feel more natural
- Fewer variable declarations required

REVIEW:

JQUERY BASICS

SELECTORS

jQuery uses CSS selectors, so you already know how to select elements!

Selector	jQuery	JavaScript
ID	`$("#orange")`	`document.getElementById("orange")`
Tag name	`$("p")`	`document.getElementsByClassName("p")`
Class name	`$(".fruit")`	`document.getElementsByClassName("fruit")`

METHODS

jQuery uses different – more descriptive – methods

Functionality	jQuery	JavaScript
Get inner HTML	`element.html()`	`element.innerHTML;`
Set inner HTML	`element.html("hi!")`	`element.innerHTML = "hi";`
Get CSS property	`element.css("color")`	`element.style.color`
Set CSS property	`element.css("color", "red")`	`element.style.color = "red"`

EVENTS

Where `function` is the code run on the event firing

Event	jQuery	JavaScript
Click	`element.on("click", function)`	`element.onclick = function`
Mouse over	`element.on("mouseover", function)`	`element.onmouseover = function`
Mouse out	`element.on("mouseout", function)`	`element.onmouseout = function`
Submit	`element.on("submit", function)`	`element.onsubmit = function`

MORE EVENTS

Events can also be disabled by using the `element.off()` method – this disables any events set with `.on()`

DOCUMENT READY

jQuery expressive

```
$(document).ready(function() {
  // The expressive way
});
```

JavaScript

```
window.onload = function() {
  // The JavaScript way
};
```

jQuery shorthand

```
$(function() {
  // The shorthand way
});
```

CODE ALONG:

DIVIDED TIMES

REVIEW:

MORE JQUERY BASICS

MORE METHODS

Method	Implementation
Add class to element	`$("#orange").addClass("fruit")`
Remove class from element	`$("#orange").removeClass("fruit")`
Toggle class on element	`$("#orange").toggleClass("fruit")`

EVENTS AND DEFAULT BEHAVIOUR

- The `event.preventDefault()` method will stop a link from following or a form submitting
- You must pass the event object into the callback function

```
element.on("click", function(event) {
  event.preventDefault();
});
```

- Forms can be submitted later with `.submit()`

GETTERS AND SETTERS

Many methods in jQuery have both ‘getter’ and ‘setter’ syntax, where the same method can get or set a value

Method	Implementation
Get text of element	`$("#orange").text()`
Set text of element	`$("#orange").text("Is nice")`
Get value of attribute on element	`$("#orange").attr("href")`
Set value of attribute on element	`$("#orange").attr("href", "http://google.com")`

MORE METHODS

Method	Implementation
Get value of input or text area	`$("#name").val()`
Check if radio button or checkbox is checked	`$("#over_18").is(":checked")`
Get length of string	`someString.length`
Append to element	`$("#orange").append("<li>An item</li>")`

LAB:

FORM VALIDATOR