

Java Week 9 : Q4

Due on 2020-11-19, 23:59 IST

A program needs to be developed which can mirror reflect any 5×5 2D character array into its side-by-side reflection. Write suitable code to achieve this transformation as shown below:

INPUT: OUTPUT:

```

OOX●●      ●●X●●
OOX●●      ●●X●●
XXX●●      ●●XXX
OOO●●      ●●●●●
XOABC      CBAOX
  
```

Note the following points carefully:

1. Here, instead of X and O any character may be present.
2. The input and output array size must be of dimension 5×5 and nothing else.
3. Only side-by-side reflection should be performed i.e. ABC || CBA.

Private Test cases used for evaluation

Test Case 1

Test Case 2

Input	Expected Output	Actual Output	Status
X000X 0X0X0 00X00 00000 X0000	X000X\n 0X0X0\n 00X00\n 00000\n X0000	X000X\n 0X0X0\n 00X00\n 00000\n X000X	Passed
000X0 00X00 0X000 00X00 000X0	0X000\n 00X00\n 000X0\n 00X00\n 0X000	0X000\n 00X00\n 000X0\n 00X00\n 0X000	Passed

The due date for submitting this assignment has passed.

2 out of 2 tests passed.

You scored 100.0/100.

Assignment submitted on 2020-11-10, 22:58 IST

Your last recorded submission was :

```

1 import java.util.Scanner;
2 public class Question94{
3     public static void main(String args[]){
4         Scanner sc = new Scanner(System.in);
5         // Declare necessary variables
6
7         // Input 5x5 2D Array using Scanner Class
8
9         // Perform the reflection operation
10
11        // Output 5x5 2D Reflection Array
12        char original[][]= new char[5][5];
13
14        // Declaring 5x5 2D char array to store reflection
15        char reflection[][]= new char[5][5];
16
17        // Input 2D Array using Scanner Class
18        for(int line=0;line<5; line++){
19            String input = sc.nextLine();
20            char seq[] = input.toCharArray();
21            if(seq.length==5){
22                for(int i=0;i<5;i++){
23                    original[line][i]=seq[i];
24                }
25            }
26        }
27
28        // Performing the reflection operation
29        for(int i=0; i<5;i++){
30            for(int j=0; j<5;j++){
31                reflection[i][j]=original[i][4-j];
32            }
33        }
34
35        // Output the 2D Reflection Array
36        for(int i=0; i<5;i++){
37            for(int j=0; j<5;j++){
38                System.out.print(reflection[i][j]);
39            }
40            System.out.println();
41        }
42    } // The main() method ends here
43 } // The main class ends here
  
```

Sample solutions (Provided by instructor)

```

1 import java.util.Scanner;
2 public class Question94{
3     public static void main(String args[]){
4         Scanner sc = new Scanner(System.in);
5         // Declaring 5x5 2D char array to store input
6         char original[][]= new char[5][5];
7
8         // Declaring 5x5 2D char array to store reflection
9         char reflection[][]= new char[5][5];
10
11        // Input 2D Array using Scanner Class
12        for(int line=0;line<5; line++){
13            String input = sc.nextLine();
14            char seq[] = input.toCharArray();
15            if(seq.length==5){
16                for(int i=0;i<5;i++){
17                    original[line][i]=seq[i];
  
```

Course outline

How does an NPTEL online course work?

Week 0 : Assignment 0

Week 1 :

Week 2 :

Week 3 :

Week 4 :

Week 5 :

Week 6 :

Week 7 :

Week 8 :

Week 9 :

- Lecture 41 : Demonstration- XV
- Lecture 42 : AWT Programming--III
- Lecture 43 : Swing—I
- Lecture 44 : Swing—II
- Lecture 45 : Demonstration- XVI
- Quiz: Assignment 9
- Java Week 9 : Q1
- Java Week 9 : Q2
- Java Week 9 : Q3
- Java Week 9 : Q4
- Java Week 9 : Q5
- Feedback For Week 9

Week 10 :

Week 11 :

Week 12 :

Solution

DOWNLOAD VIDEOS

Text Transcripts

Programming Test - (April 11 - 10AM - 12 PM)

Programming Test - (April 11 - 8PM - 10 PM)

```

18         }
19     }
20 }
21
22 // Performing the reflection operation
23 for(int i=0; i<5;i++){
24     for(int j=0; j<5;j++){
25         reflection[i][j]=original[i][4-j];
26     }
27 }
28
29 // Output the 2D Reflection Array
30 for(int i=0; i<5;i++){
31     for(int j=0; j<5;j++){
32         System.out.print(reflection[i][j]);
33     }
34     System.out.println();
35 }
36 } // The main() method ends here
37 } // The main class ends here

```