

CSCI 4000 Assignment 1

Total estimated time for this assignment: **9 hours** (if you are a good programmer)

The main programming language for this assignment should be **PHP** (mixed with HTML and CSS). If you do not use **PHP**, you will get **0 points**.

When you see “Richard Ricardo” in the example screen captures, change it to **<your name>**.

When you see “Richard” in the example screen captures, change it to **<your first name>**.

If you do not put **<your name>** / **<your first name>** in the above mentioned fields, you will get **0 points** for the question(s).

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

Please change the provided example’s layout and color combination (color scheme). **If you use (copy) ANY of the provide example’s color combination, 10 points will be deducted (-10 points).**

Create a folder on your hard disk, name the folder **lastname_firstname_assignment1**. Save all the files from this assignment in this folder.

Create the following subfolders (in the folder **lastname_firstname_assignment1**): **q1, q2, q3**.

As a result, you should have the following folder (directory) structure for this assignment:

- lastname_firstname_assignment1\q1\
- lastname_firstname_assignment1\q2\
- lastname_firstname_assignment1\q3\

Use XAMPP web server solution stack package to help debugging PHP code. It will make your debugging process easier. All php files must not produce any error, or any warning (**-2 points for each error, each warning**). Your program must run. A program that does not run will get at most **50% of the possible points**. All files must begin with a **comment** that identifies the author, the course code, and the program date (**- 2 points each question** if found missing). All html, css and php files must be clearly **documented (commented)**. Points will be taken off (**-2 points each question**) for insufficient comments (`<!-- -->`, `/* */`, `//`).

- 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)
 - You **can** put php code before `<!DOCTYPE html>`.
 - You **cannot** put html code before `<!DOCTYPE html>`.
- Before adding PHP code, all html files must pass html validation at <http://validator.w3.org/> without any **error** (and with only 1 warning).
- After adding PHP code, the generated html code (Firefox web browser > right-click > view page source) must also pass html validation at <http://validator.w3.org/> without any **error** (and with only 1 warning).
- All css files must pass css validation at <http://jigsaw.w3.org/css-validator/> without any **error**. (**-2 points for each error/warning**, only 1 warning is allowed for html validator)

Question 1 – PHP Chapter 2 (33 points)**Estimated time: 3 hours**

- Save the files in subfolder “**lastname_firstname_assignment1\q1**”. (1 point)
- Create a web page to capture information about **your vehicle**.
- The initial page should look like the one shown below. (3 points)
- **Allow** the user to **enter the information** to the five textboxes. (5 points)
- Create your pages using “**<your name>**’s Vehicle Page” as the page titles (<title> tag). (2 points)
- Save the first page as **index.htm** (2 points). Use a HTML form to capture user input. Submit the form to a second file **index_process.php** using the **POST Method**. (5 points)
- The second page **index_process.php** will then be **updated** as shown. It contains a link to go back to the first page. (10 points)
- Create a css file named **style.css** to format all pages by creating your own layout (no two students should have the same layout). You can use **the same (or similar) css file(s)** to format all questions. (5 points)

Example: Test case 1 input

The screenshot shows a web browser window with the address bar displaying 'localhost/my_php/ricardo_richard_assignment1/q1/'. The page has a yellow header with the title 'Richard Ricardo's Vehicle'. Below the header, the text reads: 'This page will prompt Richard Ricardo for information on his dream vehicle. Click on the button below to enter new information'. The form contains five labeled text boxes: 'Vehicle Type:' (Sedan), 'Color:' (Orange), 'Year:' (2012), 'Make:' (Ford), and 'Model:' (Focus). At the bottom left of the form is a 'submit' button.

Example: Test case 1 output

The screenshot shows a web browser window with the address bar displaying 'localhost/my_php/ricardo_richard_assignment1/q1/index_proc'. The page has a yellow header with the title 'Richard Ricardo's Vehicle'. Below the header, the text reads: 'This page displays the information of Richard Ricardo's dream vehicle.'. The information is displayed as a list of items: 'Vehicle Type: Sedan', 'Color: Orange', 'Year: 2012', 'Make: Ford', and 'Model: Focus'. At the bottom left, there is a link labeled 'back to first page'.

