

Course: IT202-010-S2025

Assignment: IT202 PHP Problems

Student: Matt T. (mt85)

Status: Submitted | Worksheet Progress: 100.00%

Potential Grade: 10.10/10.00 (101.00%)

Received Grade: 0.00/10.00 (0.00%)

Grading Link: <https://learn.ethereallab.app/assignment/v3/IT202-010-S2025/it202-php-problems/grading/mt85>

# Instructions

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
  1. `git checkout dev`
  2. `git pull origin dev`

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

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

### Combo Task:

**Weight:** 100%

**Objective:** Edit the `printOdds` function to output odd values of the array

**Details:**

- Only make edits where noted via provided comments
- Challenge: Print odd values only in a single line separated by 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)

### Item:#1

**Weight:** 40%

**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)

### ⇒ Image Prompt

```
11
12 function printOdds($arr, $arrayNumber)
13 {
14     // Only make edits between the designated "
15     printArrayInfo($arr, $arrayNumber);
16
17     // Challenge: Print odd values only in a single line
18     // Step 1: sketch out plan using comments (include ucid and date)
19     // Step 2: Add/commit your outline of comments (required for full credit)
20     // Step 3: Add code to solve the problem (add/commit as needed)
21
22     echo "Output Array: ";
23     // Start Solution Edits
24     // mt85 2 12 24 explanation of solution
25     // code that iterates through an array
26     // code that handles the necessary check
27     // code that prints the value
28
29     // End Solution Edits
30     echo "<br>";
31 }
32
```

Showing solution



Problem 2: Original Array: 9, 6, 7, 6, 5, 4, 3, 2, 1, 0  
Output Array:  
Problem 3: Original Array: 0, 0, 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9  
Output Array:  
Problem 4: Original Array: 9, 9, 8, 8, 7, 7, 6, 6, 5, 5, 4, 4, 3, 3, 2, 2, 1, 1, 0, 0  
Output Array:  
**Completed Problem 1 for [mt85] [2025-02-13 01:58:53]**

heroku dev output

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## Item:#2

**Weight:** 20%

**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 Prompt

URL #1

<https://mt85-it202-010-prod-82f0087bdd41.herokuapp.com/problem1.php>



URL

<https://mt85-it202-010-prod-82f0087bdd41.herokuapp.com/problem1.php>



URL #2

<https://github.com/MattToegel/IT202-010-M2-problem1.php>



URL

<https://github.com/MattToegel/IT202-010-M2-problem1.php>



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## Item:#3

**Weight:** 40%

**Details:**

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

### Text Prompt

Your Response:

I solved it with abc



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

### Task #1 ( 2 pts.) - Edit the `sumValues` function to sum the array va

#### Combo Task:

**Weight:** 100%

**Objective:** Edit the `sumValues` function to sum the array values and present them in a format with exactly two decimal places

**Details:**

- Only make edits where noted via provided comments
- Challenge 1: Sum all the values of the passed in array and assign to `total`
- Challenge 2: Have the sum be represented as a number with exactly 2 decimal
- Example: 0.1 would be shown as 0.10, 1 would be shown as 1.00, 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)

#### Item:#1

**Weight:** 40%

**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)

#### Image Prompt

```
13 function sumValues(arr, arrayNumber)
14 {
15   // Only make edits between the designated "start" and "end" comments
16   print ArrayToPrintush1e($arr, $arrayNumber);
17
18   // Challenge 1: Sum all the values of the passed in array and assign to 'total'
19   // Challenge 2: Have the sum be represented as a number with exactly 2 decimal
20   // Example: 0.1 would be shown as 0.10, 1 would be shown as 1.00, etc
21   // Step 1: Sketch out plan using comments (include ucid and date)
22   // Step 2: Add/commit your outline of comments (required for full credit)
23   // Step 3: Add code to solve the problem (add/commit as needed)
24
25   $total = 0;
26   // Start solution edits
27   // Solve Challenge 1 here
```



**Details:**

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

**≡ Text Prompt**

Your Response:

xyz for fun



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

Task #1 ( 2 pts.) - Edit the `bePositive` function to make each value

**Combo Task:**

**Weight:** 100%

**Objective:** 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 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)

