Submission Worksheet

Submission Data

Course: IT114-003-F2025
Assignment: IT114 Java Problems
Student: Laura L. (lsl8)
Status: Submitted | **Worksheet Progress:** 100+%
Potential Grade: 11.00/10.00 (110.00%)
Received Grade: 0.00/10.00 (0.00%)
Started: 9/23/2025 12:15:26 PM
Updated: 9/29/2025 10:01:32 PM
Grading Link: https://learn.ethereallab.app/assignment/v3/IT114-003-F2025/it114-java-problems/grading/lsl8
View Link: https://learn.ethereallab.app/assignment/v3/IT114-003-F2025/it114-java-problems/view/lsl8

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

```
// 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)
System.out.print(s:"Output Array: ");
// Start Solution Edits
for (int i = 0; i < arr.length; i++){ //Step 1: Iterate through the array by using a for loop (UCID: ls18 // Date: 09/23/25)
    if (arr[i] % 2 != 0){ //Step 2: Using if (value %2 != 0) to determine if odd
        System.out.print(arr[i] + ","); //Step 3: Using print to output the odd value ensuring its a single line of text
    }
} <- #18-22 for (int i = 0; i < arr.length; i++)


// End Solution Edits
```

Code

```
laura@Laura-Laptop MINGW64 ~/ls18-IT114-003 (M2-Homework)
$ javac M2/Problem1.java

laura@Laura-Laptop MINGW64 ~/ls18-IT114-003 (M2-Homework)
$ java M2.Problem1
Running Problem 1 for [ls18] [2025-09-23T12:06:09.227164100]
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 [ls18] [2025-09-23T12:06:09.275360]
```

Output

Saved: 9/23/2025 12:19:16 PM

Part 2:

Progress: 100%

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

URL #1
https://learn.ethereallab.app/assignment/v3/IT11[illegible]/M2/Problem1.java

UR
https://learn.ethereallab.app/assi(

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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 solves the challenge by iterating through the array and checking if values are odd. The program does this by using the 2 % !=0 which essentially checks if each value divided by 2 does not have a remainder of 0.

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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 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

```
double total = 0;
// Start Solution Edits
// Solve Challenge 1 here
// ls18  09.23.25
for (double value : arr){ // Step 1: Iterate through the array by using a for loop
    total += value; // Step 2: Track sum by adding each value to the sum       You, 1 second ago • Uncommitted changes
}
// Solve Challenge 2 here
Object modifiedTotal = String.format(format:"%.2f", total); //Step 3: update representation by formatting to 2 decinal places and assig
```

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://learn.ethereallab.app/assignment/v3/IT114-2025/M2/Problem2.java

URL
https://learn.ethereallab.app/assi

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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:

First, the code loops through the array once and keeps adding each number to the total completing the first challenge. Second, the code formats the total to 2 decimal places completing the second challenge.

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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:

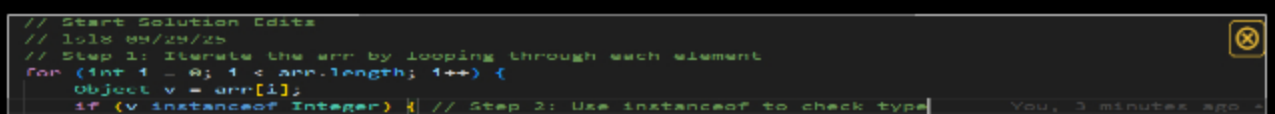
- Only make edits where noted via provided comments
- Challenge 1: Make each value positive
- Challenge 2: Convert the values back to their original data type and assign it to the proper slot of the `output` array
- Step 1: sketch out plan using comments (include ucid and date)
- Step 2: Add/commit your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

Part 1:

Progress: 100%

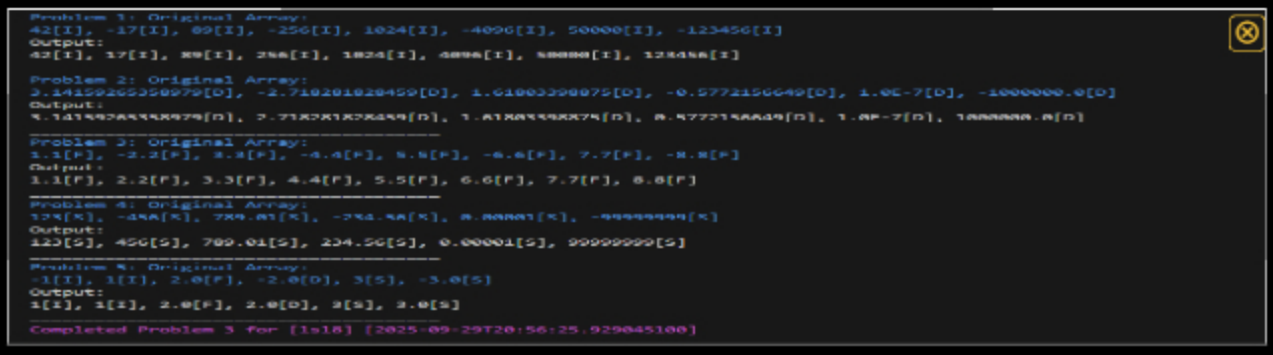
Details:
Two screenshots are expected

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



```
        output[i] = Math.abs((Integer) v);
    } else if (v instanceof Double) {
        output[i] = Math.abs((Double) v);
    } else if (v instanceof Float) {
        output[i] = Math.abs((Float) v);
    } else if (v instanceof String) {
        String s = (String) v;
        if (s.startsWith(prefix:"-")) s = s.substring(beginIndex:1); // Step 3: Use to make positive
        output[i] = s;
    } else {
        output[i] = v; // Step 5: Use to assign back to the same slot of the output array
    }
} <-- #26-41 for (int i = 0; i < arr.length; i++)
// End Solution Edit
```

