

Submission Worksheet

Submission Data

Course: IT202-008-S2026

Assignment: IT202 PHP Challenge Scenarios

Student: Angel V. (av847)

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

Potential Grade: 10.00/10.00 (100.00%)

Received Grade: 0.00/10.00 (0.00%)

Started: 2/25/2026 4:24:31 PM

Updated: 2/25/2026 6:18:22 PM

Grading Link: <https://learn.ethereallab.app/assignment/v3/IT202-008-S2026/it202-php-challenge-scenarios/grading/av847>

View Link: <https://learn.ethereallab.app/assignment/v3/IT202-008-S2026/it202-php-challenge-scenarios/view/av847>

Instructions

- Overview Link: <https://youtu.be/iwA6vyRPhoM> (older reference, but should be accurate for now)
- 1. Ensure you read all instructions and objectives before starting. It's recommended to solve all the requirements first, then fill out the worksheet.
- 2. Create a new branch from qa called M2-Homework
 - 1. `git checkout qa` (ensure proper starting branch)
 - 2. `git pull origin qa` (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 Scenarios 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 qa and keep it open
- 4. Fill out the below worksheet
 - Each Scenario 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)
 - If you chose to tackle this problem by problem and fill out the worksheet as you go, you'll likely need to keep merging pull requests into qa
- 5. Once finished, click "Submit and Export"
- 6. Locally add the generated PDF to a folder of your choosing inside your repository folder (homework folder is fine) 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 qa
5. On Github create a pull request from qa to prod and immediately merge. (This will trigger the prod deploy to make the Render.com prod links work)
7. Upload the same PDF to Canvas
8. Sync Local
 1. git checkout qa
 2. git pull origin qa

Section #1: (2 pts.) Scenario 1 - Odds

Progress: 100%

Task #1 (2 pts.) - Edit the `printOdds` function to output odd values of the array

Progress: 100%

Details:

- Only make edits where noted via provided comments
- Challenge 1: From each passed in array, print odd values only in a single line separated by commas and a space after each comma (should not have leading or trailing commas)
- Step 1: sketch out plan using comments (include ucid and date)
- Step 2: Add/commit your outline of comments (required for full credit)
- Step 3: Add code to solve the problem (add/commit as needed)

Part 1:

Progress: 100%

Details:

Two screenshots are expected

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

```
// Start Solution Edit
// not needed from the provided result variable
// UCTD= uc547, 2/24/2024 Angel, Vanya, JM, Emma, app, 7, uc547, uc547, uc547, uc547
// Step 1: create a for loop to iterate through each element in the array
// Step 2: for each element, check if the number is odd (num % 2 != 0)
// Step 3: if the number is odd, type cast the integer into a string and store
// it into the variable
foreach($arr as $num)
{
    if($num % 2 != 0){
        // Separate each element in string by comma and space
        $output_result .= ($num).", ";
        // Add each odd number to variable
        $output_result .= ($num).", ";
    }
}
// End Solution Edit
printSeparatorOutput($output_result);
echo "</div>";
// UCTD= uc547, 2/24/2024 Angel, Vanya, JM, Emma, app, 7, uc547, uc547, uc547, uc547
```

snippet of code for scenario 1

Objective: Print out only odd values in a single line separated by commas.

Array 1:
Original Array:
10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

Output Array:
15 25 35 45 55 65 75 85 95

Array 2:
Original Array:
10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

Output Array:
15 25 35 45 55 65 75 85 95

Array 3:
Original Array:
10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

Output Array:
15 25 35 45 55 65 75 85 95

Array 4:
Original Array:
10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

Output Array:
15 25 35 45 55 65 75 85 95

Completed Scenario 1 for [av847] [2026-02-25 21:20:06]

Render output for scenario 1



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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,, zero credit if it does not)
- Direct link to the file on Render.com Prod (Grab the qa url you're testing, paste it, change "-qa" to "-prod"), zero credit if

URL #1

https://github.com/av847-NJIT/av847-IT202-008-M2-Homework/public_html/M2/scenario1.php



URL

https://github.com/av847-NJIT/av847-IT202-008-M2-Homework/public_html/M2/scenario1.php

URL #2

<https://av847-it202-008-prod.onrender.com/M2/scenario1.php>



URL

<https://av847-it202-008-prod.onrender.com/M2/scenario1.php>

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Part 3:

Progress: 100%

Details:

Briefly explain how your solution works. Describe the logic, steps, or decisions your code makes to reach the result. Do not restate the problem or list requirements.

