

# Submission Worksheet

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<https://learn.ethereallab.app/assignment/IT114-002-S2024/it114-number-guesser-4/grade/ns87>

IT114-002-S2024 - [IT114] Number Guesser 4

## Submissions:

Submission Selection

1 Submission [active] 2/12/2024 5:37:10 PM

## Instructions

^ COLLAPSE ^

- 1 .Create the below branch name
- 2 .Implement the NumberGuess4 example from the lesson/slides
  - 1 .<https://gist.github.com/MattToegel/aced06400c812f13ad030db9518b399f>
- 3 .Add/commit the files as-is from the lesson material (this is the base template). You may want to push this commit so you can open the pull request and keep it open.
- 4 .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)
- 5 .Fill in the below deliverables
- 6 .Save changes and export PDF
- 7 .Git add/commit/push your changes to the HW branch
- 8 .Create a pull request to main
- 9 .Complete the pull request (don't forget to locally checkout main and pull changes to prep for future work)
- 10 Upload the same PDF to Canvas

Branch name: M3-NumberGuesser-4

Tasks: 7 Points: 10.00

## Task #1 - Points: 1

Text: Chosen Option and Details

## Checklist

\*The checkboxes are for your own tracking

| #  | Points | Details  |
|----|--------|--|
| #1 | 1      | Mention which option you picked  |
| #2 | 1      | Explain the logic of how you solved/implemented the chosen option (concrete details). Explain how the code works, don't just paste code snippets |

## Response:

Option 1: Display higher or lower as a hint after a wrong guess

Chosen Option:

I picked Option 1, which involves displaying "higher" or "lower" as a hint after a wrong guess.

Logic/Implementation:

In the processGuess method, I added logic to check if the guessed number is correct or not. If the guess is incorrect, a hint is provided to the player, indicating whether they should try guessing higher or lower. This is achieved by comparing the player's guess with the randomly generated number. If the guess is less than the correct number, "Try guessing higher" is printed; otherwise, "Try guessing lower" is printed.

```

if (guess < 0) {
    return;
}
System.out.println("You guessed " + guess);
if (guess == number) {
    win();
    pickNewRandom = true;
} else {
    System.out.println("That's wrong");
    // Display hint
    if (guess < number) {
        System.out.println("Try guessing higher.");
    } else {
        System.out.println("Try guessing lower.");
    }
    strikes++;
    if (strikes >= maxStrikes) {
        lose();
        pickNewRandom = true;
    }
}

```

This implementation provides players with valuable feedback after an incorrect guess, guiding them towards the

correct answer and enhancing the gaming experience.

## Task #2 - Points: 1

Text: 2+ Screenshots of code and demo

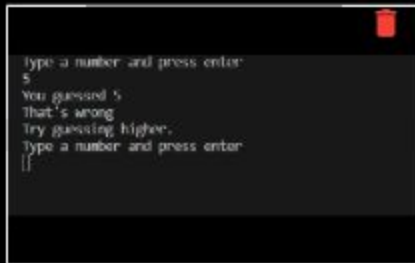
### Checklist

\*The checkboxes are for your own tracking

| #  | Points | Details  |
|----|--------|--|
| #1 | 1      | Show implementation working by running the program                   |
| #2 | 1      | Clearly caption the screenshot of what you're showing                |
| #3 | 1      | The code screenshot(s) clearly show the code specific to the feature |
| #4 | 1      | A comment with the UCID/date is visible near the code change(s)      |

### Task Screenshots:

☐ Large Gallery



Checklist Items (0)



Checklist Items (0)

The program is showing a higher number needs to be entered.

Option 1: Display higher or lower as a hint after a wrong guess Modified the processGuess method to include a hint when a wrong guess is made. Add a hint message to guide the player on whether to guess higher or lower.

## Implementation 2 (4 pts.)

## Task #1 - Points: 1

Text: Chosen Option and Details

### Checklist

\*The checkboxes are for your own tracking



| #  | Points | Details  |
|----|--------|--|
| #1 | 1      | Mention which option you picked  |
| #2 | 1      | Explain the logic of how you solved/implemented the chosen option (concrete details). Explain how the code works, don't just paste code snippets |

Response:

Option 2: Add a difficulty selector that adjusts the max strikes per level

Chosen Option:

I picked Option 2, which involves adding a difficulty selector that adjusts the maximum allowed strikes per level.

Logic/Implementation:

I introduced a new method named `selectDifficulty(String difficulty)`, which takes the chosen difficulty as an input and adjusts the `maxStrikes` accordingly. The difficulty is selected by the user at the beginning of the game, and the corresponding maximum strikes per level are set accordingly.

This implementation allows players to choose the difficulty level at the beginning of the game, tailoring the gaming experience to their preferences. The `selectDifficulty` method sets the appropriate `maxStrikes` value based on the chosen difficulty, ensuring more customized and engaging gameplay.



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Task #2 - Points: 1

Text: 2+ Screenshots of code and demo

## Checklist

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| #  | Points | Details  |
|----|--------|--|
| #1 | 1      | Show implementation working by running the program                   |
| #2 | 1      | Clearly caption the screenshot of what you're showing                |
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Task Screenshots:

☐ Large Gallery



Checklist Items (0)



Checklist Items (0)

Option 2: Add a difficulty selector that adjusts the max strikes per level Add a difficulty selector method and adjust the `maxStrikes` accordingly.

Output 2: Add a difficulty selector that adjusts the max strikes per level

## Misc (2 pts.)

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## Task #1 - Points: 1

Text: Reflection

## Checklist

\*The checkboxes are for your own tracking

| #  | Points | Details  |
|----|--------|--|
| #1 | 1      | Example prompts: Learn anything new? Face any challenges? How did you overcome and issues? |
| #2 | 1      | At least a few logical sentences related to the assignment.                                |

## Response:

In implementing the difficulty selector (Option 2), I learned to enhance the user experience by allowing players to tailor the game difficulty according to their preferences. The challenge was to integrate this feature seamlessly into the existing code. To overcome this, I created a separate method, `selectDifficulty`, which efficiently handles the difficulty selection logic. This not only made the code more modular but also improved the overall readability and maintainability of the program. Overall, the process helped me reinforce the importance of well-structured code and the significance of user customization in game design.

## Task #2 - Points: 1

Text: Pull Request URL

## Details:

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

## URL #1

<https://github.com/Noaman4/Number-Guesser/pull/1>

## Task #3 - Points: 1

Text: Waka Time (or related) Screenshot

## Checklist

\*The checkboxes are for your own tracking

| #  | Points | Details   |
|----|--------|---|
| #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:

☐ Large Gallery



Checklist Items (0)