

You are expected to complete the exercise during your lab session, show your instructor your work, and submit it into D2L. If you do not finish, then submit whatever you have by 8:00 PM on the day of your lab for late marking. This will, however, cost you a deduction of 10% of the maximum mark.

## PHP

Design and develop a PHP page named *coincount.php* that receives form input from the coin entry page (*index.php*) and subsequently calculates the amount of money you have in a change drawer. The following denominations are allowed: pennies (1 cent), nickels (5 cents), dimes (10 cents), quarters (25 cents), dollar coins, and two-dollar coins.

In the instructions below, I assume you will use the Brackets editor. You can, however, use any other editor of your choice.

### USING PHP & BOOTSTRAP TECHNOLOGY, YOUR MISSION:

- Display the denominations entered by the user on the coin entry page named *index.php*.
- Show totals in both cents and dollars in a table.
- Provide a link to return to the coin entry page.
- Use bootstrap on both pages to improve the UI and make the application mobile friendly.
- Implement validation to ensure that the user only enters numeric data.

## STEPS

### STARTUP

Start by downloading and extracting a file named *phpCoinCountStartup.zip*. Rename the *phpCoinCount* folder to *LastName\_Firstname\_php*. You will find *.css* and *.php* files in the folder.

### INSTALLING PHP AND RUNNING THE WEB SERVER

1. Go to <http://php.net/downloads.php>. Download the appropriate version of PHP for your operating system. In the case of Windows, download the *.zip* file.
2. Extract the *.zip* file into a known location on your computer. On lab computers, it is suggested that you extract the *.zip* file into *d:\work\php*.
3. Inside your *LastName\_Firstname\_php* working directory, open a command prompt. If you have already installed PHP in *d:\work\php*, run the following command inside of the command prompt to start the web server:

```
d:\work\php\php.exe -S localhost:8888
```

**Suggestion:** For future use, it is a good idea that you put this command in a script file. In Windows, this could be a file named *web.cmd*

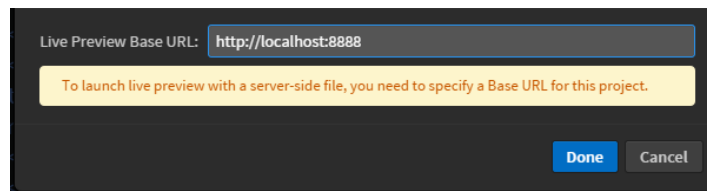
You should see that the web server is started and listening for requests on port 8888. Minimize the command line window and keep it running.

- Next, test that PHP is properly installed by creating a PHP page named *test.php* inside your *LastName\_Firstname\_php* working directory with the following content:

```
<?php phpinfo(); ?>
```

- In a browser, browse to *http://localhost:8888/test.php*. Identify the location of the *php.ini* file from the value for *Loaded Configuration File*.
- From within Brackets:

- File >> Open Folder...*
- Navigate to your *LastName\_Firstname\_php* working directory
- Open *index.php* inside your editor pane.
- Go to the bottom right hand corner of Brackets and select PHP
- Click on the thunderbolt icon on the top right hand corner to browse the page in your editor with Google Chrome.
- If you see the following dialog, enter *http://localhost:8888* then click *Done*:



- The following page will show in your browser:

## Cash Calculator

¢¢¢¢ & \$\$\$\$

Please enter your coin count:

Your name:	<input type="text"/>		
Pennies (1 ¢):	<input type="text"/>	Nickels (5 ¢):	<input type="text"/>
Dimes (10 ¢):	<input type="text"/>	Quarters (25 ¢):	<input type="text"/>
1 Dollar Coins:	<input type="text"/>	2 Dollar Coins:	<input type="text"/>
<input type="button" value="Calculate Coins"/>		<input type="button" value="Clear form"/>	

- Use the bootstrap library to make your page look professional and mobile ready

8. Inside Brackets, create PHP file named *coincount.php* that will be called when the user clicks on the above *Calculate Coins* button. Add the following PHP *include* script to the first line of the *coincount.php* file:

```
<?php include("include/header.php"); ?>
```

The purpose of the above script is to ensure that all pages on the web site have a uniform page header.

