

# Submission Worksheet

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<https://learn.ethereallab.app/assignment/IT114-003-F2024/it114-module-2-java-problems/grade/mcp62>

Course: IT114-003-F2024

Assignment: [IT114] Module 2 Java Problems

Student: Michael P. (mcp62)

## Submissions:

Submission Selection

1 Submission [submitted] 9/23/2024 5:17:49 PM

## Instructions

^ COLLAPSE ^

Overview Video: <https://youtu.be/4M8Di5jrcZQ>

## Guide:

1. Make sure you're in the main branch locally and `git pull origin main` any pending changes.
2. Make a new branch per the recommended branch name below (`git checkout -b ...`).
3. Create a folder in your local repo called `Module2`
4. Grab the template code from <https://gist.github.com/MattToegel/fdd2b37fa79a06ace9dd259ac82728b6>.
5. Create individual Java files for each problem and save the files inside the `Module2` folder.
  1. They should end with the file extension in lowercase `.java`.
6. Move the unedited template files to GitHub.
  1. `git add .`
  2. `git commit -m "adding template files"`
  3. `git push origin branch_name` (see below).
  4. Create and open a pull request from the homework branch to main (leave it open until later steps).
7. Note: As you work, it's recommended to add/commit at least after each solution is done (i.e., 3+ times in this case).
  1. Make sure the files are saved before doing this.
  2. A file is unsaved if you see a white dot in the tab where the filename shows in VS Code
8. Fill in the items in the worksheet below (save as often as necessary).
9. Once finished, export the worksheet.
10. Add the output file to any location of your choice in your repository folder (i.e., a `Module2` folder).
11. Check that git sees it via `git status`.

12. If everything is good, continue to submit.
  1. Track the file(s) via `git add`.
  2. Commit the changes via `git commit` (don't forget the commit message).
  3. Push the changes to GitHub via `git push` (don't forget to refer to the proper branch).
  4. Create a pull request from the homework related branch to main (i.e., `main <- "homework branch"`).
  5. Open and complete the merge of the pull request (it should turn purple).
  6. Locally checkout main and pull the latest changes (to prepare for future work).
13. Take the same output file and upload it to Canvas.

Branch name: M2-Java-Problems

#### Group

100%

Group: Problem 1

Tasks: 1

Points: 3

^ COLLAPSE ^

#### Task

100%

Group: Problem 1

Task #1: Screenshot of the Problem 1 Solved Code and Output

Weight: ~100%

Points: ~3.00

^ COLLAPSE ^

#### Details:

Only make edits where the template code mentions.

Solution should ensure that any passed in array will have only the odd values output.  
Requires at least 2 screenshots (code + output from terminal)



Columns: 1

#### Sub-Task

100%

Group: Problem 1

Task #1: Screenshot of the Problem 1 Solved Code and Output

Sub Task #1: Screenshot the output of the solved problem

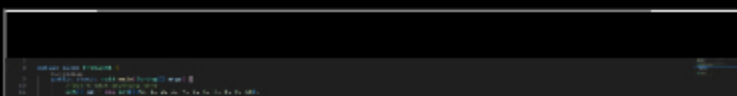
## Task Screenshots

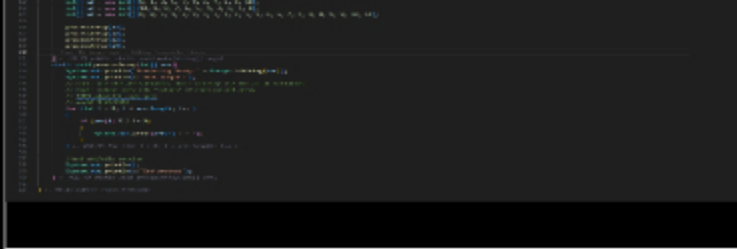
Gallery Style: 2 Columns

4

2

1





Problem 1 code

Caption(s) (required) ✓

Caption Hint: Describe/highlight what's being shown

Sub-Task

100%

Group: Problem 1

Task #1: Screenshot of the Problem 1 Solved Code and Output

Sub Task #2: Screenshot the code solution (ucid/date must be included as a comment)

