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Batch: L5

Problem Statement: Write a program in Java to demonstrate status of key on GUI such as KeyPressed, KeyReleased, KeyTyped. Use Key listener interface

Code:

```
package ajp_codes;
package java_assign;
import java.awt.*;
import java.awt.event.*;

public class assign6 extends Frame implements KeyListener
{
    TextField keyfld;
    Label lbl1;
    Panel mainPanel;
    public assign6()
    {
        setSize(500,500);
        setVisible(true);
        setTitle("Key Events");
        setLocationRelativeTo(null);
        setLayout(null);
        addComponents();

        this.addWindowListener(new WindowAdapter()
        {
            public void windowClosing(WindowEvent e)
            {
                dispose();
            }
        });
    }
    public void addComponents()
    {
        Font f = new Font("verdena",Font.BOLD,35);

        mainPanel = new Panel();
        mainPanel.setLayout(null);
        mainPanel.setBackground(Color.GRAY);
        mainPanel.setBounds(0,0,500,500);
        add(mainPanel);
    }
}
```



```
lbl1 = new Label("Key Events");
lbl1.setBounds(20,50,200,25);
lbl1.setForeground(Color.black);
lbl1.setFont(new Font("verdena",Font.BOLD,20));
mainPanel.add(lbl1);
```

```
keyfld = new TextField();
keyfld.setBounds(20,80,460,40);
keyfld.setBackground(Color.white);
keyfld.setForeground(Color.black);
keyfld.setFont(f);
mainPanel.add(keyfld);
keyfld.addKeyListener(this);
```

```
    }
    public static void main(String[] args)
    {
        new assign6();
    }

    @Override
    public void keyTyped(KeyEvent e) {
        // TODO Auto-generated method stub
        System.out.println("Key typed");
        keyfld.setText("Key typed");
    }

    @Override
    public void keyPressed(KeyEvent e) {
        // TODO Auto-generated method stub
        System.out.println("Key Pressed");
        keyfld.setText("Key Pressed");
    }

    @Override
    public void keyReleased(KeyEvent e) {
        // TODO Auto-generated method stub
        System.out.println("Key Released");
        keyfld.setText("Key Released");
    }
}
```



Output:

The screenshot displays an IDE with a Java program and its execution output. The code defines a class with a text field and three event listener methods: keyTyped, keyPressed, and keyReleased. The output window shows the sequence of events triggered by key presses.

```
46 keyfld.setBounds(20,80,460,40);
47 keyfld.setBackground(Color.white);
48 keyfld.setForeground(Color.black);
49 keyfld.setFont(f);
50 mainPanel.add(keyfld);
51 keyfld.addKeyListener(this);
52
53
54 }
55 public static void main(String[] args)
56 {
57     new assign6();
58 }
59 @Override
60 public void keyTyped(KeyEvent e) {
61     // TODO Auto-generated method stub
62     System.out.println("Key typed");
63     keyfld.setText("Key typed");
64 }
65 @Override
66 public void keyPressed(KeyEvent e) {
67     // TODO Auto-generated method stub
68     System.out.println("Key Pressed");
69     keyfld.setText("Key Pressed");
70 }
71 @Override
72 public void keyReleased(KeyEvent e) {
73     // TODO Auto-generated method stub
74     System.out.println("Key Released");
75     keyfld.setText("Key Released");
76 }
77 }
```

Output:

```
assign6 [Java Application] C:\Program Files\Java\jdk-16.0.2\bin\javaw.exe (28-Apr-2022)
Key typed
Key Pressed
Key typed
Key Pressed
Key typed
Key Released
```