

## src\Array2DAssignment.java

```
1 public class Array2DAssignment {
2     public static void main(String[] args) {
3         String[][] og = createArray(10, 10);
4
5         char[][] board = {{'O', 'O' , 'X'},
6                           {' ', 'X' , 'X'},
7                           {'X', ' ', 'O'}};
8
9         System.out.println(isWinner(board));
10    }
11    public static String[][] createArray(int row, int col){
12
13        String[][] arr2d = new String[row][col];
14        for (int r = 0; r < arr2d.length; r++) {
15            for (int c = 0; c < arr2d[r].length; c++) {
16                arr2d[r][c] = "Row" + r + "Column" + c;
17            }
18        }
19        return arr2d;
20    }
21    public static void arrayPortion(String[][] startingArray, int startR, int endR, int
startC, int endC){
22
23        String[][] newArr = new String[endR - startR][endC - startC];
24        for (int r = startR; r < endR; r++) {
25            for (int c = startC; c < startingArray[endC].length; c++) {
26                startingArray[r][c] = newArr[r + startR][c + startC];
27                System.out.println(newArr);
28            }
29        }
30        System.out.println();
31    //public static int sum(String[][] arr2d){
32        // String sum = 0;
33        // for (int r = 0; r < arr2d.length; r++) {
34            // sum += arr2d[r][columnI];
35            // }
36            // return sum;
37            //visits every row in a specified column
38    }
39    public static void ticTacToe(){
40        char[][] board = {{'O', 'O' , 'X'},
41                          {' ', 'X' , 'X'},
42                          {'X', ' ', 'O'}};
43    }
44    public static boolean isValid(char[][] arr){
45        for (int r = 0; r < arr.length; r++) {
46            if (r != 'X' || r != 'O'){
47                return false;
48            }
49            for (int c = 0; c < arr[r].length; c++) {
50                if (c != 'X' || c != 'O'){
51                    return false;
52                }
53            }
54        }
55    }
```

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53     }
54 }
55     return true;
56 }
57 public static char isWinner(char[][] arr){
58
59     for (int r = 0; r < arr[0].length; r++) {
60         if ('X' == arr[r][0] && 'X' == arr[r][1] && 'X' == arr[r][2]){
61             return 'X';
62         } if('O' == arr[r][0]){
63             return 'X';
64         }
65     }
66     for (int c = 0; c < arr.length; c++){
67         if ('O' == arr[0][c] && 'O' == arr[1][c] && 'O' == arr[2][c]){
68             return 'O';
69         }
70         if('O' == arr[0][c]){
71             return 'O';
72         }
73     }
74     if ('X' == arr[0][0] && 'X' == arr[1][1] && 'X' == arr[2][2]){
75         return 'X';
76     }
77     if ('O' == arr[0][0] && 'O' == arr[1][1] && 'O' == arr[2][2]){
78         return 'O';
79     }
80     if ('X' == arr[0][2] && 'X' == arr[1][1] && 'X' == arr[2][0]){
81         return 'X';
82     }
83     if ('O' == arr[0][2] && 'O' == arr[1][1] && 'O' == arr[2][0]){
84         return 'O';
85     }
86     return ' ';
87 }
88 }
89 }
```