

Lab: Word Processing and HTML

Course Listing: **CS1**

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In class we talked about deciding what we wanted to do before starting any programming. This lab helps you determine the code necessary to start making your design a reality.

Most of your experience with laying out documents comes from your word processing experience with programs such as Microsoft Word. We will use this knowledge to practice some very basic HTML programming concepts.

This lab has you create an HTML code that formats a document. This is how old word processors “embedded” the formatting of a document with a simple text file. Observe how the formatting of the document is considered an “instruction” on how to process the actual words printed.

This lab assumes you have done Lab 1.

Preparing an HTML document from a template

In the last lab, you created a base HTML document. We will use this as our starting point for the new HTML document.

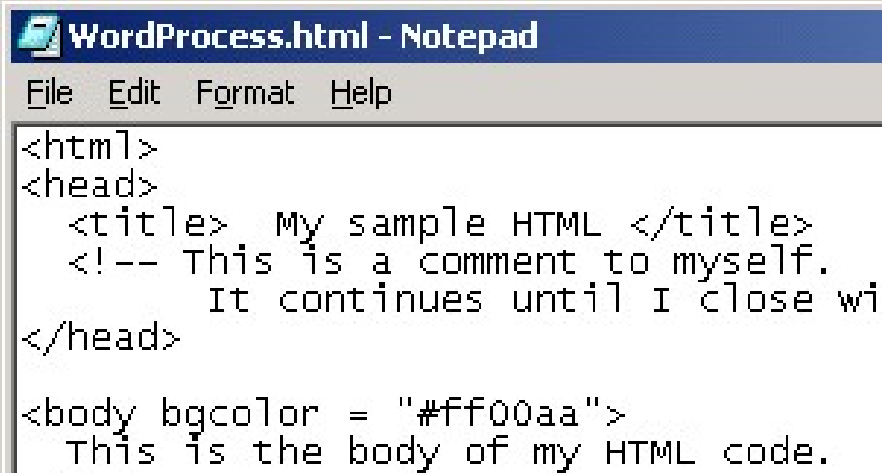
1. Open Notepad.
2. Open the previous HTML document.
 - a. Recall that we named it `OSSample.html`. It was saved in your `U:\CSCI111` directory.
3. Save this file under a different name (so that we don't replace our original).
 - a. Select "File" from the top menu bar, then select "Save As".
 - b. When presented with the mini-Explorer, change to the U: drive and then the CSCI111 directory.
 - c. Select the "Save as type" value to be "All files".
 - d. Type in the name "WordProcess.html"
 - e. Then click the "Save" button.

Notepad should show your current HTML code as something like this:

```
<html>
<head>
  <title> My sample HTML </title>
  <!-- This is a comment to myself.
      It continues until I close with a greater than
  sign -->
</head>

<body bgcolor = "#ff00aa">
  This is the body of my HTML code.
</body>
</html>
```

Notepad Screen with our OSSample.html template

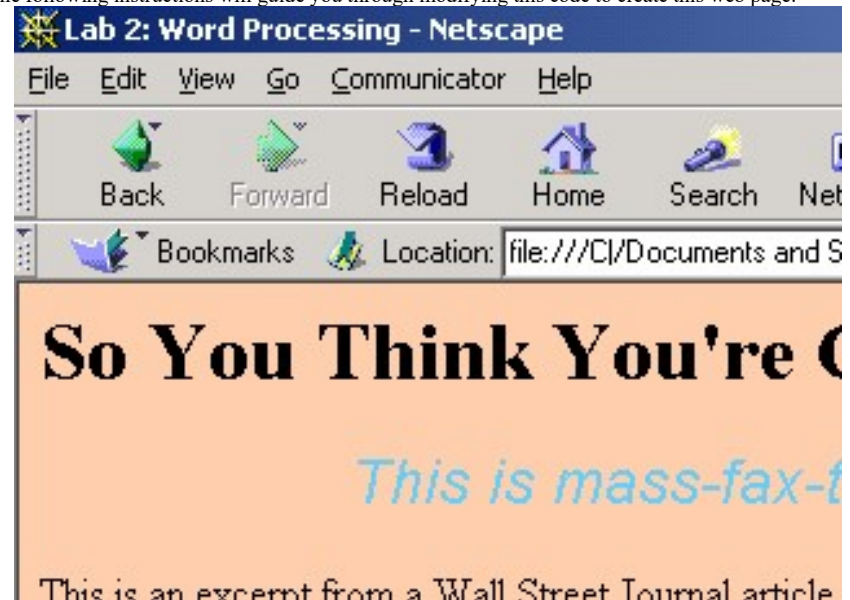


```
WordProcess.html - Notepad
File Edit Format Help
<html>
<head>
  <title> My sample HTML </title>
  <!-- This is a comment to myself.
      It continues until I close wi
</head>

<body bgcolor = "#ff00aa">
  This is the body of my HTML code.
```

This is what my Notepad program displays when I have loaded `OSSample.html` and saved it as `WordProcess.html`.

