

WEEK 8 – WORKING WITH MEDIA, JQUERY PLUGINS

GA GENERAL ASSEMBLY

FEWD



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A pithy quip

AGENDA

Review Startup Matchmaker

Working with Media

- Audio
- Video
- `<iframe>`

jQuery Plugins

REVIEW: STARTUP MATCHMAKER



REVIEW: RESPONSIVE RULES OF THUMB

Use pixels for font size on `<body>` elements

Use percents for widths, margins, padding of block elements.

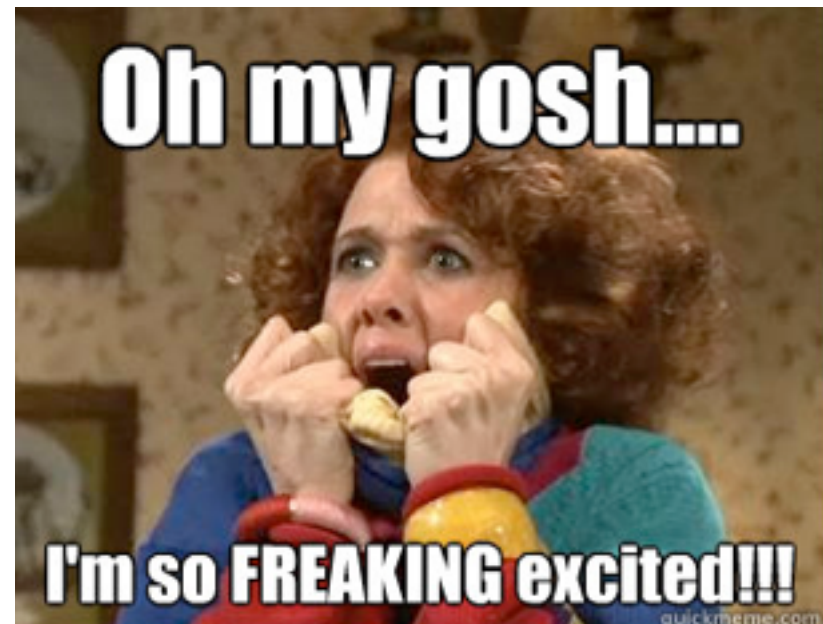
Use em's for typography (font-size, line-height, etc.)

Include a viewport `<meta>` tag in your `<head>`:

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
```

HTML5 VIDEO

With the new `<video>` tag, we can embed video directly on our site without needing to utilize flash. Huzzah!



HTML5 VIDEO

`<video>`

`<source src="media/video.mp4" type="video/mp4">`

`</video>`

HTML5 VIDEO

Or with controls:

```
<video controls="controls">  
    <source src="media/video.mp4" type="video/mp4">  
</video>
```

And with a background (aka "poster") image:

```
<video controls="controls" poster="img/videoimage.png">  
    <source src="media/video.mp4" type="video/mp4">  
</video>
```

HTML5 VIDEO

You can also loop and autoplay:

```
<video controls="controls" loop="loop" autoplay="autoplay">  
  <source src="media/video.mp4" type="video/mp4">  
</video>
```

You can also eliminate the need for the attribute name="value" pairs when they are the same:

```
<video controls loop autoplay>  
  <source src="media/video.mp4" type="video/mp4">  
</video>
```


HTML5 VIDEO

You can also provide a fallback for an older browser:

```
<video controls loop autoplay>  
  <source src="media/video.mp4" type="video/mp4">  
  <p>Your stupid browser doesn't support the video tag</p>  
</video>
```

THE GOOD

We have video on our site without having to embed a disgusting flash player!!

THE BAD

Older browsers don't support <video>

- About 10% of Global users

IE	Firefox	Chrome	Safari	Opera	iOS Safari *	Opera Mini *	Android Browser *	Chrome for Android
		31						
		33						
8		35	5.1				4.1	
9	31	36	7		7.1		4.3	
10	32	37	7.1		8		4.4	
11	33	38	8	25	8.1	8	4.4.4	38
	34	39		26			37	
	35	40		27				
	36	41						

THE BAD

Not all browsers support the same codecs / video file types.

MPEG-4/H.264 - Safari, Chrome, and IE9+

Ogg - Firefox, Chrome, Opera

WebM - Firefox and Chrome

THE UGLY

Creating fallbacks requires complicated code and multiple video files:

