

The application should prompt the user for an odd integer and create a magic square of that size.

```
C:\Users\George Psevdiotis\Desktop\University\CM1210 Object Oriented Java Programming\Assesment>java Q1_C1841824
Enter an odd integer to create a Magic Square of that size
3
```

The magic square should then be shuffled by repeatedly (for n^2 times) choosing a random element and swapping it with a random neighbour (not including diagonals).

```
Enter an odd integer to create a Magic Square of that size
3

Length of the Magic Box is 3

[ 6 ] [ 1 ] [ 8 ]
[ 7 ] [ 5 ] [ 3 ]
[ 2 ] [ 9 ] [ 4 ]

Shuffled Square is:

[ 7 ] [ 1 ] [ 8 ]
[ 2 ] [ 5 ] [ 4 ]
[ 6 ] [ 9 ] [ 3 ]
```

The shuffled square should be displayed to the user, who must attempt to reconstruct a magic square.

```
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Length of the Magic Box is 3

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[ 7 ] [ 5 ] [ 3 ]
[ 2 ] [ 9 ] [ 4 ]

Shuffled Square is:

[ 7 ] [ 1 ] [ 8 ]
[ 2 ] [ 5 ] [ 4 ]
[ 6 ] [ 9 ] [ 3 ]

Sum of Rows: [16, 11, 18]
Sum of Columns: [15, 15, 15]
Sum of Diagonals: [15, 19]

Try to move the numbers using:
      [U]p
[L]eft      [R]ight
      [D]own
```

The user makes moves by giving input of the form:
i j direction

```
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Shuffled Square is:

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Sum of Rows: [16, 11, 18]
Sum of Columns: [15, 15, 15]
Sum of Diagonals: [15, 19]

Try to move the numbers using:
      [U]p
[L]eft      [R]ight
      [D]own

Your next move is: 3 1 d

[ 6 ] [ 1 ] [ 8 ]
[ 2 ] [ 5 ] [ 4 ]
[ 7 ] [ 9 ] [ 3 ]

      Number of moves:1
```

On completion, the game should report the number of moves made.

```
Your next move is: 3 3 u

[ 6 ] [ 1 ] [ 8 ]
[ 7 ] [ 5 ] [ 3 ]
[ 2 ] [ 9 ] [ 4 ]

      Number of moves:3

Sum of Rows: [15, 15, 15]
Sum of Columns: [15, 15, 15]
Sum of Diagonals: [15, 15]

Congratulation

You solved the Magic Square in 3 moves!
```