The following instructions will guide you through modifying this code to create this web page:



Editing the HTML file

Making a new HTML file is easier if you start with a template. We're going to use the OSSample.html file as our template. We're also going to make small changes to be sure that we are on track.

Changing the existing information

1. Change the title from "My sample HTML" to "Lab 2: Word Processing"
2. Change the comment to something more relevant: Like what you think you will be doing or learning in this exercise.
3. Change the background to a color that you can stand!
4. Save the changes and then load the file in the web browser so you can check that your changes took effect.

Formatting Header text

The text, "So You Think You're Computer Illiterate?" is a header—that is, it's bigger than the surrounding text and is set aside from the main body.

1. Insert the Header 1 start tag (`<H1>`) in the HTML code so that it looks like the code on the right
 - a. I have bolded the text that I changed; you shouldn't bold face the text.
 - b. Note that the tag is H1 (h-one), **not** Hl (h-the letter L)
2. After the start tag, type the text that is to be included in the header ("So You Think You're Computer Illiterate?").
3. After the text, insert the header 1 end tag (`</H1>`).
4. Save the changes and reload the file into the web browser. Did it format your text properly?
5. Try out the other header types (H2-H6). Be sure to make the change in both the start and end tags. How does the formatting change each time?

What the code looks like after header is inserted

```
<html>
<head>
  <title> Lab 2: Word Processing </title>
  <!-- New document!
  -->
</head>

<body bgcolor = "#ffc0aa">
<H1> So You Think You're Computer Illiterate?</H1>
  This is the body of my HTML code.
</body>
</html>
```

I changed the title, comment, and color of the web page (it's now a tannish color rather than a hot-pink color). I also added the title of the screen above the "This is the body of my HTML code".

Formatting a paragraph

Now we will enter and format the introductory paragraph.

1. Change the text “This is the body of my HTML code.” to the text of the first paragraph. Remember that it doesn't matter where you break the text and go to the next line. The HTML interpreter ignores these when formatting the document.
2. Save the changes and reload the file to check the formatting.

This introductory paragraph should have a couple of formatted features: the text is in italics, the paragraph is centered, the font style is different from the font style of the header (you can tell because the letter T has **serifs** (T) whereas there are no serifs in the intro paragraph font (T)). We can handle each of these formatting cases in the following manner:

1. Just before the text, insert the italics start tag (`<i>`). At the end of the text, insert the italics end tag (`</i>`). Save the changes and reload the file to check the formatting.
2. Just before the italics start tag, insert the center start tag (`<center>`). After the italics end tag, insert the center end tag (`</center>`). Save and check the formatting.
3. Just before the center start tag, insert a tag to change the font style, color, and size: ``. Please note that there are no commas between the settings. Save and check the formatting.
4. Now, do a little playing around: change the font size to different values and see what happens (valid font sizes are from 1 to 7, 3 is the default), change the order of the formatting tags (does anything different happen?), change the color of the font (the assignment is identical to that for the background: #RRGGBB).

Code after the introductory paragraph is added

```
<html>
<head>
  <title>  Lab 2: Word Processing </title>
  <!-- New document!
      -->
</head>

<body bgcolor = "#ffc000">

<H1>So You Think You're Computer Illiterate?</H1>

<CENTER><I><font size="5" color="#66ccff" face="arial">
This is mass-fax-transmissions. Isn't it amusing?
</font></I></CENTER>
</body>
</html>
```

This has the intro paragraph added. Make sure you know what each of the tags mean.

Inserting and formatting a second paragraph

Now we need to enter the second paragraph. Note that this paragraph is the default size and is not centered or formatted in any special way. The only special formatting is the Wall Street Journal which is underlined.

Since this paragraph is neither formatted or italicized, insert the text for this paragraph after the center end tag (<CENTER>). Save and observe what happens to the formatting of the paragraph.

Spacing paragraphs

A not-so-obvious error is the fact that there is no space between the first and second paragraphs. Since the HTML interpreter ignores when we break lines, we will need to explicitly tell it when a new line should be inserted.

1. Just before the text of the second paragraph, insert the “new line” tag or “line break” for those who remember the old computer consoles (
).
2. Save the changes and check the results.

Underlining text

Now we can format the Wall Street Journal so that it is underlined.

1. Just before “Wall”, insert the underline start tag (<u>). After “Journal”, insert the underline end tag (</u>).
2. Save the results and observed the changes.
3. What happens if you put the underline start tag just after the “a” with a space between <u> and the word “Wall”? What happens if there is a space before and after the <u> tag? What happens if there is a space between “Journal” and the </u> tag? Do your results make sense?

