FIT 100: Fluency with Information Technology
LAB 4: Constructing HTML Documents

Required Reading for Lab 4
• Chapter 4 of Fluency with Information Technology

Additional Resources
• W3 Schools
  http://www.w3schools.org/
  Click on the HTML School link and look through the Introduction to HTML

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Introduction:
The first labs introduced activating your website, the Dante account and navigating file structures. Today is an introduction to HTML and how to create HTML documents to publish to your web site.

Objectives:
• To use a text editor such as Notepad or Pico to create a simple HTML document
• To gain an understanding of basic tags used for simple web page formatting.
• Create and post a page to your student web site, either as the default web page or as an additional page in your site.
• To begin using your debugging skills.

What you need:
You should already have your email account and Student web page enabled.
What is public_html or student_html?

`public_html` (called `student_html` for some students) is the name given to the folder placed in every student’s remote account on Dante once they have enabled web publishing. It is a directory space where you publish your website and is provided to you by the University. *To be completely truthful, the folder itself does not actually exist. It is simply a shortcut to server space set up for you on another server called Virgil. It is a convenience to be able to move files from your file space directly to your web server space without having to make another network connection. For convenience, simply think of public_html as your web folder.*

All files that you wish to see up on your web page at the UW must be placed inside of this folder. If those files are not in this folder, then someone browsing the Internet and looking for your web site cannot see them. The web documents that you create today are sent to this folder using the SSH file transfer client.

**To Do:**

Have you ever used Notepad before? It is a simple text editor that comes with Windows. To open it, click on the Start button, then go to Programs, Accessories, (Start>Programs>Accessories) and click on the Notepad entry. You will be presented with a blank window and a flashing cursor in the top left corner.

1. **Create an HTML document**

   Use what you have read in the FIT book as well as the W3 Schools website:

   **A.** Open and close tags to indicate HTML as the markup language. *Remember,* all tags in HTML are identified with these angle bracket symbols `<tag>`. So to start your HTML document, the first tags you will enter will be ones that tell the browser that this page is to be interpreted using Hyper Text Markup Language:

   ```html
   <html>
   
   Put all other tags and text in-between the HTML beginning and ending tag.
   
   </html>
   ```

   **B.** Add head tags and include a title tag (with a title for your page. ex. Web page for FIT 100!). Make sure to close the head and title tags.

   ```html
   <head>
   ```
<title>My FIT 100 Webpage</title>

</head>

C. Just below the </head> tag and above the </html> tag, add in the body tags that will include the bulk of your content

<body>

<p>This is my first web page for FIT 100!</p>

</body>

A good way to work:

When you are putting together web pages, or writing code for a program, a good way to keep track of what you do is to make one change and then check to see if it is working.

Save what you have done up to this point and then open the file in a web browser to see if it works. Checking as you go is the first step in learning how to debug.

2. Save your HTML document:

A. Save your file as a text document type with the name fit100.html to your floppy or zip disk.
   (Use the Desktop to save your work if you did not bring a disk)
B. Open up your preferred web browser (Netscape or Explorer).

C. Navigate to the Desktop or the disk holding your HTML document.

D. Open this document to see your code displayed as a Web page. (File>Open> then Browse to your HTML file)

**Checking your work:**
You should see the title of your Web page displayed in the top-left corner of the browser window and a single line of text in the content window.

Each time you make changes to your file and save them, you will need to press the Refresh, or Reload button on your browser so that your new changes will appear.
Your code so far will look something like this:

```html
<html>
  <head>
    <title>My FIT 100 Webpage</title>
  </head>
  <body>
    <p>This is my first web page for FIT 100!</p>
  </body>
</html>
```

3. **Adding To the Body of the HTML Page:**

If you need to, write out the proper HTML tags on the lab print out or some other paper, then add them to your file. Include inside your body tag the following additional tags:

A. A welcome sentence using an H1 or H2 tag.
   *(Heading 1 and Heading 2 are tags that will display your text in a certain size, they have an open and close to them).*

B. A line (horizontal rule) following the tag to separate the heading information from the following paragraph.

C. A paragraph tag.
   - Include a short description of yourself and why you are in this class.
   - Make part of the paragraph **bold**
   - Make another part *italicized*
   - _Underline_ a third part

D. Create an ordered (numbered) list of your favorite colors

```
**Remember**
Frequently save and check your work!

Your motto should be:
Save early, save often, and make a backup!

Check to see what you html file looks like in the Web Browser window.
```
E. Now, use the font tags to make **one** of the color names the appropriate color. Only do one for now, we will be learning how to use Style tags to do this in the next lab.

