APSU Coding Camp #A : Assignment 2

Total estimated time for this assignment: **12 hours**

The web site content must be **related to you**. If the content of the web pages are not related to you, you will get **0 points** for the question(s). Please do **NOT** put any sensitive personal information on the web pages.

No two students should submit webpages with exactly the same code, or same content, or same layout, or same color combination. If found, both students will get **0 points**.

Create a folder on your hard disk, name the folder **lastname_firstname_assignment2.** Save all the files from this assignment in this folder.

Create the following subfolders (in the folder lastname_firstname_assignment2)**: q1, q2, q3, q4, q5**.
As a result, you should have the following folder (directory) structure for this assignment: (-2 points if wrong)
- lastname_firstname_assignment2\q1\
- lastname_firstname_assignment2\q2\
- lastname_firstname_assignment2\q3\
- lastname_firstname_assignment2\q4\
- lastname_firstname_assignment2\q5\

The questions in this assignment guide you through the development of a personal hobby web site (actually only part of the website site) that consists of several pages. These exercises don't give you step-by-step instructions. Instead, the description for each question includes an image of how the page should appear in a browser, along with specifications. **(-50 points** if it is not a personal hobby site)

These specifications are detailed enough for you to complete each questions. However, you'll need to use your best judgment on how to code many of the details. To do that, write the code in the way that you think is best, based on the skills that were presented in the book.

Question 1 – html & css chapter 3 (20 points)   **Estimated time: 2 hours**
Save question 1 files in subfolder "**lastname_firstname_assignment2\q1**".
In this question, you'll code the HTML for the home page. The page should look like this:
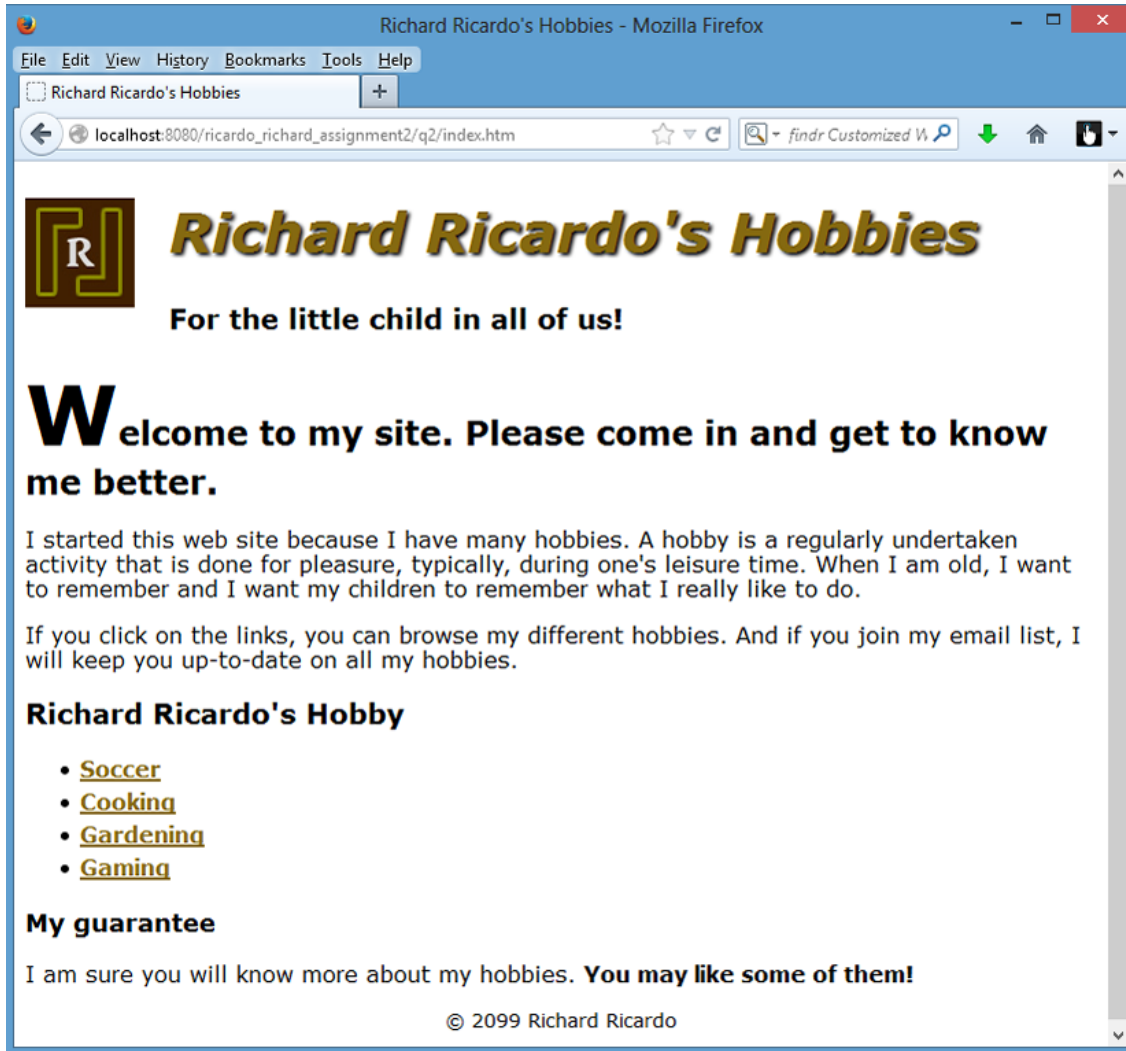

