```java
/*
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 * 2D Arrays
 */

 //import statements
 import javax.swing.*;
 import java.awt.*;
 import java.awt.event.ActionListener;
 import java.awt.event.ActionEvent;
 import java.text.DecimalFormat;
import java.util.Arrays;

 public class Main extends JFrame implements ActionListener{
    // int x;
    // int y;
    int myArray[][];
    int countArray[] = new int[51];
    int total;  //track average score
    //screen components
    JTextArea outputArea = new JTextArea("", 20, 50);
    JButton btnCalculate = new JButton("Calculate");
    JTextField inputx = new JTextField(10);
    JTextField inputy = new JTextField(10);
    int highest = 50;
    int lowest = 100;
    float avg;
    int size;
    int currentnum;

    public static void main(String[] args){
        Main frame = new Main();
        frame.setSize(1000,1000);
        frame.setVisible(true);
    }

    public Main(){
        //application bar name
        super("Test Score");
        setDefaultCloseOperation(EXIT_ON_CLOSE);

        //layout manager
        setLayout(new FlowLayout());

        add(inputx);
        add(inputy);
        add(outputArea);
        add(btnCalculate);

        //add listener for button
        btnCalculate.addActionListener(this);

    }

    public void actionPerformed(ActionEvent event){
        Object objSource = event.getSource();
```

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58
59          if (objSource == btnCalculate){
60              outputArea.setText(""); //refresh contents of text area on every btn click
61              int x = Integer.parseInt(inputx.getText());
62              int y = Integer.parseInt(inputy.getText());
63              myArray = new int[x][y];
64              String outputString = "";
65              for (int b = 0; b < x; b++){
66                  for (int h = 0; h < y; h++){
67                      myArray[b][h] = (int)(Math.random()*50) + 50;
68                      total+=myArray[b][h];
69                      size += 1;
70                  }
71              }
72
73              for (int i = 0; i < x; i++){
74                  for (int n = 0; n < y; n++){
75                      if(myArray[i][n] < lowest){
76                          lowest = myArray[i][n];
77                      }
78                      if(myArray[i][n] > highest){
79                          highest = myArray[i][n];
80                      }
81                      currentnum = myArray[i][n] - 50;
82                      countArray[currentnum] += 1;
83
84                  }
85              }
86              avg = (float)(total / size);
87              // System.out.print(Arrays.deepToString(myArray));
88              // System.out.println(highest);
89              // System.out.println(lowest);
90              // System.out.println(total);
91              // System.out.println(avg);
92              // System.out.println(Arrays.toString(countArray));
93              outputString += "Highest number: " + highest;
94              outputString += "\n" + "Lowest number: " + lowest;
95              outputString += "\n" + "Average value: " + avg + "\n";
96              for(int i = 50; i < countArray.length + 50; i++){
97                  outputString += i + ": " + countArray[i - 50] + "\t";
98                  if(i % 10 ==0){
99                      outputString += "\n";
100                 }
101             }
102             outputArea.setText(outputString);
103         }
104     }
105
106 }
```