Example: Test case 2 input

A screenshot of a web browser window. The address bar shows 'localhost/my_php/ricardo_richard_assignment1/q1/'. The page has a yellow header with the title 'Richard Ricardo's Vehicle'. Below the header, a message says 'This page will prompt Richard Ricardo for information on his dream vehicle.' followed by 'Click on the button below to enter new information'. The form contains five rows, each with a label and a text input field: 'Vehicle Type:' with 'Sports Car', 'Color:' with 'Red', 'Year:' with '2013', 'Make:' with 'Lamborghini', and 'Model:' with 'Aventador LP 720-4'. At the bottom is a 'submit' button.

Vehicle Type:	Sports Car
Color:	Red
Year:	2013
Make:	Lamborghini
Model:	Aventador LP 720-4

submit

Example: Test case 2 output

A screenshot of a web browser window. The address bar shows 'localhost/my_php/ricardo_richard_assignment1/q1/index_proc'. The page has a yellow header with the title 'Richard Ricardo's Vehicle'. Below the header, a message says 'This page displays the information of Richard Ricardo's dream vehicle.' followed by a bulleted list of the vehicle details: 'Vehicle Type: Sports Car', 'Color: Red', 'Year: 2013', 'Make: Lamborghini', and 'Model: Aventador LP 720-4'. At the bottom is a link 'back to first page'.

- Vehicle Type: Sports Car
- Color: Red
- Year: 2013
- Make: Lamborghini
- Model: Aventador LP 720-4

[back to first page](#)

Question 2 – PHP Chapter 2 & 8 (33 points)**Estimated time: 3 hours**

- Save the files in subfolder “**lastname_firstname_assignment1\q2**”. (1 point)
- Create web page(s) that displays the cost of a soccer ticket as shown. (4 points)
- Allow user to enter his or her **age**. (2 points)
- The output should be a message telling the user what the customer’s soccer ticket will cost, based on the following criteria: (12 points for logic)
 - Under age 5 (age < 5), cost is \$2
 - Between ages 5 and 15, cost is \$6
 - Older than 15 (age > 15), cost is \$8
- Create your pages using “<your name>’s Soccer Ticket Price” as the page titles (<title> tag). (4 points)
- Save the first page as **index.htm**. Use an HTML form to capture user input. Submit the form to a second file **index_process.php** using the **GET method**. (5 points)
- The second page **index_process.php** will then be **updated** as shown. It contains a link to go back to the first page. (5 points)
- Create a css file named **style.css** to format all pages by creating your own layout (no two students should have the same layout). You can use **the same (or similar) css file(s)** to format all questions. (5 points)

Example: Test case 1 input

The screenshot shows a web browser window with the address bar displaying 'localhost/my_php/ricardo_richard_assignment1/q2/'. The page has a yellow header with the title 'Richard Ricardo's Soccer Ticket Price'. Below the header, there is a paragraph: 'This page will decide the cost of Richard's soccer ticket price based on his age.' followed by a bulleted list of pricing criteria: 'Under age 5 (age < 5) cost is \$2.00', 'Between ages 5 and 15 (5 ≥ age ≤ 15) cost is \$6.00', and 'Older than 15 (age > 15) cost is \$8.00'. Below this list, there is a section titled 'Please enter Richard's age' with a text input field containing the number '3' and the text 'years old' to its right. A 'submit' button is located below the input field.

Example: Test case 1 output

The screenshot shows the same web browser window as the input page, but the content has been updated. The header and pricing criteria list remain the same. Below the pricing list, a new line of text appears: 'Richard is 3 years old, and the cost of Richard's ticket is \$2.00.' At the bottom of the page, there is a link labeled 'back to first page'.

Example: Test case 2 input

Richard Ricardo's Soccer Ticket Price

This page will decide the cost of Richard's soccer ticket price based on his age.

- Under age 5 (age < 5) cost is \$2.00
- Between ages 5 and 15 ($5 \leq \text{age} \leq 15$) cost is \$6.00
- Older than 15 (age > 15) cost is \$8.00

Please enter Richard's age

years old

Example: Test case 2 output

Richard Ricardo's Soccer Ticket Price

This page will decide the cost of Richard's soccer ticket price based on his age.

