

Submission Worksheet

CLICK TO GRADE

<https://learn.ethereallab.app/assignment/IT114-450-M2024/it114-module-3-number-guesser-4/grade/jah89>

IT114-450-M2024 - [IT114] Module 3 Number Guesser 4

Submissions:

Submission Selection

1 Submission [active] 6/9/2024 1:46:23 PM

Instructions

^ COLLAPSE ^

Overview Video: <https://youtu.be/ej6lWrg9XjE>

1. Create the below branch name
2. Implement the NumberGuess4 example from the lesson/slides
 1. <https://gist.github.com/MattToegel/aced06400c812f13ad030db9518b399f>
 2. Add/commit the files as-is from the lesson material (this is the base template).
 3. Push the changes to the HW branch and create a pull request to keep open until this assignment is done
3. Pick two (2) of the following options to implement
 1. Display higher or lower as a hint after a wrong guess (only after a wrong guess that doesn't roll back the level)
 2. Implement anti-data tampering of the save file data (reject user direct edits)
 3. Add a difficulty selector that adjusts the max strikes per level (i.e., "easy" 10 strikes, "medium" 5 strikes, "hard" 3 strikes)
 4. Display a cold, warm, hot indicator based on how close to the correct value the guess is (example, 10 numbers away is cold, 5 numbers away is warm, 2 numbers away is hot; adjust these per your preference) Only display this when the wrong guess doesn't roll back the level
 5. Add a hint command that can be used once per level and only after 2 strikes have been used that reduces the range around the correct number (i.e., number is 5 and range is initially 1-15, new range could be 3-8 as a hint)
 6. Implement separate save files based on a "What's your name?" prompt at the start of the game (each person gets their own save file based on user's name)
4. Fill in the below deliverables
5. Save changes and export PDF
6. Git add/commit/push your changes to the HW branch

- Create a pull request to main (if not done so before)
- Complete the pull request (don't forget to locally checkout main and pull changes to prep for future work)
- Upload the same PDF to Canvas

Branch name: M3-NumberGuesser-4

Tasks: 5 Points: 10.00

Implementation 1 (4 pts.)

^COLLAPSE ^

Task #1 - Points: 1

Text: Implementation Evidence

Details:

Code screenshots must have ucid/date shown as a comment in the code.

Explanations must be your own words describing the logic and how the solution code solves the problem.

#1) Mention which option you picked



Explanation (required)

✓
Explain the logic of how you solved/implemented the chosen option (concrete details).

Explain how the code works, don't just paste code snippets

PREVIEW RESPONSE

I picked problem #1 to solve first which was "Display higher or lower as a hint after a wrong guess". For this code problem I went into the processGuess method where it processes the

#2) Add screenshots of the coded



Caption (required) ✓

Describe/highlight what's being shown
Showing implemented code for problem .
Starts under comment of ucid.

#3) Show implementation working by



Caption (required) ✓

Describe/highlight what's being shown
Showing the output to problem #1

guess when it's entered by the user. I didn't change anything in the if statement for winning or losing, but I added an if statement that proceeds if the user didn't win or lose. This involved a conditional statement that looks if the guess is less than the number, and if it is it will print out a hint saying the number to guess is higher. If this $\text{guess} < \text{number}$ isn't true it will go to the else which will print out a hint that the number is lower since the guess was greater than the number.

Implementation 2 (4 pts.)

^COLLAPSE ^

Task #1 - Points: 1

Text: Implementation Evidence

Details:

Code screenshots must have ucid/date shown as a comment in the code.

Explanations must be your own words describing the logic and how the solution code solves the problem.