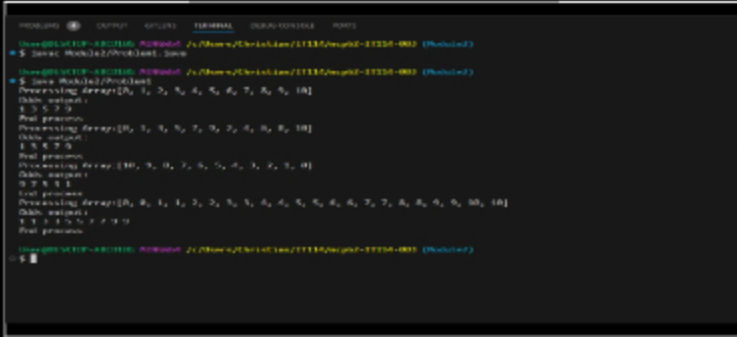
## Task Screenshots

Gallery Style: 2 Columns

4

2

1



Problem 1 output

Caption(s) (required) ✓

Caption Hint: Describe/highlight what's being shown

## Task Response Prompt

Explain in concise steps how this logically works

Response:

simply creating a loop that iterates over each index within the given arr and using the % (modulus operator) to make sure if its not even (odd) then print other wise continue for each number in the inputed array

End of Task 1

End of Group: Problem 1

Task Status: 1/1

Group

100%

Group: Problem 2

Tasks: 1

Points: 3

^ COLLAPSE ^

### Task



Group: Problem 2

Task #1: Screenshot of the Problem 2 Solved Code and Output


Weight: ~100%

Points: ~3.00

^ COLLAPSE ^

### Details:

Only make edits where the template code mentions.

Solution should ensure that any passed in array will have its values summed AND the final result converted to two decimal places (i.e., 0.10, 1.00, 1.01). 

Columns: 1

### Sub-Task



Group: Problem 2

Task #1: Screenshot of the Problem 2 Solved Code and Output

Sub Task #1: Screenshot the output of the solved problem

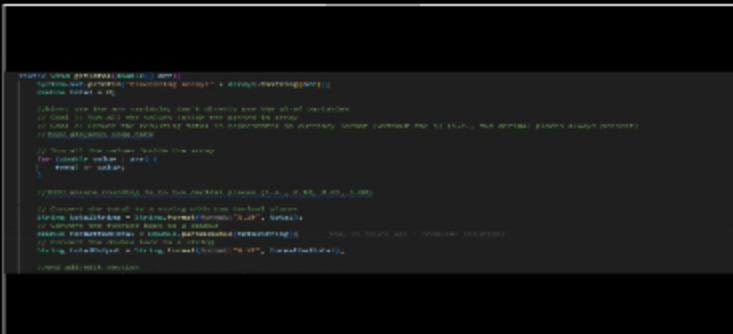
## Task Screenshots

Gallery Style: 2 Columns

4

2

1



Problem2 Code

### Caption(s) (required) ✓

Caption Hint: *Describe/highlight what's being shown*

### Sub-Task



Group: Problem 2

Task #1: Screenshot of the Problem 2 Solved Code and Output

Sub Task #2: Screenshot the code solution (ucid/date must be included as a comment)

## Task Screenshots

Gallery Style: 2 Columns

4

2

1



```

// 2. Sum of Absolute Differences
// Problem: https://leetcode.com/problems/sum-of-absolute-differences/
// Solution: https://leetcode.com/problems/sum-of-absolute-differences/solution/
// Input: [12, 1, 5, 10, 4, 14, 8, 9]
// Output: 51
// Explanation:
// For each element in the array, calculate the sum of absolute differences between that element and all other elements.
// For example, for the first element (12), the sum of absolute differences is |12-1| + |12-5| + |12-10| + |12-4| + |12-14| + |12-8| + |12-9| = 11 + 7 + 2 + 8 + 2 + 4 + 3 = 37.
// Repeat this for all elements and sum the results to get the final answer (51).