HTML code with code for the new paragraph

```
<html>
<head>
  <title> Lab 2: Word Processing </title>
  <!-- New document!
  -->
</head>

<body bgcolor = "#ffccaa">

<H1>So You Think You're Computer Illiterate?</H1>

<CENTER><I><font size="5" color="#66ccff" face="arial">
This is mass-fax-transmissions. Isn't it amusing?
</font></I></CENTER>
<BR>
This is an excerpt from a <U>Wall Street Journal</U>
article by Jim Carlton.
</body>
</html>
```

This is what my code looks like after I followed these instructions

Making a list

Now we will list items. Recall from lecture that you start and end with a list tag. This indicates the type of list to be used. You can have an unordered list (with bullets) or an ordered list (with numbers). We will use an ordered list for this example.

1. After the second paragraph, insert the ordered list start tag (``).
2. Since we don't have any text yet, let's insert the ordered end tag (``) on the line after the ordered list start tag. That way we won't forget it later.
3. When you save and view this new file, you won't see any changes since we haven't added any items to the list.
4. After the ordered list start tag, insert a new line and add the list item tag (``) After the tag, type the text for the first item ("Compaq is considering ..."). Save the changed file and observe the results.
5. Now add the next item after this item by first adding the list item tag and then the text for the second item. Save the changed file and observe the results.
6. Do the same for the remaining items in the list.
7. Do you know how to modify the HTML code so that the words that are enclosed in quotations (for example, "Press Any Key") are italicized and bolded?
8. Remember that you can format the text into lines in any way that makes sense to you. Make sure your HTML is readable to you or you won't be able to correct it in the future!

After the list, there is a plain paragraph ("Hope you enjoyed this exercise and have a great weekend!") Insert this text and make sure the formatting is as you expect.

HTML code for lists

This is an excerpt from a `<U>Wall Street Journal</U>` article by Jim Carlton.

```
<OL>
<LI> Compaq is considering changing the command "Press Any Key" to "Press Return Key" because of the flood of calls asking where the "Any" key is.
<LI> A customer was asked to send a copy of her defective diskettes. A few days later a letter arrived from the customer along with Xeroxed copies of the floppies.
<LI> A Dell customer called to say he couldn't get his computer to fax anything. After 40 minutes of trouble-shooting, the technician discovered the man was trying to fax a piece of paper by holding it in front of the monitor screen and hitting the "send" key.
</OL>
</body>
</html>
```

I have only included the code referred to by this section (the new code is in bold).

Right aligning text

The last two items on the document are of a slightly larger font and right aligned.

1. Type the remaining text after the plain paragraph (“Hope you enjoyed...”). Remember that `
` is required to force a new line.
2. To make this a larger font, try setting this up as a header that is slightly smaller than the first header on the page, for example, header 3 (`<h3> ... </h3>`).
3. Now, to right align the text, insert the align setting inside of the header start tag (`<h3 align=right>`). This should force everything inside the header to be right aligned. Save the changes and validate the results.

Your web page should now look like the one showed at the beginning of this lab.

HTML code for right aligned text

Hope you enjoyed this exercise and have a great weekend!

```
<H3 align=right> Your name </H3>  
<H3 align=right> CSCI111: Introduction to  
Computers</H3>  
</body>  
</html>
```

I have bold-faced the added code.

Other formatting codes

Let's see if you can figure out how to use these codes. I have included tags that are recognized by both Netscape and Internet Explorer. Some tags, like BLINK are only recognized by one browser type.

Implement a few of these in code and see what the results are (what happens to the text?). Try doing double formatting (like when we italicized and changed the font color). You can find more formatting codes in your book (Appendix A in Epp, Chapter 3 in Castro).

- CODE (creates monospaced, code-like font)
- STRIKE (creates text that is struck out, as in editing)
- SUB (subscript)
- SUP (superscript)

Challenge

Create the following formatted text lines in HTML code

The **rain** in *Spain* falls mainly in the **plain**.
- My Fair Lady

<You & I> make a good pair- "friends forever"

Wait! he gasped as he ran up to us.
The answer is $V=IR^2!!!$

Learn at least one new formatting/special character on your own.
Create your own formatted text and code it.

Challenge



What will your screen look like when you use these tags? Find other tags in your book(s) and see what they do to the text.

**It's in your
book (Epp)**

Some of the challenge questions require you to learn about "special characters" or "special symbols". Whenever you see the above message, you should go to your books to find the answer. If you have problems, talk with me about what you are looking for and what you have done so far to find it. I'll help you the best that I can.

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