

Submission Worksheet

Submission Data

Course: IT202-450-M2025

Assignment: IT202 PHP Problems

Student: Colin R. (ctr26)

Status: Submitted | **Worksheet Progress:** 100+%

Potential Grade: 11.00/10.00 (110.00%)

Received Grade: 0.00/10.00 (0.00%)

Started: 6/9/2025 1:16:38 PM

Updated: 6/9/2025 5:10:21 PM

Grading Link: <https://learn.ethereallab.app/assignment/v3/IT202-450-M2025/it202-php-problems/grading/ctr26>

View Link: <https://learn.ethereallab.app/assignment/v3/IT202-450-M2025/it202-php-problems/view/ctr26>

Instructions

- Overview Link: <https://youtu.be/iwA6vyRPhoM>
- 1. Ensure you read all instructions and objectives before starting.
- 2. Create a new branch from dev called M2-Homework
 - 1. `git checkout dev` (ensure proper starting branch)
 - 2. `git pull origin dev` (ensure history is up to date)
 - 3. `git checkout -b M2-Homework` (create and switch to branch)
- 3. Copy the template code from here: [GitHub Repository - M2 Homework](#)
 - It includes Problems 1-4 and `base.php`. Put all into an M2 folder or similar inside your `public_html`
 - Immediately record to history
 - `git add public_html`
 - `git commit -m "adding M2 HW baseline files"`
 - `git push origin M2-Homework`
 - Create a Pull Request from M2-Homework to dev and keep it open
- 4. Fill out the below worksheet
 - Each Problem requires the following as you work
 - Ensure there's a comment with your UCID, date, and brief summary of how the problem was solved
 - Initial outline/plan of how you'll solve it via comments (add/commit after this stage)
 - Code solution (add/commit periodically as needed)
- 5. Once finished, click "Submit and Export"
- 6. Locally add the generated PDF to a folder of your choosing inside your repository folder and move it to Github
 - 1. `git add .`
 - 2. `git commit -m "adding PDF"`
 - 3. `git push origin M2-Homework`
 - 4. On Github merge the pull request from M2-Homework to dev
 - 5. On Github create a pull request from dev to prod and immediately merge. (This will trigger the prod deploy to make the heroku prod links work)
- 7. Upload the same PDF to Canvas
- 8. Sync Local

- Direct link to the file in the homework related branch from Github (should end in `.php`)
- Direct link to the file on Heroku Prod (Just grab the base prod url and manually enter the path to the file)

URL #1

[https://github.com/ColinRafferty7/ctr26-](https://github.com/ColinRafferty7/ctr26-IT202-450M2-Homework/public_html/Module2/problem1.php)

[IT202-450M2-](https://github.com/ColinRafferty7/ctr26-IT202-450M2-Homework/public_html/Module2/problem1.php)

[Homework/public_html/Module2/problem1.php](https://github.com/ColinRafferty7/ctr26-IT202-450M2-Homework/public_html/Module2/problem1.php)



URL

[https://github.com/ColinRafferty7](https://github.com/ColinRafferty7/ctr26-IT202-450M2-Homework/public_html/Module2/problem1.php)



URL #2

[https://ctr26-it202-450-](https://ctr26-it202-450-prod-2ae7f60cad14.herokuapp.com/Module2/problem1.php)

[prod-2ae7f60cad14.herokuapp.com/Module2/problem1.php](https://ctr26-it202-450-prod-2ae7f60cad14.herokuapp.com/Module2/problem1.php)



URL

[https://ctr26-it202-450-prod-2ae7f](https://ctr26-it202-450-prod-2ae7f60cad14.herokuapp.com/Module2/problem1.php)



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Part 3:

Progress: 100%

Details:

Briefly explain **how** the code solves the challenge (note: this isn't the same as **what** the code does)

Your Response:

The code iterates through each value of the array and checks the modulated value. If the modulated value is equal to 1, that means that the number is odd and should be outputted using the echo function.



