Course: IT202-008-S2025
Assignment: IT202 PHP Multi-Dimension Problems
Student: Dylan W. (dw347)
Status: Submitted | Worksheet Progress: 100.00%
Potential Grade: 10.00/10.00 (100.00%)
Received Grade: 0.00/10.00 (0.00%)
Grading Link: https://learn.ethereallab.app/assignment/v3/IT202-008-S2025/it202-php-multi-dimension-problems/grading/dw347

Instructions

1. Ensure you read all instructions and objectives before starting.
2. Create a new branch from `dev` called `M6-Homework`
    1. `git checkout dev` (ensure proper starting branch)
    2. `git pull origin dev` (ensure history is up to date)
    3. `git checkout -b M6-Homework` (create and switch to branch)
3. Copy the template code from here: GitHub Repository - M6 Homework
    - It includes Problems 1-3 and `base.php`. Put all into an `M6` folder or similar inside your `public_html`
    - Immediately record to history
        - `git add public_html`
        - `git commit -m "adding M6 HW baseline files"`
        - `git push origin M6-Homework`
        - Create a Pull Request from `M6-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 M6-Homework`
    4. On Github merge the pull request from `M6-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: (2.5 pts.) Problem 1 - Subset

Task #1 (2.50 pts.) - Edit the `processBirds` function to extract prop

Combo Task:

Weight: *100%*
Objective: *Edit the `processBirds` function to extract properties*

Details:

- Only make edits where noted via provided comments
- Challenge: Extract the name, color, region of each bird into the $subset 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)

Image Prompt

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)

```
// Start edits
foreach ($birds as $bird) {
    // create a new array with name, color, and region for each bird
    $subset[] = [
        "name" => $bird["name"],
        "color" => $bird["color"],
        "region" => $bird["region"]
    ];
}
// End edits
//dw547 4/1/24
```

code snippet

dev output

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Url Prompt

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 #1
https://github.com/dyylan2018/dw347-IT202-008/M6-Homework/public_html/M6/problem1.php

URL
https://github.com/dyylan2018/dw

URL #2
https://dw347-it202-008-prod-39957dda50b0.herokuapp.com/M6/problem1.php

URL
https://dw347-it202-008-prod-3995

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Text Prompt

Weight: *40%*

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

Your Response:

This PHP code processes multiple arrays of bird data by extracting only the `name`, `color`, and `region` fields from each bird record and displaying the simplified subset in a structured HTML table. The `processBirds()` function handles this by looping through each bird in the input array, creating a new array with just the required fields, and outputting the result in a readable format. This solution effectively filters out unnecessary information (like `id` and `size`) and presents only the relevant data for easier viewing and analysis.

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Section #2: (2.5 pts.) Problem 2 - Adding Properties

Task #1 (2.50 pts.) - Edit the `processCars` function to add propert

Combo Task:

Weight: *100%*
Objective: *Edit the `processCars` function to add properties*

Details:

- Only make edits where noted via provided comments
- Challenge 1: Add a new property called age that's set from today's year and the car's year
- Challenge 2: Add a new property called isClassic that's true/false based on $classic_age
- 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)

Image Prompt

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)

code snippet

dev output

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Url Prompt

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 #1
https://github.com/dyylan2018/dw347-IT202-008/M6-Homework/public_html/M6/problem2.php

URL
https://github.com/dyylan2018/dw

URL #2
https://dw347-it202-008-prod-39957dda50b0.herokuapp.com/M6/problem2.php

URL
https://dw347-it202-008-prod-3995

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Text Prompt

Weight: *40%*

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

Your Response:

The code solves the problem by defining a function `processBirds()` that takes an array of bird data and extracts only the necessary fields—`name`, `color`, and `region`—into a new simplified array called `$subset`. It loops through each bird in the input, builds the subset array, and then displays it in a readable format using `var_export()`. This function is called separately for each of the four bird arrays (`$a1` to `$a4`), and their results are displayed side-by-side in an HTML table, making it easy to compare the simplified bird data across different groups.

