INFO/CS 1300: Lab 1 (8/25)

Due at end of lab (or Monday 8/28 @ 17:00).

Overview

In this lab we'll cover the basics of creating your first web page and uploading it to CMS.

Caution!

These instructions are **purposefully vague**. Since web technologies change frequently you'll need to be able to figure out how to use the next *hot new tech thing* on your own. This lab will start to help you develop the 'learn how to teach yourself skill' that you will rely on once you graduate. This is especially true if you plan to stay competitive once you enter the job market/workforce. Google is often your best friend. Trust me, developers use it all the time!

That being said, these instructions aren't designed to make you panic. If you feel totally lost, **don't worry**. Your TAs know that these instructions are slim and they know how to help if you can't figure it out. And remember... you are not the only struggling/confused student; at least **half this class** is probably thinking the same thing. In this situation, **don't panic**, that just prevents your brain from accepting new information and we really want you to learn! First, **take a deep breath and then ask your teaching staff for help**. We honestly really like it when you do and we promise to respect you!

Installation

Atom

In this class we'll be using Atom (https://atom.io/) for programming our websites. Atom is a text editor that supports many different programming languages, including HTML and CSS. Download and install Atom onto your computer.

Once, you've installed Atom, Open its **Preferences** pane. Select the **Install** tab and search for **atom-html-preview** (make sure you press enter to get the search results). Then click **Install** next to **atom-html-preview**. Next, search for **w3c-validation** and install it.

Atom is the editor I'll support for this class. You don't have to use it. You may use another text editor like Brackets (http://brackets.io/), vim (http://www.vim.org/), emacs (https://www.gnu.org/software/emacs/), Sublime Text (https://www.sublimetext.com/), etc. However, please note that if you have issues with any other tool besides Atom, me and TAs are not likely to help you resolve your issues.

WYSIWYG tools like Dreamweaver and Wix are not appropriate for this class. If you use them, you will not get credit for your assignments. We expect your to learn how to code/program your own websites.

Web Browsers

Chrome and Firefox are the most popular web browsers in use today (https://www.w3schools.com/Browsers/default.asp). They are also available on all major platforms (Windows, Mac, and GNU/Linux). We'll test our websites using both browsers. So you'll want to install them both.

- Install Firefox: https://www.mozilla.org/en-US/firefox/
- Install Chrome: https://www.google.com/chrome/browser/desktop/index.html

I'm an avid open-source user and I really dislike proprietary software. Chrome is proprietary, if this bothers you, like it bothers me, you can install the open source version of Chrome, Chromium (https://www.chromium.org/getting-involved/download-chromium).

Design & Productivity Software (Optional)

This section is optional. If you decide to complete it, you should do so after you submit your lab to CMS. You'll find these tools useful while working on projects later in the semester.

GIMP (https://www.gimp.org/) is an open source bitmap editor like Photoshop. You can use Photoshop if you want, but GIMP works just fine for the little bit of photo editing you may need to do in this class… and it's free!

Inkscape (https://inkscape.org/) is an open source vector editor like Illustrator. You can also use Illustrator if you want, but again Inkscape works just fine for our purposes and it's free! Note: If you plan to install this on your Mac, use this version instead: https://inkscape.global.ssl.fastly.net/media/resources/file/Inkscape-osxmenu-r12922-1-gtk2-quartz-10.7-x86_64.dmg

If you can't get GIMP or Inkscape to work right now, don't worry about it. They're optional!

Lab 1 Activity

Tip: If you printed this before lab, check off the items as you work through them. This makes things a lot easier… especially if this is new for you!

Creating a Webpage

Create a folder called **lab1-<NetID>** (example: lab1-kjh235) using your file manager (Windows Explorer, Finder, Nautilus, etc.).

Open your folder in Atom: Open Atom, then from the menu: **File** > **Open Folder…**

Underneath the **Project** pane on the left hand side, you should see your folder. Right click on it and select **New File…** Name the file **index.html**.

Next, we are going to open a preview pane for your webpage. To do this, we are going to use Atom's **command palette**. From the command palette you can search for all the things that Atom can do for you.

Open the command palette by pressing `cmd-shift-p` (Mac) or `ctrl-shift-p` (Linux/Windows) (You may also open the command palette from the menu).

Type: **html preview** in the command palette. At the top of the list you should see **Atom Html Preview: Toggle** highlighted. Press **enter**. The HTML preview pane should now open on the right.

Next copy and paste the following HTML code in your **index.html** file. You may also type it.

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="UTF-8">
  <title>My Title</title>
</head>

<body>
  <h1>Welcome to INFO/CS 1300!</h1>

  <p>This paragraph has <strong>strong</strong> and <em>emphasized</em> text.</p>
  <p>&quot;You must escape quotation marks.&quot;</p>
</body>

</html>
```

Now **save** your index.html file. You may save from the **File** menu, pressing `cmd-s` or `ctrl-s`, or from the **command palette**.

Now we want to check if our HTML is valid. We'll talk more about what this means in class. But for now just now that we want to make sure that all web browsers will understand how to *read* it.

From the command palette search for **w3c validation**. **W3c Validation: Validate** should be highlighted, press **enter**.

At the **bottom** of your index.html file you should see a panel that shows whether your file is validated. It should say: **No errors were found !**

It's now time to test our web page in the two most popular web browsers, Chrome and Firefox.

Open **Chrome** and press `cmd-o` or `ctrl-o`. Browse to your index.html file and **open** it. Check that it looks okay.

Open **Firefox** and press `cmd-o` or `ctrl-o`. Browse to your index.html file and **open** it. Check that it looks okay.

Your webpage should look the same in Firefox and Chrome. FYI... the HTML preview in Atom is based on Chrome, so almost always your preview and Chrome should look the same.

Submitting a Webpage to CMS

I've set up the assignment on CMS so that it only accepts a zip file. You'll need to create one to submit your lab.

Before you can create your zip file, you need to make sure your index.html file is saved. If there's a blue dot by its name in Atom, this means the most recent version has not been saved.

On Windows:
In your file browser, right-click or (press and hold) on your **lab1-<NetID>** folder, select (or point to) **Send to**, and then select **Compressed (zipped) folder**. You should now have a file called **lab1-<NetID>.zip** (example: lab1-kjh235.zip) sitting next to your **lab1-<NetID>** folder. Sometimes Windows hides the **.zip**. Just look at the icon on the file, if it has a *zipper*, it's a zip file, if it doesn't then its your *folder*.

On Mac:

In Finder, right-click on your **lab1-<NetID>** folder, select **Compress Items**. You should now have a file called **lab1-<NetID>.zip** (example: lab1-kjh235.zip) sitting next to your **lab1-<NetID>** folder.

Now **upload** the file zip file, **lab1-<NetID>.zip** (example: lab1-kjh235.zip) to **CMS** for Lab 1.