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Grade*

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

Department of Computer Applications

Course Code: 23CAT606

Course Name: Java Programming

Unit IV: Advanced Java Programming

Topic : Difference between AWT and Swing

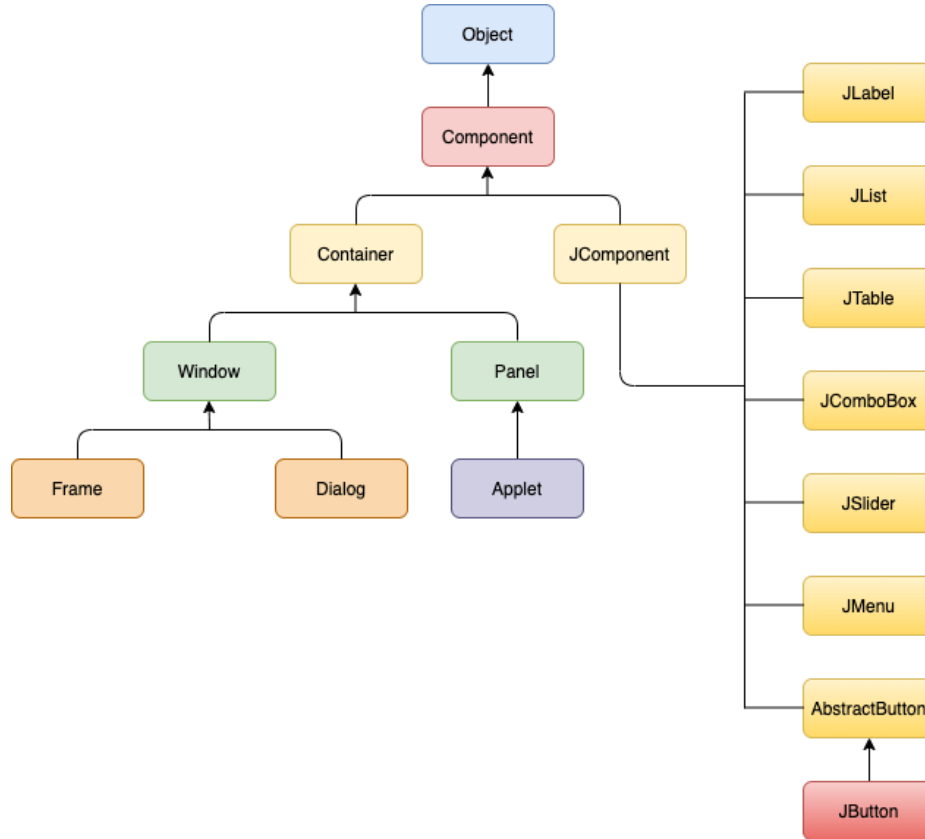


AWT vs SWING



Java AWT	Java Swing
AWT components are platform-dependent.	Java swing components are platform-independent.
AWT components are heavyweight.	Swing components are lightweight.
AWT doesn't support pluggable look and feel.	Swing supports pluggable look and feel.
AWT provides less components than Swing.	Swing provides more powerful components such as tables, lists, scrollpanes, colorchooser, tabbedpane, etc.
AWT doesn't follows MVC(Model View Controller) where model represents data, view represents presentation and controller acts as an interface between model and view.	Swing follows MVC.

Swing Hierarchy



Swing - Introduction

Java Swing is a part of **Java Foundation Classes (JFC)** that is used to create window-based applications. It is built on the top of AWT (Abstract Windowing Toolkit) API and entirely written in java.

Swing - Features



Swing - Example



```
import javax.swing.*;
public class SwingApp {
    SwingApp(){
        JFrame f = new JFrame();

        JLabel firstName = new JLabel("First Name");
        firstName.setBounds(20, 50, 80, 20);

        JLabel lastName = new JLabel("Last Name");
        lastName.setBounds(20, 80, 80, 20);

        JLabel dob = new JLabel("Date of Birth");
        dob.setBounds(20, 110, 80, 20);

        JTextField firstNameTF = new JTextField();
        firstNameTF.setBounds(120, 50, 100, 20);

        JTextField lastNameTF = new JTextField();
        lastNameTF.setBounds(120, 80, 100, 20);

        JTextField dobTF = new JTextField();
        dobTF.setBounds(120, 110, 100, 20);

        JButton sbmt = new JButton("Submit");
        sbmt.setBounds(20, 160, 100, 30);

        JButton reset = new JButton("Reset");
        reset.setBounds(120, 160, 100, 30);
```

```
f.add(firstName);
f.add(lastName);
f.add(dob);
f.add(firstNameTF);
f.add(lastNameTF);
f.add(dobTF);
f.add(sbmt);
f.add(reset);

f.setSize(300,300);
f.setLayout(null);
f.setVisible(true);
}

public static void main(String[] args) {
    SwingApp s = new SwingApp();
}
}
```

Output:



Reference

1. Herbert Schildt “ The Complete Reference Java 2, 8th edition , Tata McGraw Hill, 2011
2. Ralph Bravaco, Shai Simonson, “Java Programming: From the Ground up Tata McGraw Hill, 2012
3. <https://www.javatpoint.com>

*Thank
you*



Summary

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