Submission Worksheet

Submission Data

Course: IT114-450-M2025
Assignment: IT114 Java Problems
Student: Anthony L. (agl8)
Status: Submitted | **Worksheet Progress:** 100+%
Potential Grade: 11.00/10.00 (110.00%)
Received Grade: 0.00/10.00 (0.00%)
Started: 8/7/2025 12:45:25 PM
Updated: 8/11/2025 12:53:15 AM
Grading Link: https://learn.ethereallab.app/assignment/v3/IT114-450-M2025/it114-java-problems/grading/agl8
View Link: https://learn.ethereallab.app/assignment/v3/IT114-450-M2025/it114-java-problems/view/agl8

Instructions

- Overview Link: https://youtu.be/Mrahk6SFYao

1. Ensure you read all instructions and objectives before starting.
2. Create a new branch from `main` called `M2-Homework`
    1. `git checkout main` (ensure proper starting branch)
    2. `git pull origin main` (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 a BaseClass. Put all into an `M2` folder or similar (adjust `package` reference at the top if you chose a different folder name).
    - Immediately record to history
        - [ ] `git add .`
        - [ ] `git commit -m "adding M2 HW baseline files"`
        - [ ] `git push origin M2-Homework`
        - [ ] Create a Pull Request from `M2-Homework` to `main` 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 `main`
7. Upload the same PDF to Canvas
8. Sync Local
    1. `git checkout main`

```
2. git pull origin main
```

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

Progress: 100%

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

Progress: 100%

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)

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

```
// start solution edits

//agl8, 8-5-25
//1. create flag and set it to true
//2. using for loop iterate through array      You, 2 days ago • added outline for Problem 1
//3. check if odd
//4. if odd, go to flag
//5. first odd number will just print and then set flag to false
//6. for the next odds numbers it will print a comma and then the number

boolean first = true;  //1. create flag and set it to true

for (int number : arr) {    //2. using for loop iterate through array
    if (number % 2 != 0) {    //4. check if odd
        if (first) {     //4. if odd, go to flag
            System.out.print(number);          //5. first odd number will just print
            first = false;                     //and then set flag to false
        }
        else {
            System.out.print(", " + number);    //6. for the next odds numbers it will print a comma a
        }
    } // #40-48 if (number % 2 != 0)
} // #29-50 for (int number : arr)

// End Solution Edits
```

Code

```
PROBLEMS   OUTPUT   TERMINAL   GITLENS   PORTS   DEBUG CONSOLE

anthonyleon@Anthonys-MacBook-Air ~/Library/CloudStorage/OneDrive-Personal/NJIT Coursework/Summ
 java M2.Problem1
Running Problem 1 for [agl8] [2025-08-07T12:44:46.556738]
Objective: Print out only odd values in a single line separate by commas
Problem 1: Original Array: [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
Output Array: 1, 3, 5, 7, 9
_____
Problem 2: Original Array: [9, 8, 7, 6, 5, 4, 3, 2, 1, 0]
Output Array: 9, 7, 5, 3, 1
_____
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: 1, 1, 3, 3, 5, 5, 7, 7, 9, 9
_____
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: 9, 9, 7, 7, 5, 5, 3, 3, 1, 1
_____
Completed Problem 1 for [agl8] [2025-08-07T12:44:46.566513]
anthonyleon@Anthonys-MacBook-Air ~/Library/CloudStorage/OneDrive-Personal/NJIT Coursework/Summ
```

Output

Saved: 8/11/2025 12:07:30 AM

Part 2:

Progress: 100%

Details:
Direct link to the file in the homework related branch from Github (should end in `.java`)

URL #1
https://github.com/agl8-2025/agl8-IT114-450/M2-Homework/M2/Problem1.java

URL
https://github.com/agl8-2025/agl

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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 loops through the array and uses the modulo operator to verify if the number is odd or even. If it's odd, it gets added with a comma. The end number is just trimmed off so there isn't a misplaced comma.

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

Progress: 100%

Task #1 (2 pts.) - Edit the `sumValues` method 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 `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)

