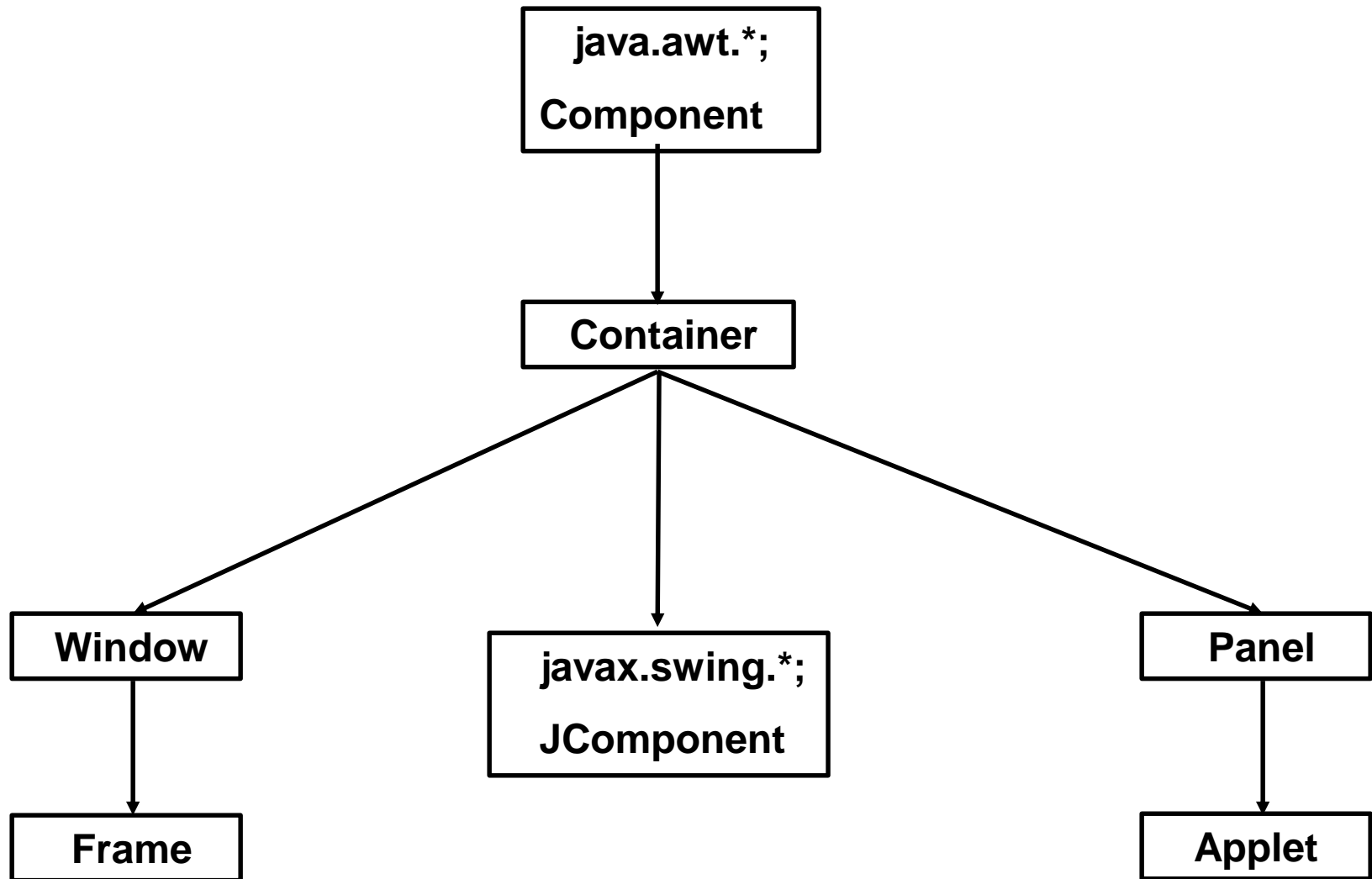


# Swings

| <b>AWT</b>   | <b>Swings</b>  |
|--|--|
| <ul style="list-style-type: none"><li>▪ <b>Heavy weight Components<br/>(Use native codes)</b></li><li>▪ <b>Platform specific</b></li></ul> | <ul style="list-style-type: none"><li>▪ <b>Lightweight Components<br/>(Full of Java)</b></li><li>▪ <b>Platform Independent</b></li></ul> |