Also, add the following to the bottom of the *coincount.php* file:

```
<?php include("include/footer.php"); ?>
```

9. Add the necessary PHP script that will calculate the total amount of money.

Ensure that only numeric data is entered on the form. Name is the only field that is mandatory. You should display an error message in **red** if the user enters invalid data.

## NORMAL SCENARIO

For example, I entered the following denominations into the form on *index.php*:

### Cash Calculator

¢¢¢¢ & \$\$\$\$

Please enter your coin count

Your name: \*

Pennies (1 ¢):

Nickels (5 ¢):

Dimes (10 ¢):

Quarters (25 ¢):

1 Dollar Coins:

2 Dollar Coins:

index.php

My output on page *coincount.php* looked like this:

Desktop

### Coin Count

The following coins were counted and valued

Pennies:	11	Nickels:	22
Dimes:	33	Quarters:	44
Dollar Coins:	55	2 Dollar Coins:	66

**Bob, you therefore have:**

Total Cents:	20251	Total Dollars:	202.51
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### Coin Count

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Mobile

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**Bob, you therefore have:**

Total Cents:	20251
Total Dollars:	202.51

## ERROR SCENARIO

Cash Calculator

¢¢¢¢ & \$\$\$\$

Please enter your coin count

Your name: \*

Pennies (1 ¢):

Nickels (5 ¢):

Dimes (10 ¢):

Quarters (25 ¢):

1 Dollar Coins:

2 Dollar Coins:

Cash Calculator

¢¢¢¢ & \$\$\$\$

Please enter your coin count

You must enter a number for pennies.

Your name: \*

Pennies (1 ¢):

Nickels (5 ¢):

Dimes (10 ¢):

Quarters (25 ¢):

1 Dollar Coins:

2 Dollar Coins:

10. Make sure you provide a link to the home page on the results *coincount.php* page.

## SUBMISSION

- Show your work to the lab instructor who will give you a mark on the spot.
- Zip all the files comprising your web site to filename *LastName\_FirstName\_set\_week12.zip*. (Example: Doe\_Jane\_1B\_week12.zip) and upload it to the Week-12 dropbox in D2L.

## HINTS:

- All PHP variables start with the '\$' sign. For example: `$pi = 3.14159;`
- The string concatenation operator is `.` (period) in PHP.
- Form variables entered on the first page (*index.php*) can be read using `$_POST['VariableName']` on the second page (*coincount.php*) provided the *post* method is used on the form. Alternatively, you can use `extract($_POST)` to have PHP produce local variables that represent each item in the `$_POST` global array.
- Use the PHP `empty()` function to check whether or not a field is empty.
- Use the PHP `is_numeric()` function to check whether or not a field is numeric.
- Use the PHP `isset()` function to determine whether or not a field is null.
- The PHP command to redirect to *index.php* is: `header("Location: index.php"); die();`
- Be aware that PHP is case sensitive. Therefore, the name attribute value in the `<input . . . />` element must match the variable name in the `$_POST` collection.
- Refer to this link for a short tutorial on bootstrap forms:  
[http://www.w3schools.com/bootstrap/bootstrap\\_forms.asp](http://www.w3schools.com/bootstrap/bootstrap_forms.asp)

## MARKING GUIDE

COMP1536 PHP lab exercise marking guide:

Name \_\_\_\_\_ Set \_\_\_\_\_

Task	Max Mark	Actual Mark
All denominations fields are displayed properly using bootstrap on <i>index.php</i> input controls so that it is mobile friendly.	2	
Totals in both cents and dollars are correctly calculated	2	
All denominations fields are displayed properly using bootstrap on <i>coincount.php</i> so that it is mobile friendly.	2	
Validation check on numeric values properly handled	3	
Return link to the coin entry page	1	
TOTAL:	10	