   - You will need to use either hexadecimal or RGB color codes. Here are three links to web pages that give you the codes for colors:

     - http://www.geocities.com/SiliconValley/Network/2397/

F. Create an unordered (bulleted) list of your favorite foods.

Make sure you put in closing tags in the appropriate places.

4. Publish Your Web Page
   A. Save your HTML file and prepare it for transfer to the public_html folder in your Dante account.

      - When you SFTP your Web document over to your Dante account, be sure to transfer your image(s) as well, or they won't display.

   B. **SFTP your document** into your **public_html** folder.

      - **IF**, by default, all file permissions are changed to Owner read and write only, then you will have to change the permissions to make them readable by others. This will only happen if you have a very old version of the SFTP program.

      - Select the files, fit100.html, from the right side of the FTP window. Right click and select Properties:
C. Once you have sent your file to your public_html folder and changed the permissions on the file (and any picture files as well), view the page from your browser:

- http://students.washington.edu/your_uw_id/fit100.html
- URL addresses are case sensitive. If you use capital letters in your file name, they need to be capitalized in the URL.

5. Create Links to Email, Images, Other Pages

A. Keep working on the local copy of your web page. Using the anchor tag, add in the following three links, or three of your favorite links:

- http://www.washington.edu
- http://courses.washington.edu/fit100/wi023
- http://www.mapquest.com

Give names to the links that will properly identify them on your page.
B. Use the "mailto" attribute and add a link to your page so that people can send you mail. This link opens up an email message addressed to you and allows the user to fill in the subject and message.

C. Add a digital image reference to your HTML file.

***Use images located at this URL:  http://freestockphotos.com/ OR go out on the Web and find your own. Make sure you have permission to use the image if you just go searching ***

To grab the full-size photo, not the thumbnail:

- Click on the image you want to get the larger size, then
- Right click on the image
- Select Save Picture As, save the image in the same folder that is holding your HTML file. Give the image a short name (ex. "sun" or "dog"). It will be saved with the proper file extension (such as .jpg or .gif)

D. Bring your Web document up on the screen
- If you have already closed NotePad, open it again and open your HTML file

NOTE:
You will need to select “All Files” from the Files of type menu in order to view your HTML file in the window.

E. Add the image you have just saved into your web page by using the `<img src="image_file_name">` tag.

By just listing the file name, you are using a relative path. If you were to give the entire link to get to the image on your account, like http://students.washington.edu/uwnetid/image.jpg then that would be an absolute path.

6. Post Your Web Page changes to Dante
A. Save your HTML file and transfer it to the public_html folder in your Dante account. Look at Step 4 to for the process instructions

B. Send your web page url to the Instructor before the next lab. This lab will be checked off to make sure that everyone has the understanding they need to start the project.

C. Remember to log off the machine as you leave.

7. Lab Questions to help you
A. Identify the following HTML components in the URL given:
   - tag
attribute
value
anchor text

<P ALIGN="right">
  <A HREF="webref.html">Web Site</A>  <br>
  References
</P>
Default Web Pages

Default web pages, or home pages, are usually a way to indicate the very top level of your web site. However, every folder within your web site can also have a default page. At the UW, the name given to default web pages within a directory is `index.htm` or `index.html`. Other web servers have different names, such as `default.html` or `default.asp`, etc. So, if you want a particular page to come up automatically when someone enters the URL to your site:

```
http://students.washington.edu/your_uw_id/
```

then you must place an HTML document in your `public_html` folder called `index.html`.

When you created your account here at the UW, an index page was created automatically for you. Until you add to that page, or replace it with an index page of your own, it will serve as your default home page.

For every folder (directory) you create inside of your `public_html` account, you have the option of placing an index document to serve as the default page when that folder is opened. The page that comes up when you enter this address:

```
http://www.washington.edu/home/departments/
```

is named `index.html`.

You would see the same page if you were to type in the full path name:

```
http://www.washington.edu/home/departments/index.html
```

It acts as the default web page for the directory `departments`.

If a web directory does not have a default web page, then you will see a listing of all folders and files in that directory. There is no `index.htm` or `index.html` page (or some equivalent) in that directory to act as the default.

Online Resources:
Some helpful pages for learning HTML:

**W3 Schools:**

http://www.w3schools.com

Some helpful pages for color codes:

http://www.w3schools.com/html/html_colors.asp

http://www.geocities.com/SiliconValley/Network/2397/

http://www.lynda.com/hexh.html