Homework 1:
Usability Heuristics, Information Design, HTML

Warm up: due Friday 1/24 @ 11:59pm on Courseworks
Main: due Tuesday 1/28 @ 11:59pm on Courseworks.
HW1 will be accepted as on time until Wednesday 1/29 @ 8:00am

Warm-up:

What to submit:
2 separate files with the following titles:
- 1_positive_example.pdf
- 2_negative_example.pdf

Submit them separately to Courseworks, do **not** zip them up.

If you have not yet been added to Courseworks, email your solutions to
chilton@cs.columbia.edu with the subject "HW1 Warm-up Waitlist"

Problems:
1. **Positive example of the 10 Usability Heuristics**.
    a. What is a web or mobile application that you like?
    b. Show us a screenshot
    c. Name 3 of the 10 usability heuristics that this application uses to make it good. For each heuristic, please say
        i. Which heuristic?
        ii. Tell us 1-3 sentences about how the application employs the heuristic and why it's important to this application.
2. **Negative example of the 10 Usability Heuristics**.
    a. What is a web or mobile application that you dislike (or an aspect of an application you dislike)?
    b. Show us a screenshot
    c. What is the main usability heuristic it violates?
    d. Tell us 1-3 sentences about how the application violates the heuristic and why you hate it so much in this application.

Main:

Problems:
1. **Recreate the invitation example from class using HTML and CSS** (as shown below)
   You are only allowed to use the following HTML elements: <div>, <span>, <br>. All styles must be in a <style> header in CSS. You may not use the style attribute of HTML elements.
   a. Submit your code as directed in "**What to submit**"
   b. Submit a link to a short YouTube video of yourself explaining your code.
      i. The video should be short. 1-2 minutes long.
         1. You may upload it as "unlisted" so the link can be shared, but YouTube won't share or promote your video to anyone else.
         2. You must narrate the video with your own voice.
         3. We recommend programs like QuickTime that allow you to easily make screen recordings from your computer.
      ii. In the video explain the code with the Developer Tools, very similar to how it was demonstrated in lecture on Monday:
         1. Show how the code renders on a webpage. We highly recommend Chrome web browser.
         2. Open the interactive debugging tools in the web browser. We highly recommend the Chrome Developer Tools:
            a. View > Developer > Developer tools (or command+option+i)
            b. "Inspect" every HTML element in the Developer Tools. Say the role of every element.
            c. For each element, use the explain each of the CSS styles used. Use the style debugger to toggle each style on and off to demonstrate what it does.
      iii. We understand this is the first video you will submit in this class. Try your best to follow the instructions, but the most important thing is to get it done somehow. If there was something difficult about recording the video this time, be sure to fix it for next week. Come to office hours!

HTML you need to recreate:
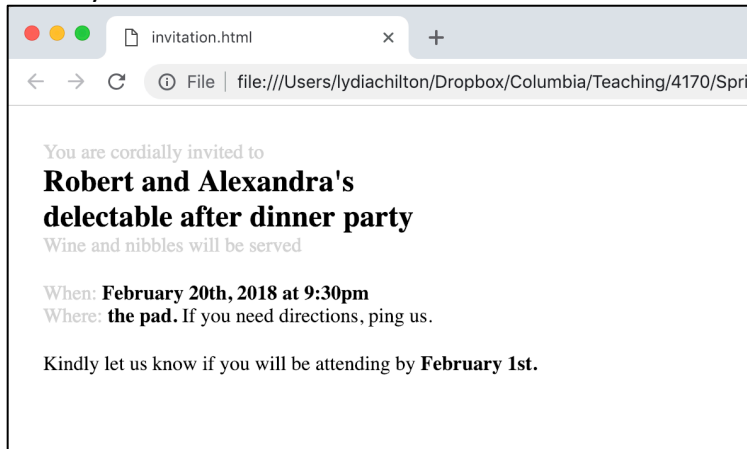
Developer Tools in Chrome showing the HTML elements that you can "Inspect" by hovering over elements. The rendered HTML turns colors to show where that HTML coded elements appear on the page.
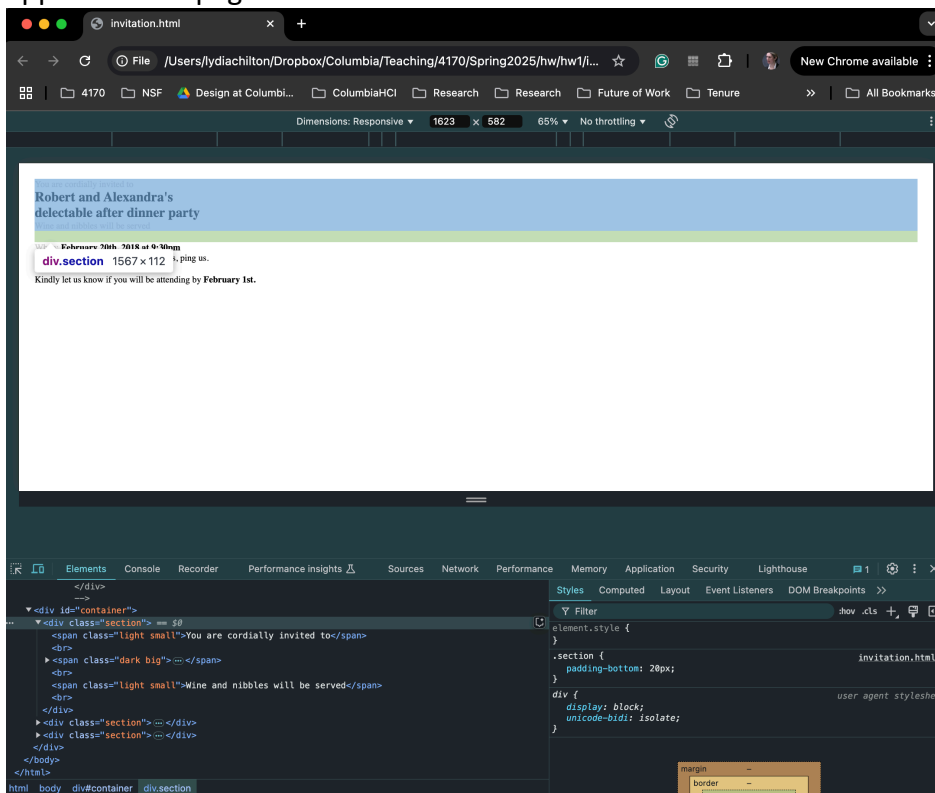
In the "Styles" pane you can also toggle on and off each CSS style. Here the checkbox next to "padding-bottom: 20px" is unchecked, and thus, all the "sections" lose their padding.

