```java
import java.util.Random;
import java.util.Scanner;
import java.util.ArrayList;

public class MakeBoard {

    public static void print2Darray(int[][] array) {
        String intAsString = "";

        for (int i = 0; i < 4; i++) {
            if (array[i][0] == 0) {
                System.out.printf("%-10s", "*");
            } else {
                intAsString = Integer.toString(array[i][0
]);
                System.out.printf("%-10s", intAsString);
            }
            if (array[i][1] == 0) {
                System.out.printf("%-10s", "*");
            } else {
                intAsString = Integer.toString(array[i][1
]);
                System.out.printf("%-10s", intAsString);
            }
            if (array[i][2] == 0) {
                System.out.printf("%-10s", "*");
            } else {
                intAsString = Integer.toString(array[i][2
]);
                System.out.printf("%-10s", intAsString);
            }
            if (array[i][3] == 0) {
                System.out.printf("%-10s", "*");
            } else {
                intAsString = Integer.toString(array[i][3
]);
                System.out.printf("%-10s", intAsString);
            }
            System.out.print("\n" + "\n" + "\n" + "\n");
        }
    }

    public static int[][] createRandomArray(){
        Random rand = new Random();
        int[][] buildArray = new int[4][4];
        int[] determineIf4 = new int[2];
        int[] location1 = new int[2];
        int[] location2 = new int[2];
```

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45
46          determineIf4[0] = rand.nextInt(4);
47          determineIf4[1] = rand.nextInt(4);
48
49          location1[0] = rand.nextInt(4);
50          location1[1] = rand.nextInt(4);
51          location2[0] = rand.nextInt(4);
52          location2[1] = rand.nextInt(4);
53          while ((location1[0] == location2[0]) && (location1
    [1] == location2[1])) {
54              location2[0] = rand.nextInt(4);
55              location2[1] = rand.nextInt(4);
56          }
57
58          if (determineIf4[0] == 0) {
59              buildArray[location1[0]][location1[1]] = 4;
60          } else {
61              buildArray[location1[0]][location1[1]] = 2;
62          }
63
64          if (determineIf4[1] == 0) {
65              buildArray[location2[0]][location2[1]] = 4;
66          } else {
67              buildArray[location2[0]][location2[1]] = 2;
68          }
69
70          for (int i = 0; i < 4; i++) {
71              for (int j = 0; j < 4; j++) {
72                  if ((i != location1[0]) || (j != location1[
    1])) {
73                      if ((i != location2[0]) || (j !=
    location2[1])) {
74                          buildArray[i][j] = 0;
75                      }
76                  }
77              }
78          }
79          return buildArray;
80      }
81
82      public static boolean placeRandomNumber(int[][] array
    ) {
83          Random rand = new Random();
84          boolean canPlaceNum = false;
85          int[] locationOfNum = new int[2];
86          int determineIf4 = rand.nextInt(4);
87
88          for (int i = 0; i < 4; i++) {
```

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 89              for (int j = 0; j < 4; j++) {
 90                  if (array[i][j] != 0) {
 91                      canPlaceNum = true;
 92                  }
 93              }
 94          }
 95
 96          if (canPlaceNum == true) {
 97              locationOfNum[0] = rand.nextInt(4);
 98              locationOfNum[1] = rand.nextInt(4);
 99              while (array[locationOfNum[0]][locationOfNum[1
    ]] == 0) {
100                  locationOfNum[0] = rand.nextInt(4);
101                  locationOfNum[1] = rand.nextInt(4);
102              }
103              if (determineIf4 == 0) {
104                  array[locationOfNum[0]][locationOfNum[1
    ]] = 4;
105              } else {
106                  array[locationOfNum[0]][locationOfNum[1
    ]] = 2;
107              }
108          }
109
110          return canPlaceNum;
111      }
112
113 //    public static void moveInDirection(String dir, int
    [][] array) {
114 //        int placeHolder = 0;
115 //
116 //        if (dir.equals("a")) {
117 //
118 //        } else if (dir.equals("s")) {
119 //
120 //        } else if (dir.equals("d")) {
121 //
122 //        } else if (dir.equals("w")) {
123 //
124 //        }
125 //    }
126
127     public static void main(String[] args) {
128         Scanner scan = new Scanner(System.in);
129
130         print2Darray(createRandomArray());
131
132     }
```

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133
134 }
135
```