

Course: IT114-010-S2025

Assignment: IT114 Module 3 User Input Challenges

Student: Andy C. (aac97)

Status: Submitted | Worksheet Progress: 100.00%

Potential Grade: 10.00/10.00 (100.00%)

Received Grade: 0.00/10.00 (0.00%)

Grading Link: <https://learn.ethereallab.app/assignment/v3/IT114-010-S2025/it114-module-3-user-input-challenges/grading/aac97>

Instructions

1. Ensure you read all instructions and objectives before starting.
2. Create a new branch from main called M3-Homework
 1. `git checkout main` (ensure proper starting branch)
 2. `git pull origin main` (ensure history is up to date)
 3. `git checkout -b M3-Homework` (create and switch to branch)
3. Copy the template code from here: [GitHub Repository - M3 Homework](#)
 - It includes CommandLineCalculator, SlashCommandHandler, MadLibsGenerator, a BaseClass and a stories folder with 5 stories (used for MadLibsGenerator). Put all into an M3 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 M3 HW baseline files"`
 - ☐ `git push origin M3-Homework`
 - ☐ Create a Pull Request from M3-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
 - ☐ Update the `ucid` variable
 - ☐ 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 M3-Homework`
 4. On Github merge the pull request from M3-Homework to main
7. Upload the same PDF to Canvas
8. Sync Local
 1. `git checkout main`
 2. `git pull origin main`

Section #1: (3 pts.) Challenge 1 - Command Line Calculator (Add/sub)

Task #1 (3 pts.) - Edit the `main` method to solve the requirements

Combo Task:

Weight: 100%

Objective: Edit the `main` method to solve the requirements

Details:

- Don't adjust the give code unless noted
- Challenge 1: Accept two numbers and an operator as command-line arguments (+ and -)
- Challenge 2: Allow integer and floating-point numbers
 - Ensure correct decimal places in output based on input (e.g., 0.1 + 0.2 → 1 decimal place)
- Display an error for invalid inputs or unsupported operators
- Add code to solve the problem (add/commit as needed)

Item:#1

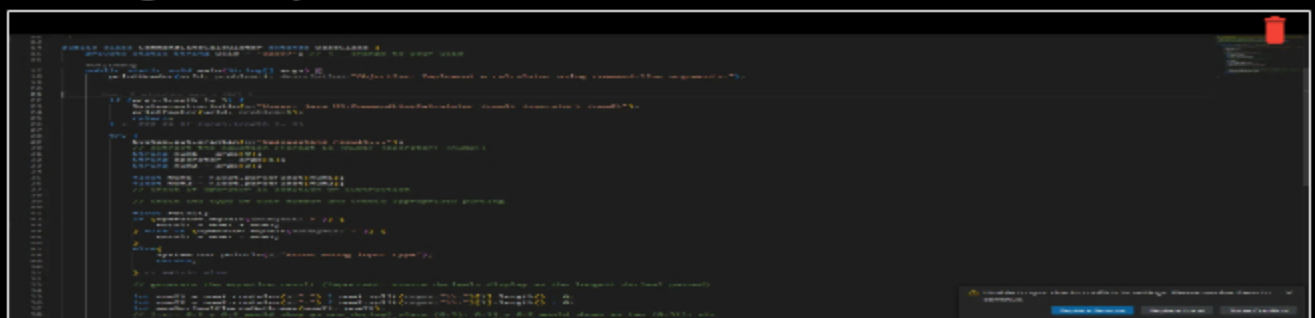
Weight: 40%

Details:

Two screenshots are expected

1. Snippet of relevant code showing solution (with ucid/date comment)
2. Full output of executing the program (Capture 5 variations of tests)

