GA GENERAL ASSEMBLY

FEWD

I LOVE HOW YOUR WEBSITE IS IMPOSSIBLE TO READ ON MY SMARTPHONE

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AGENDA

Homework Review

Code Warm-Up

Responsive Design

- Fluid Layout

- Media Queries

- Em Typography

Startup Matchmaker

HOMEWORK REVIEW

How was it?

CODE WARM-UP

http://codepen.io/ga-joe/pen/grdrkr?editors=110

RESPONSIVE DESIGN

What it is?

RESPONSIVE DESIGN

Designing for the optimal viewing experience agnostic of the device on which the site is being viewed.

We are going to learn how to BUILD responsive sites.

"One site for every screen."

RESPONSIVE DESIGN

Let's explore some responsive sites:

http://thenextweb.com/

http://www.time.com/time/

http://trentwalton.com/

What about these makes them "Responsive"?
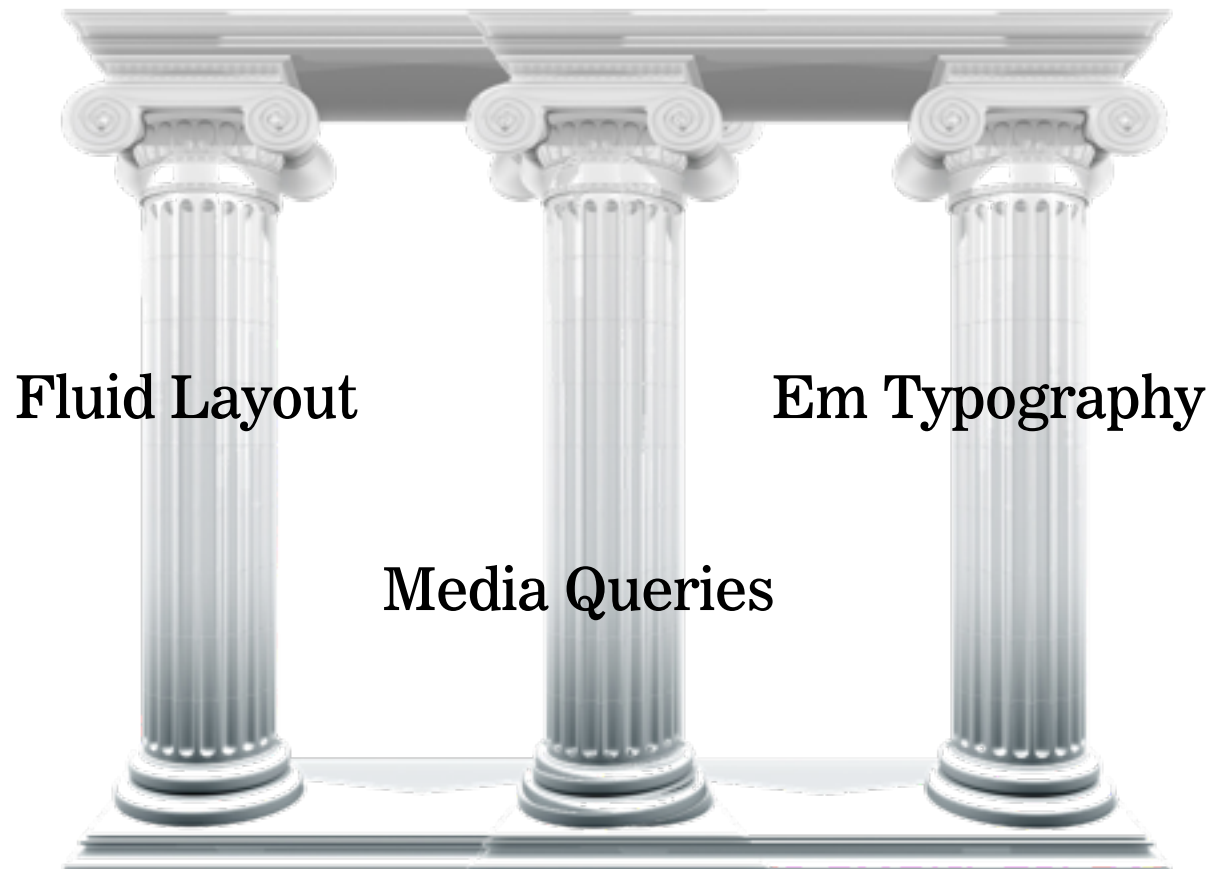
WHAT'S HAPPENING

Columns are Changing Size

Images are Scaling, Dimensions are Changing
Columns, Navigation Items, are Being Rearranged
Elements Are Being Hidden and Shown

Typography is Changing Size / Ratios

THREE PILLARS OF RESPONSIVE DESIGN

Fluid Layout

Em Typography

Media Queries

FLUID LAYOUT

FLUID LAYOUT

Fluid layout is our first step toward Responsive Design.

