

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 URL `localhost/my_php/ricardo_richard_assignment1/q1/`. The page has a dark olive green 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 input fields: "Vehicle Type:" with "Sedan", "Color:" with "Orange", "Year:" with "2012", "Make:" with "Ford", and "Model:" with "Focus". A "submit" button is located at the bottom left of the form area.

Example: Test case 1 output

The screenshot shows a web browser window with the URL `localhost/my_php/ricardo_richard_assignment1/q1/index_proc`. The page has the same dark olive green header and title "Richard Ricardo's Vehicle". The text reads: "This page displays the information of Richard Ricardo's dream vehicle." Below this, the form data 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

The screenshot shows a web browser window with the address bar containing 'localhost/my_php/ricardo_richard_assignment1/q1/'. The page title is 'Richard Ricardo's Vehicle'. The main content area has a dark olive green background with a yellow header bar containing the title. Below the header, there is a message: 'This page will prompt Richard Ricardo for information on his dream vehicle. Click on the button below to enter new information'. The form consists of five rows, each with a label on the left and a text input field on the right. The labels are 'Vehicle Type:', 'Color:', 'Year:', 'Make:', and 'Model:'. The input fields contain the values 'Sports Car', 'Red', '2013', 'Lamborghini', and 'Aventador LP 720-4' respectively. At the bottom left of the form area 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

The screenshot shows the same web browser window, but the page content has changed. The header bar still contains the title 'Richard Ricardo's Vehicle'. The main content area now displays the message: 'This page displays the information of Richard Ricardo's dream vehicle.' Below this message is a list of five items, each with a bullet point, a label, and a value. The items are: 'Vehicle Type: Sports Car', 'Color: Red', 'Year: 2013', 'Make: Lamborghini', and 'Model: Aventador LP 720-4'. At the bottom left of the content area is a link labeled 'back to first page'.

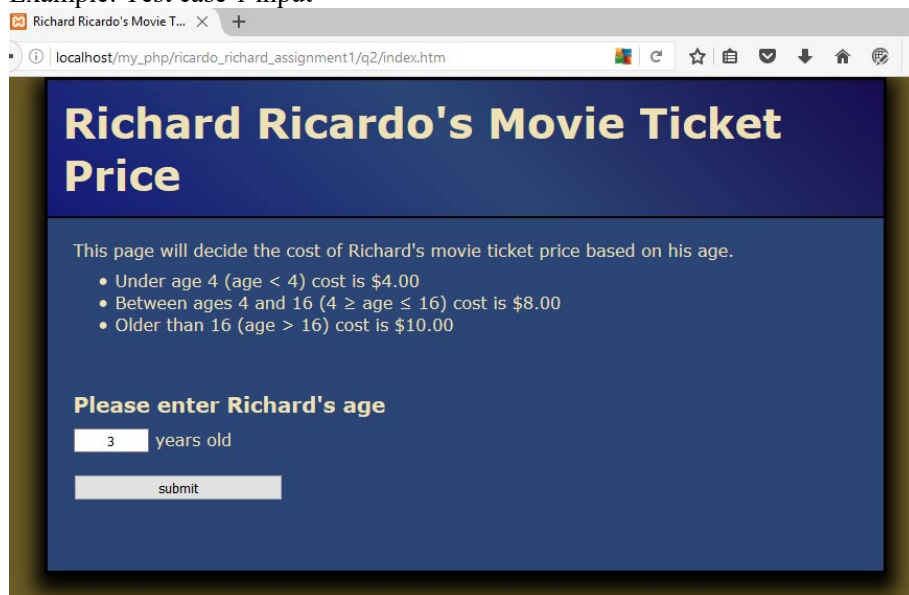
- Vehicle Type: Sports Car
- Color: Red
- Year: 2013
- Make: Lamborghini
- Model: Aventador LP 720-4

[back to first page](#)

