Submission Worksheet

Submission Data

Course: IT114-450-M2025
Assignment: IT114 Java Problems
Student: Graham B. (gb373)
Status: Submitted | **Worksheet Progress:** 100+%
Potential Grade: 11.00/10.00 (110.00%)
Received Grade: 0.00/10.00 (0.00%)
Started: 6/2/2025 3:40:35 PM
Updated: 6/2/2025 5:57:27 PM
Grading Link: https://learn.ethereallab.app/assignment/v3/IT114-450-M2025/it114-java-problems/grading/gb373
View Link: https://learn.ethereallab.app/assignment/v3/IT114-450-M2025/it114-java-problems/view/gb373

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%

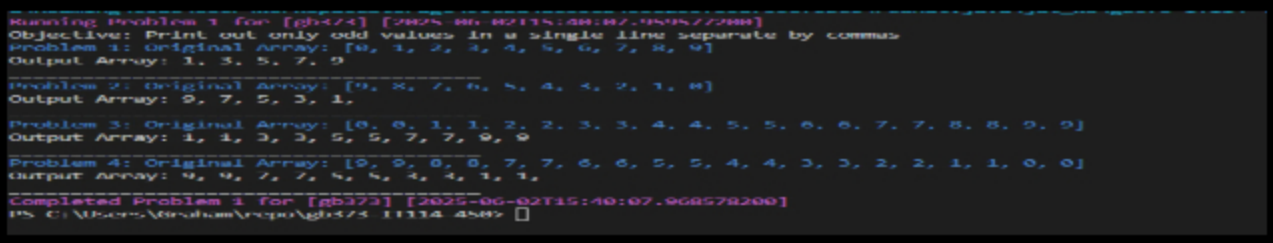
Part 1:

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 of how I solved Problem 1



Ouput of solved problem 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 `.java`)

URL #1
https://github.com/GrahamBlack10/gb373-IT114-450/blob/M2-Homework/M2/Problem1.java

URL
https://github.com/GrahamBlack1

Homework/M2/Problem1.java

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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:

How the code solves the problem is that it uses a for loop and an if statement to find each odd number in the arrays and print them separated by a comma and in a single line.

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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

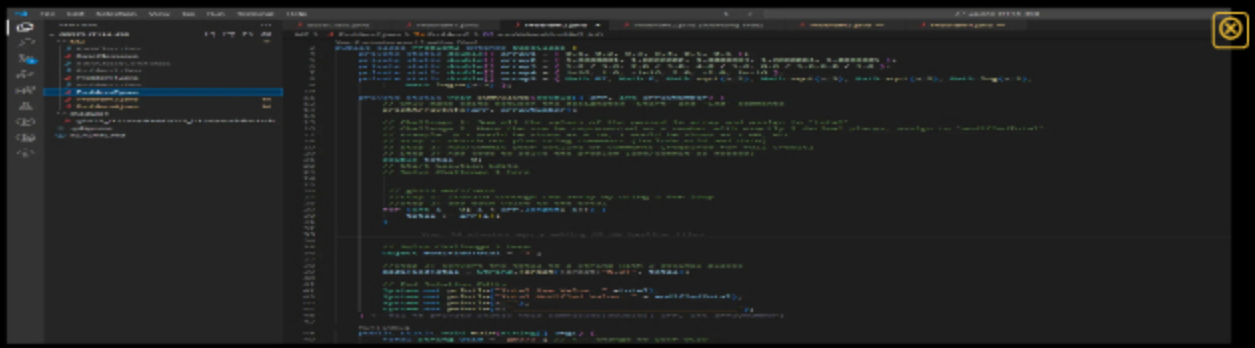
Progress: 100%

Part 1:

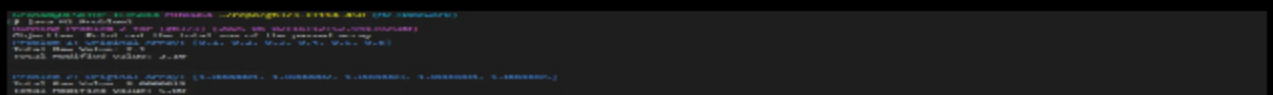
Progress: 100%

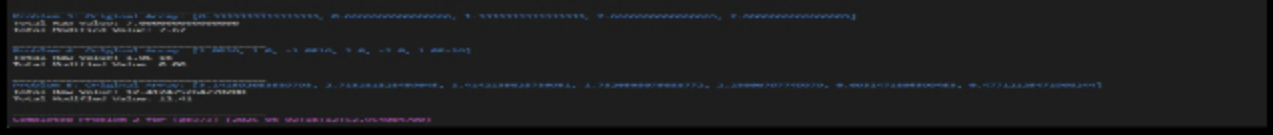
Details:
Two screenshots are expected

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



Code of Problem 2





Output of problem 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 `.java`)

URL #1
https://github.com/GrahamBlack10/gb373-IT114-450/blob/M2-Homework/M2/Problem2.java

URL
https://github.com/GrahamBlack1

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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:

How the code solves the challenges is for the first one, the for loop looks through each number in the array, and then I did some math by doing += to add the sum of them to the array for each array, then it is printed. Next, I use String.format to format the way the total looks by changing it to show only 2 decimal points of each total and assigning it to modifiedTotal.