Image Prompt



part 1 code



```
1 // This Java program implements a simple calculator.
2 package com.pollobear.aac97;
3
4 import java.util.Scanner;
5
6 public class CommandLineCalculator {
7     // Main method
8     public static void main(String[] args) {
9         // Create a Scanner object to read input from the user
10         Scanner scanner = new Scanner(System.in);
11
12         // Prompt the user to enter an expression
13         System.out.print("Enter an expression: ");
14
15         // Read the input expression
16         String expression = scanner.nextLine();
17
18         // Evaluate the expression
19         double result = evaluate(expression);
20
21         // Display the result
22         System.out.println("Result: " + result);
23     }
24
25     // Method to evaluate the expression
26     private static double evaluate(String expression) {
27         // Remove spaces from the expression
28         expression = expression.replaceAll(" ", "");
29
30         // Check if the expression is a valid number
31         if (expression.matches("\\d+\\.?\\d*")) {
32             return Double.parseDouble(expression);
33         }
34
35         // Check if the expression is a valid operation
36         if (expression.matches("\\d+([+|-|*|/])\\d+\\.?\\d*")) {
37             String[] parts = expression.split("[+|-|*|/]");
38             double left = Double.parseDouble(parts[0]);
39             double right = Double.parseDouble(parts[1]);
40             char operator = parts[2].charAt(0);
41
42             switch (operator) {
43                 case '+':
44                     return left + right;
45                 case '-':
46                     return left - right;
47                 case '*':
48                     return left * right;
49                 case '/':
50                     return left / right;
51             }
52         }
53
54         // Invalid expression
55         return 0;
56     }
57 }
```

part 2 code

```
1 // This Java program implements a simple calculator.
2 package com.pollobear.aac97;
3
4 import java.util.Scanner;
5
6 public class CommandLineCalculator {
7     // Main method
8     public static void main(String[] args) {
9         // Create a Scanner object to read input from the user
10         Scanner scanner = new Scanner(System.in);
11
12         // Prompt the user to enter an expression
13         System.out.print("Enter an expression: ");
14
15         // Read the input expression
16         String expression = scanner.nextLine();
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18         // Evaluate the expression
19         double result = evaluate(expression);
20
21         // Display the result
22         System.out.println("Result: " + result);
23     }
24
25     // Method to evaluate the expression
26     private static double evaluate(String expression) {
27         // Remove spaces from the expression
28         expression = expression.replaceAll(" ", "");
29
30         // Check if the expression is a valid number
31         if (expression.matches("\\d+\\.?\\d*")) {
32             return Double.parseDouble(expression);
33         }
34
35         // Check if the expression is a valid operation
36         if (expression.matches("\\d+([+|-|*|/])\\d+\\.?\\d*")) {
37             String[] parts = expression.split("[+|-|*|/]");
38             double left = Double.parseDouble(parts[0]);
39             double right = Double.parseDouble(parts[1]);
40             char operator = parts[2].charAt(0);
41
42             switch (operator) {
43                 case '+':
44                     return left + right;
45                 case '-':
46                     return left - right;
47                 case '*':
48                     return left * right;
49                 case '/':
50                     return left / right;
51             }
52         }
53
54         // Invalid expression
55         return 0;
56     }
57 }
```

5 examples

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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://github.com/PolloBear/aac97-IT114-010M3-Homework/M3/CommandLineCalculator.java>

 <https://github.com/PolloBear/aac97-IT114-010M3-Homework/M3/CommandLineCalculator.java>

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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:

It collects the information the command line and puts it into different object types converting it into a decimal and adding or subtracting and scanning if there are any decimal places to put it in the right format



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Section #2: (3 pts.) Challenge 2 - Slash Command Handler

Task #1 (3 pts.) - Edit the `main` method to solve the requirements

Combo Task:

Weight: 100%

Objective: Edit the `main` method to solve the requirements

Details:

- Don't adjust the given code unless noted
- Challenge 1: Accept user input as slash commands (Commands are case-insensitive)
 - `"/greet <name>"` → Prints "Hello, <name>!"
 - `"/roll <num>d<sides>"` → Roll <num> dice with <sides> and returns a single outcome as "Rolled <num>d<sides> and got <result>!"
 - `"/echo <message>"` → Prints the message back
 - `"/quit"` → Exits the program
- Challenge 2: Print an error for unrecognized commands
- Challenge 3: Print errors for invalid command formats (when applicable)
- Add code to solve the problem (add/commit as needed)