- Under age 5 (age < 5) cost is \$2.00
- Between ages 5 and 15 ($5 \leq \text{age} \leq 15$) cost is \$6.00
- Older than 15 (age > 15) cost is \$8.00

Richard is 10 years old, and the cost of Richard's ticket is \$6.00.

[back to first page](#)

Question 3 – PHP Chapter 2 & 8 (34 points)

Estimated time: 3 hours

- Save the files in subfolder “**lastname_firstname_assignment1\q3**”. (1 point)
- Create a web page that displays the default information (example shown).
- The initial page and related outputs should look like the examples shown below. (4 points)
- Create your pages using “<your name>’s Kung Fu Panda Po Power Level” as the page titles (<title> tag). (4 points)
- Allow the user to **enter a number** representing Kung Fu Panda Po's power level (2 points).
- The power level conversions are as follows: (12 points for logic)
 - less than 0: Po eats too much noodle
 - 0 to 200: Po reaches the training hall
 - 201 to 400: Po reaches the student barracks
 - 401 to 600: Po reaches the Peach Tree of Heavenly Wisdom
 - 601 to 800: Po climbs the Wu Da Mountains
 - 801 to 1000: Po trains at the Pool of Sacred Tears
 - Greater than 1000: Po defeats Tai Lung

- Save the first page as **index.htm**. Use a HTML form to capture user input. Submit the form to a second file **index_process.php** using the **GET method**. (5 points)
- The second page **index_process.php** will then be **updated** as shown. It contains a link to go back to the first page. (5 points)
- Create a css file named **style.css** to format all pages by creating your own layout (no two students should have the same layout). You can use **the same (or similar) css file(s)** to format all questions. (5 points)

Example: Test case 1 input

The screenshot shows a web browser window with the address bar displaying 'localhost/my_php/ricardo_richard_assignment1/q3/index.htm'. The page has a yellow header with the title 'Richard Ricardo's Kung Fu Panda Po Power Level'. Below the header, there is a paragraph explaining the page's purpose: 'This page will prompt Richard Ricardo for Kung Fu Panda Po's power level (in number). The program will convert the given input into Po's power metric.' A list of power level ranges and their corresponding achievements is displayed: 'less than 0: Po eats too much noodle', '0 to 200: Po reaches the training hall', '201 to 400: Po reaches the student barracks', '401 to 600: Po reaches the Peach Tree of Heavenly Wisdom', '601 to 800: Po climbs the Wu Da Mountains', '801 to 1000: Po trains at the Pool of Sacred Tears', and 'Greater than 1000: Po defeats Tai Lung'. Below this list, a prompt says 'Click on the button below to submit Po's power level.' A text input field labeled 'Po's power level:' contains the number '888'. A 'submit' button is located at the bottom of the form.

Example: Test case 1 output

The screenshot shows the same web browser window as the input page, but the content has been updated. The header and introductory paragraph remain the same. The list of power level ranges and achievements is still present. However, the text 'Po's power level is 12.' and 'Po reaches the training hall.' is now displayed, indicating the result of the submitted input. At the bottom of the page, there is a link labeled 'back to first page'.

Example: Test case 2 input

The screenshot shows a web browser window with the address bar displaying 'localhost/my_php/ricardo_richard_assignment1/q3/index.htm'. The page has a yellow header with the title 'Richard Ricardo's Kung Fu Panda Po Power Level'. Below the header, there is a paragraph explaining the program's purpose: 'This page will prompt Richard Ricardo for Kung Fu Panda Po's power level (in number). The program will convert the given input into Po's power metric.' This is followed by a list of power level ranges and their corresponding achievements: 'less than 0: Po eats too much noodle', '0 to 200: Po reaches the training hall', '201 to 400: Po reaches the student barracks', '401 to 600: Po reaches the Peach Tree of Heavenly Wisdom', '601 to 800: Po climbs the Wu Da Mountains', '801 to 1000: Po trains at the Pool of Sacred Tears', and 'Greater than 1000: Po defeats Tai Lung'. Below this list, a prompt says 'Click on the button below to submit Po's power level.' There is a text input field labeled 'Po's power level:' containing the number '888', and a 'submit' button below it.