```
<video controls poster="images/fallback.jpg" width="540" height="360">  
  <source src="media/video.mp4" type="video/mp4">  
  <source src="media/video.webm" type="video/webm">  
  <source src="media/video.ogv" type="video/ogg">  
</video>
```

HOW CAN WE ACTUALLY ACHIEVE CROSS-BROWSER VIDEO?

- 1 - Use YouTube, Vimeo, or a service like Wistia (wistia.com), as they do all of the detecting and serving for you.
- 2 - Use a JS library to embed a player:
 - <http://www.videojs.com/>
- 3 - Use an off-the-shelf player:
 - <https://flowplayer.org/>
- 4 - Create your own video fallbacks and do it yourself!

CODEALONG - CROSS BROWSER VIDEO

Step 1: Download the Miro Video Converter. Or use other video conversion / transcoding software.

<http://www.mirovideoconverter.com/>

Step 2: Transcode 3 copies of your video - mp4, ogg, webm

Step 3: Create a "Fallback" image for your video.

Step 4: Create `<video>` tag and `<source>` fallbacks.

FOR MORE ON HTML5 VIDEO

<http://diveintohtml5.info/video.html>

HTML5 AUDIO

Works very similarly to HTML5 Video:

```
<audio controls>
```

```
  <source src="media/finalcountdown.mp3" type="audio/mpeg">
```

```
</audio>
```

HTML5 AUDIO

As before, certain browsers only support certain types.

Chrome, Safari, IE - MP3

(older versions of) Firefox, Opera - OGG

```
<audio controls>
```

```
  <source src="media/finalcountdown.mp3" type="audio/mpeg">
```

```
  <source src="media/finalcountdown.ogg" type="audio/ogg">
```

```
</audio>
```

CODEALONG - PACMAN SOUNDTRACK

Add an audio file to the game.

Use the "autoplay" and "loop" attributes to enhance the experience.

Create a button to turn the audio on and off.

FONT AWESOME

A collection of awesome icons that you can use with just CSS. They are embedded as a font, so you can set colors, font-sizes, and they are infinitely-scalable!

<https://fontawesome.github.io/Font-Awesome/>

We will use these for our audio player.

ANOTHER WAY TO INCLUDE MEDIA

If you have your video or hosted somewhere else, you can usually embed it on your page with an iframe.

IFRAME

An iframe is basically a way for us to "quote" a website within another website.

In practice, we can use this to embed media / pages from various services like:

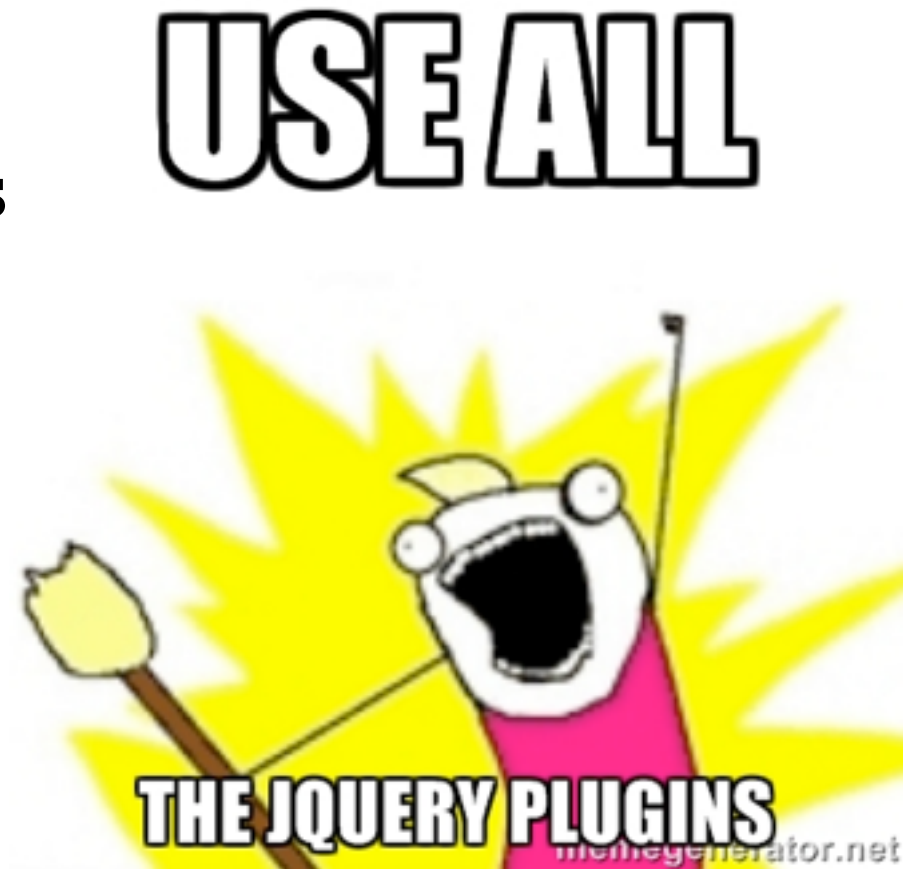
- Youtube
- Vimeo
- Google Maps
- Soundcloud
- Spotify

JQUERY PLUGINS



JQUERY PLUGINS

There are so many plugins that other people have made and spend time actively testing and developing. We are going to work with a few today.



JQUERY PLUGINS

What IS a jQuery plugin? Basically, it is an additional piece of JS code (with, optionally, some support images and CSS) that abstracts some complicated jQuery functionality out and can be re-used in our code.

We add an additional `<script>` to our HTML. We, optionally link any needed images and CSS. And then we reference the custom JS according to the plugin documentation.

WHAT ARE SOME THINGS WE CAN DO?

Slideshows.

Page Scrolling.

Advanced Layouts.

Advanced Animation.

Working with Media.

Lightboxes / Other Modal Views.

Datepickers, Sliders, UI tools.

Form Processing.

JQUERY PLUGINS

There are thousands upon thousands. Google is your best friend here.

Also, check out the jQuery plugin registry:

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

And these pretty sexy plugins:

<http://designpixy.com/2015/free-jquery-plugins/>

WHAT TO LOOK FOR IN A PLUGIN

Recently Updated

Well-Documented

Example Implementations

Creative Commons Licensing

Open Source

Hosted on Github / Active User Base

EASING

How can we approximate more natural movement in our apps? It's not difficult. It's EASING!

Easing functions specify the speed at which an animation progresses at different points within the animation.

Right now, our `animate()` function can only accept two types of easing - "linear" and "swing"

EASING

