AWT FOCUSLISTENER INTERFACE

Introduction

The interface**FocusListener** is used for receiving keyboard focus events. The class that process focus events needs to implements this interface.

Class declaration

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

```
public interface FocusListener
extends EventListener
```

Interface methods

S.N.	Method & Description
1	**void focusGained***FocusEvente* Invoked when a component gains the keyboard focus.
2	**void focusLost***FocusEvente* Invoked when a component loses the keyboard focus.

Methods inherited

This class inherits methods from the following interfaces:

- java.awt.event.EventListener

FocusListener Example

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

AwtListenerDemo.java

```
package com.tutorialspoint.gui;

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

public class AwtListenerDemo {
   private Frame mainFrame;
   private Label headerLabel;
   private Label statusLabel;
   private Panel controlPanel;

   public AwtListenerDemo(){
      prepareGUI();
   }

   public static void main(String[] args){
      AwtListenerDemo  awtListenerDemo = new AwtListenerDemo();
      awtListenerDemo.showFocusListenerDemo();
   }
```

```
   private void prepareGUI(){
      mainFrame = new Frame("Java AWT Examples");
      mainFrame.setSize(400,400);
      mainFrame.setLayout(new GridLayout(3, 1));
      mainFrame.addWindowListener(new WindowAdapter() {
         public void windowClosing(WindowEvent windowEvent){
            System.exit(0);
         }
      });

      headerLabel = new Label();
      headerLabel.setAlignment(Label.CENTER);
      statusLabel = new Label();
      statusLabel.setAlignment(Label.CENTER);
      statusLabel.setSize(350,100);

      controlPanel = new Panel();
      controlPanel.setLayout(new FlowLayout());

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


   private void showFocusListenerDemo(){

      headerLabel.setText("Listener in action: FocusListener");

      Button okButton = new Button("OK");
      Button cancelButton = new Button("Cancel");
      okButton.addFocusListener(new CustomFocusListener());
      cancelButton.addFocusListener(new CustomFocusListener());

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

   class CustomFocusListener implements FocusListener{
      public void focusGained(FocusEvent e) {
         statusLabel.setText(statusLabel.getText()
         + e.getComponent().getClass().getSimpleName() + " gained focus. ");
      }

      public void focusLost(FocusEvent e) {
         statusLabel.setText(statusLabel.getText()
         + e.getComponent().getClass().getSimpleName() + " lost focus. ");
      }
   }
}
```

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

```
D:\AWT>javac com\tutorialspoint\gui\AwtListenerDemo.java
```

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

```
D:\AWT>java com.tutorialspoint.gui.AwtListenerDemo
```

Verify the following output