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/laurasofia544/lsl8-IT114-003/M2-Homework/M2/Problem3.java

URL
https://github.com/laurasofia544/

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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:

My code goes through each element of the array one by one. It checks what type the value is (like Integer, Double, Float, or String). If it's a number, I use Math.abs() to turn it into a positive number. If it's a String, I just remove the minus sign at the beginning if it has one. After that, I put the new positive value back into the same spot in the output 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)

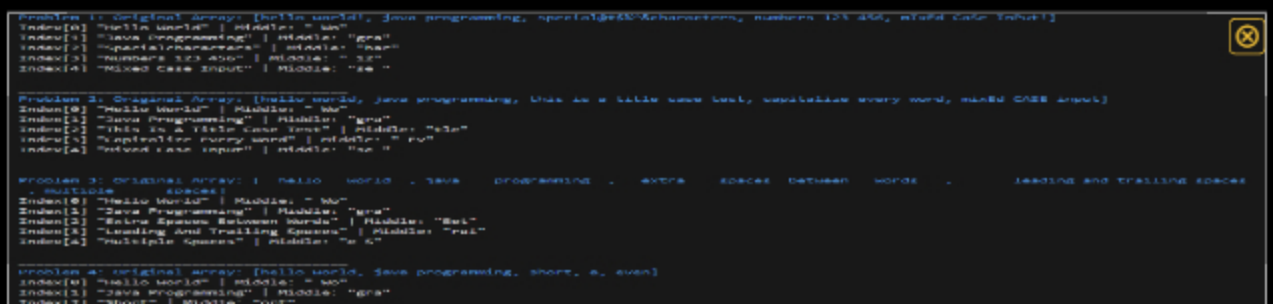
Part 1:

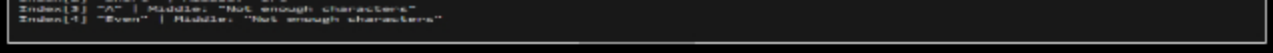
Progress: 100%

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/laurasofia544/Isl8-IT114-003/M2-Homework/M2/Problem4.java

URL
https://github.com/laurasofia544/

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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:

My code goes through each string in the array and cleans it up step by step. First, it removes any characters that aren't letters, numbers, or spaces, then trims the ends and squishes multiple spaces down to a single space. Next, it converts the text to Title Case by capitalizing the first letter of each word and lowercasing the rest, and stores that result in placeholderForModifiedPhrase.

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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:

For the extra credit, it takes three characters starting at the middle index of that final phrase; if there aren't three characters available (very short strings), it sets placeholderForMiddleCharacters to "Not enough characters".

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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

Commit history

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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/laurasofia544/lsl8-IT114-003/

URL
https://github.com/laurasofia544/

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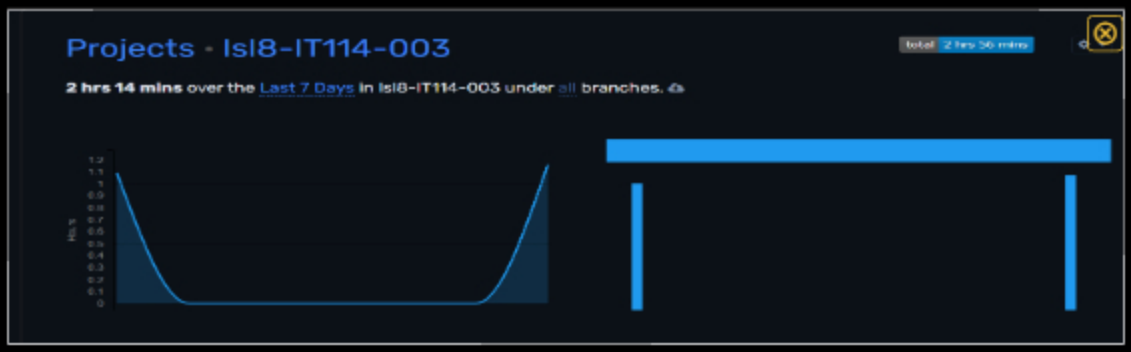
Task #2 (0.67 pts.) - WakaTime - Activity

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



Overall time

Files

45 mins	M2/Problem3.java
28 mins	M2/Problem1.java
25 mins	M2/Problem4.java
18 mins	M2/Problem2.java
16 mins	.gitignore
1 min	M2/BaseClass.java

Branches

2 hrs	M2-Homework
14 mins	main

Individual file times

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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 how to loop through arrays and safely keep each item's original type while changing values (like using Math.abs() for numbers). For strings, I practiced using regex to remove non-alphanumeric characters, trimming/collapsing spaces,

and converting to Title Case, plus grabbing a middle substring and handling edge cases

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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 the assignment was adding the outline for each problem and obviously using git to commit and push

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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 the assignment was successfully completing each objective for each problem. Almost always, I would be able to complete some of the objectives but missing some which would make me delete everything and start over again.

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