Homework 16: Working With XML

Goal: To apply XML to your own problem, and to develop new XML tags.
(If you need a reminder about HTML tags – we use a few, consult this cheat sheet:
http://www.simplehtmlguide.com/cheatsheet.php)

Use XML To Build A Data File

The goal of this part is to create an XML file of information of interest to you.

The steps of this part are as follows:
1. Create a folder, and inside of it, create another folder called im, for images.
2. Into the outer folder place the .xml and .xsl files from the Calendar page.
3. Open mydiary.xml using the Firefox browser.
4. And using the text editor (Notepad++ or TextWrangler) edit the mydiary.xml so that it is customized to yourself; the date should begin with today.

When step 4 is completed you must have at least **five days of diary entries**.

Here is more information about the 4 parts.

Create Folders

Create a folder on your desktop to hold your diary; perhaps mydiary would be a good name. It also needs a folder inside of it for images, and im is a good name for that folder.

Get Files

On the calendar page are files that must be moved into the folder. Get the mydiary_xml.txt file and the mydiary_xsl.txt files and put them in the folder, renamed mydiary.xml and mydiary.xsl. Into the images folder, move the four .jpg image files provided on the Calendar.

Open Files

Open the mydiary.xml file with the Firefox browser and with a text editor. Also open the mydiary.xsl file with a text editor. Compare the three files – the data file (.xml in text editor), the processing file (.xsl) to style it, and the result (.xml displayed in the Firefox browser). Notice how the data is formatted by the instructions of the style file.

Edit To Build A Diary

Now REMOVE the entries from the mydiary.xml file and images from im, and add new ones to customize it to yourself. (You may also want to change the mydiary.xsl file if you don't like the formatting, such as background color.) You should have fun with building your diary, but be sure to use a good mix of tags. DO NOT BECOME TOO PERSONAL BECAUSE YOU NEED TO TURN THIS IN.

You are finished with this part when you have five days worth of custom entries and you have used all of the XML tags you're given. Make a PDF of the resulting browser page to turn in.

Create New Tags and Their Processing

The goal of this part is to add tags to the XML and write styling templates for the XSL. You will create a title tag, and then create tags for displaying poetry.

The steps for the assignment are as follows:
1. Add a `<title>` tag to some day of your diary.
2. Programming by analogy (that is, notice how the XSL templates are constructed), style the `<title>` tag using the HTML `<h2>` tag.
3. Develop the XML tags to display a poem: You need at least three.
4. Style the new poetry tags using XSL and programming by analogy again.

Details below.

Add A <title> Tag

Pick a day in your diary that needs some emphasis and add a `<title>` tag to the XML file, such as `<title>`Spring Break Is SET!`</title>` that was used on 26 Feb entry of the last part. Obviously, you can use the title more than once.

Style Using XSL

Noticing how the XSL templates work, program by analogy to style the `<title>` tag using HTML `<h2>` tags. This is very detailed because there is no allowance for typos, but all you need is to match the word "title", place the `<h2>`, cause the inside tags to be processed with an `<xsl:apply-templates/>` tag (note that it's self-terminating), and place the `</h2>`. Try it out!

Develop Poetry Tags

To reasonably display poetry, you need several tags. You need an affinity tag to enclose the whole thing; you need an identity tag for the title (but you have that from above), an identity tag for the author, and an identity tag for a line of poetry. Develop those tags. Here is a sample poem to practice with

[Hint: There are several ways in HTML to shift the author's name right a few spaces, but one very simply way is simply to write
`<pre>` -- `</pre>` using the preformat tags.]

Using your new tags, place a poem of your choice into some entry of your diary. (You cannot use the Celery poem!)

> **Celery**
>
>   Celery, raw
>   Develops the jaw,
>   Celery, stewed,
>   Is more quietly chewed.
>
>   *-- Ogden Nash*

Style The Poetry Tags

As before, write XSL styling templates for the new poetry tags. These should be straightforward, maybe easier than the `<title>` tag styling.

To Turn In

Create a new folder and place (a) the PDF (Part 2), (b) the entire folder used in Part 3; submit them to the class drop box.

Celebrate … That was your LAST assignment!!! You did it!!!