温州大学计算机与人工智能学院
Java程序设计（17网工） 实验报告

实验名称	控制显示的字符				
班　　级	18电科2	姓　　名	方涛涛	学　　号	18211110208
实验地点		实验时间	2020-12-27,15:02:35	指导老师	

一、问题编号：

2122

地址：http://10.132.254.54/problem/2122/

二、问题描述：

显示用户输入的字符。用户可以使用上、下、左、右箭头按键来将字符做相应移动。

三、输入说明：

四、输出说明：

五、输入样列：

六、输出样列：

七、解答内容：

所用语言：

源代码：

```
01. import java.awt.Font;
02. import java.awt.Graphics;
03. import java.awt.event.KeyEvent;
04. import java.awt.event.KeyListener;
05.
06. import javax.swing.JFrame;
07. import javax.swing.JLabel;
08. import javax.swing.JPanel;
09.
10. public class Main extends JFrame {
11.     public Main() {
12.         MyPanel myPanel = new MyPanel();
13.         this.add(myPanel);
14.         this.addKeyListener((KeyListener) myPanel);
15.         this.setSize(400, 300);
16.         this.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
17.         this.setVisible(true);
18.     }
19.
20.     public static void main(String[] args) {
21.         Main window = new Main();
22.         window.setTitle("KeyEvent Test");
23.     }
24.
25. }
26.
27. class MyPanel extends JPanel implements KeyListener {
28.     int x = 10;
29.     int y = 10;
30.     JLabel label = null;
```

```
31.
32.        public MyPanel() {
33.            label = new JLabel();
34.            label.setText("J");
35.            label.setFont(new Font("", Font.PLAIN, 16));
36.            add(label);
37.        }
38.
39.        @Override
40.        public void paint(Graphics g) {
41.            super.paint(g);
42.            label.setLocation(x, y);
43.        }
44.
45.        @Override
46.        public void keyPressed(KeyEvent arg0) {
47.
48.            if (arg0.getKeyCode() == KeyEvent.VK_UP) {
49.
50.                y -= 10;
51.            }
52.            if (arg0.getKeyCode() == KeyEvent.VK_DOWN) {
53.
54.                y += 10;
55.            }
56.            if (arg0.getKeyCode() == KeyEvent.VK_LEFT) {
57.
58.                x -= 10;
59.            }
60.            if (arg0.getKeyCode() == KeyEvent.VK_RIGHT) {
61.
62.                x += 10;
63.            }
64.            this.repaint();
65.        }
66.
67.        @Override
68.        public void keyTyped(KeyEvent keyEvent) {
69.
70.        }
71.
72.        @Override
73.        public void keyReleased(KeyEvent keyEvent) {
74.
75.        }
76.
77.
78.    }
```

八、判题结果

RE - 运行错误

判题结果补充说明：

test id:4080,result:RE, usedtime:148MS, usedmem:3368KB,score:50 Exception in thread "main" java.awt.HeadlessException: No X11 DISPLAY variable was set, but this program performed an operation which requires it. at java.awt.GraphicsEnvironment.checkHeadless(GraphicsEnvironment.java:173) at java.awt.Window.<init>(Window.java:547) at java.awt.Frame.<init>(Frame.java:419) at java.awt.Frame.<init>(Frame.java:384) at javax.swing.JFrame.<init>(JFrame.java:174) at Main.<init>(Main.java:11) at Main.main(Main.java:21) test id:4081,result:RE, usedtime:148MS, usedmem:3356KB,score:50 Exception in thread "main" java.awt.HeadlessException: No X11 DISPLAY variable was set, but this program performed an operation which requires it. at java.awt.GraphicsEnvironment.checkHeadless(GraphicsEnvironment.java:173) at java.awt.Window.<init>(Window.java:547) at java.awt.Frame.<init>(Frame.java:419) at java.awt.Frame.<init>(Frame.java:384) at javax.swing.JFrame.<init>(JFrame.java:174) at Main.<init>(Main.java:11) at Main.main(Main.java:21)