**Wandering in the Woods**

**Introduction**

This program simulates a scenario where multiple people are placed in a grid and move randomly until they meet each other. The program allows you to specify the size of the grid, the number of people, and the number of experiments to run. After running the experiments, the program displays statistics about the total moves, longest runs, shortest runs, and average runs for each person.

**Getting Started**

To run the program, you will need Python 3 installed on your computer. If you don't have Python installed, you can download it from the official website: <https://www.python.org/downloads/>

**Installation**

To install the Wandering in the Woods program, simply download the .exe file from the provided link and save it to your desired location.

**Usage**

1. Double-click on the Wandering in the woods.exe file to open the program.
2. Enter the grid width, grid height, and number of people when prompted. Note that the grid dimensions must be between 1 and 100, and the number of people must be between 1 and 10.
3. Enter the number of experiments you want to run when prompted. Note that the number of experiments must be between 1 and 1000.
4. Wait for the program to run the simulations and calculate the statistics.
5. The program will display the total number of moves made by each person, the longest and shortest runs made by each person, and the average number of moves made by each person across all simulations.

After running the experiments, the program will display the following statistics for each person:

* Total moves: the total number of moves made by the person across all experiments.
* Longest runs: the longest number of moves made by the person in a single experiment.
* Shortest runs: the shortest number of moves made by the person in a single experiment.
* Average runs: the average number of moves made by the person across all experiments.

**Customizing the Program**

If you want to customize the program, you can modify the following variables:

* **grid\_width**: the width of the grid (default: 7)
* **grid\_height**: the height of the grid (default: 5)
* **num\_people**: the number of people in the simulation (default: 2)
* **num\_experiments**: the number of experiments to run (default: 100)

You can change these variables to any integer value you want.

**Notes**

* The program will automatically ensure that each person is placed in a valid starting position on the grid.
* The program will display an error message if the grid dimensions or number of people or experiments fall outside the allowed range.
* The program may take some time to run if you choose to run a large number of experiments or a large grid. Please be patient and allow the program to complete the simulations and calculations.
* The program will save your settings in a configuration file so that you don't have to enter them again the next time you run the program.

**Conclusion**

This program is a simple simulation that demonstrates how random movements can lead to the meeting of multiple people in a grid. By customizing the program, you can explore different scenarios and analyze the statistics to gain insights into the behavior of the simulation.