

SWING - KEYLISTENER INTERFACE

http://www.tutorialspoint.com/swing/swing_key_listener.htm

Copyright © tutorialspoint.com

The class which processes the KeyEvent should implement this interface. The object of that class must be registered with a component. The object can be registered using the addKeyListener method.

Interface declaration

Following is the declaration for **java.awt.event.KeyListener** interface:

```
public interface KeyListener
    extends EventListener
```

Interface methods

S.N.	Method & Description
1	void keyPressed <i>KeyEvent</i> Invoked when a key has been pressed.
2	void keyReleased <i>KeyEvent</i> Invoked when a key has been released.
3	void keyTyped <i>KeyEvent</i> Invoked when a key has been typed.

Methods inherited

This interface inherits methods from the following interfaces:

- java.awt.EventListener

KeyListener Example

Create the following java program using any editor of your choice in say **D:/ > SWING > com > tutorialspoint > gui >**

SwingListenerDemo.java

```
package com.tutorialspoint.gui;

import java.awt.*;
import java.awt.event.*;
import javax.swing.*;

public class SwingListenerDemo {
    private JFrame mainFrame;
    private JLabel headerLabel;
    private JLabel statusLabel;
    private JPanel controlPanel;

    public SwingListenerDemo(){
        prepareGUI();
    }

    public static void main(String[] args){
```

```

SwingListenerDemo swingListenerDemo = new SwingListenerDemo();
swingListenerDemo.showKeyListenerDemo();
}

private void prepareGUI(){
    mainFrame = new JFrame("Java SWING Examples");
    mainFrame.setSize(400,400);
    mainFrame.setLayout(new GridLayout(3, 1));

    headerLabel = new JLabel("", JLabel.CENTER );
    statusLabel = new JLabel("", JLabel.CENTER);

    statusLabel.setSize(350,100);
    mainFrame.addWindowListener(new WindowAdapter() {
        public void windowClosing(WindowEvent windowEvent){
            System.exit(0);
        }
    });
    controlPanel = new JPanel();
    controlPanel.setLayout(new FlowLayout());

    mainFrame.add(headerLabel);
    mainFrame.add(controlPanel);
    mainFrame.add(statusLabel);
    mainFrame.setVisible(true);
}

private JTextField textField;
private void showKeyListenerDemo(){
    headerLabel.setText("Listener in action: KeyListener");
    textField = new JTextField(10);

    textField.addKeyListener(new CustomKeyListener());
    JButton okButton = new JButton("OK");
    okButton.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e) {
            statusLabel.setText("Entered text: "
                + textField.getText());
        }
    });

    controlPanel.add(textField);
    controlPanel.add(okButton);
    mainFrame.setVisible(true);
}

class CustomKeyListener implements KeyListener{
    public void keyTyped(KeyEvent e) {
    }

    public void keyPressed(KeyEvent e) {
        if(e.getKeyCode() == KeyEvent.VK_ENTER){
            statusLabel.setText("Entered text: "
                + textField.getText());
        }
    }

    public void keyReleased(KeyEvent e) {
    }
}
}

```

Compile the program using command prompt. Go to **D:/ > SWING** and type the following command.

```
D:\SWING>javac com\tutorialspoint\gui\SwingListenerDemo.java
```

If no error comes that means compilation is successful. Run the program using following

command.

```
D:\SWING>java com.tutorialspoint.gui.SwingListenerDemo
```

Verify the following output



Loading [MathJax]/jax/output/HTML-CSS/jax.js