Item:#1

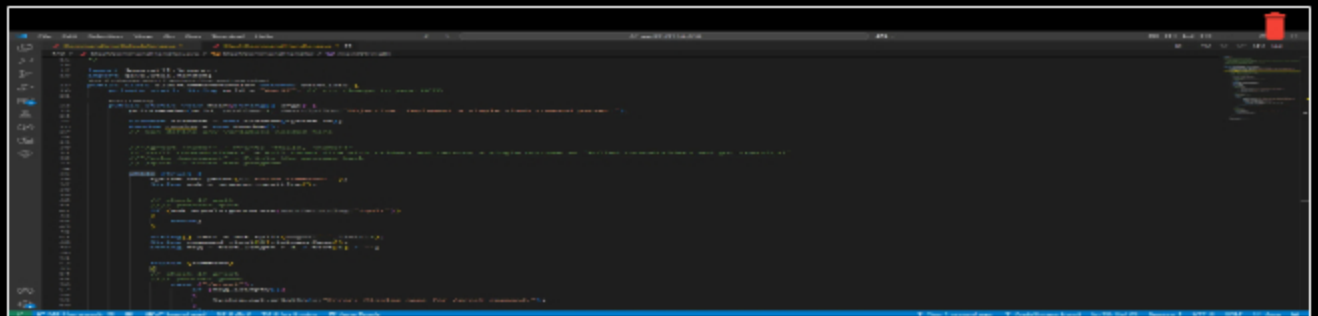
Weight: 40%

Details:

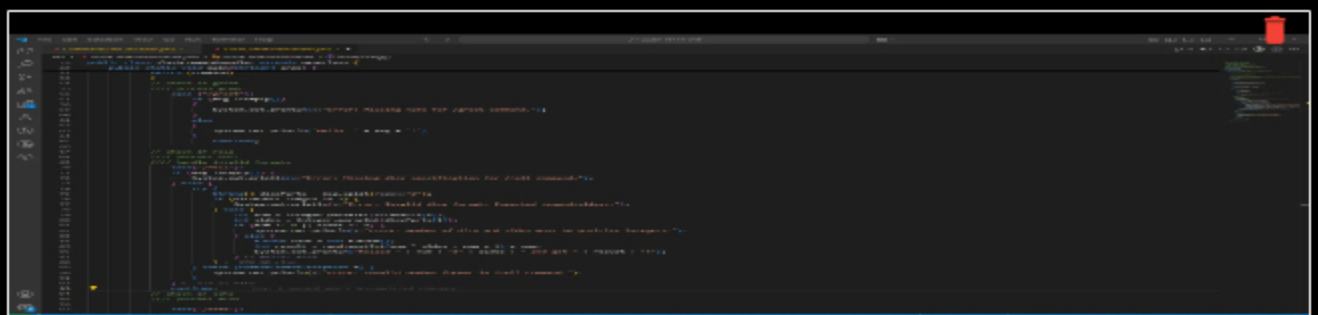
Two screenshots are expected

1. Snippet of relevant code showing solution (with ucid/date comment)
2. Full output of executing the program (Capture 3 variations of each command except "/quit")