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Section #2: (2 pts.) Problem 2 - Sum

Progress: 100%

Task #1 (2 pts.) - Edit the `sumValues` function to sum the array values and present them in a format with exactly two decimal places

Progress: 100%

Part 1:

Progress: 100%

Details:

Two screenshots are expected

1. Snippet of relevant code showing solution (with ucid/date comment)
2. Full output of executing the program (visit the proper file on Heroku dev after a manual deploy)

```
// Start Solution Edits
// ctr26-86-89-2025

// Step 1: Use a foreach loop to iterate through all values of the array
// Step 2: Add each value to $total
// Step 3: Use round function to set the number of decimal places to 2
```



```
// Step 1: Assign each value to $modifiedTotal
// Solve Challenge 1 here

foreach ($arr as $num)
{
    $total + $num;
}

// Solve Challenge 2 here
$modifiedTotal = "2";
$modifiedTotal = number_format($total, 2);
// End Solution Edits
```

Problem 2 code

```

// Problem 2: Sum of Array (10/20) (2025-06-09 20:22:12)
// Step 1: Assign each value to $modifiedTotal
// Solve Challenge 1 here
foreach ($arr as $num)
{
    $total + $num;
}
// Solve Challenge 2 here
$modifiedTotal = "2";
$modifiedTotal = number_format($total, 2);
// End Solution Edits

```

Problem 2 output



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Part 2:

Progress: 100%

Details:

- Direct link to the file in the homework related branch from Github (should end in `.php`)
- Direct link to the file on Heroku Prod (Just grab the base prod url and manually enter the path to the file)

URL #1

[https://github.com/ColinRafferty7/ctr26-it202-450-Module2-public_html/Module2/problem2.php](https://github.com/ColinRafferty7/ctr26-it202-450-Module2/public_html/Module2/problem2.php)



URL

<https://github.com/ColinRafferty7>



URL #2

<https://ctr26-it202-450-prod-2ae7f60cad14.herokuapp.com/Module2/problem2.php>



URL

<https://ctr26-it202-450-prod-2ae7f60cad14.herokuapp.com>



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Part 3:

Progress: 100%

Details:

Briefly explain `how` the code solves the challenges (note: this isn't the same as `what` the code does)

Your Response:

The code uses a foreach loop to iterate through every value of the list and then add them to the total. After the total has been added up, it sets the value of modifiedTotal using the number_format function to set a specific number of decimal places.



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Section #3: (2 pts.) Problem 3 - Conversion

Progress: 100%

≡ Task #1 (2 pts.) - Edit the `bePositive` function to make each value positive, convert it back to the original data type, and set it to the proper slot in the `output` array

Progress: 100%

Part 1:

Progress: 100%

Details:

Two screenshots are expected

1. Snippet of relevant code showing solution (with ucid/date comment)
2. Full output of executing the program (visit the proper file on Heroku dev after a manual deploy)

```
// Start: Initial Task: Edit the
// 01:00:00 00 00 2025
// Step 1: Now for each loop to alter the through the values of the array
// Step 2: Create new double variable to store the number values at each index
// Step 3: Use an if statement to make if each value is negative and see negative numbers as positive
// Step 4: Now the updated array values, so determine the type that each value should be set to in the output
// Step 5: Now set the value in the output array accordingly

function bePositive (arr, arrLen, arrType) {
  let output = [];
  for (let i = 0; i < arrLen; i++) {
    let num = arr[i];
    if (num < 0) {
      num = -num;
    }
    if (arrType === "int") {
      output[i] = num;
    } else if (arrType === "float") {
      output[i] = num.toFixed(2);
    } else if (arrType === "string") {
      output[i] = num.toString();
    }
  }
  return output;
}

// End: Solution Code
```