Richard Ricardo's Kung Fu Panda Po Power Level

This page will prompt Richard Ricardo for Kung Fu Panda Po's power level (in number). The program will convert the given input into Po's power metric.

less than 0: Po eats too much noodle
0 to 200: Po reaches the training hall
201 to 400: Po reaches the student barracks
401 to 600: Po reaches the Peach Tree of Heavenly Wisdom
601 to 800: Po climbs the Wu Da Mountains
801 to 1000: Po trains at the Pool of Sacred Tears
Greater than 1000: Po defeats Tai Lung

Click on the button below to submit Po's power level.

Po's power level:

Example: Test case 2 output

The screenshot shows the same web browser window as the input page, but the page content has changed to show the output. The header and introductory paragraph are the same. The list of power level ranges and achievements is also the same. However, the output text now reads: 'Po's power level is 888.' followed by 'Po trains at the Pool of Sacred Tears.' At the bottom, there is a link labeled 'back to first page'.

Richard Ricardo's Kung Fu Panda Po Power Level

This page will prompt Richard Ricardo for Kung Fu Panda Po's power level (in number). The program will convert the given input into Po's power metric.

less than 0: Po eats too much noodle
0 to 200: Po reaches the training hall
201 to 400: Po reaches the student barracks
401 to 600: Po reaches the Peach Tree of Heavenly Wisdom
601 to 800: Po climbs the Wu Da Mountains
801 to 1000: Po trains at the Pool of Sacred Tears
Greater than 1000: Po defeats Tai Lung

Po's power level is 888.

Po trains at the Pool of Sacred Tears.

[back to first page](#)

Important:

1. If you do not put `<your name>` / `<your first name>` in the above mentioned fields (as shown in the examples), you will get **0 points** for the question(s).
2. **No two students** should submit webpages with exactly the same code, content, layout, or 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)
 - You **can** put php code before `<!DOCTYPE html>`.
 - You **cannot** put html code before `<!DOCTYPE html>`.
4. Before adding PHP code, all html files must pass html validation at <http://validator.w3.org/> without any **error** (and with only 1 warning).
5. After adding PHP code, the generated html code (Firefox web browser > right-click > view page source) must also pass html validation at <http://validator.w3.org/> without any **error** (and with only 1 warning).
6. All css files must pass css validation at <http://jigsaw.w3.org/css-validator/> without any **error/warning**.
7. If your files do not pass the html and css validations, **2 points will be deducted for each html or css error/warning** found (1 warning allowed for html validator).
8. Document (comment) your HTML files (`<!-- -->`), CSS files (`/* */`), and PHP files (`/* */` OR `//`). **Points will be taken off** for insufficient comments (`<!-- -->`, `/* */`, `//`).

Submission instructions:

- You need to test all document(s).
- Do screen capture(s) of the **input** and the related **output(s)**. Use any graphic editing software (e.g. Microsoft Paint, Adobe Photoshop, or GIMP etc.) to cut out the browser output (from the screen capture), paste them into a word document.
- Provide **2 different test cases** for each question. In other words, for **each question**, you may need to have **2 input** screen captures and **2 related output** screen captures.
- Do screen capture(s) of html validation results (index.htm files only) and css validation results (style.css file only), cut and paste them into the word document. If you use the same style.css file, you only need to do screen capture of one style.css file.
- 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 input and output 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_assignment1.pdf**.
2. All html file(s), php file(s), css file(s), and other related files (e.g. image files). Zip your file folder (**lastname_firstname_assignment1**) into a single zip file (or rar file) **lastname_firstname_assignment1.zip**. In the above example, the zip file should contain the following files and subfolders. If there is any image, there should be a `\images\` subfolder.

- lastname_firstname_assignment1\q1\index.htm
- lastname_firstname_assignment1\q1\index_process.php
- lastname_firstname_assignment1\q1\style.css // you may put style.css in a subfolder
- lastname_firstname_assignment1\q2\index.htm
- lastname_firstname_assignment1\q2\index_process.php
- lastname_firstname_assignment1\q2\style.css
- lastname_firstname_assignment1\q3\index.htm
- lastname_firstname_assignment1\q3\index_process.php
- lastname_firstname_assignment1\q3\style.css

Please submit the above mentioned **two files** (.pdf and .zip) to D2L digital dropbox.

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**.