Mobile Content Development

Readings and Assignments
Week 2

Web Development Basics

Many of you can skip this section, but it'll be helpful to anyone who's new to making web pages.

HTML: Introductory Videos

Optional. If you're new to HTML and CSS, this section of this week's assignment is for you. If you're experienced with web development you can skip the next 3 pages.

I think the best way to get up to speed is to watch some short videos, then view more detailed overviews, then check reference sites as needed.

The CSS video will make more sense if you watch the HTML videos first. These videos by Jake Wright are each 12 minutes in length, and are excellent.

HTML: https://www.youtube.com/watch?v=bWPMSSsVdPk

HTML part 2: https://www.youtube.com/watch?v=KJ13lX20FqU

CSS: https://www.youtube.com/watch?v=0afZj1G0BIE

HTML: Detailed Tutorials

Optional. Code Academy is a well known and excellent site for learning HTML. However, W3Schools may be much faster, as you can easily skip parts you have already figured out. It's older and not interactive, but for programmers it’s sometimes faster you'll learn the basics quickly just by looking at its examples.

W3Schools: http://www.w3schools.com/html/html_intro.asp

Code Academy: http://www.codecademy.com/en/tracks/web

HTML: Reference

When you need to look up HTML tags, CSS styles, or JavaScript functions, Mozilla's site below is nicely organized and full of useful information. MSDN and W3Schools are excellent sites too.

HTML: https://developer.mozilla.org/en-US/docs/Web/HTML/Element#S

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

JavaScript: Introductory Video

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

The Command Line

- *The Mac OS Command Line*. Optional. Mac users new to the Mac Terminal and its commands should read this guide. http://blog.teamtreehouse.com/introduction-to-the-mac-os-x-command-line

- *The Windows Command Line*. Optional. Windows users new to the Windows Command Prompt and its commands should read this guide. http://news.softpedia.com/news/basic-guide-for-the-windows-command-prompt-494379.shtml

Readings

Installing SASS

- *A Newb's Guide to Syntactically Awesome Stylesheets*. Optional. A 10 minute introduction to installing SASS on the command line, if you need help with that. If you have SASS already running on the command line, or in a program, skip this.
http://unmatchedstyle.com/news/a-newbs-guide-to-syntactically-awesome-stylesheets-sass-part-1.php

Using SASS

- *How SASS and SCSS Work.* A quick introduction to SASS's features, like variables, nesting, and imports.
  5 minutes.
  http://sass-lang.com/guide

Responsive 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/

Flex CSS

- *Building with Flexbox*. Optional. If you feel comfortable with the flex css we used in class, you can skip this. If not, read up to the end of the first section, "*A Simple Grid System*". 15 minutes.
  http://callmenick.com/post/flexbox-examples

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

Gradients and Shadows

- *Gradient Generators*. Play with a gradient generator and look at its generated CSS.
  https://www.google.com/search?q=gradient+generator

- *Shadow Generators*. Do the same with a shadow generator.
  https://www.google.com/search?q=shadow+generator

Recap

This is important. 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 before doing the rest of 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

- Ensure you've installed the Chrome browser on your laptop.
- Chrome currently leads the browsers on developer tools and feature support, and is the most similar desktop browser to mobile browsers. Assignments that do not work on Chrome will not be accepted.

Assignments

- Ensure SASS has been installed successfully. To check if installation was successful, type “sass -v" on the command line, or if you’re using an application to compile .scss files instead, check it works.
- Ensure an image editor has been installed on your laptop. We will be using it in the next class. To check if installation was successful, check you can edit an image from the internet and then save it.

Assignment

- Look at the home pages for Impossible Bureau, Melanie's Look Book, and Apple, to see how they have used areas of flat color, shadow, and color gradients in their design. (30 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. Are any of the gradients actually images? Is any of the text an image? 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 at least one SCSS variable and one SCSS mixin.
- Use DIVs or other HTML tags styled with flex and @media queries to implement your layout. 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 layout will need to hug the edges of the browser window to look good. Switch column widths from pixels to percentages on mobile to accomplish this.
- Use images, links, gradients, rounded corners, 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.

Tips

Tips

- Everyone calls SCSS “SASS”. Almost no-one actually uses the real SASS, which is an indentation-based format.
- Don’t spend >1 hour on getting SASS installed on the command line. If you’re having trouble, just use a program to do it instead (lots of programs are listed on the SASS site).

Troubleshooting SASS Install Issues

Trouble with Mac Gem Installs

If you're getting errors on your gem installs, the first thing to try is to update your Mac OS and XCode installations. If it's your first time installing XCode, you can do this from the App Store.

Once XCode is installed, run and quit it at least once so it can register itself with the OS. Then try your gem install again.

Trouble with Mac Gem Install Permissions

If you're getting permission errors on your SASS install, you can try the techniques on the previous page to fix it. I recommend avoiding sudo, as sudo will modify the copy of Ruby used by the OS. I suggest using a Ruby install manager like RVM.

If you're going to use sudo, the following seems to be the cleanest way, which specifies a different directory for the install:

sudo gem install -n /usr/local/bin sass

SASS Environment

It's important you have a SASS environment running for the next class. Every computer is different, and if your environment is not working, try Googling the error messages you're receiving to troubleshoot the problem.

Use Google, Wikipedia, online tutorials and code samples to help setup your environment. If you're having a problem, it's very likely that someone else has had it too, and that the answer is online.