

CSCI 4000 Assignment 1

Q1: **Personal** [25 points] - PHP

Write a PHP web page (program) that displays the following information, each on a separate line. Please store the following information in PHP variables first, and then display the PHP variables (**If you do not use PHP variables, you get 0 point for the question**):

- Your name
- Your hobbies
- Your telephone number
- Your college major
- Your high school name

Note: For this question, name your file `<my name>Personal.php`. For example, my file would be named: `LeongLeePersonal.php`. Change the page title to `<my name> Personal`.

Important: If you do not put `<my name>` to the above mentioned fields (page title and filename), **you will get 0 point for the question**.

Estimated time: 1 hour

Q2: **SquarePHP** [25 points] - PHP

Write a PHP web page (program) that hardcode a positive integer no greater than 15 (store the integer in a variable). The program should display a square on the screen using the character 'X'. The number stored in the variable will be the length of each side of the square (hint: use a nested for loop or nested while loop). For example, if the number is 5, the program should display the following:

```
XXXXX
XXXXX
XXXXX
XXXXX
XXXXX
```

Note: For this question, name your file `<my name>SquarePHP.php`. For example, my file would be named: `LeongLeeSquarePHP.php`. Change the page title to `<my name> SquarePHP`.

Important: If you do not put `<my name>` to the above mentioned fields (page title and filename), **you will get 0 point for the question**.

Estimated time: 1 hour

Q3: **Land Calculation** [25 points] – PHP

One acre of land is equivalent to 43,560 square feet.

Write a PHP web page (program) that

- Displays “enter the size of `<your name>`’s tract of land in square feet:”.
 - Captures user input (using html form input/text).
 - Calculates the number of acres based on user input.
 - Displays “the number of acres of `<your name>`’s tract of land is ...”.
- (Hint: divide the size of the tract of land by the size of an acre to get the number of acres.)

Note: For this question, name your file `<my name>Land.php`. For example, my file would be named: `LeongLeeLand.php`. Change the page title to `<my name> Land Calculation`.

If you want to use a second file to do the processing, name the second file `<my name>ProcessLand.php`.

Important: If you do not put `<my name>` to the above mentioned fields (page title and filename), **you will get 0 point for the question.**

Estimated time: 2 hours

Q4: Cents Calculation [25 points] – PHP

Write a PHP web page (program) that will calculate the number of cents in a specific number of dimes and quarters. The program will perform the following tasks:

- Display “Welcome to **<your name>**’s cents calculator”
- Ask the user to enter the number of dimes (using html form input/text).
- Ask the user to enter the number of quarters (using html form input/text).
- Calculate the total number of cents.
- Display to the monitor the number of cents.

e.g. Total cents in 6 dimes and 3 quarters is 135 ($6 \times 10 + 3 \times 25 = 60 + 75 = 135$).

Note: For this question, name your file `<my name>Cents.php`. For example, my file would be named: `LeongLeeCents.php`. Change the page title to `<my name> Cents Calculation`.

If you want to use a second file to do the processing, name the second file `<my name>ProcessCents.php`.

Important: If you do not put `<my name>` to the above mentioned fields (page title and filename), **you will get 0 point for the question.**

Estimated time: 2 hours

Submission instructions:

You need to test the above programs (questions) separately, and provide **two test cases** (if applicable) for each program (question). Do a screen capture of the input and related output for each test case. Use any graphic editing software (e.g. Microsoft Paint, Adobe Fireworks, GIMP) to cut out the program input and output (from the screen capture), paste them into a word document under a related question number, save the document as a pdf file.

You need to submit the following:

1. A pdf file containing the screen captures of program input and output of all test cases, name the file **lastname_firstname_assignment01.pdf**.
2. All php files (and related css, htm, JavaScript files, if applicable). Zip your files into a single zip file (or rar file) **lastname_firstname_assignment01.zip**.

Please submit electronic copy (the above mentioned **two files**) 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 (comments)**? Are unclear parts of code **documented (comments)**? (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**.