Problem 3 code

```
Running Problem 3 for [1,2,3] [2025-06-09 20:37:05]
Input: arr = [1,2,3], arrLen = 3, arrType = "int"
Output: [1,2,3]
Input: arr = [-1,-2,-3], arrLen = 3, arrType = "int"
Output: [1,2,3]
Input: arr = [1.1,2.2,3.3], arrLen = 3, arrType = "float"
Output: [1.1,2.2,3.3]
Input: arr = ["1","2","3"], arrLen = 3, arrType = "string"
Output: [1,2,3]
Completed Problem 3 for [1,2,3] [2025-06-09 20:37:05]
```

Problem 3 output



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Part 2:

Progress: 100%

Details:

- Direct link to the file in the homework related branch from Github (should end in `.php`)
- Direct link to the file on Heroku Prod / Just grab the base prod url and manually enter the

Direct link to the file on Heroku Prod (just grab the base prod url and manually enter the path to the file)

URL #1

https://github.com/ColinRafferty7/ctr26-IT202-450M2-Homework/public_html/Module2/problem3.php



URL

<https://github.com/ColinRafferty7>



URL #2

<https://ctr26-it202-450-prod-2ae7f60cad14.herokuapp.com/Module2/problem3.php>



URL

<https://ctr26-it202-450-prod-2ae7f60cad14.herokuapp.com/Module2/problem3.php>



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≡ Part 3:

Progress: 100%

Details:

Briefly explain **how** the code solves the challenges (note: this isn't the same as **what** the code does)

Your Response:

The code first iterates through each value of the array using a foreach loop. Then, the values are converted to doubles that had the abs function performed on them and transferred to a new variable for storing. Then, a switch was used to check the type of the original value and convert the stored double to that type. Finally, the value is moved into the output array under the correct index.



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Section #4: (2 pts.) Problem 4 - Strings

Progress: 100%

≡ Task #1 (2 pts.) - Edit the `transformText` function to solve the challenges

Progress: 100%

📷 Part 1:

Progress: 100%

Details:

Two screenshots are expected

1. Snippet of relevant code showing solution (with uid/date comment)
2. Full output of executing the program (visit the proper file on Heroku dev after a manual deploy)

IT202-450M2-

Homework/public_html/Module2/problem4.php

URL #2

[https://ctr26-it202-450-](https://ctr26-it202-450-prod-2ae7f60cad14.herokuapp.com/Module2/problem4.php)

[prod-2ae7f60cad14.herokuapp.com/Module2/problem4.php](https://ctr26-it202-450-prod-2ae7f60cad14.herokuapp.com/Module2/problem4.php)



URL

<https://ctr26-it202-450-prod-2ae7f60cad14.herokuapp.com/Module2/problem4.php>



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Part 3:

Progress: 100%

Details:

Briefly explain **how** the code solves the challenges (note: this isn't the same as **what** the code does)

Your Response:

The code works by splitting each challenge into their own separate parts. For challenge 1, I decided to split the string into an array of characters in order to utilize the array_map function that lets me filter through the function based on a condition. The condition that I used was whether or not the character was contained inside of a dictionary I created that contained all the alphanumeric characters and a space. The function selects all members of the array that are not in the dictionary and replaces them with ". Next, I did challenge 3 because it caused issues that would be fixed in challenge 2. For challenge 3, I simply ran a while loops that checks if the string contains a double space and then replaces it with a single space. Afterwards, I use the trim function to remove the leading and trailing spaces. For challenge 2, I again split the string into an array, but this time for each individual word. I then ran it through a for each loop that would capitalize the first letter for every member of the array except the first. I then used the implode function to put the array back into a single string separated by spaces. Finally, I used the trim function to remove the space that get added onto the end of the string. Finally, the modifiedPhrase is set equal to the \$text variable that has had all the changes made to it.



