

REPORT ON HOW TO USE THE TOWER OF HANOI GAME

LUCAS AZEVEDO DIAS

INTRODUCTION

The Tower of Hanoi is a classic puzzle game that involves moving a stack of discs from one tower to another, following specific rules. This Java program provides an interactive implementation of the Tower of Hanoi game. This report will guide you through how to use this program, including its features and how to play the game.

GETTING STARTED

To use the Tower of Hanoi game, follow these steps:

1. **Run the Program:** Click on the indicated button to run the program.
2. **Initializing the Game:** Upon running the program, you will see the initial message "TOWER OF HANOI GAME" displayed on the screen. The program will prompt you to provide some initial settings:
 - **Type the desired size of the Tower of Hanoi:** Enter the number of discs you want to use in the game. The larger the number, the more challenging the game becomes.
 - **Type if the completion order is ascending [Y/N]:** Specify whether you want to solve the Tower of Hanoi in ascending order (from the smallest disc to the largest) by typing 'Y' for yes or 'N' for no.
 - **Show step by step in autosolve mode? [Y/N]:** Decide if you want to see each step when the program is solving the Tower of Hanoi automatically. Type 'Y' for yes or 'N' for no.

PLAYING THE GAME

After initializing the game with your preferred settings, you will enter the game loop. Here are the key options and actions you can take:

- **0 - Exit game:** Typing '0' allows you to exit the game at any time.
- **1 - Move:** Choose '1' to manually make a move. The program will prompt you to enter the start tower and the end tower for your move. Follow the on-screen instructions and enter the tower numbers as indicated. If your move is valid, the program will execute it and display a success message. Otherwise, you will be notified of an invalid move.
- **2 - Autosolve mode:** Select '2' to let the program automatically solve the Tower of Hanoi puzzle for you. The program will determine the optimal moves to solve the puzzle and display each step if you opted to see them during initialization.

Continue making moves or using autosolve until you either solve the puzzle or decide to exit the game by choosing '0'.

GAME OUTCOME

The program will continuously update the game state and display the current status of the towers as you make moves or use autosolve. Once the Tower of Hanoi is solved, you will receive a congratulatory message. If you choose to exit the game before solving it, you will be informed of your progress.

Additionally, the program will provide you with information about the minimum number of moves required to solve the Tower of Hanoi and the number of moves you took.

CONCLUSION

This Tower of Hanoi game program provides an enjoyable and interactive experience for players who want to challenge themselves with this classic puzzle. Follow the steps outlined in this report to use the program effectively and have fun solving the Tower of Hanoi!

Wrote using [ChatGPT](#) from OpenAI.