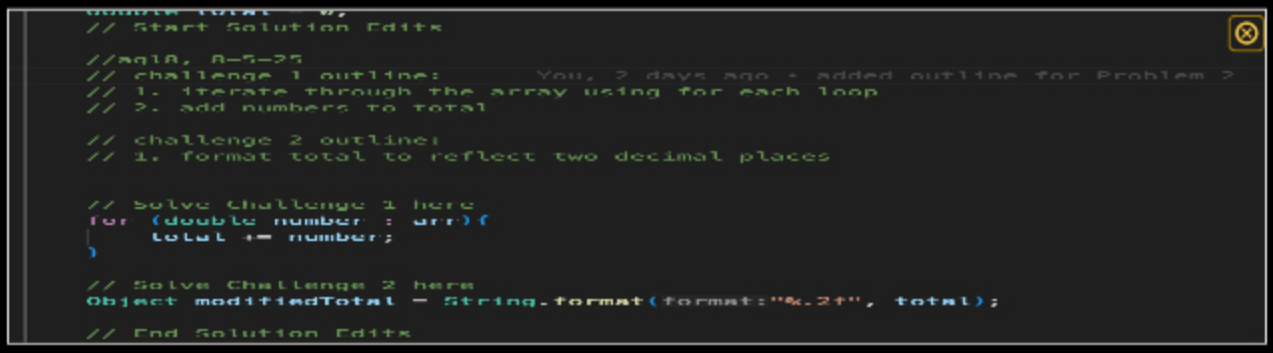
- Step 2: Add/commit your outline of comments (required for full credit)
- Step 3: Add code to solve the problem (add/commit as needed)

Part 1:

Progress: 100%

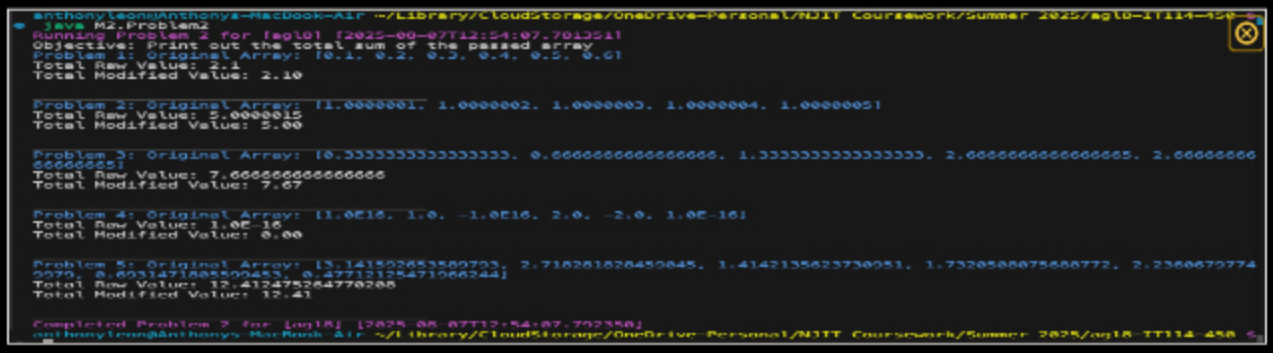
Details:
Two screenshots are expected

1. Snippet of relevant code showing solution (with ucid/date comment)
2. Full output of executing the program



```
// Start Solution Edits

//agl8, 8-5-25
// challenge 1 outline:        You, 2 days ago • added outline for Problem 2
// 1. iterate through the array using for each loop
// 2. add numbers to total

// challenge 2 outline:
// 1. format total to reflect two decimal places


// Solve Challenge 1 here
for (double number : arr){
    total += number;
}

// Solve Challenge 2 here
Object modifiedTotal = String.format(format:"%.2f", total);

// End Solution Edits
```

Code



```
anthonyleonnyAnthonys-MacBook-Air ~/Library/CloudStorage/OneDrive-Personal/NJIT Coursework/Summer 2025/agl8-IT114-450 5
 java M2.Problem2
Running Problem 2 for [agl8] [2025-08-07T12:54:07.701251]
Objective: Print out the total sum of the passed array
Problem 1: Original Array: [0.1, 0.2, 0.3, 0.4, 0.5, 0.6]
Total Raw Value: 2.1
Total Modified Value: 2.10

Problem 2: Original Array: [1.0000001, 1.0000002, 1.0000003, 1.0000004, 1.0000005]
Total Raw Value: 5.0000015
Total Modified Value: 5.00

Problem 3: Original Array: [0.3333333333333333, 0.6666666666666666, 1.3333333333333333, 2.6666666666666665, 2.6666666666666665]
Total Raw Value: 7.666666666666666
Total Modified Value: 7.67

Problem 4: Original Array: [1.0E16, 1.0, -1.0E16, 2.0, -2.0, 1.0E-16]
Total Raw Value: 1.0E-16
Total Modified Value: 0.00

Problem 5: Original Array: [3.141592653589793, 2.718281828459045, 1.4142135623730951, 1.7320508075688772, 2.2360679774
9979, 0.6931471805599453, 0.4771212547196624]
Total Raw Value: 12.413475284770288
Total Modified Value: 12.41

Completed Problem 2 for [agl8] [2025-08-07T12:54:07.702358]
anthonyleon@Anthonys-MacBook-Air ~/Library/CloudStorage/OneDrive-Personal/NJIT Coursework/Summer 2025/agl8-IT114-450 5
```

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 `.java`)

URL #1
https://github.com/agl8-2025/agl8-IT114-450/M2-Homework/M2/Problem2.java

URL
https://github.com/agl8-2025/agl

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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 loops through the array and adds them up into a total. Then we use the String.format with %.2f to reflect the correct number of decimal places in the final number.

