Info 101
Class Four

Thurs. April 7, 2022
Topic: Builder #2

Today's Plan

Quiz Time

Builder #2

Workshop

Quiz Time!

01.

Second Builder Module

Pages and Navigation

To begin:

1. Open up Visual Studio Code and create a new HTML file.
2. Save the file as **tags.html** on your hard drive in the same place as your other INFO 101 files.

Pages and Navigation

Step 1: Start a new HTML file

These are the HTML tags that all Web pages have.

```
<!DOCTYPE html>
<html>
    <head>

    </head>
    <body>

    </body>
</html>
```

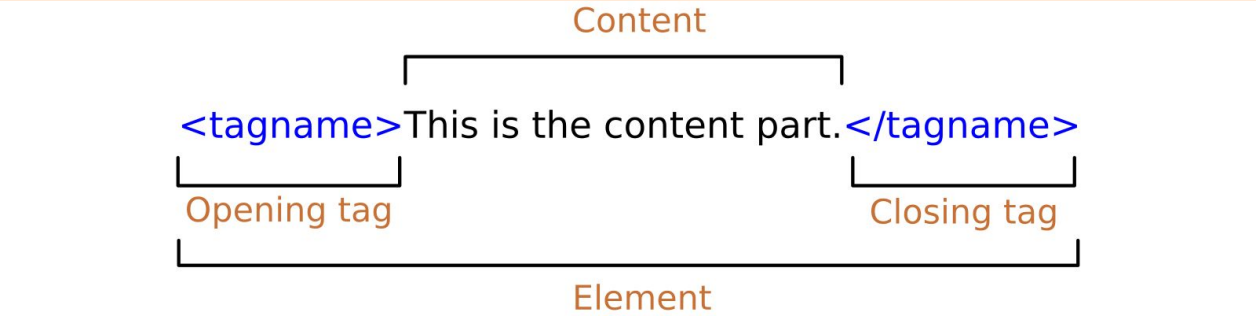
They form the basic structure of the page.

- The <!DOCTYPE html> tag tells the browser what kind of file this is.
- The <head> tag is where you describe the page.

Pages and Navigation

Quick HTML refresher

Your tags should **almost always*** have an opening tag and a closing tag, don't forget to put / in the closing tag!



*There are a few exceptions, such as
. These are called void elements. Don't worry about them too much for now.

Pages and Navigation

Step 2: Make a Head tag to describe your page

The <head> tag is where you setup the description of your web page such as the title of your page. This is also where you link **CSS stylesheets** related to your web page in the head tags (or metadata). We will talk about CSS more later on in today's workshop!

```
<!DOCTYPE html>
<html>
  <head>
    <title>Head</title>
  </head>
  <body>
```

=

Pages and Navigation

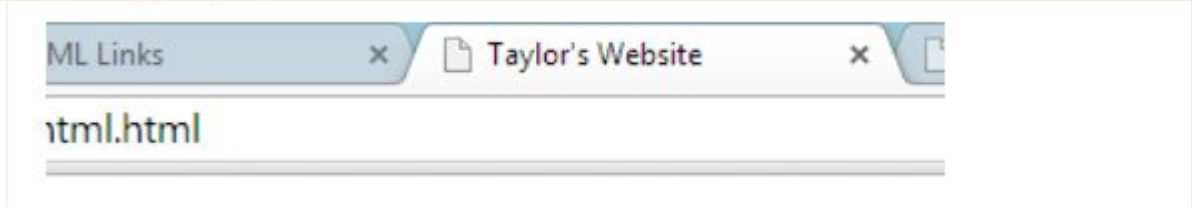
1. Inside the head tag, you give your web page a title by using the “title” tag. For example, <title> Taylor’s Website </title> names the page “Taylor’s Website.” Put a <title> tag inside your <head> tag and save your file.
2. Navigate to the file you have created and open it locally in a browser.

Your HTML should look similar to this:

```
<!DOCTYPE html>
<html>
    <head>
        <title>Jamie's Awesome Website</title>
    </head>
```

Pages and Navigation

Notice that your website's tab in the browser displays the **title** you have given your page.



Keep this page in your browser. As we move forward, you can refresh the page to see changes you have made to your Website.

The Body Tag Adds Content to Your Page

The <body> tag is where all the content that the user will see is place. There are a lot of tags that can go inside the <body> tag. In this exercise we will study:

- Heading (<h>) tags which add titles to the content.
- Paragraph (<p>) tags which create paragraphs of text.
- List (<ul>, <ol>, <li>) tags which add bullets and numbered lists to the content.
- Anchor (<a>) tags which create links.
- Division ( ) tags that break the content up into blocks.
- Image (<img>) tags that add pictures to the content

