



## Replace Color - Adjacent Pixels

The program must accept a character matrix of size **R\*C** representing an image, the location of a pixel in the image (**X, Y**) and a color **CH** as the input. The program must replace the color of the given pixel and all adjacent same colored pixels with the color CH (all 8 possible directions). Finally, the program must print the revised matrix as the output.

### Boundary Condition(s):

2 <= R, C <= 50

1 <= X <= R

1 <= Y <= C

### Input Format:

The first line contains R and C separated by a space.

The next R lines, each contains C characters separated by a space.

The R+2<sup>nd</sup> contains X, Y and CH separated by a space.

### Output Format:

The first R lines contain the revised matrix.

### Example Input/Output 1:

Input:

4 3

B B W

W W W

W W W

B B B

2 2 G

Output:

B B G

G G G

G G G

B B B

Explanation:

Here R = 4, C = 3, X = 2, Y = 2 and CH = G.

After replacing the color of the given pixel and all the adjacent same colored pixels with the color G, the image becomes

B B G

G G G

G G G

B B B

### Example Input/Output 2:

Input:

5 6

R G R Y Y Y

G R G Y R R

R R R Y R R

G R G Y Y Y

G R R R G G

4 2 P

Output:

P G P Y Y Y

G P G Y R R

P P P Y R R

G P G Y Y Y

G P P P G G

Max Execution Time Limit: 50 millisecs



```

1 import java.util.*;
2 public class Hello {
3
4     public static void main(String[] args) {
5
6         Scanner sc = new Scanner(System.in);
7         int r = sc.nextInt();
8         int c = sc.nextInt();
9
10        char mat[][] = new char[r][c];
11
12        for(int i=0;i<r;i++)
13            for(int j=0;j<c;j++)
14                mat[i][j]=sc.next().charAt(0);
15
16        int k1 = sc.nextInt();
17        int k2 = sc.nextInt();
18
19        char changingValue = sc.next().charAt(0);
20
21        // if(r==13) {System.out.println(k1+" "+k2+mat[k1-1][k2-1]);
22
23
24        }
25
26        changeBounds(mat,k1-1,k2-1,mat[k1-1][k2-1],changingValue);
27
28        for(int i=0;i<r;i++){
29            for(int j=0;j<c;j++){
30                System.out.print(mat[i][j]+" ");
31            }
32            System.out.println();
33        }
34
35
36    }
37
38    public static void changeBounds(char[][] mat,int r,int c,char changeThis,char newValue){
39
40        // if(r==8 && c==1 && mat.length==13) System.out.println(changeThis+" functioncall "+newV
41
42        if( r<0 || c<0 || r>=mat.length || c>=mat[0].length) return;
43
44
45
46        if(mat[r][c]!=changeThis) return;
47
48        mat[r][c] = newValue;
49
50        changeBounds(mat,r+0,c+1,changeThis,newValue);
51        changeBounds(mat,r+0,c-1,changeThis,newValue);
52        changeBounds(mat,r+1,c+0,changeThis,newValue);
53        changeBounds(mat,r-1,c+0,changeThis,newValue);
54        changeBounds(mat,r-1,c+1,changeThis,newValue);
55        changeBounds(mat,r-1,c-1,changeThis,newValue);
56        changeBounds(mat,r+1,c-1,changeThis,newValue);
57        changeBounds(mat,r+1,c+1,changeThis,newValue);
58
59
60    }
61 }

```

1912067@nec

Code did not pass the execution

✕

You have used 2 reveals out of 3 in the past 7 Days.

Input:

```

13 20
SSPQPRQSPQPPQQPSRSSP
PPRRQQSRRQPPSPQSPSR
SSPQQRPPQSSSSQSSPPSP

```

```

P R R Q Q P P S S S P P Q Q Q R S S Q
Q R R P P P Q Q Q P P Q Q P S R Q S Q S
P Q R S P Q P S R P S S P Q Q P Q Q Q S
P Q S Q Q P P R P P S R R P S P S S P P
Q Q Q R S Q Q R P Q S R S S R R Q Q S P
S S P Q S S Q R R P R Q Q P Q S P R R P
R P S Q S S R R S S Q R P S Q R S P Q R
P P Q R S Q R R S R R S Q R R R P S P P
R Q Q P S P S R R S R S Q Q P P R P Q R
S S R R S S R Q S S Q P P S P R R Q Q R
8 1 Y

```

Expected Output:

```

S S P Q P R Q S P Q P P Q Q P S R S S P
P P R R Q Q S R R Q P P S P Q S P S R S
S S P Q Q R P Q Q S S S Q S S P P P S P
P R R Q Q P P S S S P P Q Q Q R S S Q
Y R R P P P Y Y Y P P Q Q P S R Q S Q S
P Y R S P Y P S R P S S P Q Q P Q Q Q S
P Y S Y P P R P P S R R P S P S S P P
Y Y Y R S Y Y R P Q S R S S R R Q Q S P
S S P Y S S Y R R P R Q Q P Q S P R R P
R P S Y S S R R S S Q R P S Q R S P Q R
P P Y R S Q R R S R R S Q R R R P S P P
R Y Y P S P S R R S R S Q Q P P R P Q R
S S R R S S R Q S S Q P P S P R R Q Q R

```

Your Program Output:

```

8 1Q
Q functioncall Y
S S P Q P R Q S P Q P P Q Q P S R S S P
P P R R Q Q S R R Q P P S P Q S P S R S
S S P Q Q R P Q Q S S S Q S S P P P S P
P R R Q Q P P S S S P P Q Q Q R S S Q
Q R R P P P Q Q Q P P Q Q P S R Q S Q S
P Q R S P Q P S R P S S P Q Q P Q Q Q S
P Q S Q Q P P R P P S R R P S P S S P P
Q Q Q R S Q Q R P Q S R S S R R Q Q S P
S S P Q S S Q R R P R Q Q P Q S P R R P
R P S Q S S R R S S Q R P S Q R S P Q R
P P Q R S Q R R S R R S Q R R R P S P P
R Q Q P S P S R R S R S Q Q P P R P Q R
S S R R S S R Q S S Q P P S P R R Q Q R

```

11 Private (Hidden) Test Cases Failed.

2 Passed

11 Failed

MEM: 0.09765625 MB CPU: 0.01

Save

Run