Your Response:

My solution uses a foreach loop to iterate through each passed array. Next, we check if the element is a number that is not divisible by 2(making it odd). If the number is odd, we create an if statement seperating each element by a comma and space and appending/concatenating it to the output result variable. Lastly, we type cast the number to a string and then assign it to the output result variable.



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Section #2: (2 pts.) Scenario 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%

Details:

- Only make edits where noted via provided comments
- Challenge 1: Sum all the values of the passed in array and assign to the total variable
- Challenge 2: Have the sum (total) be represented as a number with exactly 2 decimal places (similar to currency), assign to modifiedTotal variable
- Example: 0.1 would be shown as 0.10, 1 would be shown as 1.00, 0.011 as 0.01, etc
- Step 1: sketch out plan using comments (include ucid and date)
- Step 2: Add/commit your outline of comments (required for full credit)
- Step 3: Add code to solve the problem (add/commit as needed)

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 Render.com qa after a manual deploy)

```
// Start Solution Edits
// Solve Challenge 1 here: Sum all values

// UCID- av847; 2/24/2026
// Step 1: create for loop going through each element in array
// Step 2: add each element into the total variable
// Step 3: Using the number_format function, store that result in modified total variable

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

// Solve Challenge 2 here: Format to 2 decimal places
$modifiedTotal = number_format($total, 2);

// End Solution Edits
```

snippet of code for scenario 2



render output for scenario 2



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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, , zero credit if it does not)
- Direct link to the file on Render.com Prod (Grab the qa url you're testing, paste it, change "-qa" to "-prod"), zero credit if , zero credit if it's not the direct link to the file or doesn't load

URL #1

https://github.com/av847-NJIT/av847-IT202-008-M2-Homework/public_html/M2/scenario2.php



URL

https://github.com/av847-NJIT/av847-IT202-008-M2-Homework/public_html/M2/scenario2.php



URL #2

<https://av847-it202-008-prod.onrender.com/M2/scenario2.php>



URL

<https://av847-it202-008-prod.onrender.com/M2/scenario2.php>



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Part 3:

Progress: 100%

Details:

Briefly explain how your solution works. Describe the logic, steps, or decisions your code makes to reach the result. Do not restate the problem or list requirements. Additionally, did you notice anything about the math of some of the data? What do you think happened and what's the reason for it?

Your Response:

My solution uses a simple foreach loop iterating through each element in the passed array. Next, I added each element to the total variable, essentially adding every element together. Lastly, I used the number_format function to represent the number with 2 decimals and assigned that to the modified total variable.



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≡ 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

Details:

- Only make edits where noted via provided comments
- Challenge 1: Make each value positive
- Challenge 2: Convert the values back to their original data type and assign it to the proper slot of the output array
- Step 1: sketch out plan using comments (include ucid and date)
- Step 2: Add/commit your outline of comments (required for full credit)
- Step 3: Add code to solve the problem (add/commit as needed)

Part 1:

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 Render.com qa after a manual deploy)

```
// Start Solution Edits
```

```
// UCID- av847; 2/24/2026      Angel Vera, 19 hours ago • added UCID and
// Step1: Using array_map function assign the array to the output array
// Step2: Display output array
```

```
$output = array_map('abs', $arr);
```

```
// End Solution Edits
```