Step 3: Add Heading (H) tags

1. Type <h1> [Your Name] </h1> in your html document, Save, and refresh your site in the browser. Notice the change.
2. Under the <h1> tag you created, create another header tag <h2> [About Me] </h2>. Save the file and refresh your browser to notice how the <h2> tag produced a smaller heading. You can use the heading tags from <h1> (biggest) - <h6> (smallest)
3. Under the “About Me” heading, add at least 2 tags. These create paragraphs. Inside each tag, type a sentence or two to describe yourself.
4. Add another <h2> tag for “My Favorite Sites” and another for “My Favorite Pictures”
5. Save and refresh your browser to see your headings.

```
<body>
    <h1>Jamie Duis</h1>
    <h2>About Me</h2>
    <p>I was born in the Bayou and raised on gater and crawfish.</p>
    <p>At six I left home to find my fortune in the coal mines of Bolivia.</p>
```

Step 4: Create a List of Sites

Create another <h2> tag and write “My Favorite Websites” inside. Underneath, create a list of links to your favorite Websites.

- You can create a numbered or “Ordered List” by using the tag.
- You can create a bullet or “Unordered List” by using
- In either case you can add lines to the list using tags.
    - **“Li” stands for “list item”**

To add a list to your page:

1. Decide whether you want an ordered or unordered list. You can try one and then easily switch to the other kind by renaming the list tag.
2. Create 5 list items with tags.
3. Within each <li> tag. Type the name of a Website you like.
4. Save your work, refresh the web page in your browser, and notice the changes on your website.

Step 5: Make the site names into links to the sites

We're now going to allow our website users to click on one of your favorite websites and be navigated to the site using **links**.

1. Inside each **
** tag, type ****
2. Inside the quotes of **href=""** type or paste the URL of your favorite site.
3. Between the open and close "a" tag **** RIGHT HERE **** tag, type or paste the name of the Website.
4. Save your file, refresh the web page in your browser, click all the links to make sure they work.

Step 6: Add a Set of Images

1. Go online and find at least 2 images you like.
2. Find and copy the URL of the image
    - In Internet Explorer, right-click on the image and choose “Copy Shortcut”
    - In Chrome, right-click on the image and choose “Copy Image URL”
    - In Firefox, right-click on the image and choose or “Copy Image Location”
3. Add at least 2 images to your page under the “My Favorite Pictures” heading. To do so use the image tag:

    <img src=”**URL**” title=”**Name**” style=”**width:100px; height:100px; margin:5px**”>

4. Save your file, refresh your browser, and your pictures should now appear on the website.

*If one or more do not show up, make sure you typed the URLs correctly

Step 7: Make the image into links

Once you have at least 2 images on the page and at the right size, you can make them into links using an tag.

1. Surround the <img> tag with an <a> tag like this:

```
<a href="">
        <img src="" title="" style="">
</a>
```

2. Inside the quotes in href=”” paste the URL of the page that the image was taken from. Then, save your file and refresh your browser.

```
<h2>My Favorite Pictures</h2>
<a href="http://snowboarding.transworld.net/uncategorized/best-tricks-of-2010/">
    <img src="http://cdn.snowboarding.transworld.net/files/2008/12/22/snb0908_tha_morph_r12.jpg" title="A cool
    snowboard trick" style="width:100px;height:100px;margin:5px">
</a>
<a href="http://www.qparks.com/magazine-en/news/8088_elan-snowboards-trick-tip-tour-in-the-snowpark-scuol-fine-
equipment-sick-tricks/">
    <img src="http://www.qparks.com/files/images/5806/209190_Elan_TTT_Scoul_by_Katja_Pokorn_08.jpg" title="
    Another cool snowboard trick" style="width:100px;height:100px;margin:5px">
</a>
```

02.

Workshop!

Topic: CSS Styles

In this workshop you will learn how to add **CSS styling** into your webpage within your HTML file.

What is CSS?

CSS is another **coding language**, like HTML. It is not a programming language!

CSS stands for Cascading Style Sheets and is used to create a look and feel for the web page

What is considered the “look and feel”?

Background colors

Text colors

Image formatting

Inline CSS

CSS can be implemented in your HTML file in one of two ways:

1. Inline
    a. We already did this with our images with style=””
2. External stylesheets
    a. Includes a link in the heading to a separate .css file (typically named styles.css)

In today’s class we will be using inline CSS!

Inline CSS

CSS consists of **properties** and **values** that are applied to an HTML tag:

- The properties state what sort of look and feel you want to apply. For example, you use the property “background-color” to apply a background color inside a tag
- The values say what to do with the property. For example you can enter a **background-color: red** to say that you want the background color to be red.

Inline CSS

Syntax: a set of rules dictating the arrangement of words in a language. For inline CSS, there is a specific **syntax** when writing the property and value

- The property and value are always separated by a colon :
- When you have more than one property:value for a tag, you seperate the properties with a semicolon ;
- Some properties are easy to understand while others are not:
    - Background-color vs. padding
        - background-color: red
        - padding: 5(px, %, pt, cm, etc)
            - Padding is the space between its content and its border
                - Not to be confused with margin which creates space around the element

Inline CSS

Properties and Values

Suppose you decide to upload a picture of your favorite Corgi to your website, but this picture is too big. You want a small picture say 100 pixels by 100 pixels.

