Project: 1   A Job Ready Bootcamp in C++, DSA and IOT   MySirG

Number Shifting Game

You are given a 4x4 matrix with random values filled.

$$\begin{bmatrix} 10 & 7 & 5 & 3 \\ 6 & 15 & 11 & 4 \\ 9 & 1 & 13 & 8 \\ 12 & 14 & 2 & \end{bmatrix}$$

e.g

You have to convert this random matrix to matrix which looks like this

$$\begin{bmatrix} 1 & 2 & 3 & 4 \\ 5 & 6 & 7 & 8 \\ 9 & 10 & 11 & 12 \\ 13 & 14 & 15 & \end{bmatrix}$$

Game Rules :
1. You can move only 1 step at a time with the arrow key.
2. You can move numbers at an empty position only.
3. For each valid move : your total number of moves will decrease by 1.

Winning Situation :
1. Number in a 4*4 matrix should be in order from 1 to 15

$$\begin{bmatrix} 1 & 2 & 3 & 4 \\ 5 & 6 & 7 & 8 \\ 9 & 10 & 11 & 12 \\ 13 & 14 & 15 & \end{bmatrix}$$

Gameplay:


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                RULE OF THIS GAME

1.You can move only 1 step at a time by arrow key
Move Up   : by Up arrow key
Move Down : by Down arrow key
Move Left : by Left arrow key
Move Right: by Right arrow key
2.You can move number at empty position only

3.For each valid move : your total number of move will decreased by 1
4.Wining situation : number in a 4*4 matrix should be in order from 1 to 15

           winning situation:
---------------------
| 1  | 2  | 3  | 4  |
| 5  | 6  | 7  | 8  |
| 9  | 10 | 11 | 12 |
| 13 | 14 | 15 |    |
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5.You can exit the game at any time by pressing 'E' or 'e'
So Try to win in minimum no of move

       Happy gaming , Good Luck

Enter any key to start.....  _
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  Hello  Aditya ,  Move remaining : 400

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|5  | 8  | 6  | 9  |
|14 | 13 | 3  | 1  |
|2  | 7  | 15 | 4  |
|12 | 11 | 10 |    |
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```