We use %'s for our box-model values (height, width, margin, padding) in order to achieve relative sizes based on the browser size.

You cannot set a % border-width.

CODEALONG – FLUID LAYOUT

In codepen, we'll make a fluid page.

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

EXERCISE – STARTUP MATCHMAKER (MATCHMAKER, MAKE ME A MATCH …)

Take a few minutes to think about how you would approach this site.

CLICKABLE BUTTONS

Use these for Startup Matchmaker.

http://codepen.io/ga-joe/pen/vKzKQO?editors=110

FLUID LAYOUT

What's the problem with fluid layout? Why isn't it good enough by itself?

RESPONSIVE DESIGN

~~Fluid Layout - Use of %'s~~

Media Queries

Use of em's

WHAT IS A MEDIA QUERY?

"A media query consists of a media type and at least one expression that limits the style sheets' scope by using media features, such as width [...] let the presentation of content be tailored to a specific range of output devices without having to change the content itself."

https://developer.mozilla.org/en-US/docs/Web/Guide/CSS/Media_queries

BROWSER–WIDTH MEDIA QUERIES

Within stylesheet:

@media only screen and (min-width: 1024px) {
  /* Styles go here */
}

"only screen" -> Only target devices with a viewable screen

min-width: 1024px -> Only assign the following styles to windows larger than 1024px

BROWSER-WIDTH MEDIA QUERIES

Within <link>:

<link rel="stylesheet " media="only screen and (min-width: 1024px" href="css/1024only.css">

Will assign any styles in the file "css/1024only.css" to the file for browser widths greater than 1024px.

BROWSER–WIDTH MEDIA QUERIES

min-width: ___px;
 ‣ targets browsers greater than or equal to __px wide
max-width: ___px;
 ‣ targets browsers less than or equal to __px wide

Can use multiple:

```
@media only screen and (min-width: 320px) and (max-width: 480px) {
   /* These styles will only apply on devices between 320 and 480
   pixels wide. */
}
```

BREAK POINTS

Classic "Break Points" to target:
(>1280px),(1024px), 768px, 480px, 320px

CODEALONG – ECON NEWS CORP

Let's turn this pre-existing site into a responsive one!

What decisions do we have to make?

RESPONSIVE DESIGN

~~Fluid Layout - Use of %'s~~

~~Media Queries~~

Use of em's

EM ... WHAT?

An em is a unit of measurement. Just like pixels, ems can determine the size of elements on a web page. Unlike pixels, which are absolute, ems are relative to their parent's font size.

1em is equal to the inherited font size. If the font size of a <div> is set to 16px, 1em within that <div> is equivalent to 16px. If the font size of that <div> changes to 20px, 1em within that <div> is equivalent to 20px.

LET ME EM-PHASIZE THIS

http://kevinperalta.com/playground/em_size.html

- A good example

I EM WHAT I EM

And what I em is based one what you are ...

```
.element {
    font-size: 20px;
    line-height: 1.2em; //i.e. 24px
    margin: 2em 0; //i.e. 40px 0
}
```

CARPE DI-EM! SEIZE THE EM!

Set a font-size on the <body> using pixels.

Set your typography based on ems.

Then, in your media queries at smaller sizes, set that <body> font size to be smaller. The other values will cascade down.

CODEALONG – EM-TYPOGRAPHY

CODEALONG – RESPONSIVE NEWS

Add em's to the Econ News Corp

META TAG

Many handheld devices (iOS retina displays, for example) usually have higher resolutions than the actual "pixel" width of the device itself, making zooming an issue.

<meta name="viewport" content="width=device-width, initial-scale=1">

This ensures that your site is actually being viewed at the width of the device (that you've painstakingly created media queries for …).

Let's put Roxy online to see why we need to do this.

RESPONSIVE RULES OF THUMB

Use pixels for font size on <body> and other top-level 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">

FURTHER READING

http://johnpolacek.github.io/scrolldeck.js/decks/responsive/

CODEALONG – RESPONSIVE NAV

Let's look at a few approaches to responsive navigation.

EXERCISE – STARTUP MATCHMAKER

Make the startup matchmaker responsive!

Add break points for large desktop users, tablet, and mobile views!

Make design decisions based on these views, i.e. what can be hidden, what can be un-floated.

FINAL PROJECT MILESTONE

Fork the Final Project repo. Set-up your project folder structure. (index.html, css and js folders, etc.)

Draft one page or section of HTML / CSS.

Write at least one JS pseudocode interaction.

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