Assignment Week 2: Web Programming Part 2

Make sure that you have completed all material in the Week 2 on Brightspace before starting the assignment.

Make a copy in your own Google Drive, by clicking *File > Make a Copy*.

Part 1: Complete Assigned Khan Lessons Web Programming

For each of the Khan exercises that you were assigned, in your answer document put the number **(A-D)** and next to each number paste in a screenshot showing your code, the final drawing, and the congratulations message for getting the final step of that challenge. These exercises assume that you have watched and read all of the assigned material.

A. Selecting By Tag Name

Let's check if that made sense. Which of these rules would select all of the `<h2>` elements on a page?

Choose 1 answer:

✓ CORRECT (SELECTED)

```
h2 {
    color: rgb(255, 0, 0);
}
```

You got it! The element selector should just be the tag name, no brackets or other symbols.

B. Colorful Creature

Match the heading color

Finally, add a CSS rule to change the **color** of the *heading*, inspired by the creature's colors.

Hint What's this?

```
h1 {
    _: _;
}
```

```
  6    <style>
  7        body {
  8            background-color: rgb(214, 207, 102
);
  9        }
 10        p {
 11            color: rgb(249, 250, 245);
 12        }
 13        h1 {
 14            color: rgb(253, 253, 245);
 15        }
 16    </style>
 17
 18
 19    </head>
 20    <body>
 21        <img src ="https://cdn.kastatic.org/third_pa
rty/javascript-khansrc/live-editor/build/images
/animals/cheetah.png" alt = "A picture of a cheetah
sitting" width = "250">
 22        <h1>The coolest creature</h1>
 23
 24        <p>The <em>Cheetah</em> is awesome because
<strong>it is the fastest land creature.</strong
>.</n>
```

The coolest creature

The *Cheetah* is awesome because it is the fastest land creature..

Congratulations!
You earned
1500 points!

C. Seansonal IDs

```
}
</style>
```

```
  1  <!DOCTYPE html>
  2  <html>
  3      <head>
  4          <meta charset="utf-8">
  5          <title>Challenge: Seasonal ids</title>
  6          <style>
  7              #summer {
  8                  color: yellow;
  9              }
 10
 11              #winter {
 12                  color: blue;
 13              }
 14
 15          </style>
 16      </head>
 17      <body>
 18
 19          <h1>Olaf's favorite seasons</h1>
 20
 21          <h2 id="summer">Summer</h2>
 22          <p>He's a happy snowman, doing what frozen
things do in summer.</p>
 23
 24          <h2 id="winter">Winter</h2>
```

Olaf's favorite seasons

Summer

He's a happy snowman, doing what frozen things do in summer.