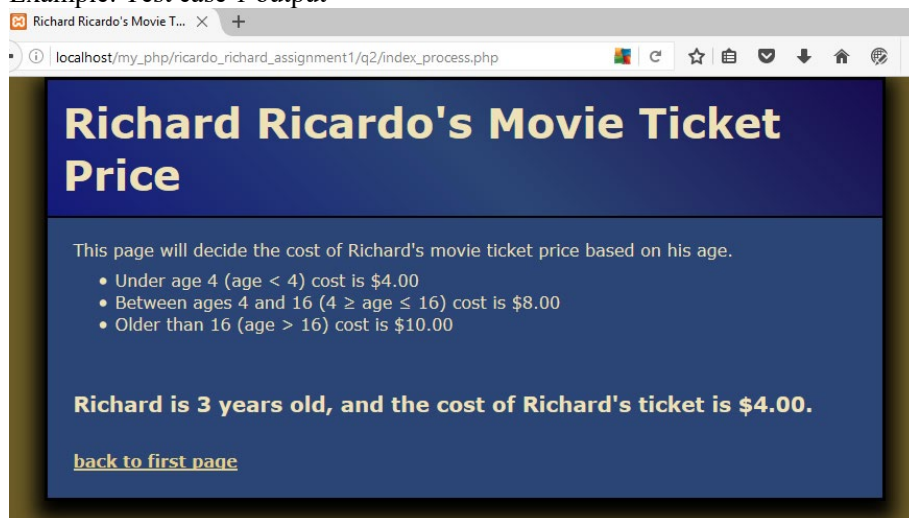
Question 2 – PHP Chapter 2 & 8 (33 points)**Estimated time: 3 hours**

- Save the files in subfolder “**lastname_firstname_assignment1\q2**”. (1 point)
- Create web page(s) that displays the cost of a movie 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 movie ticket will cost, based on the criteria show on screen captures below: (12 points for logic)
- Create your pages using “**<your name>**’s Movie 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



Example: Test case 1 output



Example: Test case 2 input

Richard Ricardo's Movie Ticket Price

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

- Under age 4 (age < 4) cost is \$4.00
- Between ages 4 and 16 ($4 \geq \text{age} \leq 16$) cost is \$8.00
- Older than 16 (age > 16) cost is \$10.00

Please enter Richard's age

years old

Example: Test case 2 output

Richard Ricardo's Movie Ticket Price

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

- Under age 4 (age < 4) cost is \$4.00
- Between ages 4 and 16 ($4 \geq \text{age} \leq 16$) cost is \$8.00
- Older than 16 (age > 16) cost is \$10.00

Richard is 16 years old, and the cost of Richard's ticket is \$8.00.

[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. It contains a link to go back to the first page. (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 pho
 - 0 to 10: Po protects the valley of peace
 - 11 to 20: Po defeats wolf bandits
 - 21 to 30: Po reaches Gongmen City
 - 31 to 40: Po destroys the tower and an arsenal of cannons
 - Greater than 40: Po defeats Lord Shen

- 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 **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. (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)