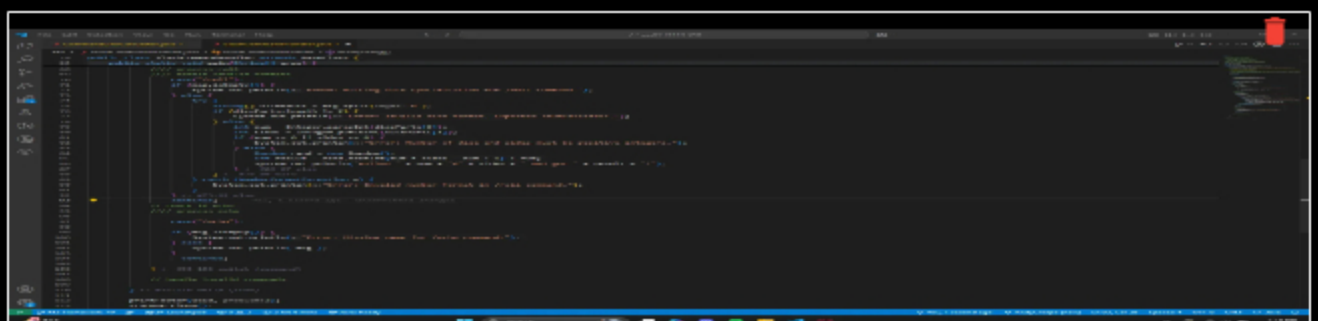
Image Prompt



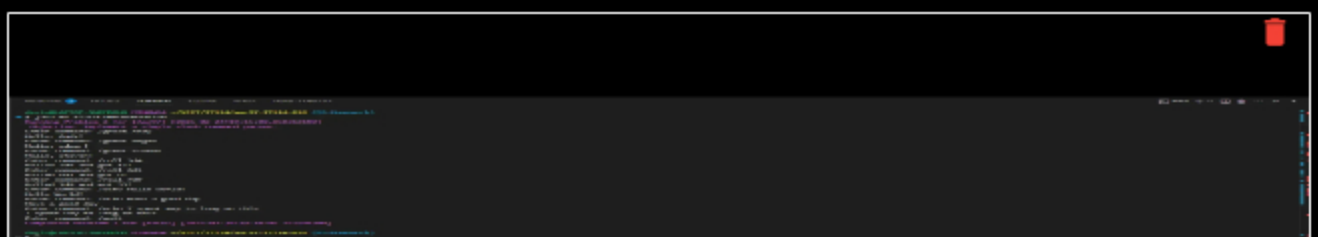
part 1



part 2



part 3



this is the 3 variations of each command



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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://github.com/PolloBear/aac97-IT114/blob/M3-Homework/M3/SlashCommandHandler.java>



URL

<https://github.com/PolloBear/aac97-IT114/blob/M3-Homework/M3/SlashCommandHandler.java>



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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:

The code solves the /greet,/roll/ and /echo commands a user puts in when a use provided the write information. If not the user will get an input error telling them they did something wrong. This is put into a switch method so tat it can switch from each case example would be /greet is one case and the rest being the same



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Section #3: (3 pts.) Challenge 3 - Mad Libs Generator

Task #1 (3 pts.) - Edit the `main` method to solve the challenges

Combo Task:

Weight: 100%

Objective: Edit the `main` method to solve the challenges

Details:

- Don't adjust the give code unless noted
- Ensure you have the stories folder with the 5 stories
- Challenge 1: Load a **random** story from the "stories" folder
- Challenge 2: Extract **each line** into a collection (i.e., ArrayList)
- Challenge 3: Prompts user for each placeholder (i.e., <adjective>)
 - Any word the user types is acceptable, no need to verify if it matches the placeholder type
 - Any placeholder with underscores should display with spaces instead
- Challenge 4: Replace placeholders with user input (assign back to original slot in collection)
- 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 (Capture the process for at least 2 stories)

≡ Image Prompt



part 1 code

```
1 // Import necessary packages
2 import java.util.*;
3 import java.io.*;
4
5 // Main class
6 public class Main {
7     // Main method
8     public static void main(String[] args) {
9         // Scanner for input
10         Scanner sc = new Scanner(System.in);
11
12         // Read input
13         int n = sc.nextInt();
14         int m = sc.nextInt();
15
16         // Create array
17         int[] arr = new int[n];
18
19         // Read array elements
20         for (int i = 0; i < n; i++) {
21             arr[i] = sc.nextInt();
22         }
23
24         // Sort array
25         Arrays.sort(arr);
26
27         // Print array elements
28         for (int i = 0; i < n; i++) {
29             System.out.print(arr[i] + " ");
30         }
31         System.out.println();
32     }
33 }
```

part 2 code

```
1 // Import necessary packages
2 import java.util.*;
3 import java.io.*;
4
5 // Main class
6 public class Main {
7     // Main method
8     public static void main(String[] args) {
9         // Scanner for input
10         Scanner sc = new Scanner(System.in);
11
12         // Read input
13         int n = sc.nextInt();
14         int m = sc.nextInt();
15
16         // Create array
17         int[] arr = new int[n];
18
19         // Read array elements
20         for (int i = 0; i < n; i++) {
21             arr[i] = sc.nextInt();
22         }
23
24         // Sort array
25         Arrays.sort(arr);
26
27         // Print array elements
28         for (int i = 0; i < n; i++) {
29             System.out.print(arr[i] + " ");
30         }
31         System.out.println();
32     }
33 }
```

