Lab: Basic HTML

This lab project focues on HTML, Hypertext Mark-up Language, which is used to produce web pages. In the project, you will produce your own web page in basic HTML.

In the following pages, you are given an example which tells you how to build a web page. What you need to do is to write your own web page by choosing a specific topic, for example about you, your pet, someone you know, or an imaginary person.

Your web page must include following elements:

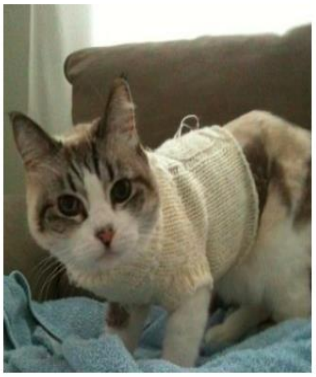
- a title
- at least two level headings
- at least one paragraph
- at least one list (ordered or unordered) with at least three list items
- at least one hyperlink to another web page
- at least one image
- at least one of the images has a thumbnail
- at least one horizontal rule, with author and modification date
- at least one kind of normal text formatting (bold, italic or underline)
- at least one table, with at least 3 columns and 3 rows

NOTICE: YOUR WEB PAGE **CANNOT** CHOOSE THE EXACT SAME TOPIC AS THE FOLLOWING EXAMPLE. YOU MUST BUILD **YOUR OWN** WEB PAGE AND SUBMIT IT.

TIPS: Here are the detailed steps of creating a web page, which have been used to create the example web page "Pochi the cat". You could follow them carefully to build your own web page by replacing your own contents. A good habit to develop early is to work on any project in small steps.

Pochi the Cat

Introduction



Pochi was adopted from an animal shelter and now resides in Seattle, WA, where she runs a small but successful web page design business exclusively for cat clients.

Profile

1. *favorite food*-smoked salmon
2. *hobbies*-watching fishing on ESPN, snaking on garden flowers, monitoring the aprtment parking lot
3. *hidden talent*-Karaoke

Links

- Seattle Animal Control Shelter
- Humane Soceity of the United States

Vital Statistics

Age	Weight	Eye Color
1 month	1.5 pounds	blue
1 year	8 pounds	yellow
2 years	9 pounds	yellow

Last updated on 16 Feb 2022 by Pochi the Cat

1. Create a folder on your Desktop; name it yourname.

   Part 1: Building your web page.

2. *Start Notepad.* Since HTML files consist of plain text, you can use a text editor like Notepad for a simple web page. In this first step, we will set up the basic framework that every standard HTML document has. Start by typing the **html** start and end tags each on its own line. These tags will enclose the file's entire contents and instruct the browser to interpret the contents as HTML, rather than display it directly as plain text (as you see it in Notepad).
3. *Continue adding HTML framework.* Inside the html section (between the **<html>** and **</html>** tags), add a **head** section and a **body** section, each with paired tags. The **head** section will contain the web page title and other information that the browser does not display in the web page itself. The **body** section is where you put the text you want to appear on the page. Your source should now look something like this:

```
<html>

<head>
</head>

<body>
</body>

</html>
```

4. **NOTE: when your page is finished, the </body> and </html> tags should be the LAST two lines of the file!.**
5. *Add a title.* In the **head** section, add a **title** section using paired tags, and type a title for your web page between the **title** tags. Choose something concise that describes your page well, such as "Home Page of [Your Topic Here]". In the example, the title is "Home Page of Pochi the Cat".
6. *Save your document.* It might not seem like you have done very much, but this is already a good place to stop, save, and check your work. Choose the filename "homepage.html" and save the file in yourname folder on the Desktop. The extension should set as .html, which distinguishes this file from plain text files with .txt extension.
7. *View your page in a web browser.* Minimize Notepad and double click the web page file you saved. It will be opened in a default web browser. Or you can run a web browser and select the file by using its path. Although your HTML file clearly contains text, it consists entirely of tags, so you should see a completely blank page. However, your page title should appear in the browser window's title bar. If not, double-check that your tags are properly typed (with pointy braces) and paired.
8. *Add headings to your page and its three sections.* Restore Notepad and in the **body** section, add a heading for the whole page in paired **h1** tags. Make the heading the name of the person (or pet) this page will feature. In the example, the name is "Pochi the Cat". HTML offers multiple levels of headings, and **h1** is the highest-level heading, so it will be displayed as very large, bold text. Create subheadings on your web page by using lower level headings. In the example, subheadings for the "Introduction," "Profile," and "Links" sections use three pairs of **h2** tags. The HTML file for the example now looks like this:

```
<html>

<head>
<title>Home Page of [Your Topic Here]</title>
</head>

<body>
<h1>[Your Topic Here]</h1>
<h2>Introduction</h2>
<h2>Profile</h2>
<h2>Links</h2>
</body>

</html>
```

Double-check that your heading tags are properly paired, then save your document and switch to your browser window. To force the browser to reload the updated version of the page, you will have to click the **Refresh** button. You should see your headings, with the first **h1** heading larger than the rest. You can use this method to check your new inserted tags and contents whenever you want.

9. *Add a paragraph of text.* Return to Notepad and add one or more paragraphs of text among the subheadings, making sure to put each of your paragraph in paired **p** tags. You can break your lines anywhere you want, because when the web browser displays the page, it decides where to place line breaks so that the paragraph fits in the current window size. Again, save and check your updated page with the browser.

