Java AWT Tutorial

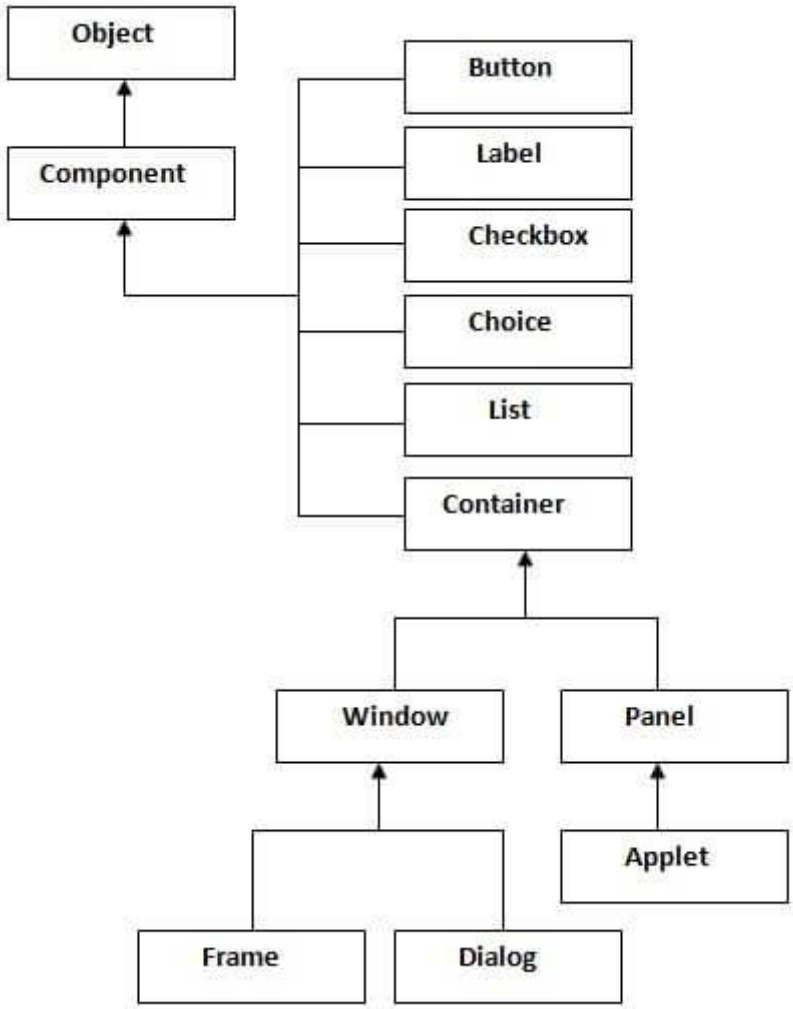
Java AWT (Abstract Window Toolkit) is *an API to develop GUI or window-based applications* in java.

Java AWT components are platform-dependent i.e. components are displayed according to the view of operating system. AWT is heavyweight i.e. its components are using the resources of OS.

The java.awt package provides classes for AWT api such as TextField, Label, TextArea, RadioButton, CheckBox, Choice, List etc.

Java AWT Hierarchy

The hierarchy of Java AWT classes are given below.



```
1. import java.awt.*;
2. class First extends Frame{
3. First(){
4. Button b=new Button("click me");
5. b.setBounds(30,100,80,30);// setting button position
6. add(b);//adding button into frame
7. setSize(300,300);//frame size 300 width and 300 height
8. setLayout(null);//no layout manager
9. setVisible(true);//now frame will be visible, by default not visible
10. }
11. public static void main(String args[]){
12. First f=new First();
13. }}
```

```
1. import java.awt.*;
2. class First2{
3. First2(){
4. Frame f=new Frame();
5. Button b=new Button("click me");
6. b.setBounds(30,50,80,30);
7. f.add(b);
8. f.setSize(300,300);
9. f.setLayout(null);
10. f.setVisible(true);
11. }
12. public static void main(String args[]){
13. First2 f=new First2();
14. }}
```

```
import java.awt.*;
public class Example1
{
  public static void main(String [] args)
  {
    Frame f = new Frame("Example 1");
    f.show();
  }
}
```

```
import java.awt.*;
public class Example1a extends Panel
{
  public static void main(String [] args)
  {
    Frame f = new Frame("Example 1a");
    Example1a ex = new Example1a();
    f.add("Center", ex);
    f.pack();
    f.show();
  }
}
```

```
import java.awt.*;
public class Example1b extends java.applet.Applet
{
  public static void main(String [] args)
  {
    Frame f = new Frame("Example 1b");
    Example1b ex = new Example1b();
    f.add("Center", ex);
    f.pack();
    f.show();
  }
}
```

```
import java.awt.*;
public class Example1b extends java.applet.Applet
{
  public static void main(String [] args)
  {
    Frame f = new Frame("Example 1b");
    Example1b ex = new Example1b();
    f.add("Center", ex);
    f.pack();
    f.show();
  }
}
```

```
import java.awt.*;
public class Example3 extends java.applet.Applet
{
  public void init()
  {
    add(new Button("One"));
    add(new Button("Two"));
  }
  public Dimension preferredSize()
  {
    return new Dimension(200, 100);
  }
  public static void main(String [] args)
  {
    Frame f = new Frame("Example 3");
    Example3 ex = new Example3();
    ex.init();
    f.add("Center", ex);
    f.pack();
    f.show();
  }
}
```

```
mport java.awt.*;
public class Example4 extends java.applet.Applet
{
  public void init()
  {
    Panel p;
    setLayout(new BorderLayout());
    p = new Panel();
    p.add(new TextArea());
    add("Center", p);
    p = new Panel();
    p.add(new Button("One"));
    p.add(new Button("Two"));
    Choice c = new Choice();
    c.addItem("one");
    c.addItem("two");
    c.addItem("three");
    p.add(c);
    add("South", p);
  }
  public static void main(String [] args)
  {
    Frame f = new Frame("Example 4");
    Example4 ex = new Example4();
    ex.init();
    f.add("Center", ex);
    f.pack();
    f.show();
  }
}
```