Winter

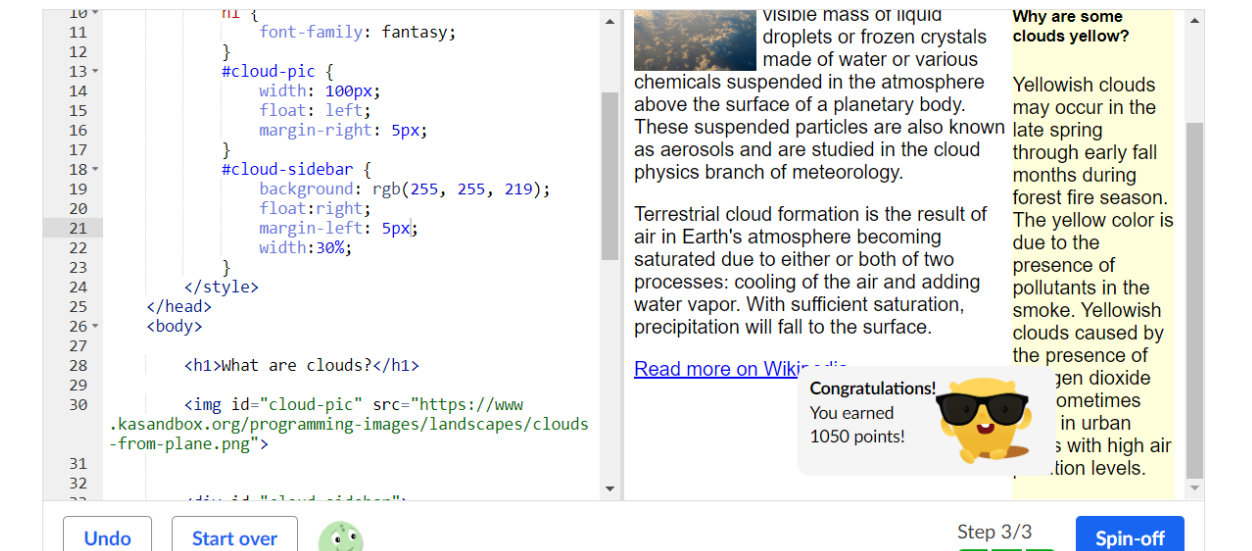He likes to stay in and cuddle

All steps complete!

Undo   Start over

Step 1/1   **Finish challenge**

D. Floating Clouds

Now that we have elements floated next to eachother, we should make sure to separate them with some whitespace. Add appropriate margins to the photo and the sidebar.

Part 2: Web Programming Knowledge

A) In your own words, describe what CSS is.

CSS is a language for telling the browser how to style and display the HTML content.

B) In your own words, describe what each of the following CSS examples does:

- `<h1 id="title">Fluffy cats</h1>`:
  assigns an ID of "title" to the particular h1 element
- `img { }`   hint: does it select one image by id, or by class, or all images on the page?
  the css would select all img elements on the page
- `h2 { color: rgb(255, 0, 0); }` :
  assigns the color red to all h2 elements on the page
- `body { background-color: rgb(0, 255, 0); }` :
  assigns a background color of green to the body element

- `#hopper-pic { width: 100px; float: left; margin-right: 6px; margin-bottom: 6px; }` :
  assigns a width of 100px, floats the item left and gives a margin right and bottom of 6px to the element with the id of hopper-pic

C) In your own words, describe how to inspect a web page and what inspecting shows you.

In most browsers you can right click on the page and choose inspect or go into the menu and

select developer tools. Inspecting a page lets you see the html and CSS used on the page.

Part 3: Create Images for your Website

Before creating your portfolio website, you must first create some images to place on your website, like the banner and buttons we provided for your last assignment. Pixlr is a free online image editing program that does not require a download. The program is available at http://pixlr.com/editor/. Using Pixlr, follow the tutorials provided in the steps below to create images for your website.

A. **Work with an Original Photograph.** Obtain a digital image with you in the photo. Reduce the size and optimize the photograph to make it suitable for your website. Refer to the Pixlr Tutorial for guidance.
   a. Save the image as *yourname.jpg* (where you use your own first name) to your desktop.
B. **Create a Background Image**. Using techniques learned from the Pixlr Tutorial, create a suitable background image for your website. A suitable background size should be large (approximately 800 pixels wide by 600 pixels high) and should allow for text to be readable when placed over the image.
   a. Save your final background image as *myBackground.jpg* to your desktop.
C. **Create Buttons for your Website.** Create a button for each of the following pages: "Home", "Javascripts", and "About Me". The buttons should be consistent (i.e. use the same color, shape, size, font, style, etc. on all buttons).
   a. Make the image size approximately 100-150 pixels wide by 25-50 pixels high.
   b. Use a transparent background for the image.
   c. Use the "Drawing Tool" to create a shape for the button.
   d. Add the text "Home", "Javascripts", and "About Me" to each of the buttons (for a total of three buttons).
   e. Use at least one layer style (i.e. drop shadow, bevel, etc.).
   f. Save the button images as *home.png*, *javascripts.png*, and *about.png*, respectively, to your desktop.
D. **Create a Banner for your Website.** Using this tutorial as a guide, create a banner for your website. Your banner must contain the following:
   a. Your first and last name.
   b. A picture of you that uses a transparent background.
   c. The text "Programming Portfolio".
   d. Save this image as *myBanner.jpg* to your desktop.

