<h1>WEB DESIGN CRASH COURSE</h1>

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SETUP

For today's workshop, you will need:

TEXT EDITOR — I suggest Sublime Text (free), but you can also use Text Wrangler (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 library.

SERVER — The hard-drive that stores and "serves" your website's files to visitors. This is often called "hosting" – I suggest using 1and1 or GoDaddy.

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
```

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
Tags like paragraphs (right), images, links, etc

```
p {
  font-size: 12px;
}
```

IDs
Unique items on the page, given name and noted by a "#" in CSS

```
#blog-post {
  color: rgb(255,0,0);
}
```

CLASSES
Items used multiple times on a page and noted by a "."

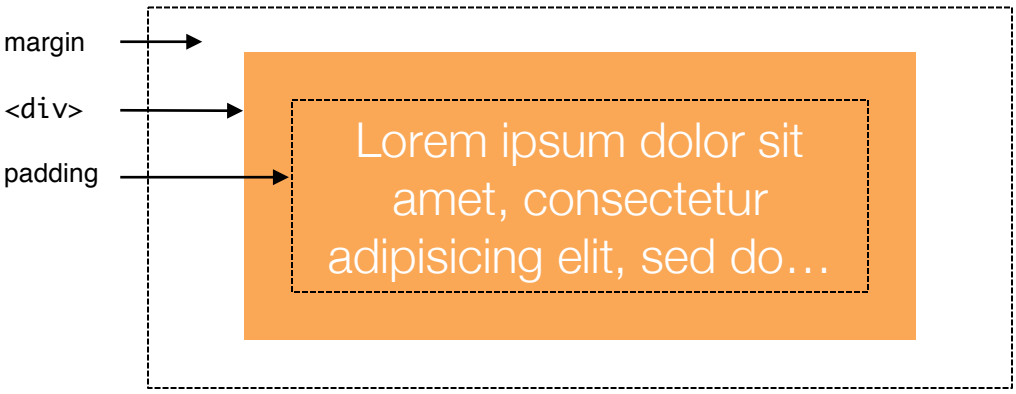
```
.thumbnails {
  width: 250px;
}
```

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-decoration`	underline, none, etc most-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…



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.
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.
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.
STACK OVERFLOW	A site for questions-and-answers relating to all things code.
VISUAL QUICKSTART SERIES	This series by Peachpit Press is excellent without being too beginner-focused – I suggest their title *HTML And CSS* as a good reference.
FIND SOME OTHERS?	Let me know and I'll add them to this list!