Instructions

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

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

Combo Task:

Weight: *100%*

Objective: *Edit the `printOdds` method to output odd values of the array*

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)

Item:#1

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

≡, Image Prompt

My code/solution for problem1 of the hw

Problem 3: Original Array: [0, 0, 1, 1, 1, 1, 2, 3, 4, 4, 9, 9, 8, 8, 7, 7, 8, 8, 9, 9]
Output Array: 9, 8, 7, 7, 9, 9, 8, 8, 1, 1
Completed Problem 3 for [item] (2025-02-17T14:45:22.564+00000)
Owner@DESKTOP-NOMS2N4 MINGW64 ~/Desktop/item-IT114-000 (M2-homework)

The output of my coded solution

⬇

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Item:#2

Weight: *20%*

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

=, **Url Prompt**

URL #1
https://learn.ethereallab.app/assignment/v3/
IT114-2025/M2/Problem1.java

👍

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

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Item:#3

Weight: *40%*

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

=, **Text Prompt**

Your Response:

My code loops through the array of numbers given, and for each item in the list it checks if it is odd or even through remainder division. Since the output is a string, if the number is odd it concatenates to the number to an empty string, if its even it concatenates a comma with a space after to gramatically list the numbers properly.

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

Task #1 (2 pts.) - Edit the `sumValues` method to sum the array val

Combo Task:

Weight: *100%*

Objective: *Edit the `sumValues` method to sum the array values and present them in a format with exactly two decimal places*

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)

Item:#1

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

≡, Image Prompt

Code for Problem 2

The output for Problem 2

Item:#2

Weight: *20%*

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

≡✎ Url Prompt

URL #1
https://learn.ethereallab.app/assignment/v3/
IT11S2025/M2/Problem2.java

👍

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

Item:#3

Weight: *40%*

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

≡✎ Text Prompt

Your Response:

To solve challenge one I used a for each loop to go through each number in the array and added them one by one to an integer variable with an itial value of zero. This was how I got the initial total of the arrays. Then for the second challenge to format it to the second decimal place I took the initial total variable and formatted it using String.format and then assigning that to the variable modifiedTotal.

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

Task #1 (2 pts.) - Edit the `bePositive` method to make each value

Combo Task:

Weight: *100%*

Objective: *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*

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)

Item:#1

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

≡, Image Prompt

Code for Problem 3

Output for Problem 3

Item:#2

Weight: *20%*

Details:

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

≡, Url Prompt

URL #1

https://learn.ethereallab.app/assignment/v3/
IT118-2025/M2/Problem3.java

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

Item:#3

Weight: *40%*

Details:

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

≡, Text Prompt

Your Response:

I used a for loop to iterate through the list of items in the array with if else statements to check for the

type of data the code was handling. I then used the math absolut value function and at the end of each condition I concatenated it the filtered output to the list. I struggled however to do this with the string types and cant figure it out

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

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

Combo Task:

Weight: *100%*
Objective: *Edit the `transformText` method to solve the challenges*

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)

Item:#1

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

≡, **Image Prompt**

Code for 4

Output for Problem 4

Item:#2

Weight: *20%*

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

≡/ Url Prompt

URL #1
https://learn.ethereallab.app/assignment/v3/
IT11920025/M2/Problem4.java

Url
https://learn.ethereallab.app/assigr

Item:#3

Weight: *40%*

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

≡, Text Prompt

Your Response:

This one took too much trial and error and I hated it. But basically I made a string to contain the original untouced string. Then I took said original text and used the replaceAll function and singled out all of the neccesary characters out of this original string assigning this new value to a cleanedText Variable. The next thing I did was clean the text further using to the toLowerCase and split function to make the next uniform in case and also separate it through spaces. Then I used a String Builder to create the new string that would be outputted using functions like to upperCase to get the first letter to be upper case now that their all lower case. then I put that output into the modifiedPhrase variable.

Task #2 (+ 0.90 pts.) - Edit the `transformText` method to solve the

Combo Task:

Weight: *45%*

Objective: *Edit the `transformText` method to solve the extra credit challenge (challenge 4)*

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)

Item:#1

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

Image Prompt

Ouput has the extra credit in it

Item:#3

Weight: *50%*

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

Text Prompt

Your Response:

The extra credit was easier basically I just added a condition that checks the length of the word, so if its less than 3 there are no middle letters there is no ouput. Then to find the middle of the wordI took the length of the word and divided it by 2 thens subtratced by 1 assigning this value to a variable called midLength. Then to actually find the middle of the word I called the modified phrase once again using the substring function with the numbers as parameters being the afformentioned midlength variable and the midlenght plus or minimum value of 3.