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

Progress: 100%

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

Progress: 100%

Details:

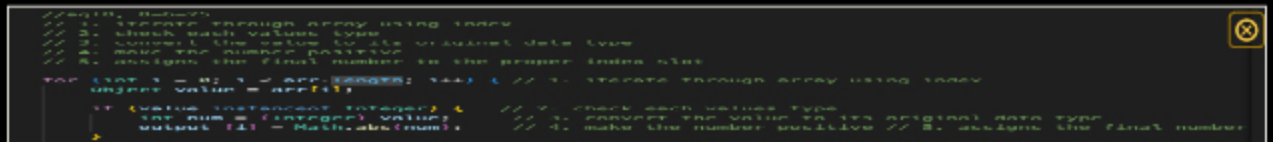
- Only make edits where noted via provided comments
- Challenge 1: Make each value positive
- Challenge 2: Convert the values back to their original data type and assign it to the proper slot of the `output` array
- Step 1: sketch out plan using comments (include ucid and date)
- Step 2: Add/commit your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

Part 1:

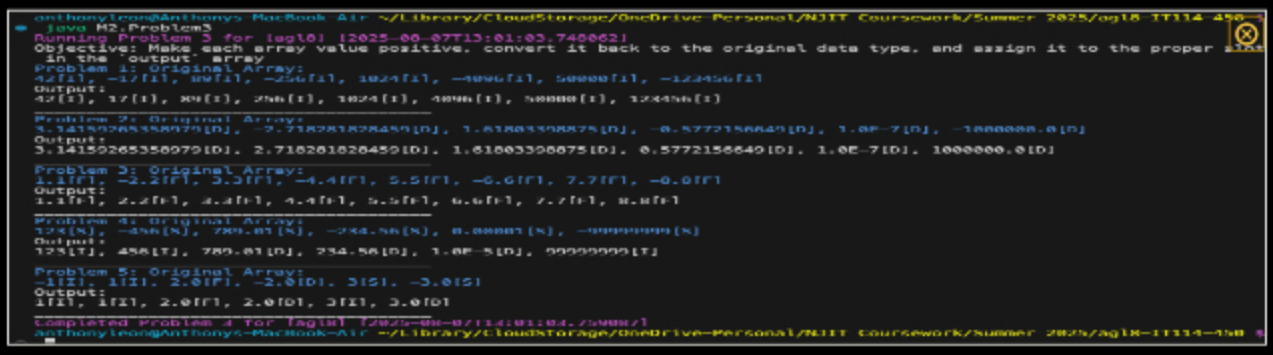
Progress: 100%

Details:
Two screenshots are expected

1. Snippet of relevant code showing solution (with ucid/date comment)
2. Full output of executing the program



Code



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 `.java`)

URL #1
https://github.com/agl8-2025/agl8-IT114-450/M2-Homework/M2/Problem3.java

URL
https://github.com/agl8-2025/agl

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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 loops through the array and uses the Math.abs() method to convert every number to a positive. Then each number is cast back to its original data type and assigned to the proper slot in the array.

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

Progress: 100%

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

Progress: 100%

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)

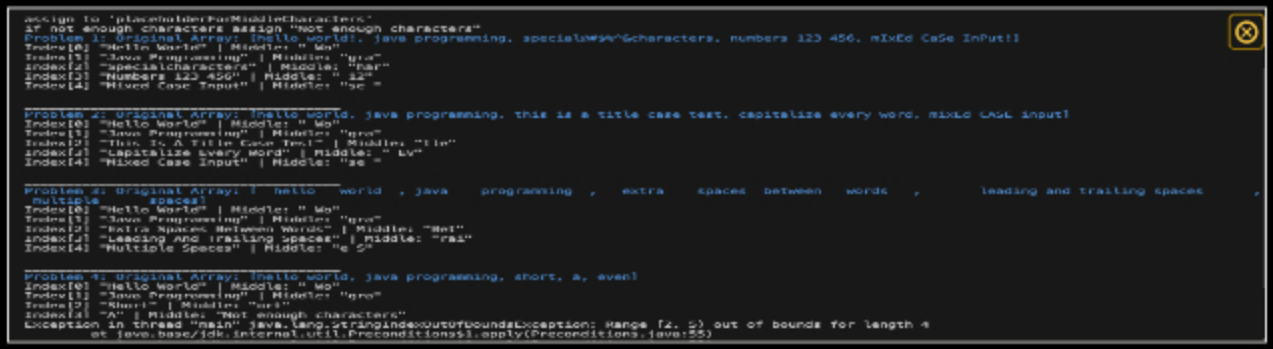
Part 1:

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

Code



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 `.java`)

URL #1
https://github.com/agl8-2025/agl8-IT114-450/M2-Homework/M2/Problem4.java

URL
https://github.com/agl8-2025/agl

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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 regex to dismiss any characters that aren't letters, spaces, or numbers. Then it loops through each word and capitalizes the first letter. Finally, it uses trim and replaceAll() to manage any spaces.

