Advanced jQuery

Our Goals

- Events with jQuery
- Animations with jQuery
- Plugins with jQuery
- Chaining with jQuery
- DOM Readiness
- Talk about patterns and anti-patterns

Pure DOM Events

```
var button = document.getElementById( "btn" );
var myButtonCallback = function () {
    console.log( "Button was clicked!" );
button.addEventListener( "click", myButtonCallback );
```

jQuery Events

```
// Named Function - my preferred method
var myButtonCallback = function () {
    console.log( "Button was clicked" );
};
$("#btn").on( "click", myButtonCallback );
// Anonymous functions
$("#btn").on("click", function () {
    console.log( "Button was clicked!" );
});
```

There are lots of events!

- Keyboard events
- Mouse events
- Form events
- Browser events

They always look the same!

Keyboard Events

```
var myCallback = function () {};
$("p").on( "keydown", myCallback );
$("p").on( "keypress", myCallback );
$("p").on( "keyup", myCallback );
```

Mouse Events

```
var myCallback = function () {};
var mySecondCallback = function () {};
$("p").on( "click", myCallback );
$("p").on( "dblclick", myCallback );
$("p").on( "hover", myCallback, mySecondCallback );
$("p").on( "mousemove", myCallback );
$("p").on( "contextmenu", myCallback );
```

Form Events

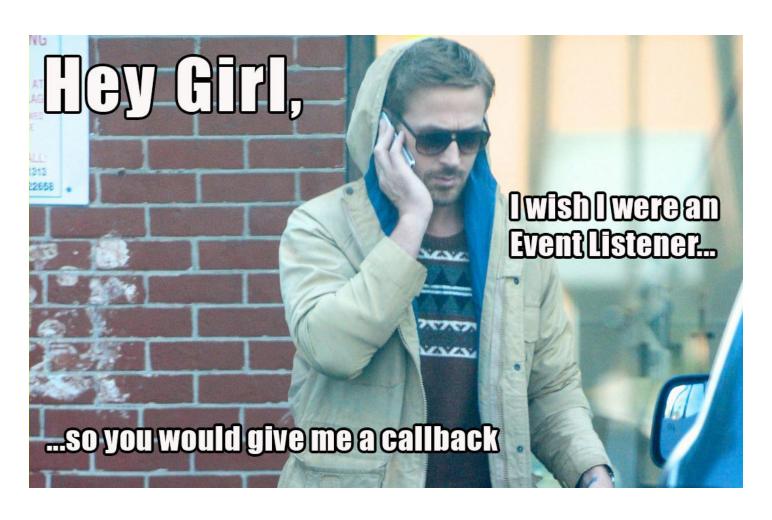
```
var myCallback = function () {};
$("input").on( "focus", myCallback );
$("input").on( "blur", myCallback );
$("input").on( "change", myCallback );
$("input").on( "select", myCallback );
$("form").on( "submit", myCallback );
```

Browser Events

```
var myCallback = function () {};
$(window).on( "resize", myCallback );
$(window).on( "scroll", myCallback );
$(window).on( "resize", myCallback );
```

Now it is your turn!

It's all about callbacks



The `event`

An argument gets given to our callbacks for all event listeners! You can call it anything

```
$( "a" ).on("click", function (event) {
    console.log( event );
});

var myCallback = function (e) {
    e.preventDefault();
};

$( "a" ).on( "click", myCallback );
```

Effects and animations

Lots of cool things!

- toggle, fadeToggle, and slideToggle
- animate

```
// $().animate( cssObject, timer, onComplete );
$("div").animate({
    width: "500px",
    padding: "15px"
}, 100, function () {
    console.log( "Animation complete" );
});
```

Have a crack at these exercises

jQuery Plugins

jQuery Plugins

If you want to create an animation, effect, or UI component, chances are pretty good that someone has done the work for you already.

Where do you find jQuery libraries?

- plugins.jquery.com
- javascripting.com

How do you pick them?

- Documented?
- Flexible?
- Responsive community?
- Actively maintained?
- File size?
- Browser support?
- Responsive?

See here for more information

How do you use them?

- Download the plugin and associated files
- In the HTML reference any associated CSS files (if there are any)
- After jQuery, reference the plugin
- Use the plugin in your code

Have a crack at these exercises

Patterns and Anti-patterns

```
// Patterns //
// Name jQuery selected elements with a $
var $allParagraphs = $("p");
var myCallback = function () {}
// Pass in named functions
// Bind events to the document
$(document).on( "click", "a", myCallback );
```

Chaining

```
$("p").css("color", "red");
$("p").html("Welcome");
$("p").show();
// Is the same as...
$("p").css("color", "red").html("Welcome").show();
// Is the same as...
$("p").css("color", "red")
      .html("Welcome")
      .show();
$("p").animate({}, 100).animate({}, 100).animate({}, 100);
```

DOM Readiness

You can't work with HTML if it isn't on the page yet!

```
$(document).ready(function () {
    console.log( "The page is ready" );
    // All HTML is completely loaded!
});
```

Homework

- Get good at jQuery
 - Try jQuery
 - Code Academy: jQuery
 - Learn jQuery
 - jQuery Fundamentals

But here is the project brief