SWING - KEYADAPTER CLASS

Introduction

The class **KeyAdapter** is an abstract *adapter* class for receiving keyboard events. All methods of this class are empty. This class is convenience class for creating listener objects.

Class declaration

Following is the declaration for **java.awt.event.KeyAdapter** class:

```
public abstract class KeyAdapter
    extends Object
        implements KeyListener
```

Class constructors

S.N.	Constructor & Description
1	**KeyAdapter**

Class methods

S.N.	Method & Description
1	**void keyPressed***KeyEvente* Invoked when a key has been pressed.
2	**void keyReleased***KeyEvente* Invoked when a key has been released.
3	**void keyTyped***KeyEvente* Invoked when a key has been typed.

Methods inherited

This class inherits methods from the following classes:

- java.lang.Object

KeyAdapter Example

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

SwingAdapterDemo.java

```
package com.tutorialspoint.gui;

import java.awt.*;
import java.awt.event.*;
```

```java
public class SwingAdapterDemo {
    private JFrame mainFrame;
    private JLabel headerLabel;
    private JLabel statusLabel;
    private JPanel controlPanel;

    public SwingAdapterDemo(){
        prepareGUI();
    }

    public static void main(String[] args){
        SwingAdapterDemo  swingAdapterDemo = new SwingAdapterDemo();
        swingAdapterDemo.showKeyAdapterDemo();
    }

    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 void showKeyAdapterDemo(){
        headerLabel.setText("Listener in action: KeyAdapter");

        final JTextField textField = new JTextField(10);

        textField.addKeyListener(new KeyAdapter() {
            public void keyPressed(KeyEvent e) {
                if(e.getKeyCode() == KeyEvent.VK_ENTER){
                    statusLabel.setText("Entered text: "
                    + textField.getText());
                }
            }
        });
        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);
    }
}
```
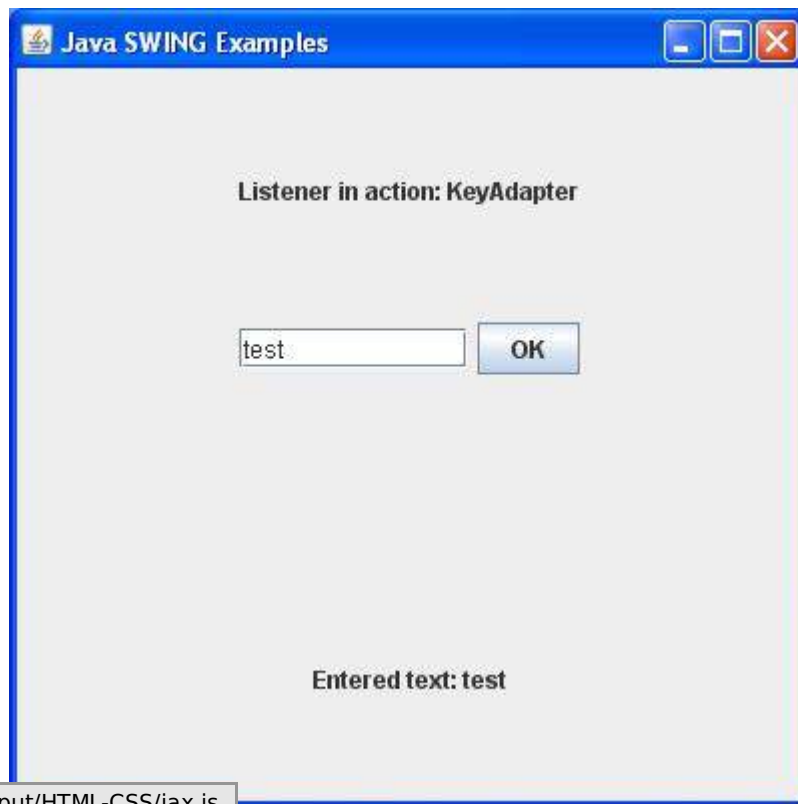
Compile the program using command prompt. Go to **D:/ > SWING** and type the following command.

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

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

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

Verify the following output