snippet of code for scenario 3

```

+ av847-1302-908-qa-render.com/512/scenario3.php
Running Scenario 3 for [av847] [2026-02-25 22:11:39]
// Scenario 1: Make each array value positive; convert it back to the original data type and assign it to the proper slot in the output array
// Scenario 2: Make each array value positive; convert it back to the original data type and assign it to the proper slot in the output array
// Scenario 3: Make each array value positive; convert it back to the original data type and assign it to the proper slot in the output array

Scenario 1:
Input: $arr = [1, -2, 3, -4, 5, -6, 7, -8, 9, -10];
Output: $output = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10];


Scenario 2:
Input: $arr = [1.5, -2.5, 3.5, -4.5, 5.5, -6.5, 7.5, -8.5, 9.5, -10.5];
Output: $output = [1.5, 2.5, 3.5, 4.5, 5.5, 6.5, 7.5, 8.5, 9.5, 10.5];

Scenario 3:
Input: $arr = ['1', '-2', '3', '-4', '5', '-6', '7', '-8', '9', '-10'];
Output: $output = ['1', '2', '3', '4', '5', '6', '7', '8', '9', '10'];

Completed Scenario 3 for [av847] [2026-02-25 22:11:39]
  
```

render output for scenario 3

render output for scenario 3

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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, , zero credit if it does not)
- Direct link to the file on Render.com Prod (Grab the qa url you're testing, paste it, change "-qa" to "-prod"), zero credit if

URL #1

https://github.com/av847-NJIT/av847-IT202-008-M2-Homework/public_html/M2/scenario3.php



URL
https://github.com/av847-NJIT/av847-IT202-008-M2-Homework/public_html/M2/scenario3.php




URL #2

<https://av847-it202-008-prod.onrender.com/M2/scenario3.php>



URL
<https://av847-it202-008-prod.onrender.com/M2/scenario3.php>



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Part 3:


Progress: 100%

Details:

Briefly explain how your solution works. Describe the logic, steps, or decisions your code makes to reach the result. Do not restate the problem or list requirements.

Your Response:

My solution implements the array_map function. The function allows me to pass through the abs function(absolute value) and the original array which will in turn return a new array with the desired values. Lastly, I assigned that value/array to the output array variable ready for it to be displayed.

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

Progress: 50%

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

Progress: 100%

Details:

- Only make edits where noted via provided comments
- Challenges will be applied collectively
- Challenge 1: Remove non-alphanumeric characters except spaces
- Challenge 2: Convert text to Title Case
- Challenge 3: Remove leading/trailing spaces and remove duplicate spaces between words
- Result 1-3: Assign final phrase to `placeholderForModifiedPhrase`
- Step 1: sketch out plan using comments (include `ucid` and date)
- Step 2: Add/commit your outline of comments (required for full credit)
- Step 3: Add code to solve the problem (add/commit as needed)

Part 1:

Progress: 100%

Details:

Two screenshots are expected

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

```
// Start Solution Edits
// Step 1: sketch out plan using comments (include uid and date)
// Step 2: Add/commit your outline of comments (required for full credit)
// Step 3: Add code to solve the problem (add/commit as needed)

// UIDS: ucwkd1, 7/24/2024
//Step1: Initialize a variable with non-alphanumeric variables
//Step2: Iterating through each element Use the preg_replace function, to clean up elements in array
//Step3: store into a text variable
//Step4: Using the ucwords function, convert the text to title case
//Step5: using the trim function, trim the text and re assign the variable
//Step6: Use preg_replace to remove duplicate spaces between words:

$nonAlphaNum = '/[^\a-zA-Z0-9 ]/';

$text = preg_replace($nonAlphaNum, '', $text); // remove non alphanumeric characters
$text = ucwords(strtolower($text)); //convert text to title case
$text = trim($text); //remove trailing/leading spaces
$text = preg_replace('/\s+/', ' ', $text); //remove duplicate spaces between words


$placeholderForModifiedPhrase = $text;

// End Solution Edits
```

snippet of code for scenario 4

[illegible]

render output for scenario 4

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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,, zero credit if it does not)
- Direct link to the file on Render.com Prod (visit the proper file on Render.com qa after a manual deploy)

URL #1

https://github.com/av847-NJIT/av847-IT202-008-M2-Homework/public_html/M2/scenario4.php



URL

<https://github.com/av847-NJIT/av>**URL #2**

<https://av847-it202-008-prod.onrender.com/M2/scenario4.php>



URL

<https://av847-it202-008-prod.onrender.com/M2/scenario4.php>

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⇒ Part 3:

Progress: 100%

Details:

Briefly explain how your solution works. Describe the logic, steps, or decisions your code makes to reach the result. Do not restate the problem or list requirements.