```

## Problem 2 Output

### Caption(s) (required) ✓

Caption Hint: *Describe/highlight what's being shown*

## Task Response Prompt

*Explain in concise steps how this logically works*

Response:

This time used a for each loop to iterate over the items within the given array (arr). after this i converted the total to a string with only the first two decimal places using the string.format method, the first parameter i declare that i want to only keep the first two decimal places for the formatting than i mention the object as the argument. Then i parse the formatted string to a double with Double.parseDouble and then i format it back to a string.

End of Task 1

End of Group: Problem 2

Task Status: 1/1

Group

100%

Group: Problem 3

Tasks: 1

Points: 3

^ COLLAPSE ^

Task

100%

Group: Problem 3

Task #1: Screenshot of the Problem 3 Solved Code and Output

Weight: ~100%

Points: ~3.00

^ COLLAPSE ^

**i** Details:

Only make edits where the template code mentions.

Solution should ensure that any passed in array will have its values converted to a positive version of the value AND converted back to the original data type.

Columns: 1

Sub-Task

Group: Problem 3

Sub Task #1: Screenshot the output of the solved problem

### Gallery Style: 2 Columns

1

Problem3 Code

**Caption(s) (required)** ✓

**Caption Hint:** *Describe/highlight what's being shown*

### Sub-Task

Group: Problem 3

Task #1: Screenshot of the Problem 3 Solved Code and Output

Sub Task #2: Screenshot the code solution (ucid/date must be included as a comment)

### Gallery Style: 2 Columns

1

### Problem3 output

**Caption(s) (required)** ✓

**Caption Hint:** *Describe/highlight what's being shown*

## Task Response Prompt

***Explain in concise steps how this logically works***

**Response:**

I make a for loop to iterate over the array I check the type of the 'unknown' array input using instanceof (create three separate if, else if statements) check the comparison of the three possible data types, string, int, double use `Math.abs` to get the abs value of each element (forces positive number output) For the string array parse it as a string to int so I can do `abs Math.abs`

End of Task 1

End of Group: Problem 3

Task Status: 1/1

Group



Group: Reflection

Tasks: 3

Points: 1

^ COLLAPSE ^

Task



Group: Reflection

Task #1: Reflect on your experience

Weight: ~33%

Points: ~0.33

^ COLLAPSE ^

**i** Details:

Talk about any issues you had, how you resolved them, and anything you learned during this process.

Provide concrete details/examples. At least a few sentences.



## ≡ Task Response Prompt

Response:

Finding how to parse a string as an int took a long time, finidng how to do a comparsion over an 'unknown obj value' took even longer... but know i know i can do it with instanceof. I didnt have a hard time with problem one and two they were straight forward.

End of Task 1

Task



Group: Reflection

Task #2: Include the pull request link for this branch

Weight: ~33%

Points: ~0.33

^ COLLAPSE ^

**i** Details:

The correct link will end with /pull/ and a number.



## Task URLs

URL #1

<https://github.com/Onervv/mcp62-IT114-003/pull/5>

URL

<https://github.com/Onervv/mcp62-IT114-003/pul>

End of Task 2

Task



Group: Reflection

Task #3: Add Screenshot of Wakatime

Weight: ~33%

Points: ~0.33

^ COLLAPSE ^

**i** Details:

Note: The duration of time isn't directly related to the grade, the goal is to just make sure time is being tracked



## Task Screenshots

Gallery Style: 2 Columns

4 2 1



Waka ss

End of Task 3

End of Group: Reflection

Task Status: 3/3

End of Assignment