part 3 code

```
1 // Import necessary packages
2 import java.util.*;
3 import java.io.*;
4
5 // Main class
6 public class Main {
7     // Main method
8     public static void main(String[] args) {
9         // Scanner for input
10         Scanner sc = new Scanner(System.in);
11
12         // Read input
13         int n = sc.nextInt();
14         int m = sc.nextInt();
15
16         // Create array
17         int[] arr = new int[n];
18
19         // Read array elements
20         for (int i = 0; i < n; i++) {
21             arr[i] = sc.nextInt();
22         }
23
24         // Sort array
25         Arrays.sort(arr);
26
27         // Print array elements
28         for (int i = 0; i < n; i++) {
29             System.out.print(arr[i] + " ");
30         }
31         System.out.println();
32     }
33 }
```

Testing of the code

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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

≡ Text Prompt

URL #1

[https://github.com/PolloBear/aac97-](https://github.com/PolloBear/aac97-IT114/blob/M3-Homework/M3/MadLibsGenerator.java)

[IT114/blob/M3-](https://github.com/PolloBear/aac97-IT114/blob/M3-Homework/M3/MadLibsGenerator.java)

[Homework/M3/MadLibsGenerator.java](https://github.com/PolloBear/aac97-IT114/blob/M3-Homework/M3/MadLibsGenerator.java)



URL

[https://github.com/PolloBear/aac97-](https://github.com/PolloBear/aac97-IT114/blob/M3-Homework/M3/MadLibsGenerator.java)



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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:

The code gets a random storie from the files provided which five stories and with that it find all the types in <> and ask the user to put a certain word to fill it in/



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Section #4: (1 pt.) Misc

Task #1 (0.33 pts.) - Github Details

Combo Task:

Weight: 33.33%

Objective: Github Details

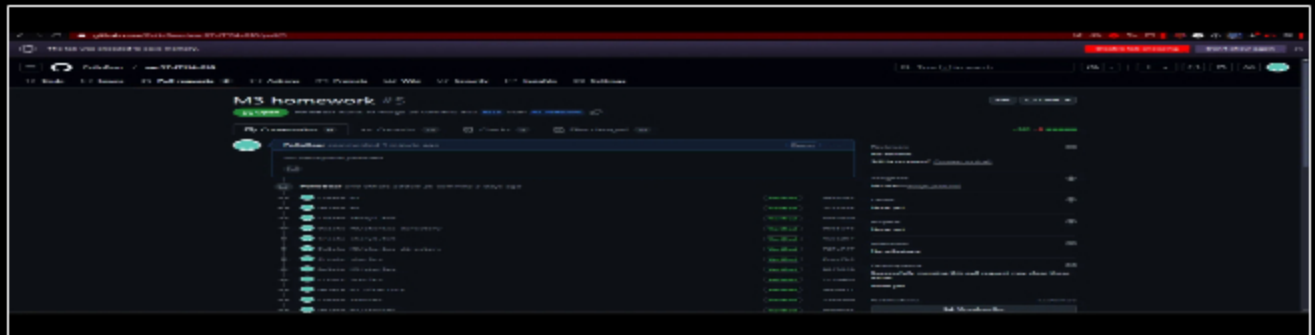
Item:#1

Weight: 60%

Details:

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

Image Prompt



git screenshot

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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/PolloBear/aac97-IT114-0115/>



URL

<https://github.com/PolloBear/aac97-IT114-0115/>

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Task #2 (0.00 / 0.33 pts.) - WakaTime - Activity

Weight: 33.33%

Objective: *WakaTime - Activity*

Details:

- Visit the WakaTime.com Dashboard



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

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:

This wasn't really easy, honestly, but the easiest part was the first one: creating the /greet echo, which is a simple print statement, and figuring out if the user put the correct content. That and the first one were the easiest parts compared to the others.



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

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:

The last one is trying to figure out if there is a more simple way to put the code. Getting the idea to fix it is so much easier than figuring out how to put it into code. I feel like I can find the answer by figuring out how to do the problem but putting it into code is so hard. The files were also hard because forgot how to do it.



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