Patron Training: Code Week – Introduction to HTML and CSS

Class Outline

Have you always wanted to learn to code but don't know where to start? Join us and learn the basics of HTML and CSS, the foundations of web design. All ages are welcome

**Learning Objectives**

At the end of this program learners will be able to:

* Recognize HTML tags and update content.
* Recognize CSS style tags and update the look of your page.
* Recognize JavaScript and update an array, a special type of variable.

**Time**: 2 hours

**Materials**:

* 1 staff
* Webmaker account
* Handout:
* Project to remix: <http://wvml.ca/ZZb> / <https://d157rqmxrxj6ey.cloudfront.net/sfelkar/17025>

**Location**: Computer Training Room

**Session 1**

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| **Time** | **Content** | **Materials** |
| 6:00 – 6:05 | **Introductions & Outline**   * : |  |
| 6:05 – 6:10 | **Why are you here?**   * Ask each person why they signed up | whiteboard |
| 6:10 – 6:15 | **What we’ll cover**   * A postcard project to review the fundamentals * Review where to go next to develop skills, and if time do a few more demos |  |
| 6:15 -6:20 | **Create a Webmaker account**   * Go to example page * Create account * Type in email, choose username, choose password * We do this so you can re-visit your project later and try new things (don’t have to)   What Thimble does for us is allow us to play in a “sandbox” a place where we can try new skills, practice, without worrying about breaking anything. | wvml.ca/ZZb |
| 6:20 – 6:25 | **Create a holiday postcard - Intro**  This first project is going to do a couple of things, we’ll be able to complete something that we can show others, as well as be able to do what “everyone” is doing, remixing something to make something our own.  A lot of web work has to do with knowing enough about coding so that we can look at something that already exists and adjust it.  Let’s start by talking a bit about HTML. HTML (hypertext markup language) - provides the tags that translate the content you want to share on the web into something a browser can display. There are tags for text, links, images and other digital media.  If we look at the left side of the screen we see the “source code” or the computer code that tells a web browser (chrome, firefox, safari) what to display. We can see this source code on any webpage that we visit.  A couple of start notes:   * At the very top we see <html> 🡨 this tag indicates to a web browser that all of the code within is meant to be read and displayed as HTML * These tags indicate links, images, lists, and other elements * In our exercise there is text in different colours:   + Grey are notes, this is just commentary that gives context, and helps jog your memory later.   + Blue is main tags / elements   + Green are the pieces of the tags   + Light blue are the details that we’ll be changing most often * The numbers on the left are the line numbers, they are useful in many instances, like when you are directed t look at “line 25”   Let’s get started remixing this project |  |
| 6:25 – 6:35 | **<h1>**  Most times when you see text on a page it is marked as either a heading or a paragraph. There can be different levels of headings, like in papers, newsletters, and other publications.  To mark something as a heading we wrap the words in what are called heading tags   * Draw on board <h1> title </h1>   This indicates that ‘title’ is a heading. The tag is made up of angle brackets, the special indicator, h1, and the closing tags always have a back slash.   * Show examples of headings – here is an example page where you can see 6 levels of headings, and what they look like by default.   For our postcard, we just have one heading, the words on the front of the postcard.   * Scroll down to line **236** * Can you see “h1” anywhere? * Click in, delete what is there * Type in: Happy Holidays, Season’s Greetings, Merry Christmas, * Notice that immediately the wording on the postcard changes – this is part of what makes this a good ‘sandbox’ we can see the changes to the code as soon as we make them, helping us see when things are going well, or not so well | Whiteboard  <http://www.w3schools.com/html/tryit.asp?filename=tryhtml_headings>  Handout page 1 |
| 6:35- 6:50 | **<p>**  The other HTML that we are going to edit is the back of the card, the paragraph text.   * hover over the card to flip * demo w3schools <p> looks lighter   So the basic look is just plain text, we’ll be editing the look and feel elsewhere in a few minutes.   * Scroll down a pit more, line **249** * There are a number of <p>s here that we’ll be replacing the text with, start with the salutation, then move the greeting, try your own, or the handout has some suggestions.   If time - ask about spacing improvements, what might work ? (empty paragraphs, br) | W3school example |
| 6:50 – 6:55 | **CSS – Intro**  Now, we’ve changed the text, the visible part, we want to change the picture, the colours and the fonts. We do this with CSS (Cascading Style Sheets). They provide the style tags that specify the look and feel of the layout of a webpage. There is a lot going on to make things look good.  Without CSS pages would just have one font, no colours, and sometimes no background images.  The are called “sheets” since they are usually separate files from a webpage that are easily updated and shared across pages – since you would want to use the same look and feel across all pages on your website, you have one sheet and connect it to every page.  For our postcard to make things easier we have the CSS build into the same page/style and it is marked by being within <style> tags |  |
| 6:55 – 7:05 | **Colour**  There are so many colours out there to choose from! To make them appear in a webpage, we can’t just say “red” because, while that might work, what do you do with “red, but lighter, with a bit of blue, and lighter?”  Instead we use a 6-digit code made of letters and numbers to specify what colour we want   * Demo colour picker * Open new tab, go to colour picker, choose a colour, or use one of the suggestions.   Now let’s make some changes   * Scroll back up to the top * Replace **#99ebff**  with **your colour** in 3 places body, h1, and #mybutton * Can be one colour or a variety of colours | Colour picker: <http://www.w3schools.com/tags/ref_colorpicker.asp> |
| 7:05- 7:20 | **Font**  Just like there are thousands of colours, there are almost as many fonts to use. Many people stick with the browser defaults, but a lot of websites and web designers spend time on choosing the best possible font for a project.  For our postcard we are going to use fonts from the Google Fonts repository.  At the top of our code we defined what fonts we want to be able to use, line **35** but there are more available as well.  The list of options is on the handout   * Need lines: **142** (.back) * **152** (h1) * **183** #myButton * **191** #myAnswer   Basically anywhere we have text, we’ll need to adjust the font.  You can see why people decide once, and don’t change it very often.  [if time, demo how to load up other alternatives need at least +5] | <http://google.com/fonts> |
| 7:20 – 7:30 | **Image**  Next we want to use a fun image! I’ve chosen four images from the library’s historical photo archive. And suggested them on the handout,  [optional with +10 time available] but, if you would like we can look into how to use other images. ]   * edit URL line **132**   [optional: change credits with tabs and copying and pasting] |  |
| 7:30 – 7:45 | **Predictions**  The ‘final’ part of creating modern webpages is often javascript. Where html is the structure, or the bones, and CSS is the decorations, paint, windows etc. Javascript is the moving parts.  Like CSS, scripts (like Javascript) are usually saved as separate files, and then connected to the webpage, but this wishes script is built-in, and marked by the <script> tags  For our post card we have some randomly generated wishes for the new year. Some are pre-populated, but we’ll make some adjustments.  Scroll to like 49  Remember the wish is “For 2016, I hope that your year will be…”  To add new ones **“word(s)”,**  we want to be consistent with capitalization and punctuation.  Make sure they are within the square brackets [ ]  Now test by clicking on “Click here” a few times. |  |
| 7:45 – 7:50 | **Publish**  Now we’re ready to share our project with others! Click on “Publish” in the top right  Write down the URL or email it to yourself  You’ll be able to access it later by going to thimble.mozilla.org and logging in. |  |
| 7:50 – 8:00 | **Going Further**  There are so many places to go from here!  I have on the handout 4 places to get started, and some articles that might be of interest, but really tonight was to get your imagination going, and to show you that it is not to difficult to work with the web. | Handout page 2 |