- Save question 1 files in subfolder "**lastname_firstname_assignment2\q1**".
- Create your personal hobby using "**<your name>**'s hobby page" as the page title (-50 points if not).
- Save the page as **index.htm.** (2 points)
- Remember to document the html file with html comments. (-1 point if not)
- Add the HTML5 semantic elements to structure the page so it includes a **header** (<header>), a main **section** (<section>), and a **footer** (<footer>). Remember to close the tags. (1 point each, total 3 points)
- Add **an image** and **two levels of headings** (e.g. <h1>, <h2>) to the **header** (<header>). Put the image in the **/images** subfolder. Create text (<p>) that is related to you. (1 point each, total 6 points)
- Add three levels of headings (e.g. <h2>, <h3>, <h4>) and create the text (<p>) to the main **section** (<section>) as shown. (1 points each, total 5 points)
- Code the **hobby links** as an **unordered list** (<ul>) with **links** (<a>) to other pages. Because these pages don't exist, you can name the pages anything you like. (1 point each, total 2 points)
- Use your own hobbies. **Do NOT copy** Richard Ricardo's Hobbies. (-4 points if all hobbies are the same)
- Add the text (as shown, but related to you) to the footer, using a character entity for the copyright symbol. (1 point each, total 4 points)

Question 2 – html & css chapter 4 (20 points)   **Estimated time: 2 hours**
Copy what you have done in question 1 (index.htm) from the question 1 subfolder to the question 2 subfolder
"**lastname_firstname_assignment2\q2**".
Save question 2 files in subfolder "**lastname_firstname_assignment2\q2**".
In this question, you'll create an external style sheet that you can use to format the home page that you created
in question 1. The page should look similar to this:

- Create a css file named **style.css** to format index.htm and provide the shown layout. (3 points)
- Use css comments to document the css program. (-1 point if not)
- Set the default font for the document to a **sans-serif font**. (1 point)
- **Adjust the font sizes** for all of the **headings** (e.g. <h1> to <h6>). In addition, format the **first letter** of
  the first heading in the main **section** (<section>) so it's **larger** than the other letters in the heading. (1
  point each, total 4 points)
- In the **header** (<header>), **float the image to the left** and **indent** both **headings**. In addition, change the
  color of the first heading, **italicize** it, and add a **black shadow**. (1 point each, total 7 points)
- Format the **links** (<a>) so they're displayed in **bold** (and different **color**). (1 point each, total 3 points)
- Format the **list** to increase the **space** between the list items. (1 point)
- Reduce the font **size** for the footer and **center** it. (1 point each, total 2 points)