Your Response:

For my solution for scenario 4, I initialized a variable to represent the non alphanumeric variables. Next, I used the preg_replace function passing my created variable as the pattern, along with empty single quotes (meaning I'm replacing the pattern with nothing) and the text variable as the subject. What this does is it's removing the unwanted characters as it's iterating through the array's elements. I then assigned the cleaned up string to the \$text variable. Next, I used the ucwords function passing through the text within the strtolower function. This allowed me to make every word in the lowercase except the first letter of each word. I re-assigned it to the text variable. I then used the trim function to remove any whitespace characters at the beginning and end of the string and re-assigned the text variable. After that, I used the preg_replace function again to remove any duplicate spaces between words and re-assigned the text variable. Lastly, I added the final version of the text variable and assigned it to the placeholder for modified phrase variable ready to be displayed.



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

Progress: 0%

Details:

- Only make edits where noted via provided comments
- Challenge 4: Extract up to middle 3 characters (beginning starts at middle of phrase, exclude the first and last character for shorter phrases)
- Assign result to 'placeholderForMiddleCharacters'
- If not enough characters in a word, instead assign "Not enough characters" to placeholderForMiddleCharacters
- Step 1: sketch out plan using comments (include ucid and date)
- Step 2: Add/commit your outline of comments (required for full credit)
- Step 3: Add code to solve the problem (add/commit as needed)
- Note: There isn't a URL entry for this since it's part of Scenario 4

Part 1:

Progress: 0%

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 Render.com qa after a manual deploy)



Missing Caption



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Part 2:

Progress: 0%

Details:

Briefly explain how your solution works. Describe the logic, steps, or decisions your code makes to reach the result. Do not restate the problem or list requirements.

Your Response:

Missing Response



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Section #5: (2 pts.) Misc

Progress: 100%

☰ 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: addition of baseline files, comments planning thoughts, solutions

[illegible]

Commits tab part 1

created outline for solution to scenario 3	9/8/19/89		
Angel Vera authored and Angel Vera committed yesterday			
Modified outline and code to get proper solution	98.12/88/7		
Angel Vera authored and Angel Vera committed yesterday			
Outline for scenario 4 and solution code	78/15/120		
Angel Vera authored and Angel Vera committed 20 hours ago			
added UCID and dates to each scenario	4c/f29fb		
Angel Vera authored and Angel Vera committed 20 hours ago			

commits tab part 2



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Part 2:

Progress: 100%

Details:

Include the link to the Pull Request (should end in /pull/#, zero credit if it does not)

URL #1

<https://github.com/av847-NJIT/av847-IT202-s108/>



UHL

<https://github.com/av847-NJIT/av>



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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

Projects • av847-IT202-008

3 hrs 39 mins over the Last 7 Days in av847-IT202-008 under all branches.

overall time

Files

1 hr 10 mins	M2/scenario1.php
1 hr 5 mins	M2/scenario4.php
43 mins	M2/scenario3.php
34 mins	M2/scenario2.php
3 mins	test_db.php
1 min	index.php
42 secs	base.php
32 secs	M2/index.php

Branches

3 hrs 39 mins	M2-Homework
---------------	-------------

individual time



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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 with at least a few reasonable sentences

Your Response:

I learned a lot during this assignment. I learned and practiced the fundamentals of php. Along with that I learned new functions through my research and how to use them to manipulate strings and arrays in different ways that are needed. Also, I learned how to better manage and work with both git and github as it was necessary for this assignment.



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

Progress: 100%

Details:

Briefly answer the question with at least a few reasonable sentences

Your Response:

The easiest part of the assignment was copying and pasting the files to vs code from github. Also, I found and designed the solution to scenario two relatively easy. To me it was definitely the easiest scenario to tackle and solve.



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

Progress: 100%

Details:

Briefly answer the question with at least a few reasonable sentences

Your Response:

The hardest part to me was getting the Render website to display the results. At first I was very confused about the process but then the steps were made clearer after asking the professor for assistance. Other than that, everything else was pretty straight forward.



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