2. **Information Design (Easy)**

Below is some undifferentiated text. Think about who the person seeing this information and what their primary goal is. Design this information so that the important elements are emphasized according to the information hierarchy principles discussed in class. Do not use color.

You may re-order or re-phrase the information however you like as long as the meaning is preserved.

We recommend using a PowerPoint-like application to make your design.

Undifferentiated text:

Classic Burger. Choice of American, cheddar, swiss or mozzarella cheese. Meatless options available. $18. Comes with a choice of fries or a side salad.
Dinner salad. Add protein: salmon +4, chicken +2, steak +3, shrimp +5. $15
Soup. Hot! Made fresh daily. Ask your server for Cup $5, Bowl $8.
Fountain soda !!!free refills!!!, Coke products only. Straws available on request. $2
An assortment of tea – herbal, green and organic teas available $2.50
Coffee to stay or to go $3
French Fries. $8. For sweet potato fries add $1
Side salad. $10. Spring mix, choice of dressing.
Jalapeno poppers, just like the lunch lady used to make 'em. $8. They're spicy. Duh!
Central Perk Café Established 1994
Parties of 5 or more have 18% gratuity automatically added.
Live music!

Submission instructions:
      a. Show an image of your design.
      b. Annotate your design to show the 3-4 main conceptual groups.
            i. Show an image of your design and annotate the conceptual groups on your design by drawing a box around each group. Label each group with:
                  1. A number which is the order you intend the user to see it.
                  2. The concept behind the group.
      c. Answer the following question in text (answers should be short: 1-2 sentences):
            i. Who is the person looking at this information?
            ii. When are they looking at it and what goal are they most likely trying to achieve?

3. **Information Design (Hard)**

Below is some undifferentiated text. Think about who the person seeing this information and what their primary goal is. Design this information so that the important elements are emphasized according to the information hierarchy principles discussed in class. Do not use color. You may re-order or re-phrase the information however you like as long as the meaning is preserved.

We recommend using a PowerPoint-like application to make your design.

Undifferentiated text:

100% Cotton. Cold wash machine. Do not dry clean. Wash dark separately. Do not bleach. Wash inside out. Do not tumble dry. Line dry in shade. Warm iron on reverse. Made in China. RFC# 910911-040

    a. Show an image of your design.
    b. Annotate your design:
        i. Show an image of your design and annotate the conceptual groups on your design by drawing a box around each group. Label each group with:
            1. A number which is the order you intend the user to see it.
            2. The concept behind the group.
    c. Answer the following question in text (answers should be short: 1-2 sentences):
        i. Who is the person looking at this information?
        ii. When are they looking at it and what goal are they most likely trying to achieve?
        iii. In group 1:
            1. What is the concept behind this group?
            2. Why is this the first group they should see?
            3. What important information did you emphasize?
            4. What did you choose NOT to emphasize?
            5. What two visual information design tools did you use together to bring it out?
        iv. In group 2 (same questions):
            1. What is the concept behind this group?
            2. Why is this the second group they should see?
            3. What important information did you emphasize?
            4. What did you choose NOT to emphasize?
            5. What two visual information design tools did you use together to bring it out?
        v. In group 3: (same questions)
            1. What is the concept behind this group?
            2. Why is this the third group they should see?
            3. What important information did you emphasize?
            4. What did you choose NOT to emphasize?

5. What two visual information design tools did you use together to bring it out?
vi. Did you use color?
1. If so, what did the slides say about using color?