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Task #2 (+ 1 pt.) - Edit the `transformText` function to solve the extra credit challenge (challenge 4)

Progress: 100%

Part 1:

Progress: 100%

Details:

Two screenshots are expected

1. Snippet of relevant code showing solution (with uid/date comment)
2. Full output of executing the program (visit the proper file on Heroku dev after a manual deploy)

☰ Task #1 (0.67 pts.) - Github Details

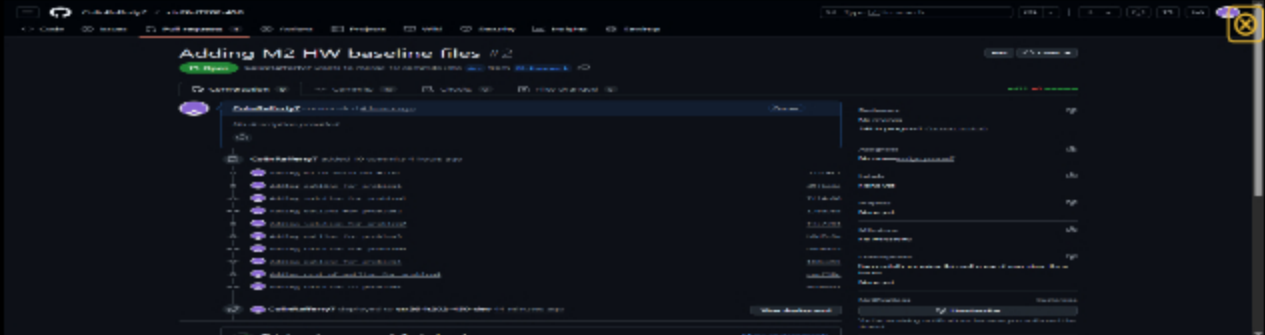
Progress: 100%

📁 Part 1:

Progress: 100%

Details:

From the Commits tab of the Pull Request screenshot the commit history Following minimum should be present



Pull request

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🔗 Part 2:

Progress: 100%

Details:

Include the link to the Pull Request (should end in `/pull/#`)

URL #1

<https://github.com/ColinRafferty7/ctr26-IT2024-450/>



URL

<https://github.com/ColinRafferty7>

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📁 Task #2 (0.67 pts.) - WakaTime - Activity

Progress: 100%

Details:

- Visit the WakaTime.com Dashboard
- Click **Projects** and find your repository
- Capture the overall time at the top that includes the repository name
- Capture the individual time at the bottom that includes the file time
- Note: The duration isn't relevant for the grade and the visual graphs aren't necessary



WakaTime top

Files

1 hr 31 mins	public_html/Module2/extension4.php
40 mins	public_html/Module2/problem3.php
31 mins	public_html/Module2/problem1.php
19 mins	lib/orm
15 mins	lib/config.php
10 mins	public_html/Module2/problem2.php
6 mins	public_html/Module2/base.php
4 mins	lib/db.php
4 mins	.gitignore
3 mins	README.md
9 secs	public_html/Module2/pe
6 secs	public_html/index.php
3 secs	composer.json
2 secs	composer.lock
2 secs	lib/README.md
1 sec	Profile

Branches

3 hrs 1 min	M2-Homework
40 mins	main
2 mins	dev

WakaTime bottom



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Task #3 (0.67 pts.) - Reflection

Progress: 100%

Task #1 (0.33 pts.) - What did you learn?

Progress: 100%

Details:

Briefly answer the question (at least a few decent sentences)

Your Response:

I learned how to use the php language as well as heroku to set of websites. I had never done anything like this before and it was a pretty nice experience. I enjoy the simplicity of the php language and I am looking forward to using it more throughout the semester.



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Task #2 (0.33 pts.) - What was the easiest part of the assignment?

Progress: 100%

Details:

Briefly answer the question (at least a few decent sentences)

Your Response:

The easiest part of this assignment was creating the outlines for the coding problems since I had already done the exact same problems in my IT114 course. That showed me the process that I had to take for each problem and only left the issue of learning the language and specific functions.



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⇒ Task #3 (0.33 pts.) - What was the hardest part of the assignment?

Progress: 100%

Details:

Briefly answer the question (at least a few decent sentences)

Your Response:

The hardest part about this assignment was getting heroku set up and running. I kept having problems and I had to watch through the video several times before I could get it working. Once I had it working though, the rest of the assignment became a lot easier.



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