Mobile Web Development

Readings and Assignments
Week 3

Readings

Readings on Responsive

- *Responsive Web Design*. Ethan Marcotte's original article that coined the term "responsive web design". As you read, bear in mind that using the `flex` style as a way to lay out a page wasn't an option yet and `floats` were used instead — so don't worry about the technical details of `floats`. 15 minutes.
  http://alistapart.com/article/responsive-web-design

- *Responsive Web Design Fundamentals*. An article from Google with an overview of viewports and detailed recommendations for responsive design. Please read all four topics, and come away with an understanding of what the `<meta name="viewport">` tag does on mobile devices. About 30 minutes.
  https://developers.google.com/web/fundamentals/layouts/rwd-fundamentals/

Readings on Flex

- *Building with Flexbox*. This provides a good recap of what we did in class, and the CSS styles we used. You only need to read up to the end of the first section, "*A Simple Grid System*". No need to read from section 2 on. 15 minutes.
  http://callmenick.com/post/flexbox-examples

- After having read the articles from the last two slides, and having done the CSS work in class, you'll have the skills to create a responsive web page that changes its layout to fit the size of the browser window.

Readings on HTML

- *Semantic HTML Tags.* A list of the content containers in HTML. They're like DIVs, only more descriptive. 2 minutes.

  http://www.w3schools.com/html/html5_semantic_elements.asp

Readings on CSS Selectors

- *CSS Selectors*. So far we've touched on just a few CSS selectors: "." for classes, "#" for IDs, no selector for tags, and ":hover" for hovering.

- There are many more, including content-aware selectors and functions like nth-child().

- Check out this comprehensive list and explanation of selectors from Mozilla. It's dense reading, but a relatively short page that will let you know about selectors that can save you a lot of time.
https://developer.mozilla.org/en-US/docs/Web/Guide/CSS/Getting_started/Selectors

Readings on JavaScript

- *Learn JavaScript in 10 Minutes.* An introductory video on JavaScript by Jake Wright. If you're comfortable with JavaScript you can skip this video.
  https://www.youtube.com/watch?v=Ukg_U3CnJWI&index=5&list=PLlj9BrHKq9WKaz8UV3BjEqicn-C3qHxy4

Recap

Before moving on, make sure you understand what all the following tags and styles do. This list is the *minimum* you need to know, so if any of these are unfamiliar, look them up on the reference links in last week's assignment before doing the assignments.

- HTML tags: html, head, body, div, header, footer, nav, section, p, a, button, img, h1-6, style, script, meta, meta name="viewport", link.
- CSS styles: display, @media, flex, flex-flow, flex-wrap, flex-direction, margin, padding, min-width, max-width, order, color, background, font.
- CSS @media queries (*different from styles*): max-width, max-device-width, min-width, min-device-width, orientation.

Assignments

Assignment

- Make sure you've installed the Chrome browser on your laptop. It currently leads the browsers on developer tools and feature support.

Assignment

- Look at the home pages for Apple, the White House, and VW to see how they have used areas of flat color, shadow, and color gradients in their design. (15 seconds on each page is fine).

- On each page, try to identify which areas of the page were styled with pure CSS, and which areas were styled with images. If it's hard to tell, right click on the part of the page you're investigating, and choose "Inspect".

Assignment

- Look at the following three sites on a phone and on a computer. Resize the browser window and see how the layout and content change as the window gets smaller. What happens to the page navigation? Is a separate site necessary for mobile?
- http://www.pace.edu/
- http://newlab.com/
- http://lederniergaulois.nouvelles-ecritures.francetv.fr/

Assignment

- Create a responsive web page for the fictional Ultra Corporation. The page should try to sell the reader something. Give the page a 3-column layout, and make its layout responsive to the width of the browser, so that the page looks good on smaller browsers, and uses a 1-column layout on phones.
- Use SCSS for all styling. Use DIVs or semantic HTML tags styled with flex and media queries to implement your layout. Heads-up: writing the layout code the first time will take a while. Use media queries to resize large images for phones if needed. On phones, your single column will need to hug the edges of the browser window to look good. Switch column widths from pixels to percentages as needed to accomplish this.
- Use images, links, gradients, shadows, and animation in your page. Don't worry too much about "attractiveness".
- Your grade will be 50% using the features listed above, and 50% originality. For extra credit, include a 3D transform in CSS.
- Test your page on mobile and laptop. Please save the page on webpage.pace.edu, and post the URL to the Blackboard discussion group for this assignment.

Assignment

- In case it's helpful, the code from class is at http://webpage.pace.edu/hsahakian/examples/flexbox/.
- To look at the SCSS, please download the ZIP file.