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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

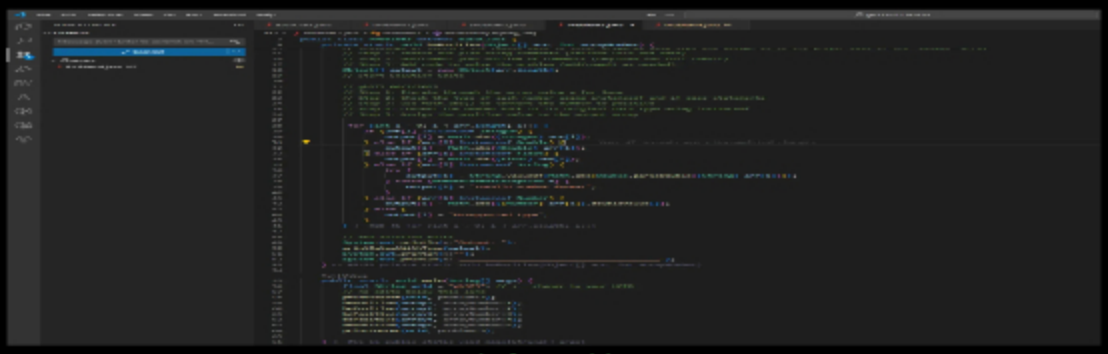
Progress: 100%

Part 1:

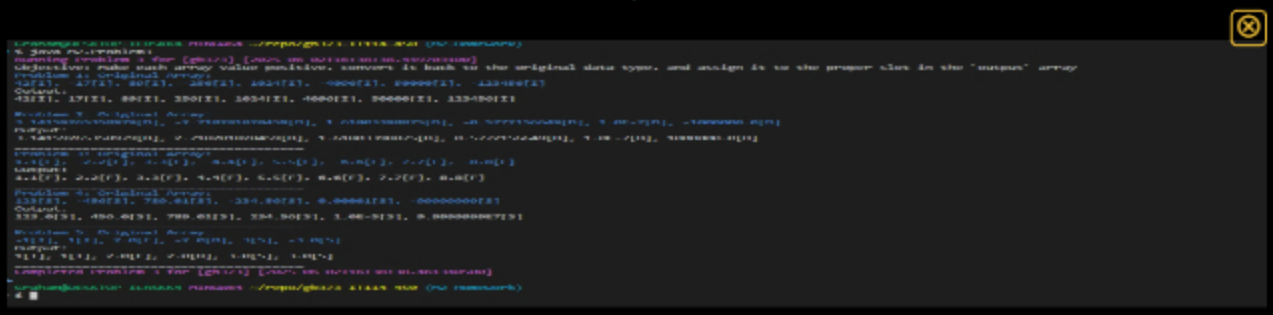
Progress: 100%

Details:
Two screenshots are expected

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



Code for problem 3



Output for problem 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 `.java`)

URL #1
https://github.com/GrahamBlack10/gb373-IT114-450/blob/M2-Homework/M2/Problem3.java

URL
https://github.com/GrahamBlack1

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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:

How the code solves the challenge is that it goes through the arrays and each number, then it will check the type of each number by doing an if-else statement and an instance of to see whether it's an Integer, Double, Float, or String. While it does that, the code uses Math.abs to turn the number positive. Then the code prints it out while also using a try and catch to see if the number is an invalid number format, and also an else to see if the number is an unsupported type of type.

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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%

Part 1:

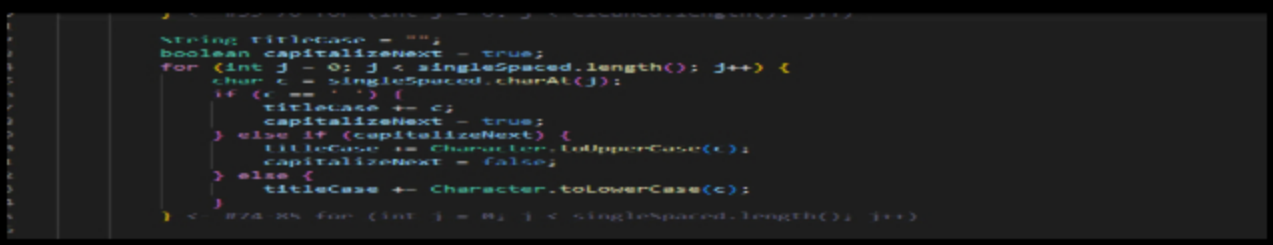
Progress: 100%

Details:

Two screenshots are expected

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

COde for problem 4 part 1



Code for problem 4 part 2

Output for Problem 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 `.java`)

URL #1
https://github.com/GrahamBlack10/gb373-IT114-450/blob/M2-Homework/M2/Problem4.java

URL
https://github.com/GrahamBlack1

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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:

How the code solves the challenge is that it first iterates through the array, then it uses isLetterOrDigit to get rid of special characters and isSpaceChar to also add spaces, and then it adds them to the output. Next, the code uses trim() to trim trailing spaces. After, the code uses a boolean to get rid of any dup spaces and another boolean to make the title case for each variable.

