



LESSON 9

JS On Your Webpage

Review **HW3**

Questions?

Review

WHAT IS A PROGRAM?

WHAT'S HAPPENING?

```
turnOffTV {  
    pickUp(remote, left-hand);  
    press(power, 0.1s);  
}
```

ID the various parts of the pseudocode

WHAT'S HAPPENING?

```
function isItMonday {  
  var day = null;  
  var days = [ "M", "T" , "W", "TH",  
"F", "Sa", "Su" ];  
  if ( day === days[0] ) {  
    console.log("Ugh, Monday");  
  } else {  
    console.log("No Mondays here");  
  }  
}
```

1/2 Codealong

ASSIGNMENT #1

We're going to use this later in class.

WHAT IS JQUERY?

- jQuery is a Javascript library
- JS libraries are sets of functions that complete routine code tasks for you. Everything in jQuery is JS and you can use JS and jQuery together.
- jQuery is great for AJAX, CSS manipulations, HTML switches, and event handling

IS JQUERY DYING?

- jQuery's original reason for being was to smooth over vastly different implementations of JS in the different browsers
- While that problem has been solved, jQuery still makes DOM manipulation easier
- As you learn JS, it can be both a blessing and a curse: it has simpler syntax but can hinder your JS development.

USING JS AND JOQUERY

Include at the bottom of your BODY:

```
<script src="js/jquery.min.js"></script>
```

```
<script src="js/main.js"></script>
```

Why do we put jQuery first?

USING JQUERY FROM CDN

A CDN is special kind of website that you can link to for assets like jQuery and other JS libraries.

```
<script src="https://  
code.jquery.com/  
jquery-3.1.0.min.js"></script>
```

What is .min.js - what does that mean?

WHAT DOES IT LOOK LIKE?

Initialize

Selector

Method

```
$ ( ' #e1 ' ) . css ( ' color ' , ' red ' ) ;
```

Parameters

Close

THE JQUERY SELECTOR

- CSS selectors query HTML for certain elements
- Use the same selectors you write in CSS!

```
$('div') // select all <div>'s  
$('h2') // select all <h2>'s  
$('p a') // select all <a>'s inside of all <p>'s  
$('p, a') // select all <p>'s and <a>'s
```

The `$ (' x ')` function takes any CSS selector

SELECTOR TEST

What do each of these do?

`$('li')`

`$('#funny-bone')`

`$('.silly-clown')`

`$('div a.balloon-animal')`

- All list items on the page.
- The #funny-bone ID only
- All .silly-clown classes
- Anchor tags with balloon-animal class inside divs

SELECTOR CITY

Lets review some CodePens on selectors:

Classes:

<http://codepen.io/staypuftman/pen/BKOXqK>

IDs:

<http://codepen.io/staypuftman/pen/reKPNg>

METHODS

In JavaScript, a method modifies an object. Most of the time (for your purposes), the object is an HTML element.

METHODS

```
console.log("Word, man.");
```

Console is an object (that hidden area of your browser) and log is a method that writes to the object.

METHODS ARE FUNCTIONS

Another way to think about methods is to think of them as specialized functions you get for free, out of the box with JS and jQuery.

METHODS

```
$ ( '#e1' ) .css ( 'color', 'red' );
```

In this case, jQuery fetches an HTML element with the ID '#e1' and creates an object out of it. The .css method modifies that object by changing its color to red via CSS.

BIG IDEA

jQuery selectors almost always create objects that you will modify with jQuery methods. Objects/methods are the cornerstone of JS.



Change / add CSS property to selector

```
// Makes color of element red  
$('#funny-bone').css('color', 'red');
```

```
// Multiple property  
$('#ID').css({  
    'height': '100px',  
    'width': '100px'  
});
```



If you just put the property name in as a parameter on the jQuery method, it will return the CSS value

```
// Makes color of element red  
var colorTime = $('#funny-bone').css('color');  
console.log(colorTime); // returns 'red'
```

CODEALONG

.HTML

Select and replace HTML content

```
// Selects  
$('#funny-bone').html();  
  
// Put something in the parenthesis to replace  
$('#funny-bone').html('<span>content</span>');
```


.TEXT

Select and replace content inside an HTML element

```
// Selects  
$('#funny-bone').text();  
  
// Put something in the parenthesis to replace  
// But no HTML tags with this one  
$('#funny-bone').text('content');
```

TEST YOURSELF

Use `.html()` and `.text()` to print HTML elements from Assignment #1 into the console

Let's Review

ASSIGNMENT #2

JQUERY EVENT

.CLICK()

.CLICK() W/ FUNCTION

Attach .click() to jQuery selector and you can build an event handler function right into your selector

```
// Function to be run
function somethingCool() {
    var coolBeans = $('.element').html();
    console.log(coolBeans);
}

// Executes function when #button is clicked
$('#button').click(somethingCool);
```


ANONYMOUS .CLICK()

You can build a click event with a function on the fly. I don't like this as much but it works and you'll see this A LOT.

```
// Executes function when #button is clicked
$('#button').click(function() {
    var interestingHTML = $('#element').html();
    console.log(interestingHTML);
});
```

.HIDE / .SHOW

Hides elements by setting inline style to
`display: none;`

Shows elements by setting inline style to
`display: block.`

```
// Hides all <p>'s  
$('p').hide();
```

```
// Shows all <p>'s  
$('p').show();
```

.HIDE / .SHOW

.hide and .show both have duration elements

```
// Hides all <p>'s slowly  
$('p').hide('slow');
```

```
// Shows all <p>'s in 300ms  
$('p').show(300);
```

Try it out:

<http://codepen.io/staypuftman/pen/rLdrXG>

.ADDCLASS / .REMOVECLASS

.addClass adds a class to an element, .removeClass takes it away

```
$( 'p' ).click( function{  
    $( '.big-element' ).addClass( 'activate' );  
} );
```

```
$( 'p' ).click( function{  
    $( '.big-element' ).removeClass( 'activate' );  
} );
```

**MORE
CODEALONG**

OTHER METHODS

```
// Hides all <p>'s slowly  
$('p').slideUp('slow');  
$('p').slideDown(300);
```

Let's Explore:

<http://api.jquery.com/>

DOCUMENT.READY()

Wrapping your code in `$(document).ready()` is best practice for jQuery - this makes your JS wait until the rest of your page has loaded:

```
$(document).ready(function() {  
    // WRITE OTHER CODE HERE!!  
})
```

JS VS JQUERY

Creating zebra-stripped rows

JS:

<http://codepen.io/staypuftman/pen/YWaWgZ>

jQuery:

<http://codepen.io/staypuftman/pen/akYkZJ>

Work in teams - this will be hard

ASSIGNMENT #3

Make the traffic lights work

Think about the PROGRAM before you CODE!

NEXT TIME

Start on homework 4

Firm up your final project idea

JS Objects and Arrays