

# Submission Worksheet

## Submission Data

**Course:** IT114-450-M2025

**Assignment:** IT114 Module 3 User Input Challenges

**Student:** Daniel C. (dvc2)

**Status:** Submitted | **Worksheet Progress:** 100%

**Potential Grade:** 10.00/10.00 (100.00%)

**Received Grade:** 0.00/10.00 (0.00%)

**Started:** 6/16/2025 10:45:48 PM

**Updated:** 6/16/2025 11:31:51 PM

**Grading Link:** <https://learn.ethereallab.app/assignment/v3/IT114-450-M2025/it114-module-3-user-input-challenges/grading/dvc2>

**View Link:** <https://learn.ethereallab.app/assignment/v3/IT114-450-M2025/it114-module-3-user-input-challenges/view/dvc2>

## Instructions

- Overview Link: <https://youtu.be/iowHMCKuj5o>
- 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)

Progress: 100%

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

Progress: 100%

## 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.,  $0.1 + 0.2 \rightarrow 1$  decimal place)
- Display an error for invalid inputs or unsupported operators
- 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 (Capture 5 variations of tests)

```
➤ $ cd /workspaces/ucsd-11114-090 [PS: Homework] & java PS-CommandLineCalculator 0.1 + 0.2
Running Problem 1 for [0.1+0.2] [2025-06-17T02:45:14.678758592]
Objective: Implement a calculator using command-line arguments.
Calculating result...
Result: 0.3
Completed Problem 1 for [0.1+0.2] [2025-06-17T02:45:14.685508880]

➤ $ cd /workspaces/ucsd-11114-090 [PS: Homework] & java PS-CommandLineCalculator 0.1 + 0.1
Running Problem 1 for [0.1+0.1] [2025-06-17T02:45:14.685508880]
Objective: Implement a calculator using command-line arguments.
Calculating result...
Result: 0.2
Completed Problem 1 for [0.1+0.1] [2025-06-17T02:45:14.685508880]

➤ $ cd /workspaces/ucsd-11114-090 [PS: Homework] & java PS-CommandLineCalculator 1.2 + 1.2
Running Problem 1 for [1.2+1.2] [2025-06-17T02:45:14.685508880]
Objective: Implement a calculator using command-line arguments.
Calculating result...
Result: 2.4
Completed Problem 1 for [1.2+1.2] [2025-06-17T02:45:14.685508880]

➤ $ cd /workspaces/ucsd-11114-090 [PS: Homework] & java PS-CommandLineCalculator 20.44 + 30.20
Running Problem 1 for [20.44+30.20] [2025-06-17T02:45:14.685508880]
Objective: Implement a calculator using command-line arguments.
Calculating result...
Result: 50.64
Completed Problem 1 for [20.44+30.20] [2025-06-17T02:45:14.685508880]
```

output

```
import java.util.*;
import java.math.BigDecimal;

public class PS-CommandLineCalculator {
    public static void main(String[] args) {
        if (args.length != 3) {
            System.out.println("Usage: java PS-CommandLineCalculator <num1> <operator> <num2>");
            return;
        }
        String num1Str = args[0];
        String operator = args[1];
        String num2Str = args[2];

        BigDecimal num1 = new BigDecimal(num1Str);
        BigDecimal num2 = new BigDecimal(num2Str);

        BigDecimal result = null;

        if (operator.equals("+")) {
            result = num1.add(num2);
        } else if (operator.equals("-")) {
            result = num1.subtract(num2);
        } else {
            System.out.println("Unsupported operator: " + operator);
            return;
        }

        // Format the result to the correct decimal places
        int scale = Math.max(num1Str.indexOf("."), num2Str.indexOf(".")) + 1;
        if (scale < 1) scale = 0;
        result = result.setScale(scale, RoundingMode.HALF_UP);

        System.out.println(result.toPlainString());
    }
}
```

code



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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/dcarch2/dvc2-it114b50/M3-Homework/M3/CommandLineCalculator.java>



URL

<https://github.com/dcarch2/dvc2-it114b50/M3-Homework/M3/CommandLineCalculator.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:

My code solves the challenge by parsing the user input from the comand line, validating the operator, and then finally completing the math for it and formatting the result based on the input.



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

Progress: 100%

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

Progress: 100%

### Details:

- Don't adjust the give code unless noted
- Challenge 1: Accept user input as slash commands (Commands are case-insensitive)

• `"/greet <name>"` → Prints "Hello, <name>!"

<https://github.com/dcarch2/dvc2>



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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 solves the challenge by parsing the user input, then identifying the proper command, and finally validating the format and outputting the corresponding values in the terminal. It also handles errors for any incorrect commands.



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

Progress: 100%

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

Progress: 100%

#### 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)

### 🖼 Part 1:


Progress: 100%

#### Details:

Two screenshots are expected



outputting the final story.

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## Section #4: ( 1 pt.) Misc

Progress: 100%

### ☰ Task #1 ( 0.33 pts.) - Github Details

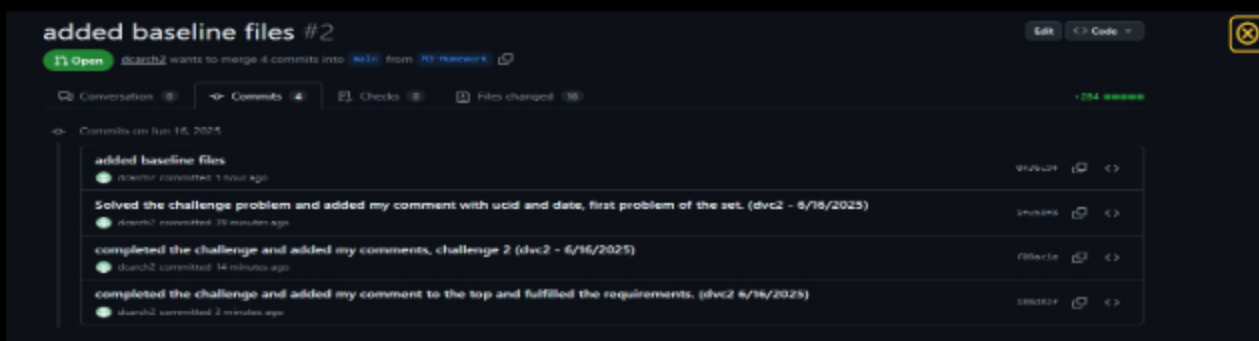
Progress: 100%

#### 📁 Part 1:


Progress: 100%

##### Details:

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



my commits

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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/dcarch2/dvc2-it114p4if02>



URL

<https://github.com/dcarch2/dvc2->

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### 📁 Task #2 ( 0.33 pts.) - WakaTime - Activity

Progress: 100%

##### Details:

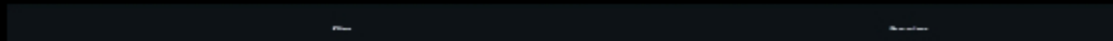
- Visit the WakaTime.com Dashboard



- 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



Individual



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## ☰ Task #3 ( 0.33 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 process and validate user input using logic and parsing strings. It helped my overall Java skills and I feel more confident with command handling and dealing with error messages now.



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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 easier part of the assignment was definitely the Mad Lib Generator Challenge. It took me the least time to complete and gave me no substantial errors.



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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 the slash command handler challenge. It took me the longest time to complete and I had to go back and change my code frequently because not every part of the output was functioning correctly or working as I needed it to.



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