---

# Class Hierarchy



# Containers

## Top Level

- JFrame
- JApplet

## Sub Level

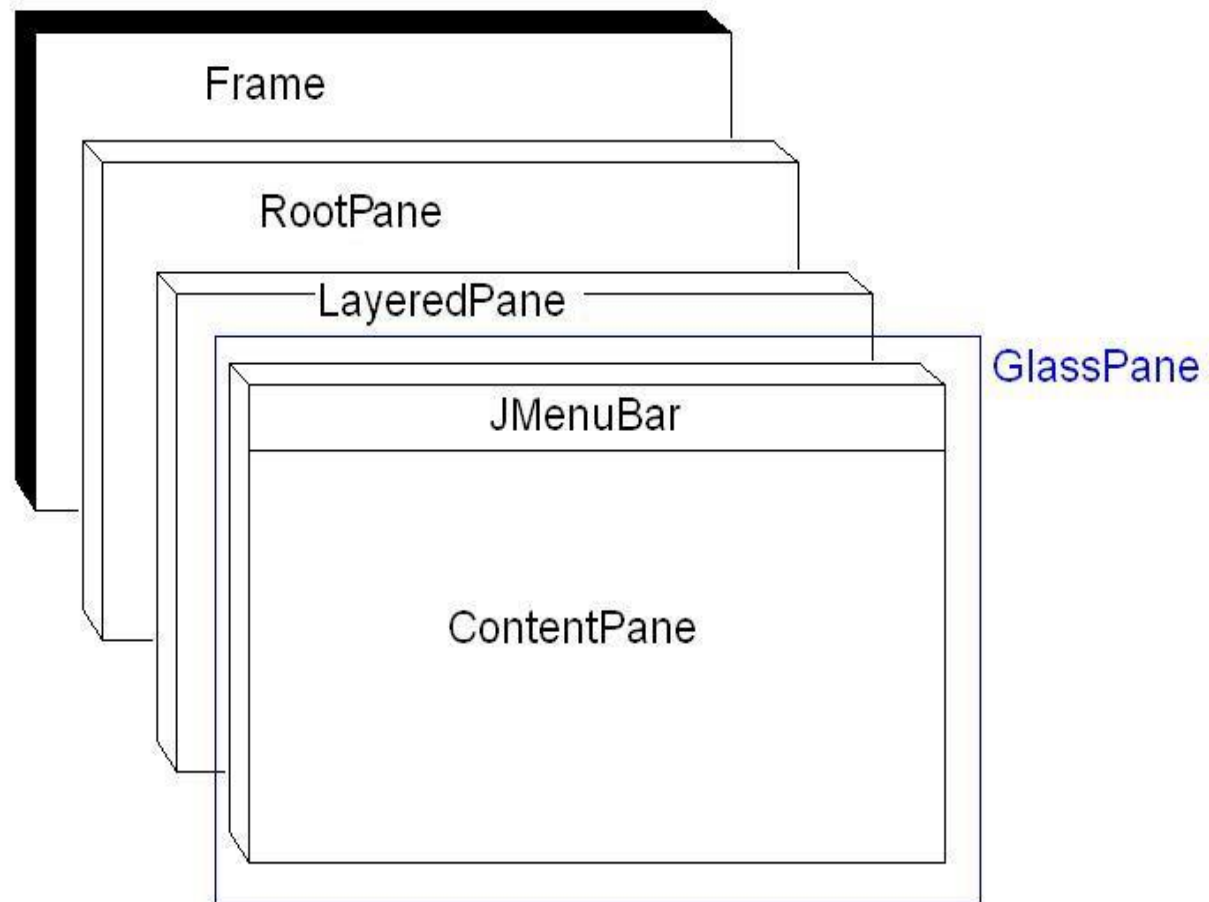
- JPanel
- JScrollPane
- JTabbedPane
- JTable

## Control Components

- JTextField
- JTextArea
- JButton
- JLabel
- JList
- JCheckbox

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

class BDemo extends JFrame
{
    BDemo()
    {
        setLayout(new FlowLayout());
        setSize(500,500);
        setVisible(true);
    }
    public static void main(String aa[])
    {
        new BDemo();
    }
}
```



# JTabbedPane



# JTabbedPane

**JTabbedPane()**

**void addTab(String , Component);**

---



## Simple program to find number of words and characters in a TextArea

```
import javax.swing.*.*;
import java.awt.event.*;
public class TextAreaExample implements
ActionListener{
JLabel l1,l2;
JTextArea area;
JButton b;
TextAreaExample() {
    JFrame f= new JFrame();
    l1=new JLabel();
    l1.setBounds(50,25,100,30);
    l2=new JLabel();
    l2.setBounds(160,25,100,30);
    area=new JTextArea();
    area.setBounds(20,75,250,200);
    b=new JButton("Count Words");
    b.setBounds(100,300,120,30);
    b.addActionListener(this);
    f.add(l1);f.add(l2);f.add(area);f.add(b);
    f.setSize(450,450);
    f.setLayout(null);
    f.setVisible(true);
}
```

```
public void actionPerformed(ActionEvent e){
    String text=area.getText();
    String words[]=text.split("\\s");
    l1.setText("Words: "+words.length);
    l2.setText("Characters: "+text.length());
}
public static void main(String[] args) {
    new TextAreaExample();
}
}
```