#1) Mention which option you picked and how you solved it



Explanation (required) ✓

Explain the logic of how you solved/implemented the chosen option (concrete details). Explain how the code works, don't just paste code snippets

PREVIEW RESPONSE

The first step I did was to go to the processGuess method to where the guess is ran to see if it wins or loses. In order for me to find out how far away the

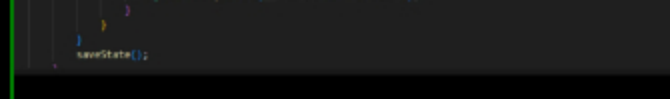
#2) Add screenshots of the coded solution (ucid/date must be visible)



```
//ucid: 00-00-2024
} else {
    int remainder = Math.abs(guess - number);
    if (remainder >= 10) {
        System.out.println("Hint: Very Cold");
    } else if (remainder >= 7) {
        System.out.println("Hint: Cold");
    } else if (remainder >= 5) {
        System.out.println("Hint: Warm");
    } else if (remainder >= 3) {
        System.out.println("Hint: Hot");
    } else {
        System.out.println("Hint: Very Hot");
    }
}

//ucid: 00-00-2024
if (guess < number) {
    System.out.println("The number is higher.");
} else {
    System.out.println("The number is lower.");
}
```

loses. In order for me to find out how far away the guess was I need a variable to store the value of the guess subtracted by the number. I decided to call this variable the "remainder" because whatever was leftover from the equation (guess - number) was how far away the guess was. I used int because each guess should be a whole number and also used Math.abs to ensure it's a positive value going into the variable. I then decided to do an else-if adding conditional statements for printing out warm, cold, very hot, etc. I had to determine what should be considered cold and warm or very cold. So I decided to do if the remainder was greater than 10 to print out to the user "Very cold". This could lead them into the direction that they are far off from the number. I went down in increments increasing the sense of "heat" as the remainder variable got closer to 0.



Caption (required) ✓

Describe/highlight what's being shown

Showing code solution for problem #4

#3) Show implementation working by running the program



```
welcome to level 4
I picked a random number between 1-25, let's see if you can guess.
Type a number and press enter
2
You guessed 2
That's wrong
Hint: Very Cold
The number is higher.
Type a number and press enter
24
You guessed 24
That's wrong
Hint: Cold
The number is lower.
Type a number and press enter
15
You guessed 15
That's wrong
Hint: Very Hot
The number is higher.
Type a number and press enter
16
You guessed 16
That's right!
Welcome to level 5
I picked a random number between 1-30, let's see if you can guess.
Type a number and press enter
```

Caption (required) ✓

Describe/highlight what's being shown

Showing output for problem #4



Misc (2 pts.)

^COLLAPSE ^



Task #1 - Points: 1

Text: Reflection

^COLLAPSE ^

#1) Learn anything new? Face any challenges? How did you overcome any issues?



Explanation (required) ✓

Provide at least a few logical sentences

 PREVIEW RESPONSE

I learned more about else if loops because for my last else if I realized to just put else { and the final statement for when none of the rest are true. For the hot and cold for the last very hot statement I tried using else if for the last statement with conditional statement and realized I didn't need a conditional because if all the rest of the else if's weren't true the number had to be 2 or lower anyway to print out very hot.

^COLLAPSE ^

Task #2 - Points: 1

Text: Pull Request URL

i Details:

URL should end with /pull/# where the # is the actual pull request number.

URL #1

<https://github.com/jah89/jah89-IT114-450/pull/7>

^COLLAPSE ^

Task #3 - Points: 1

Text: Waka Time (or related) Screenshot

Checklist

*The checkboxes are for your own tracking

#	Points	Details
<input type="checkbox"/> #1	1	Screenshot clearly shows what files/project were being worked on (the duration of time doesn't correlated with the grade for this item)

Task Screenshots:

Gallery Style: Large View

Small

Medium

Large

Files

2 hrs 6 mins M3/NumberGuesser4.java

Branches

2 hrs 7 mins M3-NumberGuesser-4

Showing total time spent coding on number guesser homework assignment

Checklist Items (0)



Projects • jah89-IT114-450

3 hrs 18 mins over the Last 7 Days in jah89-IT114-450 under all branches. 📄

Showing total time in past seven days.

Checklist Items (0)

End of Assignment