

Name: _____

ID: _____

Midterm

CS193C, Summer 2007, Young

Please print out this page, sign the Honor Code Statement, and turn it in at Thursday's Lecture, or slip it under my office door (Gates 194). SITN students may FAX it to (650) 723-6092.

As we've discussed, you have three hours to complete this exam and get it submitted. Please get it submitted by 10pm. See the Midterm Webpage for submission instructions and how to contact us if you have questions.

The Stanford Honor Code

1. The Honor Code is an undertaking of the students, individually and collectively:
 - a. that they will not give or receive aid in examinations; that they will not give or receive unpermitted aid in class work, in the preparation of reports, or in any other work that is to be used by the instructor as the basis of grading;
 - b. that they will do their share and take an active part in seeing to it that others as well as themselves uphold the spirit and letter of the Honor Code.
2. The faculty on its part manifests its confidence in the honor of its students by refraining from proctoring examinations and from taking unusual and unreasonable precautions to prevent the forms of dishonesty mentioned above. The faculty will also avoid, as far as practicable, academic procedures that create temptations to violate the Honor Code.
3. While the faculty alone has the right and obligation to set academic requirements, the students and faculty will work together to establish optimal conditions for honorable academic work

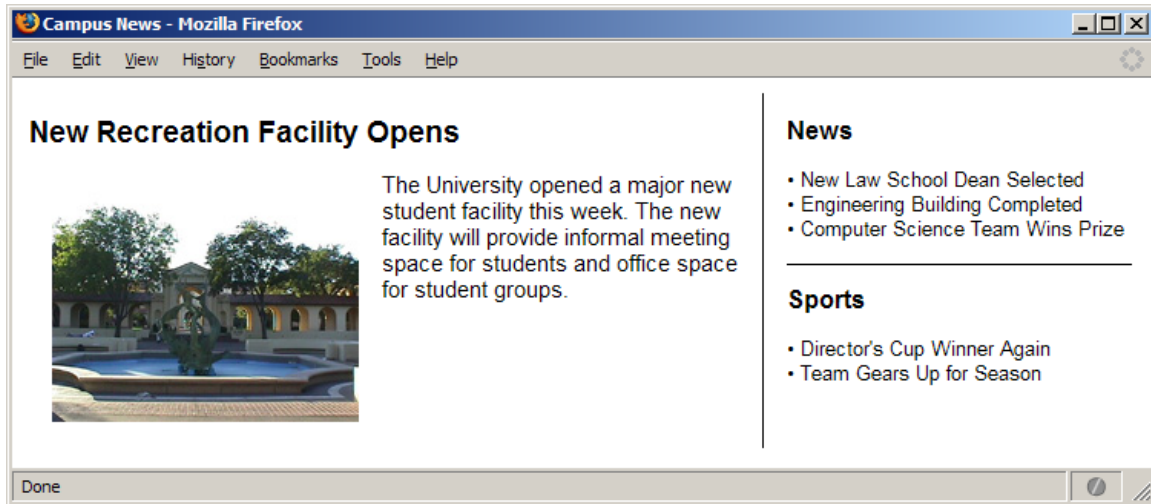
I accept the letter and the spirit of the Stanford University Honor Code. I swear that I have not given or received aid on this exam, and I have taken an active part in stopping any violations of the Honor Code which I see on this exam.

Signed: _____

Instructions

- Download the exam zip file for images files needed for this exam.
 - Questions 1 and 2 must be solved for IE *and* Firefox. Question 3 may be solved for IE *or* Firefox, explicitly note on your Question 3 webpage, which web browser you used.
 - You may use Dreamweaver (or other WYSIWYG editors) on problems 2 and 3 only.
1. Our first problem will give you a chance to show off your HTML and CSS skills. Remember you may not use Dreamweaver or other WYSIWYG tools for this problem.

Here's our webpage:

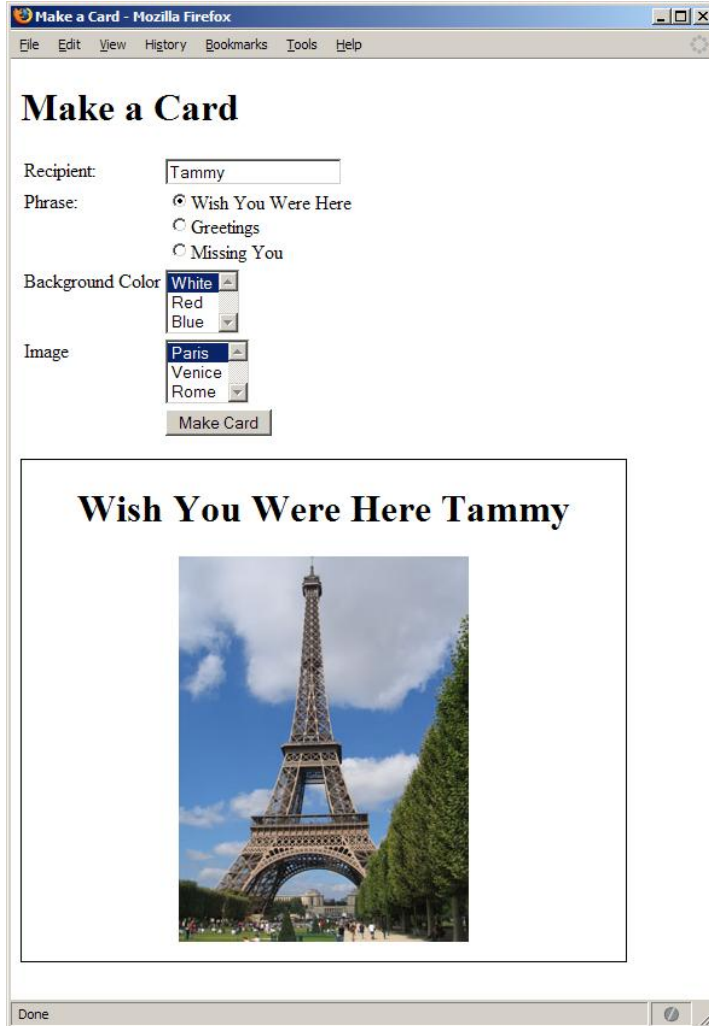


While the overall layout should be the same as the screenshot, your webpage doesn't need to look exactly as show above, so don't worry if your solution doesn't look like a pixel-perfect recreation of the webpage shown above. Here are some specific requirements that your webpage must fulfill:

- All webpage contents should be sans-serif.
- The "New Recreation Facility Opens" heading should be 14pt bold, the associated main article text should be 11pt, the "News" and "Sports" headings should be 12pt bold, and the news and sports articles listed should be 10pt.
- A 1-pixel wide black vertical line should divide the main article from the "News" and "Sports" column, and a 1-pixel wide black horizontal line should divide the "News" and "Sports" sections. Setup both lines so that the blank space to the left and right of the vertical line is roughly even and the blank space above and below the horizontal line is also roughly even.
- The column sizes should be fixed. Set the columns any widths which are reasonably aesthetically pleasing.

Give this webpage the title "Campus News" and store it in the file `news.html`. As with all the problems on this exam, please make sure that this webpage uses legal XHTML and validates on the W3C Validator.

2. For our next problem you will create a JavaScript-enhanced webpage which creates greeting cards. Here is a screenshot:



card.html.

The user enters a name, selects a phrase, a background color, and an image, and clicks on "Make Card". A card with the given settings appears at the bottom of the webpage.

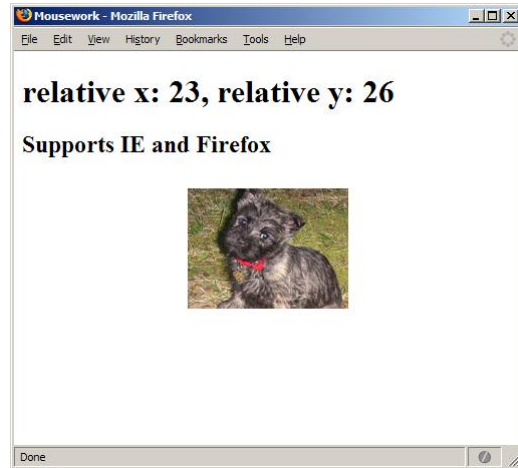
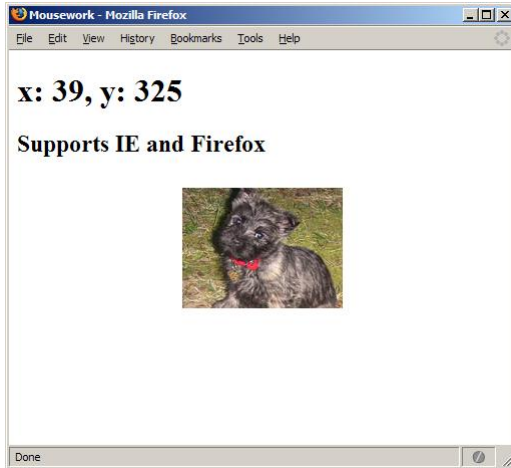
The card should contain the Phrase selected along with the Recipient's name. The background color of the card and image is also set. The card should be surrounded with a border, and the text and image should be centered within the card border.

Note that while I have laid out the controls on the webpage nicely, you do not need to, you do not even need to fully label your controls. A textfield, three radio buttons, and two selects are sufficient for our purposes, just as long as the JavaScript behavior is correct. Do make sure you provide enough information so we can determine what your controls do.

This webpage should have the title "Make a Card" and should be stored as make-a-

3. For our last problem we'll write a webpage which tracks the mouse and moves an image on the webpage. For this last problem only, you will have the option to create a webpage which works on Firefox only or on IE only. If you want to support both and do it correctly, you can earn an extra 3-point bonus. Your webpage should specifically list which web browser is supported as shown in the screenshot below.

Here are two screenshots of the webpage:



Your webpage should support the following behavior:

- When the webpage initially opens *and* when the webpage is resized, the center of the image should be in the exact center of the window.
- If the mouse clicks anywhere in the window *except* on the image itself, the image should be moved so that the center of the image is at the exact location at which the mouse was clicked.
- If the mouse is clicked on the image itself, ignore the click—the image is *not* moved.
- As the mouse moves around the screen, text should display the mouse's coordinates relative to the top-left corner of *the window's client area*¹ (as shown in the screenshot at left).
- However, if the mouse is moving on top of the image, instead the text should display the mouse's coordinates relative to the top-left *of the image*. Note this by appending the text "relative" to the text (as show in the screenshot at right).

This webpage should have the title "Mouseworks" and should be stored as `mouseworks.html`. I've provided an image file named `molly.jpg`, however if you don't like dogs or get tired of staring at her, feel free to replace this image with an image of your own.

¹ For those of you note familiar with this term, the window's client area is the window area excluding the window frame, menus and toolbar.