WEEK 8 - POSITION PROPERTY, WORKING WITH MEDIA

GA GENERAL ASSEMBLY

FEWD

Joe Bliss
A pithy quip

AGENDA

Review Startup Matchmaker

Mobile- vs. Desktop-First

Position Property

Working with Media

- Video
- <iframe>
- Audio

REVIEW: STARTUP MATCHMAKER

MOBILE FIRST VS. DESKTOP FIRST

What is meant by mobile first?

Why would you use mobile first?

A good read:
https://codemyviews.com/blog/mobilefirst

CODEALONG – WORKSPACE

Add breakpoints from mobile up!

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">
```

CSS POSITIONING

Static

Fixed

Relative

Absolute

What’s your favorite posish?

POSITION: STATIC;

Everything that we've seen so far has been "position: static;" by default. This is the default for all elements.

You cannot set right, left, top, bottom values to elements with position: static;

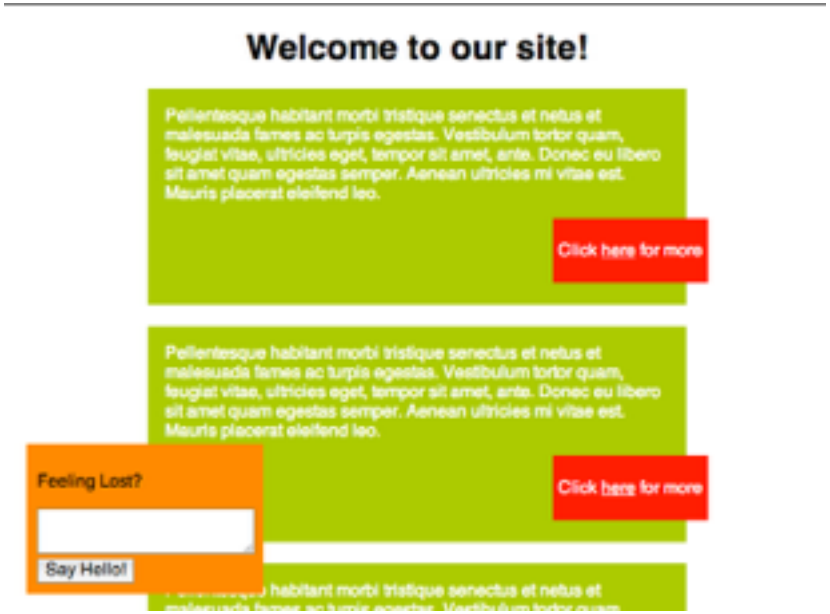
A static element is said to be "not positioned" and an element with its position set to anything else is said to be "positioned".

POSITION: FIXED;

Fixed-position elements don’t move when the browser scrolls. They are placed relative to the browser window (top, left, bottom, right). Elements with position: fixed; are removed from the normal flow of the page.

Usage: Persistent navigation, “Modal” divs, Animation

POSITION: FIXED;



Welcome to our site!

Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Vestibulum tortor quam, feugiat vitae, ultricies eget, tempor sit amet, ante. Donec eu libero sit amet quam egestas semper. Aenean ultricies mi vitae est. Mauris placerat eleifend leo.

Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Vestibulum tortor quam, feugiat vitae, ultricies eget, tempor sit amet, ante. Donec eu libero sit amet quam egestas semper. Aenean ultricies mi vitae est. Mauris placerat eleifend leo.

habitant morbi tristique senectus et netus et

Create a chat window:

http://codepen.io/josephjbliss/pen/hxsio

POSITION: ABSOLUTE;

An absolutely-positioned element is positioned with respect to it’s nearest parent with a position other than static (relative, absolute, fixed). By default, it is positioned with respect to the browser window.

Absolutely-position elements are taken out of the normal flow of the page.

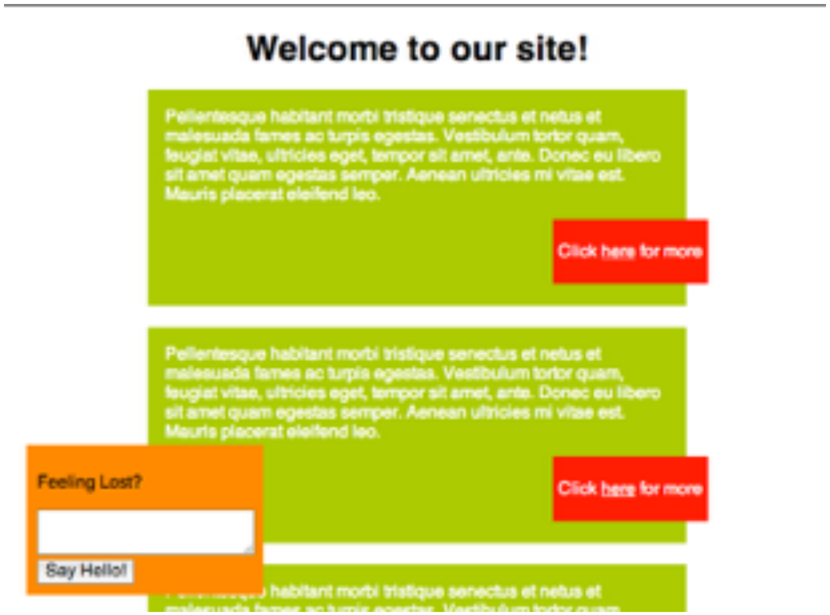
Usage: Animation, Placing an element within a parent.

POSITION: ABSOLUTE; + POSITION: RELATIVE;

We can use position: relative; together with position: absolute; to place an object WITHIN another object.

You place position: relative; on the parent object, and then, children of that object with position: absolute; applied to them will determine their placement on the position: relative; object.

POSITION: ABSOLUTE; + POSITION: RELATIVE;



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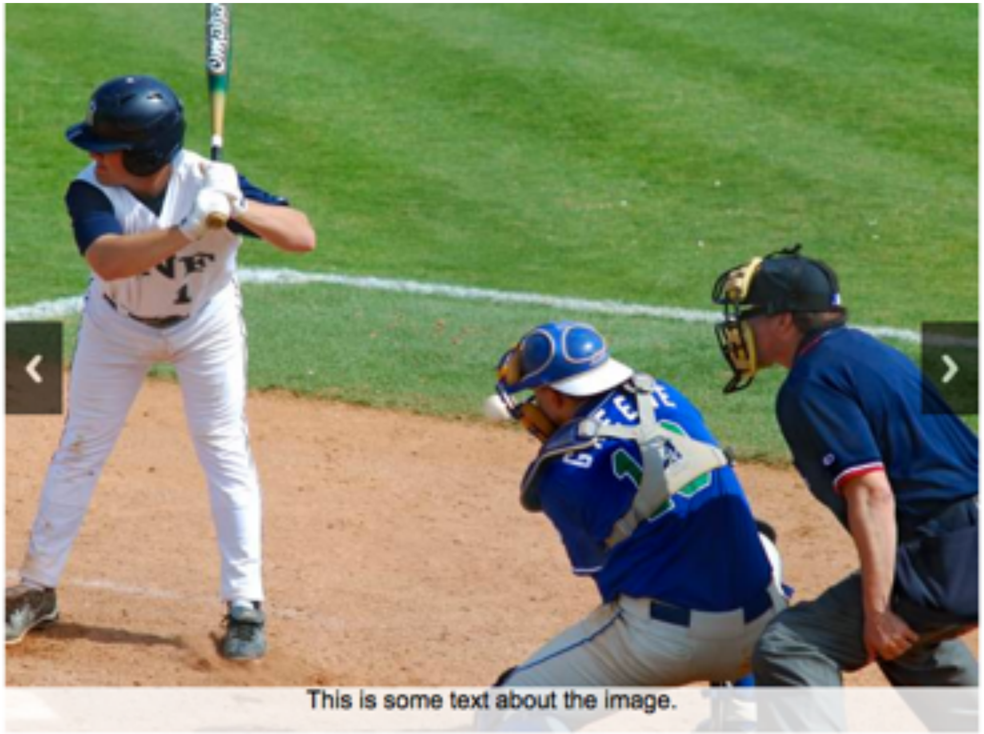
http://codepen.io/josephjbliss/pen/hxsio

CODEALONG - SLIDESHOW LAYOUT



This is some text about the image.

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

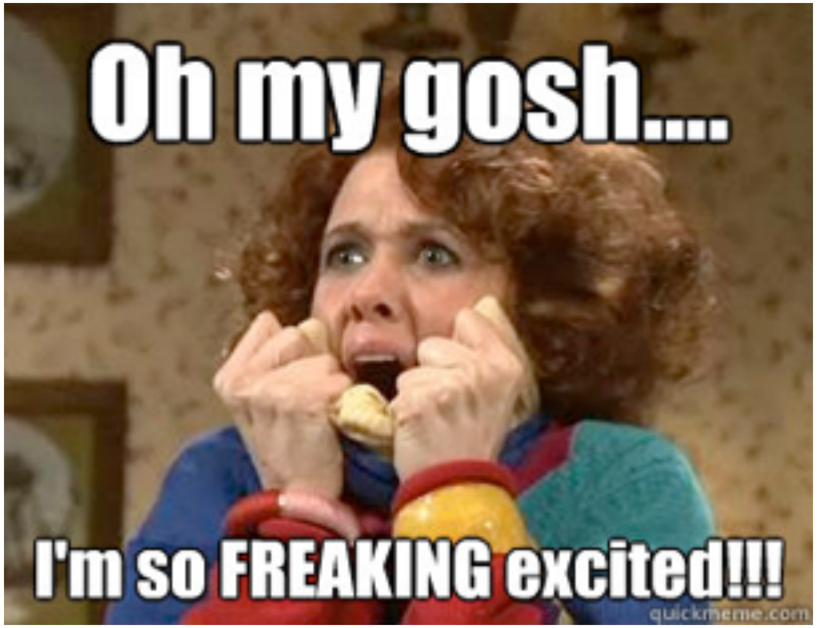
Change the way the boxes "fall".

EXERCISE – PACMAN ANIMATION

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

HTML5 VIDEO

With the <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>
```