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Task #2 (+ 1.11 pts.) - Edit the `transformText` method 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 ucid/date comment)

2. Full output of executing the program

```
        String middleChars = "";
        if (titleCase.length() >= 3) {
            int middleIndex = titleCase.length() / 2;
            if (middleIndex - 1 >= 0 && middleIndex + 1 < titleCase.length()) {
                middleChars = titleCase.substring(middleIndex - 1, middleIndex + 2);
            } else {
                middleChars = titleCase.substring(titleCase.length() - 3);
            }
        } else {
            middleChars = "Not enough characters";
        }

        placeholderForModifiedPhrase = titleCase;
        placeholderForMiddleCharacters = middleChars;

            // End Solution Edits
```

Code for solving the extra credit for problem 4

Output for Problem 4

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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:

For the extra credit, the code solves this challenge by finding the length of the variable and using the index and substrings to find the middle 3 characters and print them, and for not enough characters, a substring is used to see if it is too short.

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Section #5: (2 pts.) Misc

Progress: 100%

Task #1 (0.67 pts.) - Github Details

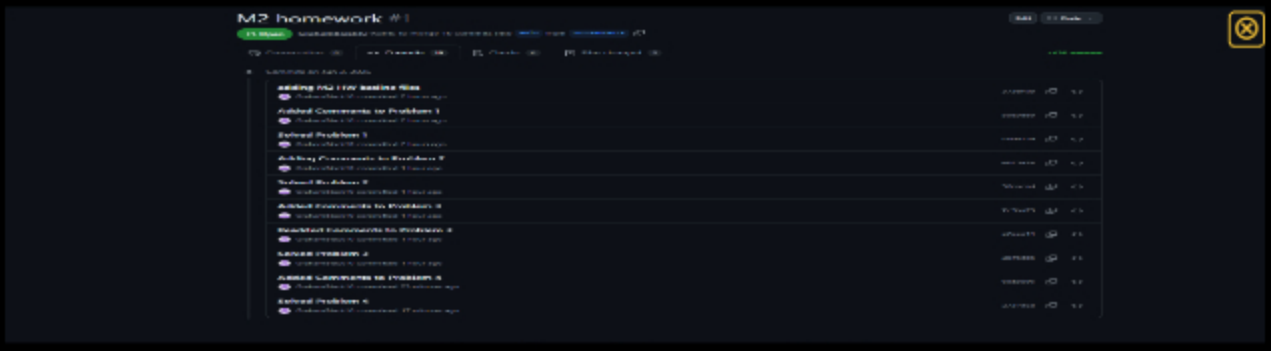
Progress: 100%

Part 1:

Progress: 100%

Details:

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



Screenshot of Commits in merge tab for M2 to main

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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/GrahamBlack10/gb373-IT114-450/pull/1

URL
https://github.com/GrahamBlack1

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

Progress: 100%

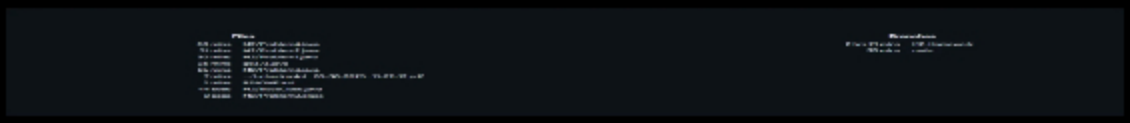
Details:

- 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 - gb373-IT114-450

2 hrs 54 mins over the Last 7 Days in gb373-IT114-450 under all branches.

Overall



individual

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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 about trim(), which helps with trimming spaces and other things. I also learned about another way of getting rid of special characters and keeping spaces without using the library, which is actually pretty neat and useful.

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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 was Problems 1 and 2, this is because I have done something like this before in another class. Most of it was a refresher on the easier parts of Java and how to work with arrays and find different outputs using for loops and if statements. Also, for problem 2, I found it easy to modify the total to 2 decimal points.

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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 of this homework was the last 2 problems. For problem 3, I remembered about using Math.abs for making a number positive, but needed to remember and learn again about instances to help get the correct output. For problem 4, most was easy, and I needed to learn about tri,m, but for the extra credit, I ran into issues of how to get the middle characters. I knew how to find the length, but it was hard to print only 3. cameme to the solution by using the index and substring to count 3 characters, and that's how I got it to print. I also found a solution with not enough characters by using a substring and the length to see if it has 3 characters.

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