Easy to understand CSS properties you can use:

- height
- width

What value do you want the height and the width to have?

How would you write the height and width in CSS syntax?

So, how would you put the height and width together? What is the syntax?

Inline CSS

Styles and Tags

You apply one or more property:value pairs to a tag to “style” that tag.

Again, usually all the property:value pairs are kept **outside the HTML** in an **external stylesheet** (called styles.css), but to get you started with CSS, we’ll show you how to type them right inside the tag **(inline)** you want to style.

Inline CSS

Adding style to a tag:

- Simply write ‘ **style=””** ’ inside the tag
- Write all your property:value pairs within the quotes:
  - **style=”***property:value*”
- **If you have multiple property:value pairs…**
  - **style=”***property:value; property:value; property:value*”

Full Example:

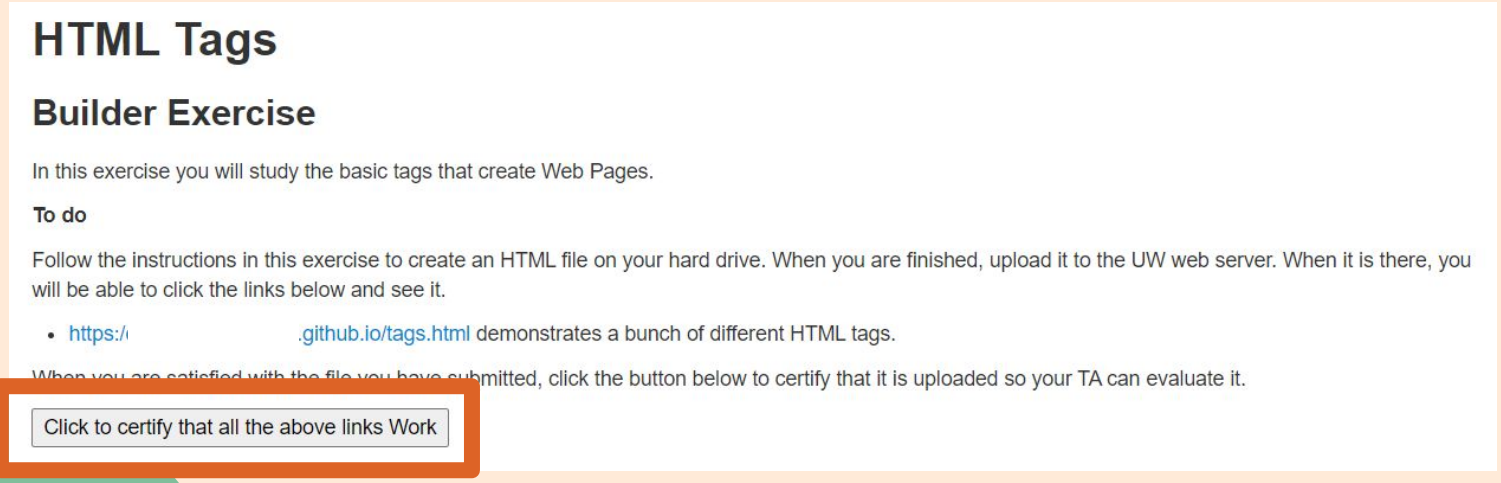
```
<p style=”background-color: red; width: 5px; height: 5px”>content</p>
```

03.

Homework

Builder module 2 is due Sunday at 11:59pm

1. Go to the website W3schools
2. Look around on this website and add **5 tags** we haven't covered to your own web page.
3. When you have finished, save and upload **tags.html** to GitHub.
   - IMPORTANT: Make sure it is named exactly as tags.html (including capitalization) otherwise I will not be able to grade it



Original Work:

To Do

Follow the instructions in this activity to create a newbie, apprentice or master-level HTML file called someCss.html that contains your work and upload it to your UW Web server. When it is there, you will be able to click on this link and see your work:

- https:// github.io/someCss.html an HTML file that shows your CSS original work.
- https:// github.io/anExternal.css (only for master-level work) an external CSS file linked to your someCss.html file.

When you are satisfied with the files you have submitted, click the button below to certify that your files are uploaded.

Click to certify that all the above links Work

Here is what to show your TA for different original work levels following this workshop:

Level 1: Newbie. Show us a page that has:

1. Two paragraphs that each have a different font.
2. Two pictures that were originally different sizes, resized to 50px by 50px.
3. One more unique CSS command that was not discussed in the workshop

Level 2: Apprentice. Show us a page that has:

1. Text that is centered on a photo
2. A photo with 20 pixel margins on each side
3. Text with a border that uses dotted lines

Level 3: Master. Show us a page that has:

1. An external style sheet
2. A floated element
3. An element with rounded border corners

Note: you should have created 2-3 new files for this builder activity:

- tags.html
  - Stage 1/Class activity
- someCss.html
  - Stage 3/After workshop
- anExternal.css
  - If attempting Master level