There is nothing to turn in for Part 3 - you will use your images in your website of Part 4.

Part 4: Create Your Portfolio Website

Here is an example portfolio website for this assignment:

- [Home page](#)
- [My Javascripts page](#)
- [About Me page](#)

You created a Github Pages account in the previous assignment, which you used to create a draft programming portfolio website. In this assignment augment your draft website to become your full portfolio website. Make the following changes to your draft portfolio website:

A. **CSS.** Use CSS to style your web pages. This video will get you started: https://youtu.be/Dwrd7e72HOM (it is done on a different web server than Github Pages, but the techniques are similar). For CSS that is common among pages (e.g. a common background color), use an external style sheet.

B. **Title.** Each web page must have a distinct title (title appears in browser tab, not on web page). You should have done this in your draft page.

C. **Background.** Change the background color of the Home and Javascripts page (both pages must be the same background color) using CSS (you choose the color).

D. **Banner.** Add the banner image created in Step 5D of this assignment to each page.

E. **Navigation Buttons.** To each page, replace the button images from the draft with the button images created in Step 5C of this assignment. Each button should be in its own table cell with links to their respective pages. Use CSS on the table and images to make the navigation bar look appealing.

F. **Headlines.** Use CSS to style each headline tag that you use, you may style them all the same or use IDs to style individual ones.

G. **About Me Page.** Add content to your About Me page (about.html):
   a. A paragraph describing yourself. Use <p> paragraph tags appropriately.
   b. Use CSS to add a background image on this page, instead of a background color. Use the myBackground.jpg image that you created in Step 5B.
   c. At least two pictures of you. One of which should be *yourname.jpg* from Step 5A. These should be incorporated into the web page nicely (e.g. as a CSS floating image).
   d. At least two pictures of things from your life (i.e. hobbies, interests, etc.). These should be incorporated into the web page nicely (e.g. as a CSS floating image). Remember, all web page images must be uploaded to your File Manager.
   e. *Optional:* Links to your social media pages, or anything else you want to add.

H. **Control The Body Content Width**. Style the body of the pages so that all content stays within the span of the banner, as in the examples linked above. (Hint use an html div tag with CSS id styling to make it be the width of your banner).

Paste the URL to your website (e.g., https://vfyawolfe.github.io/vfaywolfe) in the box below:

https://joehicksuri.github.io/index.html

Part 5: Notes Document

Paste the URL to your URI Google Drive notes document in the box below:

https://docs.google.com/document/d/17bzSQ_lyL3c1dPUzcmGRj2Lt-xu9QQW5dpXVOXmDH
3w/edit

Make sure that the share settings for your notes document is set to *Anyone with The Link* (can view) so that the graders can view it.

Academic Integrity

Assignments are to be the result of your individual efforts, unless you are told otherwise. It is easy to copy material on the computer; such copying constitutes plagiarism. We employ software to check for code plagiarism and the teaching staff actively evaluates student work to determine if it has occurred. See the University Manual for more information about the potential consequences of cheating. https://web.uri.edu/manual/chapter-8/chapter-8-2/."

For programming: While you may discuss general solutions and algorithms with classmates and/or AI. You are **not** allowed to:

- Share code with other students
- Look at any other student's code
- Use code provided to you by anyone else
- Use code that you find on the Internet.
- Use code generated for you (e.g. by AI). You may ask AI questions about algorithms and ways to approach programming this assignment, but you may **not** have AI generate code for you, paste code into AI, nor copy/paste code out of AI.
- Use programming constructs not taught in class without prior approval by the teaching staff.

If you use code that you did not write specifically for an assignment, you must have the permission of the teaching staff, and you must include in comments in the code where the code came from, and describe how the code works.

If AI was used to generate code with permission of the teaching staff, you must provide a screenshot of the interaction with the AI tool including the prompts you used, and the code generated.

 If you ever have a question about what is acceptable when working on a programming assignment, please contact the teaching staff.