



SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)

Coimbatore

COURSE NAME: 19CST102 - OBJECT ORIENTED PROGRAMMING

I YEAR / II SEMESTER

UNIT –V DESIGNING JAVAAPPLETS

Topic: Button movement (Action listener)

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What are Action Listeners?

- In Java, an Action Listener is an interface that allows a program to register itself as a listener for certain types of events. Specifically, it is used to detect button clicks and other user actions.
- The Java ActionListener is notified whenever you click on the button or menu item. It is notified against ActionEven .
- The ActionListener interface is found in java.awt.event package. It has only one method: actionPerformed().



actionPerformed() Method

- The actionPerformed() method is invoked automatically whenever you click on the registered component.
- **public abstract void** actionPerformed(ActionEvent e);



How to write ActionListener

The common approach is to implement the ActionListener.

1) Implement the ActionListener interface in the class:

```
public class ActionListenerExample Implements ActionListener
```

2) Register the component with the Listener:

```
component.addActionListener(instanceOfListenerclass);
```

3) Override the actionPerformed() method:

```
public void actionPerformed(ActionEvent e){  
    //Write the code here  
}
```



BUTTON MOVEMENT



- Moving a button in Java can be accomplished using Action Listeners. An Action Listener is a Java interface that listens for events, such as button clicks. When a button is clicked, the Action Listener responds by executing a block of code.
- To move a button using an Action Listener, you first need to create a new instance of the button and set its initial position. Then, you attach an Action Listener to the button and define the code that should be executed when the button is clicked. Within this code block, you can change the button's position by modifying its X and Y coordinates.



Example(On button click):

```
import java.awt.*;  
import java.awt.event.*;  
//1st step  
public class ActionListenerExample implements ActionListener{  
public static void main(String[] args) {  
    Frame f=new Frame("ActionListener Example");  
    final TextField tf=new TextField();  
    tf.setBounds(50,50, 150,20);  
    Button b=new Button("Click Here");  
    b.setBounds(50,100,60,30);
```



//2nd step

```
b.addActionListener(this);
```

```
f.add(b);f.add(tf);
```

```
f.setSize(400,400);
```

```
f.setLayout(null);
```

```
f.setVisible(true);
```

```
}
```

//3rd step

```
public void actionPerformed(ActionEvent e){
```

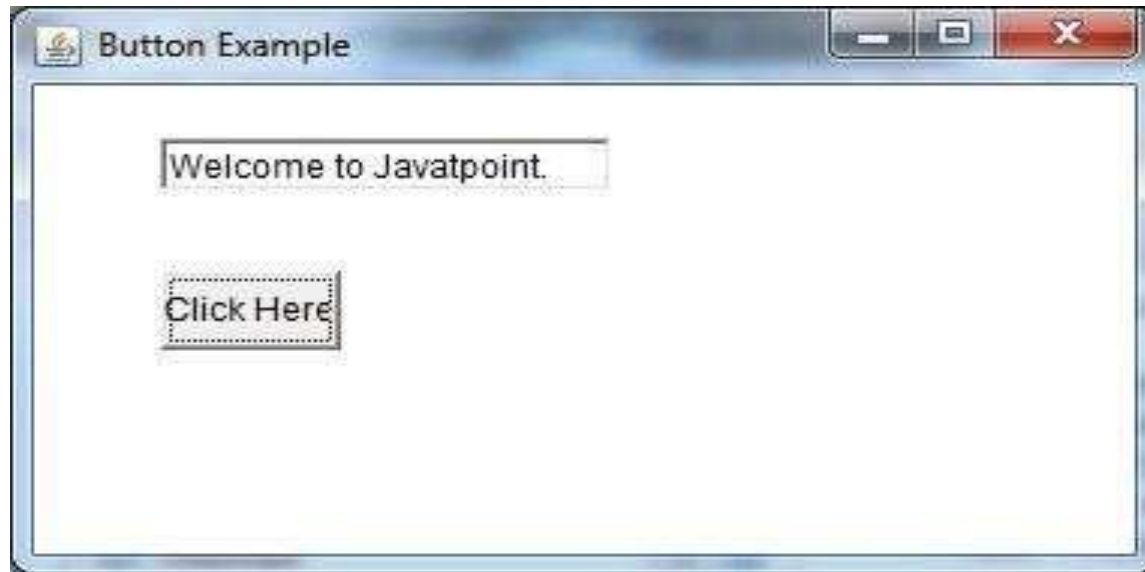
```
    tf.setText("Welcome to Javatpoint.");
```

```
}
```

```
}
```



OUTPUT:





*Thank
You*