

Assignment #4

CS106E Spring 2018, Young

In this assignment we will go more in depth with HTML layout, as well as getting you familiar with working with SQLite on Stanford's UNIX servers. This assignment is due before the start of class Wednesday May 9th – submit it on Canvas before 1:30pm. Additional Administrative Details can be found at the end of this document.

Make sure you check each part of the assignment by running it through the World Wide Web consortium's validator program found at <http://validator.w3.org/> (I recommend using the "Validate by File Upload" validator option).

Honor Code Reminder

For the purposes of this class, if someone (other than your partner, a TA, or the instructor) looks at your HTML, CSS, or SQL code, or if you look at another student's HTML, CSS or SQL code, you have received too much assistance.

If in doubt, or if you're concerned you have received too much assistance, explicitly document the help that you received. If you have specified in writing the help which you've received on an assignment, you will never be considered as having violated the CS106E honor code policy (although we may reduce the number of points you receive on the assignment).

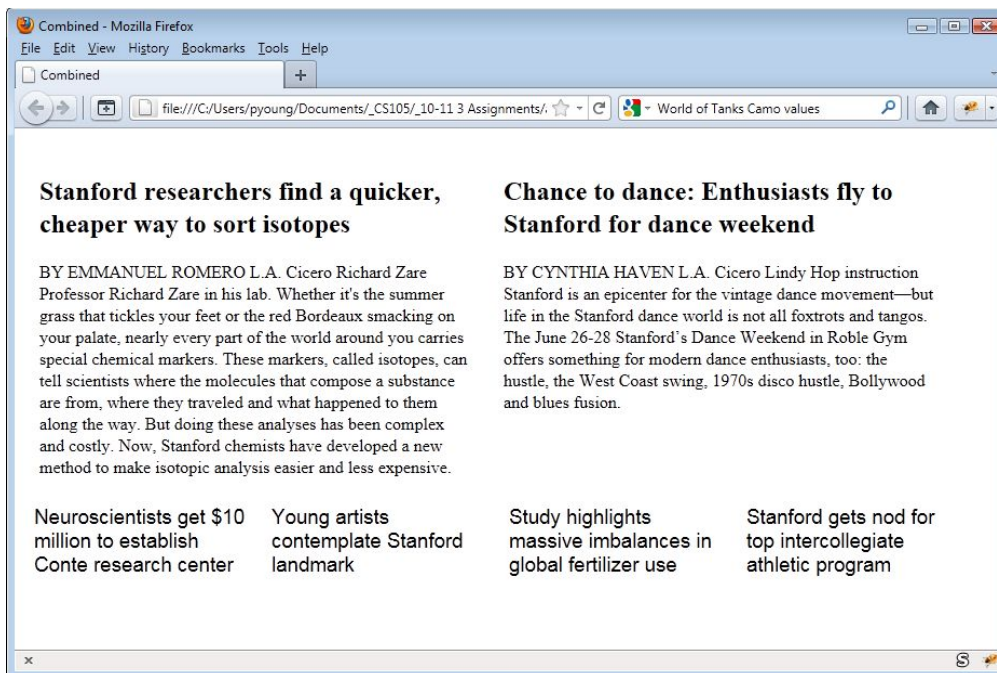
Four-Column Layout

Create the following four-column webpage (consisting of headlines from the Stanford Report) using CSS Grid Layout (with `<style>` tags in the `<head>` section). Save the file as **four-column.html**. Each column should be 200px wide with a 10px margin. Use a sans-serif font. The actual text is provided in a separate file so you don't have to type it in.



Combined Webpage

Building off of your four-column layout, add two columns with article headlines and text above the four headline columns, as shown below. The actual text is provided in a separate file so you don't have to type it in. The top columns should each be 400px wide with a 10px margin and use a serif font. Tip: this is where the column spanning feature of Grid Layout might be useful. Name this file **combined.html**.



Stanford Performing Arts Webpage

Create the following webpage:



The Bing Concert Hall text is an excerpt from the actual Bing Concert Hall website (binghall.stanford.edu) and, along with the Bing Concert Hall image file, is provided as part of the homework downloads, so you don't need to type it in.

You don't need a pixel-perfect representation. If your measurements are different or your margins are a bit off or your fonts are a different size, you'll still receive full credit. But the overall placement of items should be the same. Make sure you have the following features:

- A masthead across the top with “Stanford Performing Arts” on the left and “Autumn 2012 Edition” on the right, right-justified with “Edition” below “Autumn 2012.”
- The main article section on the left with the text floating around the image as shown.
- Calendar section on the right, with performing arts events listed below, with lines between the events plus an additional line between the Calendar heading and the first event and a line below the last event as shown. Use style sheets to create these lines, not the <hr /> tag.

Here are some of the specific measurements I used:

- “Stanford Performing Arts” color #cc0000, 36 point bold, sans-serif
- “Autumn 2012 Edition” color # cc0000, 12pt bold

- “Bing Concert Hall” 18pt, bold, sans-serif
- “Calendar” 14pt, bold, sans-serif
- Calendar items 12pt, italic, sans-serif
- Article text is default font.
- Overall Width 800px;
- Article Column Width: 500px;
- Calendar Column Width: 300px;

If you use the <h1>, <h2>, and <h3> tags to create your headings (which is recommended), you’ll need to override the standard margins otherwise your headings will take up too much space. This is commonly done on professional webpages. In fact, many professionals use a “CSS Reset” with their webpages, which resets all the margin and padding on all HTML elements to 0px. I’ve included a reset.css file, which you can use with your assignment if you’d like.

Name your file **bing.html**. If you use an external CSS file name it **bing.css**.

Unix and SQL

The following questions will involve writing SQL queries to perform the requested lookups on a database that we have provided. First, copy the provided hw4.db file to your home directory on the Stanford servers, using either SecureFX (for Windows) or Fetch (for Mac). Then, connect to cardinal.stanford.edu using either SecureCRT (for Windows) or the ssh command in Terminal (for Mac) and open the hw4.db file in sqlite3. For instructions on how to connect to Stanford servers and run SQLite, refer to the provided handout (h08 SQL.pdf) on Canvas.

hw4.db contains a table named `cities` with columns `city`, `continent`, and `population`. For each lookup question, **provide the SQL query that you use, along with the data returned by your query.**

1. What is the CREATE TABLE query you would use to create `cities`? You can run “SELECT * FROM cities;” to see what the table looks like (and the default order of the columns). See the handout for SQLite commands to better format the output.
2. What INSERT query would you use to add a row for the city Seattle in North America with population 3,700,000?
3. Lookup the name, continent, and population of cities on continents beginning with an “A”.
4. Lookup only the name and population of cities with a population between 1,000,000 and 5,000,000 (inclusive).
5. Lookup the name, continent, and population of cities on any continents ending with “America” and with a population of at least 5,000,000. Sort the output by the city’s name in alphabetical order.

Administrative Details

You will need to turn in the following files for this assignment:

- four-column.html
- combined.html
- bing.html (and bing.css if you used an external style sheet)
- A typed document with the SQL queries and results for the lookup questions