

Project-1:
Language: C Language

Alternate Problem Statement :

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:
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| 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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Player Name: Prateek , Move remaining : 4

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