Part 2: Lists of Items and Linking to Another Page

10. *Add a list.* HTML supports two kinds of lists, "ordered" and "unordered". The general format of a list is a section marked by paired **ol** or **ul** tags (for ordered or unordered list, respectively). The items go inside this section, with each item in paired **li** tags, where **li** stands for list item. Using list tags (either of

ordered or unordered is fine), add a list under a subheading. In the example web page, the ordered list is added under the "Profile" subheading and looks like this:

```
<ol>
<li><i>favorite food</i>-smoked salmon</li>
<li><i>hobbies</i>-watching fishing on ESPN, snaking on garden flowers, monitoring the aprtment parking lot</li>
<li><i>hidden talent</i>-Karaoke</li>
</ol>
```

11. *Add a hyperlink.* The paired **a** tag is used to mark the link and specify the link URL. When you use the **a** tag to make links, make sure that the URL is in quotes and in the start tag, you have a space between the tag name, **a** ("anchor"), and the **href** ("hyperlink reference") URL section. In the example page, there are two links under the "Links" subheading by putting **a** tags inside list items (**li** sections). The HTML for this part is as follows:

```
<ul>
<li><a href="http://www.seattle.gov/animalshelter/">Seattle Animal Control Shelter</a></li>
<li><a href="http://www.humanesociety.org/">Humane Soceity of the United States</a></li>
</ul>
```

12. *Add author and modification date.* Before you add more to your page, add author's credits and today's date at the bottom of the page (properly placed in paired paragraph tags). So far, you have been working with paired tags, so this is an opportunity to add an unpaired tag. Use the **hr** tag for a horizontal rule line to separate the author and date from the rest of the page.

Part 3: Adding an Image

13. *Save an image from an existing web page.* Find an image you would like to put on your web page and **right-click** it to pop up a menu. Select **Save Image As...** and save it to the folder where your web page is saved. Before clicking

Save, you might want to change the name of the file so that it concisely describes the image. Your image will only appear in your web page IF it is in the same folder as the HTML file. In the next step, you will add a special tag to your HTML source to display the image.

14. *Add the image to your web page.* The unpaired **img** tag is used to add an image to an HTML document. Here is a usage of the **img** tag in the example page:

    <img src="cat.jpg" alt="photo of a cat">

    The **src** ("image source") setting specifies the name of the image file to be inserted in the page. The **alt** ("image alternative") setting is used to provide a brief text substitute for the image, commonly as a descriptive phrase. Strictly speaking, the **alt** setting is optional, but it is very important for web browsers that are not capable of displaying images.

    Follow the example above and add an **img** tag to your HTML source after your **h1** level heading. Make sure the image filename you specify in the **src** setting is exactly right, including capitalization and file type (.jpg, .jpeg, .png, .gif, etc.). Save your HTML and open the HTML file from your local disk to verify that the page includes the image.
    If your image does not appear in the page, check to make sure that the image file is in the same folder as your HTML file and that the **src** filename is exactly right, paying attention to case and extension.

15. *Adjust image size, if necessary.* Image files vary widely in size, so you might find that your image is too large on the page when viewed in a browser. In this case, you can use additional **img** tag settings to adjust the size. One easy way to do this is by forcing the image's displayed width as a percentage of the browser window size, using the **width** setting. For instance, adding this setting to the **img** tag example above forces the browser to resize the image so that it always takes 25% (one fourth) of the browser window width:

    <img src="cat.jpg" alt="photo of a cat" width=25%>

    Try adding a width setting to your **img** tag, making sure not to forget the percent symbol. Check results in your browser as you adjust the percentage. Try resizing the browser window and watch the image carefully.

16. *Adjust image alignment, if desired.* If you want the image displayed side-by-side with the text, you can easily do this by adding an **alignment** setting to

your **img** tag. Adding **align=right** to the example above puts the image on the right side of the window, allowing text to appear to its left:

<img src="cat.jpg" alt="photo of a cat" width=25% align="right">

17. *Add a thumbnail image*, that is, a smaller image which is clickable and produces a larger image. The small and large images should be versions of the same image. See the slide in "HTML Primer" slides titled "Clickable Images" and refer to your class notes.
18. Note that you can add more than one image if you wish! Make sure you include both the larger and smaller versions of the image in your final zip file that is submitted.

Part 4: Adding a Table

19. *Adding a table to the page* Put a <table> tag where you want the table to be. If you like, add an "border" attribute inside the brackets to make the table stand out.
20. *Make a header row for the table* Each row in the table starts with <tr>, for "table row" and ends with a similar ending tag. A header row makes the data inside it bold and centered in the column. You make a row into a header by using the tag <th>, for "table header". Use as many tags as you want inside row tags; each one used is another column.
    Example: <tr> <th> My Name </th> <th> My Address </th> <th> More data </th> </tr>
    is a table row with three columns. It is a header row because it uses the <th> tag.
21. *Make a data row for the table* Instead of the <th> tag, use <td>, for "table data". Same idea: each "td" tag makes a new column in the row.
    Example: <tr> <td> My Name </td> <td> My Address </td> <td> More data </td> </tr>
    is a table row with three columns. It is not a header row because it doesn't use the <th> tag.
22. *Don't forget to end the table with an end table tag* </table>