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Task #2 (+ 1.11 pts.) - Edit the `transformText` method to solve the extra credit challenge (challenge 4)

Progress: 100%

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)

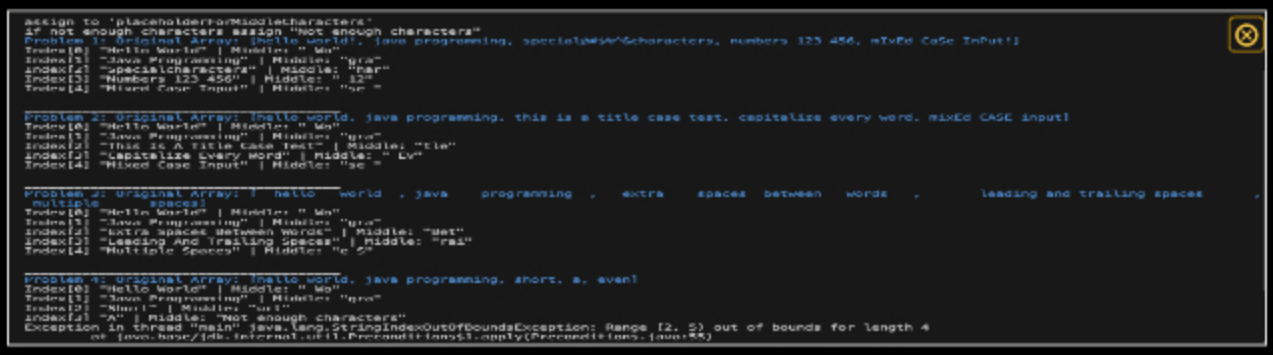
Part 1:

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

Code



Output

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Part 2:

Progress: 100%

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

Your Response:

The code checks if the string has enough characters. If so, it determines the middle index. Finally, the substring method retrieves the three characters in the middle spot.

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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

Commits

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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/agl8-2025/agl8-IT11[illegible]

URL
https://github.com/agl8-2025/agl

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

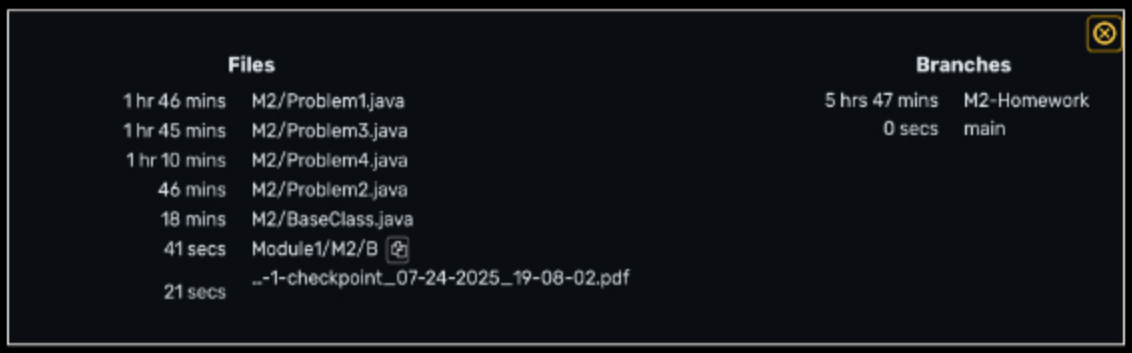
Progress: 100%

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

Top



Files		Branches	
1 hr 46 mins	M2/Problem1.java	5 hrs 47 mins	M2-Homework
1 hr 45 mins	M2/Problem3.java	0 secs	main
1 hr 10 mins	M2/Problem4.java		
46 mins	M2/Problem2.java		
18 mins	M2/BaseClass.java		
41 secs	Module1/M2/B		
21 secs	..-1-checkpoint_07-24-2025_19-08-02.pdf		

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:

This module was a great intro to Java topics. I learned a lot of methods, formatting, and nuances, including how to format numbers and an intro to regex.

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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 module homework was problem two. It was just adding up the numbers in the array.

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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 harder part of this module's homework was problem 4. The logic required was confusing. Cleaning up the text was difficult as well.

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