Question 3 – html & css chapter 5 (20 points)   **Estimated time: 3 hours**
Copy what you have done in question 2 (index.htm & style.css) from the question 2 subfolder to the question 3 subfolder "**lastname_firstname_assignment2\q3**".
Save question 3 files in subfolder "**lastname_firstname_assignment2\q3**".
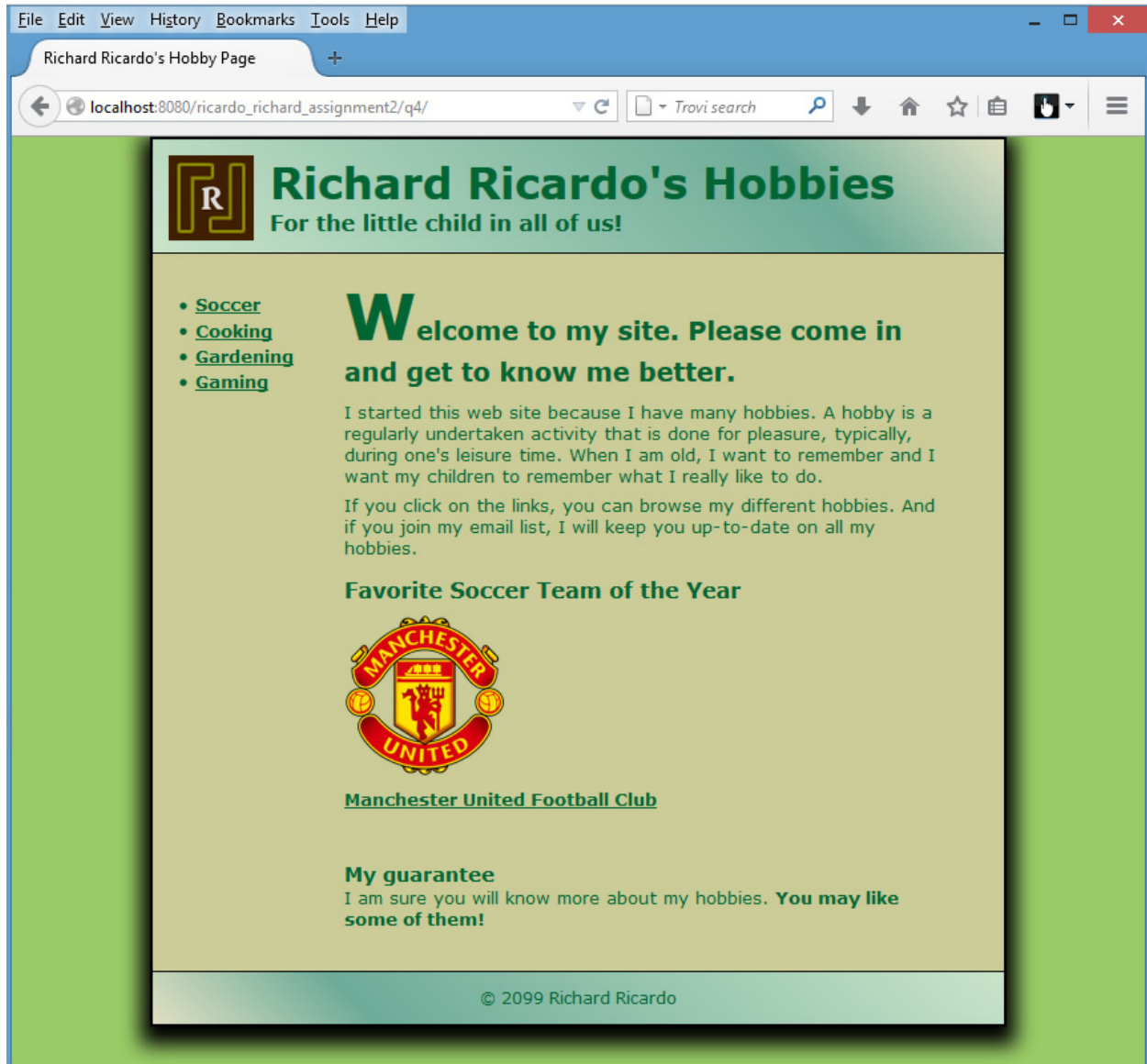In this exercise, you'll use the CSS box model to add spacing, borders, and backgrounds to the home page that you formatted in question 2. The page should look similar to this:

- Select a visually acceptable **color scheme** of four to six colors. You can generate a color scheme from websites like http://colorschemedesigner.com/ . The rule is: if the color theme hurts your eyes, the color theme is not good, choose another one. (**-5 points if you use/copy the example color scheme**)
- Format the **body** (<body>) of the page so it's **800 pixels wide**, has a different **background color**, has a **black border** with a **shadow**, and is **centered** in the browser window. (1 point each, total 6 points)
- Add a **background color behind** the body of the page (hint: <html>). (1 point)
- Add a **black border below the header** (<header>) and **above the footer** (<footer>). (1 point each, total 2)
- **Remove** the shadow, italics, and color from the first heading in the header (<header>). (2 points)
- Add a **45-degree gradient** to the **header** (<header>) and **footer** (<footer>). The gradient in the header should range from <color 1 of your color scheme> at the **left** to <color 2 of your color scheme > **¾ of the way to the right** to <color 3 of your color scheme> at the **right**. The gradient in the **footer** (<footer>) should be the **reverse**. (1 point each, total 7 points)
- Adjust the **margins** and **padding** for the elements on the page so it looks as shown above (hint: <body>). (2 points)

Question 4 – html & css chapter 6 (10 points)   **Estimated time: 2 hours**
Copy what you have done in question 3 (index.htm & style.css) from the question 3 subfolder to the question 4 subfolder "**lastname_firstname_assignment2\q4**".
Save question 4 files in subfolder "**lastname_firstname_assignment2\q4**".
In this question, you'll enhance the formatting of the home page so it uses a **2-column layout**. You'll also add some additional content to the page. The page should look similar to this:

<aside></aside>

- Move the unordered list to a **sidebar** (use **<aside>**) that's floated to the **left** of the main **section** (<section>) of the page. The width of the sidebar should be **175 pixels**. (1 point each, 3 points)
- Be sure to **clear** the **footer** (<footer>) so it's not displayed below the list.
- Adjust the **margins** and **padding** for the sidebar (<aside>) and main section (<section>). (1 point)
- Modify the HTML for the first **heading** in the main section (<section>) so it's displayed on **two lines**. (2 points)
- Modify the second **heading** as shown. Then, add an **image** (of your choice, related to your site) and the **link** as shown. The link should link to an external website. (1 point each, total 3 points)

Question 5 – html & css chapter 7 (30 points)   **Estimated time: 3 hours**
Copy what you have done in question 4 (index.htm & style.css) from the question 4 subfolder to the question 5 subfolder "**lastname_firstname_assignment2\q5**".
Save question 5 files in subfolder "**lastname_firstname_assignment2\q5**".
In this question, you'll enhance the home page you worked on in question 4 so it includes a 2-tier top navigation bar, and an image link. You will also need to add an additional "Why I Like It" page.

Question 5a

Question 5a

- Add a **2-tier top navigation bar** (use **<nav>**) that includes the **hobby links** shown above. **Format the links** in the navigation bar as a navigation list as shown above. Format the navigation bar so the link for the page **that's currently displayed** (in this case, home or index.htm) **is of a different color**. Each navigation box should be separated by a **vertical border**. (1 point each, total 5 points)
- **Add four links** related to the home page (index.htm) to the **2-tier top navigation bar** (same as the example above: About Me, Personal, All Hobbies, Contact Me). (0.5 point each, total 2 points)
- The second tier navigation links (About Me, Personal, All Hobbies, Contact Me) should be **left-aligned**. (1 point)
- Remove the question 4 **sidebar** (**<aside>**). (2 points)
- Modify the **image** in the main section so it's an **image link** that displays the same page as the link below it. Format the image so **no border** is displayed around it. Put the image in the **/images** subfolder. (1 point each, total 4 points)

Question 5b

- Create another "Why I Like It" page related to your first hobby (related to soccer in the example above). It is a second tier navigation page, below the first hobby as shown.

Question 5b

- Use "**<your name>**'s Why I Like It page" as the page title. Save the page as **why_i_like_it.htm**. (1 point each, total 2 points) (another 2 points for the second tier link to link to this page)
- Format the 2-tier top navigation bar (<nav>) so the link for the page **that's currently displayed** (why_i_like_it.htm) **is of a different color**. Format the links in the navigation bar as a navigation list as shown above. (1 point each, total 2 points)
- **Add four links** related to the first hobby to the **2-tier top navigation bar** (related to soccer in the example above). (0.5 point each, total 2 points)
- The first link in the navigation bar (nav) should link to home (index.htm). (1 point)
- The links should work for both pages (index.htm and why_i_like_it.htm), so that users can navigate between these two pages. (2 points)
- Modify the content in "Why I Like It" page (why_i_like_it.htm), to describe why you like your first hobby. Add two **images** in the main section (<section>) so they are **links** to external websites. Format the image so **no border** is displayed around it. Put the image(s) in the **/images** subfolder. (1 point each, total 7 points)