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Section #3: (2.5 pts.) Problem 3 - Join

Task #1 (2.50 pts.) - Edit the `joinArrays` function to combine two a

Combo Task:

Weight: *100%*
Objective: *Edit the `joinArrays` function to combine two arrays based on a common key*

Details:

- Only make edits where noted via provided comments
- Challenge: Combine the data in both arrays by the userId property
- 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)

Image Prompt

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)

code snippet

dev output

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Url Prompt

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 #1
https://github.com/dyylan2018/dw347-IT202-008/M6-Homework/public_html/M6/problem3.php

Url
https://github.com/dyylan2018/dw:

URL #2
https://dw347-it202-008-prod-39957dda50b0.herokuapp.com/M6/problem3.php

Url
https://dw347-it202-008-prod-3995

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Text Prompt

Weight: *40%*

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

Your Response:

The code solves the problem by efficiently joining two arrays, `$users` and `$activities`, based on the `userId` field. It creates a mapping (`$userMap`) of `userId` to user data, allowing quick lookups. Then, it loops through the activities, merging the corresponding user data from `$userMap` with the activity data and storing the results in a new array (`$joined`). This method ensures efficient joining with O(n + m) complexity, avoiding nested loops and providing the correct output by combining user information and their activities.

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Section #4: (2.5 pts.) Misc

Task #1 (0.83 pts.) - Github Details

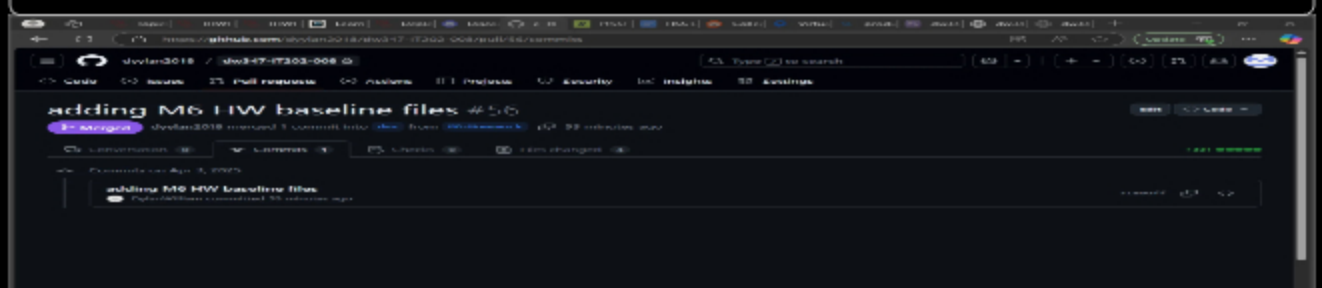
Combo Task:

Weight: *33.33%*
Objective: *Github Details*

Image Prompt

Weight: *60%*

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



commits

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Url Prompt

Weight: *40%*

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

URL #1
https://github.com/dyylan2018/dw347-IT202-056

URL
https://github.com/dyylan2018/dw:

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Task #2 (0.83 pts.) - WakaTime - Activity

Image Prompt

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

overall

Task #3 (0.83 pts.) - Reflection

Weight: *33.33%*
Objective: *Reflection*

Sub-Tasks:

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

Text Prompt

Weight: *33.33%*
Objective: *What did you learn?*

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

Your Response:

I learned how to join two arrays, how to extract specific data from arrays to make it their own and more.

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

Text Prompt

Weight: *33.33%*
Objective: *What was the easiest part of the assignment?*

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

Your Response:

problem one where I had to extract specific information to create a new array called subsets. that was the easiet for me.

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Task #3 (0.33 pts.) - What was the hardest part of the assign

Text Prompt

Weight: *33.33%*
Objective: *What was the hardest part of the assignment?*

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

Your Response:

The hardest part joining two arrays in problem 3. joining two arrays into one array took some time but i got it.

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