```
$(this).animate({  
    top: "80%"  
}, 2000, "swing");
```

- This is the default

```
$(this).animate({  
    top: "80%"  
}, 2000, "linear");
```

- This is built-in.

JQUERY EASING PLUGIN

Download from:

<http://gsgd.co.uk/sandbox/jquery/easing/>

For a visual cheat-sheet for all the different options:

<http://easings.net/>

CODEALONG - EASING

Change the way the boxes "fall".

COLOR ANIMATIONS

<http://www.bitstorm.org/jquery/color-animation/>

Previously, we had no way to animate a color. This plugin let's us animate (for example) the following:

- color
- backgroundColor
- borderColor

CODEALONG - COLORFUL EASING

As the boxes fall, animate the background color.

EXERCISE - PACMAN ANIMATION

Place a couple characters on the screen and move them around using easing.

LIGHTBOX

Fancybox is one of my favorite Lightbox solutions / jQuery plugins.

<http://fancyapps.com/fancybox/>

It's a bit complicated, though. Let's look at Featherlight.

<http://noelboss.github.io/featherlight/>

CODEALONG - LIGHTBOX

Build a simple photogallery.

CODEALONG - PLUGIN PLAYGROUND

Fluid Width Video Embeds

<http://fitvidsjs.com/>

Carousels

owlgraphic.com/owlcarousel/index.html

Pinterest-Style Layout

<http://masonry.desandro.com/>

OTHER SUPER USEFUL PLUGINS

Add Touch Events to your website with Hammer.js:

<http://hammerjs.github.io/>

Add cool UI features to your site with jQuery UI

<https://jqueryui.com/>

CAN'T FIND ONE YOU LIKE? WRITE YOUR OWN!

A great way to make a name for yourself when you are just starting out is to write your own jQuery plugins.

For more information:

<http://learn.jquery.com/plugins/basic-plugin-creation/>

<http://brolik.com/blog/how-to-create-a-jquery-plugin/>

<http://www.webvanta.com/post/2011-03-21/an-introduction-to-jquery-plugin-writing>

FINAL PROJECT MILESTONE

Rough Draft due next week!

We will set aside some class time next week to work on projects in class so you have access to Chandler and myself.