Question 5b

Important:
1. If you do not put **<your name>** in the above mentioned fields, you will get 0 points for the question(s). If the content of the web pages are **not related to you**, you will get **0 points** for the question(s). Please do **NOT** put any sensitive personal information on the web pages.
2. **No two students** should submit webpages with exactly the same code, or same content, or same layout, or same color combination. If found, both students will get **0 points**.
3. When you view page source in a web browser, `<!DOCTYPE html>` must be at the top of every page. In other words, all pages must be written in HTML5. **(-20 points** if not)

4. All html files must pass html validation at http://validator.w3.org/ without any **error/warning** (with only 2 warnings). Use the validator's "File Upload" tab to check each file. **(-2 points** for each error/warning, **2 warnings allowed**)
5. All css files must pass css validation at http://jigsaw.w3.org/css-validator/ without any **error/warning**. **(-2 points** for each error/warning)
6. If your html file contains any css component, your html file must pass both html validation (3 above), and css validation (4 above) without any error.
7. If your files do not pass the validations, **2 points will be deducted** for **each error / warning** found.
8. Document (comment) your html files (`<!-- -->`), css files (`/* */`), and JavaScript files (`/* */`). (-1 point for each file with insufficient comments)

Submission instructions:
- Use notepad++ to create the document(s). You need to test the above document(s) in your web browser.
- Do a screen capture(s) of the related browser output. Use any graphic editing software (e.g. Microsoft Paint, Adobe Fireworks, GIMP, or Microsoft Expression Design etc) to cut out the browser output (from the screen capture), paste them into a word document.
- Do screen capture(s) of html validation results and css validation results, cut and paste them into the word document.
- Save the word document as a pdf file.

You need to submit the following:
1. A pdf file containing the screen capture(s) of the web browser output (all html pages) and the screen capture(s) of all html validation results (from http://validator.w3.org/) and css validation results (from http://jigsaw.w3.org/css-validator/), name the file **lastname_firstname_assignment02.pdf**. (missing: -50 points; other file format: -10 points)
2. All html file(s), css file(s), and other related files (e.g. image files). Zip your file folder (lastname_firstname_assignment2) into a single zip file (or rar file) **lastname_firstname_assignment02.zip**. In the above example, the zip file should contain the following files and subfolders. (no zip: -10 points)
    - lastname_firstname_assignment2\q1\index.htm
    - lastname_firstname_assignment2\q1\images\(and image file(s))
    - lastname_firstname_assignment2\q2\index.htm
    - lastname_firstname_assignment2\q2\style.css   // you may put style.css in a subfolder, up to you
    - lastname_firstname_assignment2\q2\images\(and image file(s))
    - lastname_firstname_assignment2\q3\index.htm
    - lastname_firstname_assignment2\q3\style.css   // you may put style.css in a subfolder, up to you
    - lastname_firstname_assignment2\q3\images\(and image file(s))
    - lastname_firstname_assignment2\q4\index.htm
    - lastname_firstname_assignment2\q4\style.css   // you may put style.css in a subfolder, up to you
    - lastname_firstname_assignment2\q4\images\(and image file(s))
    - lastname_firstname_assignment2\q5\index.htm
    - lastname_firstname_assignment2\q5\soccer.htm   //filename should be related to your hobby
    - lastname_firstname_assignment2\q5\style.css   // you may put style.css in a subfolder, up to you
    - lastname_firstname_assignment2\q5\images\(and image file(s))

Please show the above mentioned **two files**: .pdf and .zip to your camp instructor.

Grading guidelines (programming questions):

Your programs will be judged on several criteria, which are shown below.

- Correctness (50%): Does the program compile (run) correctly? Does the program do what it's supposed to do?
- Design (20%): Are operations broken down in a reasonable way (e.g. classes and methods)?
- Style (10%): Is the program **indented** properly? Do variables have **meaningful names**?
- Robustness (10%): Does the program handle erroneous or unexpected input gracefully?
- Documentation (10%): Do all program files begin with a **comment** that identifies the author, the course code, and the program date? Are all the classes, methods and data fields clearly **documented (commented)?** Are unclear parts of code **documented (commented)?** (Some items mentioned may not apply to some languages)

A program that does not compile (run) will get at most **50% of the possible points**.