**Item:#1**

**Weight:** 40%

**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)

## Image Prompt

```

14 function bePositive($arr, $arrayNumber)
15 {
16     // Only make edits between the designated "start" and "end" comments
17     printArrayInfoMixed($arr, $arrayNumber);
18
19     // Challenge 1: Make each value positive
20     // Challenge 2: Convert the values back to their original data type and assign
21     // Step 1: sketch out plan using comments (include ucid and date)
22     // Step 2: Add/commit your outline of comments (required for full credit)
23     // Step 3: Add code to solve the problem (add/commit as needed)
24
25     $output = array_fill(0, count($arr), null); // Initialize output array
26     // Start Solution Edits
27
28
29
30     // End Solution Edits
31     echo "<p>Output: </p>";
32     printOutputWithType($output);
33     echo "<br>";
34 }
35 // Run the problem

```

showing code for p3

```

Running Problem 3 for [mt85] [2025-02-13 02:02:56]
Objective: Make each array value positive, convert it back to the original data type, and assign it to the proper slot in the output array.
Problem 1: Original Array: 42 INT, -17 INT, 99 INT, -220 INT, 1024 INT, -4090 INT, 20000 INT, -123456 INT
Output:
Invalid value, Invalid value, Invalid value, Invalid value, Invalid value, Invalid value, Invalid value, Invalid value
Problem 1: Original Array: 42 INT, -17 INT, 99 INT, -220 INT, 1024 INT, -4090 INT, 20000 INT, -123456 INT
Output:
Invalid value, Invalid value, Invalid value, Invalid value, Invalid value, Invalid value, Invalid value, Invalid value
Problem 2: Original Array: 1.1 INT, -2.2 INT, 3.3 INT, -4.4 INT, 5.5 INT, -6.6 INT, 7.7 INT, -8.8 INT
Output:
Invalid value, Invalid value, Invalid value, Invalid value, Invalid value, Invalid value, Invalid value, Invalid value
Problem 3: Original Array: 123 INT, -456 INT, 789 INT, -012 INT, 345 INT, -678 INT, 901 INT, -234 INT
Output:
Invalid value, Invalid value, Invalid value, Invalid value, Invalid value, Invalid value, Invalid value, Invalid value
Problem 4: Original Array: -1 INT, 1 INT, 2 INT, -2 INT, 3 INT, -3 INT, 4 INT, -4 INT
Output:
Invalid value, Invalid value, Invalid value, Invalid value, Invalid value, Invalid value, Invalid value, Invalid value
Completed Problem 3 for [mt85] [2025-02-13 02:02:56]

```

Showing heroku output

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## Item:#2

Weight: 20%

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 Prompt

URL #1

<https://mt85-it202-010-prod-82f0087bdd41.herokuapp.com/problem3.php>



URL

<https://mt85-it202-010-prod-82f0087bdd41.herokuapp.com/problem3.php>



URL #2

<https://github.com/MattToegel/IT202-homework>



URL

<https://github.com/MattToegel/IT202-homework>







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### Item:#3

**Weight:** 40%

**Details:**

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

#### ≡ Text Prompt

Your Response:

another one



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

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

### Combo Task:

**Weight:** 100%

**Objective:** Edit the `transformText` function to solve the challenges

**Details:**

- Only make edits where noted via provided comments
- Challenge 1: Remove non-alphanumeric characters except spaces
- Challenge 2: Convert text to Title Case
- Challenge 3: Trim leading/trailing spaces and remove duplicate spaces
- 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)**

## Item:#1

**Weight: 40%**

### 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)

### ≡ Image Prompt

Showing code for p4

[illegible]

### Showing heroku output

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## Item:#2

**Weight: 20%**

**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 (visit the proper file on Heroku dev after a manual deploy)

## Url Prompt

URL #1

<https://mt85-it202-010-prod-82f0087bdd41.herokuapp.com/problem4.php>



URL

<https://mt85-it202-010-prod-82f0087bdd41.herokuapp.com/problem4.php>



URL #2

<https://github.com/MattToegel/IT202-010-M2-Homepage/blob/main/M2/problem4.php>



URL

<https://github.com/MattToegel/IT202-010-M2-Homepage/blob/main/M2/problem4.php>



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## Item:#3

Weight: 40%

Details:

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

## Text Prompt

Your Response:

string fun



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Task #2 (+ 0.90 pts.) - Edit the `transformText` function to solve the

## Combo Task:

Weight: 45%

Objective: Edit the `transformText` function to solve the extra credit challenge (challenge 4)

Details:

- Only make edits where noted via provided comments
- Challenge 4: Extract middle 3 characters (beginning starts at middle of phrase)
- Assign result to 'placeholderForMiddleCharacters'
- If not enough characters assign "Not enough characters"

- 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)

## Item:#1

**Weight:** 40%

**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)

### ≡ Image Prompt



Missing Caption



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## Item:#3

**Weight:** 50%

**Details:**

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

### ≡ Text Prompt

Your Response:

Missing Response



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## Section #5: ( 2 pts.) Misc

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

### Combo Task:

**Weight: 33.33%**

### Objective: Github Details

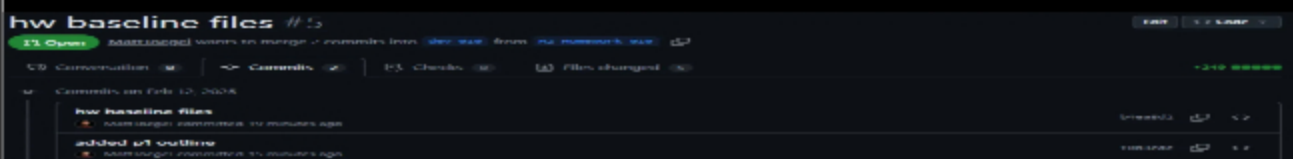
Item:#1

**Weight: 60%**

### Details:

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

### ⇒ Image Prompt



### Showing I have baseline and outline commits



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## Item:#2

**Weight: 40%**

### Details:

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

## Url Prompt

URL #1

[https://github.com/MattToegel/  
IT202-2025/](https://github.com/MattToegel/IT202-2025/)



URL

<https://github.com/MattToegel/IT202-2025/>



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## Task #2 ( 0.00 / 0.67 pts.) - WakaTime - Activity

**Weight:** 33.33%

**Objective:** WakaTime - Activity

**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

## Image Prompt

### Projects - IT202-2025

2 hrs 13 mins over the Last 7 Days in IT202-2025 under all branches. 📄

Showing overall time

#### Branches

1 hr 47 mins	main
17 mins	M2-Homework-010
8 mins	Module2-Homework

#### Files

24 mins	public_html/M2/arr2.php
19 mins	public_html/M2/boats.php
11 mins	public_html/M2/problem4.php
10 mins	docs/PHP-Problems.txt
9 mins	public_html/M2/data.php
7 mins	public_html/M2/problem1.php
6 mins	public_html/M2/scope.php
6 mins	public_html/M2/int.php
6 mins	public_html/M2/arreya.php
6 mins	public_html/M2/problem3.php
5 mins	public_html/M2/Range.php
4 mins	public_html/M2/int.php
3 mins	public_html/M2/problem2.php
0 secs	MoreFun.txt

showing individual time



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## Task #3 ( 0.00 / 0.67 pts.) - Reflection

### Sub-Tasks:

#### Task #1 ( 0.00 / 0.33 pts.) - What did you learn?

**Weight:** 33.33%

**Objective:** *What did you learn?*

**Details:**

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

#### ≡ Text Prompt

Your Response:

I learned abc



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#### Task #2 ( 0.00 / 0.33 pts.) - What was the easiest part of the a

**Weight:** 33.33%

**Objective:** *What was the easiest part of the assignment?*

**Details:**

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

#### ≡ Text Prompt

Your Response:

P4 was easiest because I am familiar with string manipulation



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### Task #3 ( 0.00 / 0.33 pts.) - What was the hardest part of the assignment?

**Weight:** 33.33%

**Objective:** *What was the hardest part of the assignment?*

**Details:**

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

#### ≡ Text Prompt

Your Response:

P3 was the hardest because loosely typed languages can be tricky



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