



## 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 simple 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!!!