Section #5: (2 pts.) Misc

Task #1 (0.67 pts.) - Github Details

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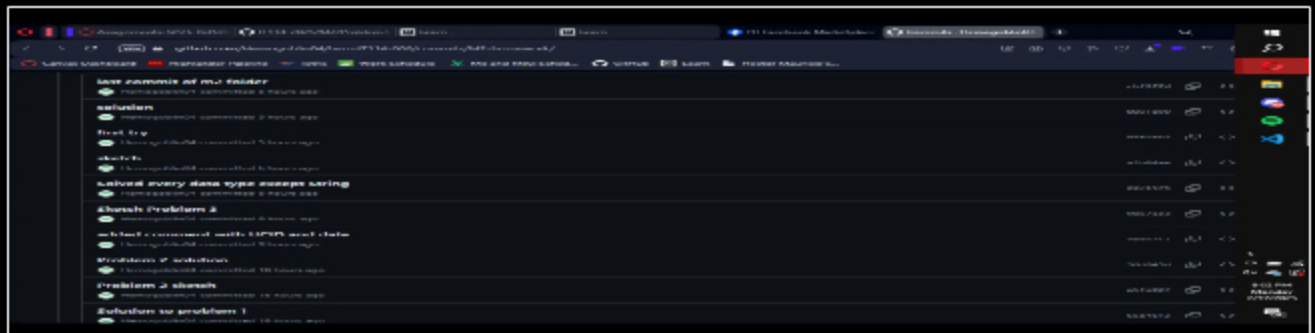
Weight: *33.33%*
Objective: *Github Details*

Item:#1

Weight: *60%*

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

≡, Image Prompt

The commits tab

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Item:#2

Weight: *40%*

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

≡, Url Prompt

URL #1
https://github.com/Hemogoblin04/hem-
IT114-006its/M2-homework/

URL
https://github.com/Hemogoblin04/

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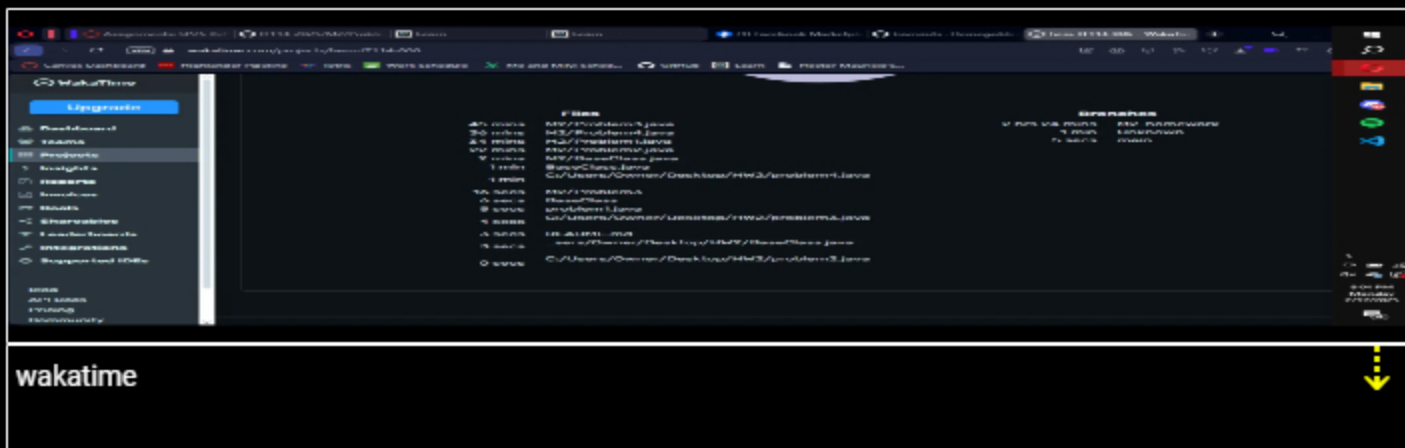# Task #2 (0.00 / 0.67 pts.) - WakaTime - Activity

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

🖼 Image Prompt

wakatime

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Task #3 (0.00 / 0.67 pts.) - Reflection

Sub-Tasks:

Task #1 (0.00 / 0.33 pts.) - What did you learn?

Weight: *33.33%*

Objective: *What did you learn?*

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

≡, Text Prompt

Your Response:

I relearned a lot of java syntax I forgot after not coding in it for awhile. A lot of thel logic needed for when to choose what kind of loop or what you conditions are also came back to me. I also learned a lot of string methods I hadnt known about or just never used

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Task #2 (0.00 / 0.33 pts.) - What was the easiest part of the a

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

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

≡, Text Prompt

Your Response:

The very first problem was extremely simple.

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Task #3 (0.00 / 0.33 pts.) - What was the hardest part of the a

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

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

≡, Text Prompt

Your Response:

Honestly I had a lot of struggle with problem 4 and just trying to find the right functions/methods of string i needed to get it done