<h1>WEB DESIGN CRASH COURSE</h1>

March 28, 2014 ++ Visual Art & Technology ++ [github.com/jeffthompson](http://www.github.com/jeffthompson/webdesignexamples)

SETUP

For today’s workshop, you will need:

**TEXT EDITOR** I suggest [Sublime Text](http://www.sublimetext.com) (free), but you can also use [Text Wrangler](http://www.barebones.com/products/textwrangler) (also free), or the built-in text editor on your computer (Text Edit for Mac users, Notepad for Windows)

**BROWSER** The program you view websites in! Firefox will be used in this demo because it has some very useful developer features, but you should really be testing your sites on all current browsers.

**EXAMPLES** Today, rather than type along, we’ll be using example files found here:

<http://www.github.com/jeffthompson/webdesignexamples>

TERMINOLOGY

**HTML** The “nouns” of the web – things like paragraphs and images. HTML elements are called “tags”, denoted by < >.

**CSS** Styles apply to elements across your site – they form the adjectives to HTML nouns, setting things from color, size, and placement of elements, as well as fancier things like animations and transitions (which we won’t cover today).

**PHP** A server-side scripting language to create dynamic HTML pages. Takes a bit of getting used to, but is very powerful (especially for larger, more complex sites).

**JAVASCRIPT** A client-side scripting language for everything from basic user interaction to dynamic content like animated transitions and full-on videogames! Often extended with the popular [JQuery](http://jquery.com/) library.

**SERVER** The hard-drive that stores and “serves” your website’s files to visitors. This is often called “hosting” – I suggest using [1and1](http://www.1and1.com) or [GoDaddy](http://www.godaddy.com).

**DOMAIN NAME** The address to your site (like amazon.com) – this is essentially “rented” on a yearly basis (usually about $15/year from your hosting provider).

COLOR

There are several ways of defining color in websites – the two easiest to learn are:

**COLOR NAMES**

Basic, built-in colors can be used by name, such as:

white, black, red, blue, aqua, darkslateblue, lavenderblush, snow

See this page for a full listing: <http://www.w3schools.com/html/html_colornames.asp>

**RGB VALUES**

Red, green, and blue (RGB) can be mixed to create all the colors; values are between 0 (no color) – 255 (full amount). For example:

white rgb(255,255,255) black rgb(0,0,0)

red rgb(0,0,0) yellow rgb(255,255,0)

BASIC PAGE STRUCTURE

There are a few basic things a web page must have in order to work:

<!DOCTYPE html>

<html>

<head>

<title>This is my awesome website</title>

</head>

<body>

<!-- this where your page content goes! -->

<p>Welcome to my new website.</p>

</body>

</html>

Note that HTML tags have an opening and closing tag. For more details, see the example files.

CSS STYLES

Styles separate content (the HTML) from its visual presentation, making updates to your site easier and more flexible. They can be applied to:

**HTML ELEMENTS p {**

Tags like paragraphs (right), font-size: 12px;

images, links, etc }

**IDs** #blog-post {

Unique items on the page, given color: rgb(255,0,0);

name and noted by a “#” in CSS }

**CLASSES** .thumbnails {

Items used multiple times on width: 250px;

a page and noted by a “.” }

**SOME COMMON CSS PROPERTIES**

While certainly nowhere near exhaustive, here are some common properties:

background color or image width/height defines size of elements

font-family font to use text-align left, center, right , justify

font-size in pixels or ems border around an element

color font color text- underline, none, etc –

decoration mostly used for links

CSS BOX MODEL

In CSS, we define the spacing through **margins** (space around an element) and **padding** (space inside an element). For example, if the orange box below is a <div> tag with text inside…

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do…

margin

<div>

padding

**PADDING** Space **inside** an item – here it is 10px on all sides

**MARGIN** Space around the **outside** of an item – here it is 20px on the sides, but 10px on the top and bottom

The resulting style…

div {

padding: 10px; /\* only 1 number = all sides \*/

margin: 10px 20px 10px 20px; /\* 4 #s = top, right, bottom, left \*/

}

Margins can also be set to auto, which is used to center elements:

margin: 5px auto 10px auto; /\* auto on L/R centers the element \*/

See the example files for more details!

IMAGES

Text-based sites are SOOO 1995…

**FILE FORMATS** Use compressed formats such as jpg, png, or gif

**FILE SIZE** Small file size is very important! Shoot for 300–500kb. In order to get your files small enough, see the two parameters below.

**RESOLUTION** Most monitors can only display 72 pixels-per-inch (ppi), so resizing your images to that resolution is important for creating smaller files. Use Photoshop’s Image > Image Size...

**DIMENSIONS** We’ve been measuring most layout elements by pixels, so resizing your images to be no larger than necessary will help reduce file size. If your <div> is 700px wide, make your images the same.

**COMPRESS!** If possible, save your images using Photoshop’s File > Save for Web... option to compress your images.

FURTHER RESOURCES

**THE INTERNET!** Seriously. Google is your best friend. Also…

**W3 SCHOOLS** Run by the authority that sets web standards.

<http://www.w3schools.com>

**STACK OVERFLOW** A site for questions-and-answers relating to all things code.

<http://stackoverflow.com>

**VISUAL QUICKSTART** This series by Peachpit Press is excellent without being too

**SERIES** beginner-focused – I suggest their title [*HTML And CSS*](http://www.peachpit.com/store/html-and-css-visual-quickstart-guide-9780321928832)as a good reference. Many of these are available online through the Stevens Library.

<http://www.peachpit.com/imprint/series_detail.aspx?ser=335245>

**FIND SOME OTHERS?** Let me know and I’ll add them to this list!