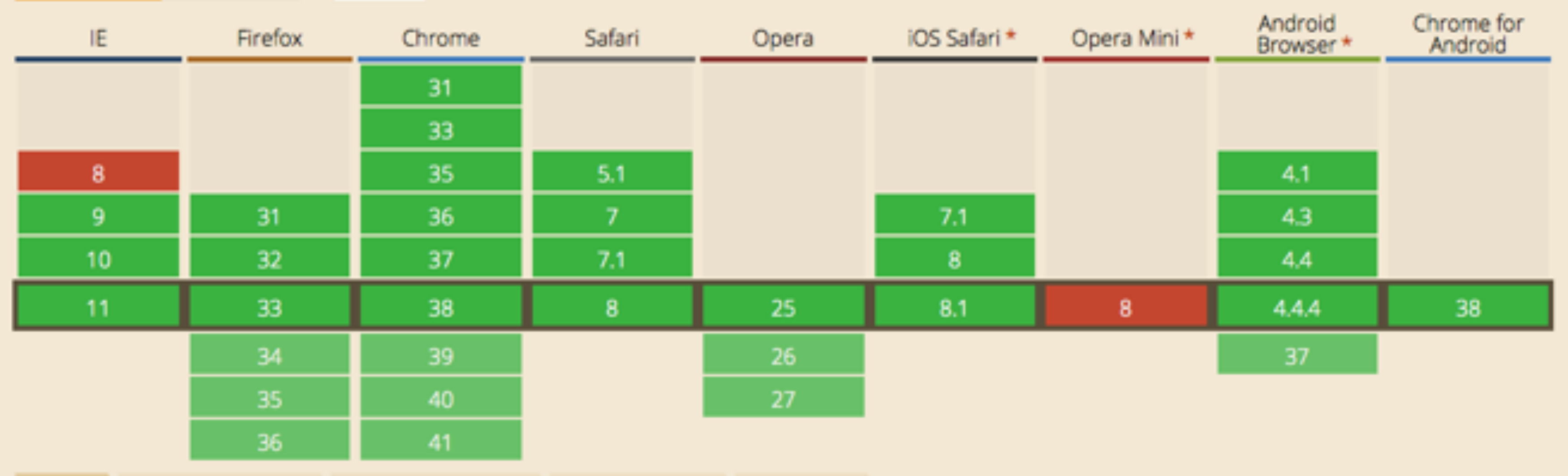
THE GOOD

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">
	<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 video conversion / transcoding software. (e.g. 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.

AN EASIER WAY TO INCLUDE VIDEO

If you have your video 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

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.

FINAL PROJECT MILESTONE

First draft of one page / section of HTML / CSS and at least one JS pseudocode interaction.

This can be extremely rough, just want to make sure you are working on it.