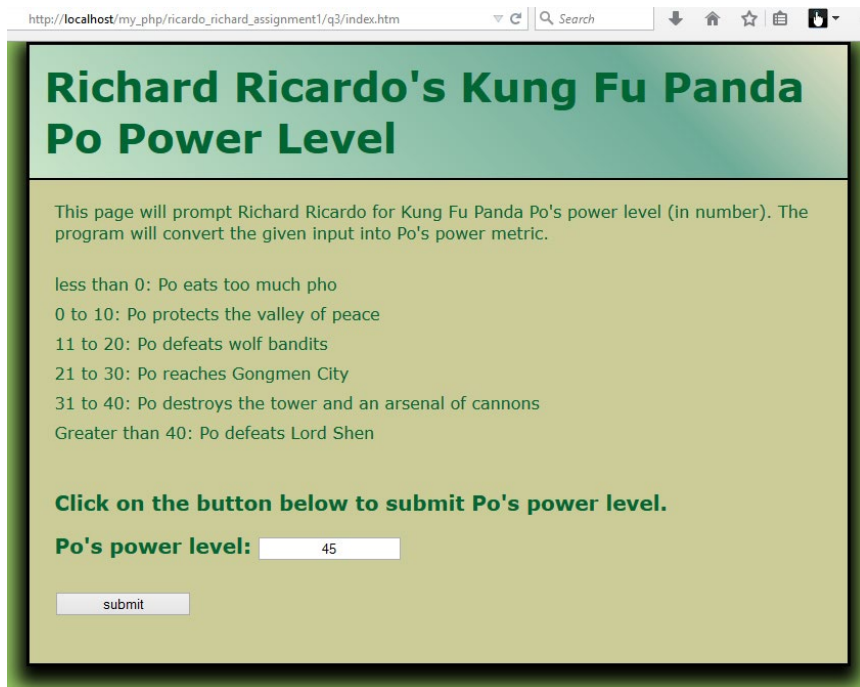
Example: Test case 1 input

The screenshot shows a web browser window with the address bar containing 'http://localhost/my_php/ricardo_richard_assignment1/q3/'. The page title is 'Richard Ricardo's Kung Fu Panda Po Power Level'. The main content area has a green header with the title. 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.' This is followed by a list of power level ranges and their corresponding descriptions: 'less than 0: Po eats too much pho', '0 to 10: Po protects the valley of peace', '11 to 20: Po defeats wolf bandits', '21 to 30: Po reaches Gongmen City', '31 to 40: Po destroys the tower and an arsenal of cannons', and 'Greater than 40: Po defeats Lord Shen'. Below this list, there is a bold instruction: 'Click on the button below to submit Po's power level.' Underneath, the text 'Po's power level:' is followed by a text input field containing the number '11'. At the bottom, there is a 'submit' button.

Example: Test case 1 output

The screenshot shows the same web browser window as the input page, but the URL in the address bar is 'http://localhost/my_php/ricardo_richard_assignment1/q3/index_process.php?power:'. The page title remains 'Richard Ricardo's Kung Fu Panda Po Power Level'. The main content area has the same green header and introductory paragraph as the input page. The list of power level ranges and descriptions is identical. However, the output is displayed in bold green text: 'Po's power level is 11.' and 'Po defeats wolf bandits.' At the bottom, there is a blue underlined link that says 'back to first page'.

Example: Test case 2 input



http://localhost/my_php/ricardo_richard_assignment1/q3/index.htm

Richard Ricardo's Kung Fu Panda Po Power Level

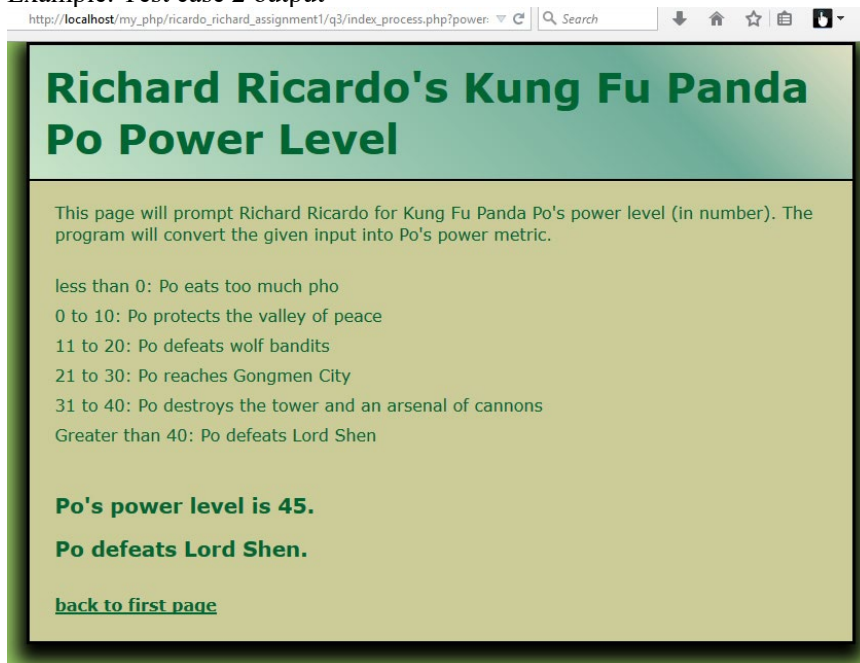
This page will prompt Richard Ricardo for Kung Fu Panda Po's power level (in number). The program will convert the given input into Po's power metric.

less than 0: Po eats too much pho
0 to 10: Po protects the valley of peace
11 to 20: Po defeats wolf bandits
21 to 30: Po reaches Gongmen City
31 to 40: Po destroys the tower and an arsenal of cannons
Greater than 40: Po defeats Lord Shen

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

Po's power level:

Example: Test case 2 output



http://localhost/my_php/ricardo_richard_assignment1/q3/index_process.php?power=

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 pho
0 to 10: Po protects the valley of peace
11 to 20: Po defeats wolf bandits
21 to 30: Po reaches Gongmen City
31 to 40: Po destroys the tower and an arsenal of cannons
Greater than 40: Po defeats Lord Shen

Po's power level is 45.
Po defeats Lord Shen.

[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**.