FACULTY OF Engineering & Technology

AWT

Java AWT (Abstract Window Toolkit) is *an API for developing Graphical User Interfaces*

Java AWT components are platform-dependent i.e. components are displayed according to
corresponding operating system.
AWT is heavyweight i.e. its components are using the resources of OS and manage by OS.
The java.awt package provides classes for for various AWTcomponents like TextField, Label,
TextArea, RadioButton, CheckBox, Choice, List etc.
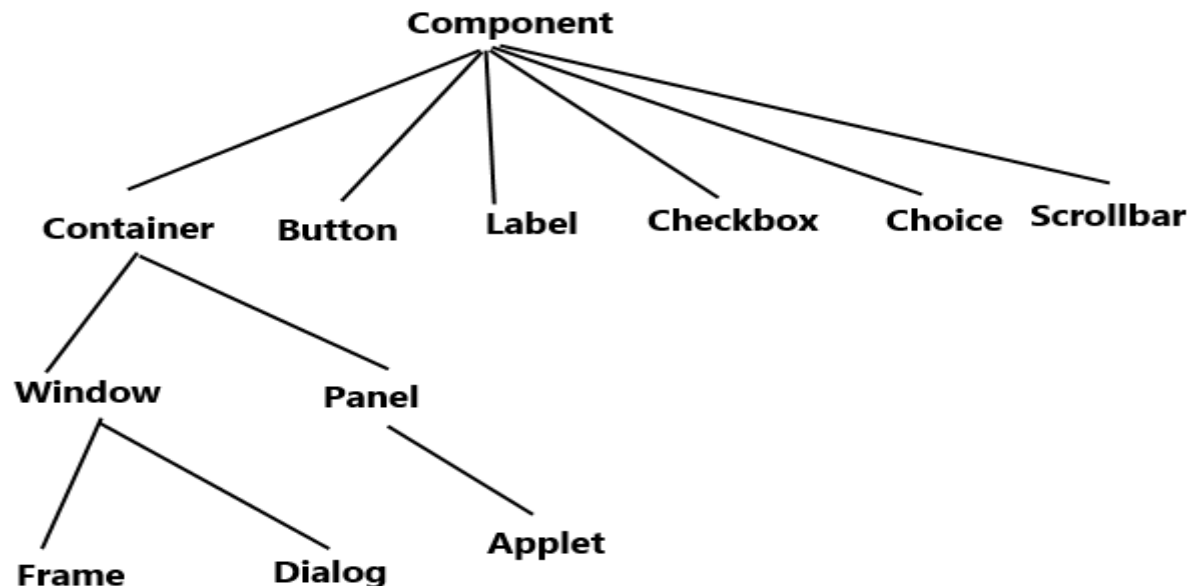
Container

1. A container is a screen where components like buttons, text fields,checkbox etc are placed
2. Container contains and controls the layout of various components.
3. Container itself is a component so a container itself can be add in another container.

Various types of containers in JAVA:

1. Window: Window class has no border and no title.
2. Dialog
3. Panel : Panel do nott contain title bar, menu bar or border. It is a generic container for holding other components
4. Frame: A frame has title, border and menu bars. It can contain several components like buttons, text

Creating a GUI using Frame in two ways:
1) By **extending Frame class**
2) By creating the **instance of Frame class**

```java
import java.awt.*;
class demogui extends Frame{
demogui() // constructor
{
Button b=new Button("click me");
b.setBounds(40,100,80,40);      // setting button position
add(b);                          //adding button into frame
setSize(300,300);                //frame size 300 width and 300 height
setLayout(null);                 //no layout manager
setVisible(true);                //now frame will be visible, by default not visible
}
public static void main(String args[]){
demogui  d=new  demogui();
}
}
```