Title: - Develop a GUI
Problem Statement: - Develop a GUI which accepts the information regarding the marks for all the subjects of a student in the examination. Display the result for a student in a separate window.

Objectives: -To learn to develop a GUI using Swing and AWT.

Theory:
Swing is a part of **JFC (Java Foundation Classes)**. Building Graphical User Interface in Java requires the use of Swings. Swing Framework contains a large set of components that allow a high level of customization and provide rich functionalities and is used to create window-based applications.
Java swing components are lightweight, platform-independent, provide powerful components like tables, scroll panels, buttons, lists, color chooser, etc. The javax.swing package provides classes for java swing API such as JButton, JTextField, JTextArea, JRadioButton, JCheckbox, JMenu, JColorChooser etc. Ways to create a frame:

Methods:
1. By creating the object of Frame class (association)
2. By extending Frame class (inheritance)
3. Create a frame using Swing inside main()

The concept is based on the GUI(graphical user interface). The idea is to use Java Swing and AWT. Therefore, we need to define all the methods based on functionality. The methods in the program are as follows
1. Receipt: The prime functionality of this method is to display all the data that is entered in the text fields, the course to be taken and the final amount that needs to be paid. These operations can be done by adding ActionListeners to the button named as *receipt*.
2. Reset: The functionality of this method is to clear the information that is already visible to in the text areas and in the text fields and to add new student's details and print the fees of that particular student. It can be done by adding ActionListeners to the button.
3. Print: The functionality of this method is to print the fee receipt if the printer is available. We can do this by adding ActionListener to the button. The entire information in the text area is named as *area2* and is saved in a file in the computer under the name of *java.txt*. It will also show a dialog box as *Data saved successfully*.

Diagram:
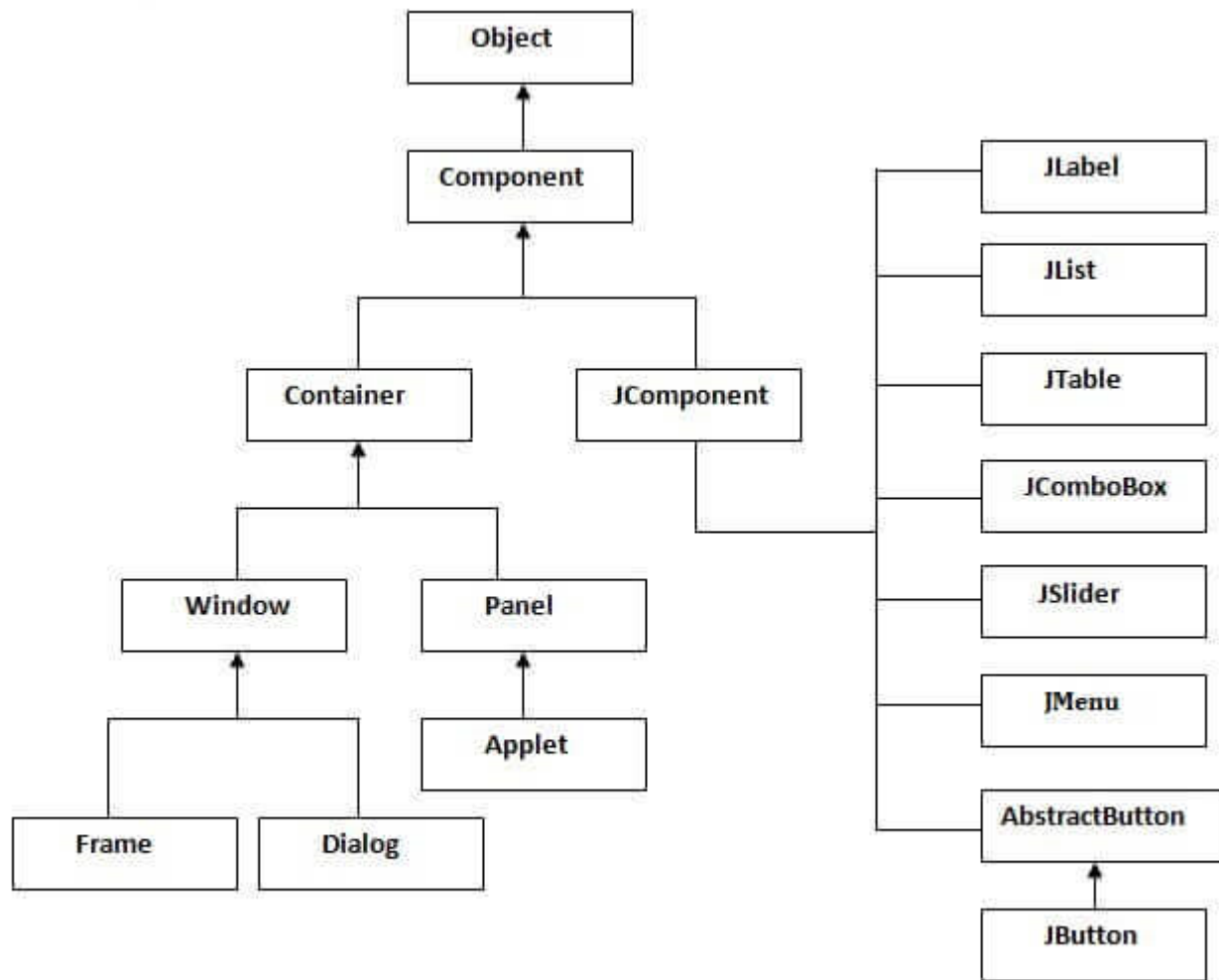
Learning Outcomes: -

      1   To learn to develop a GUI using AWT and Swing.
      2   To learn about JavaSwing.
      3   To learn about JavaSwing packages.

Continuous Assessment

RPP (out of 5)	SPO (out of 5)	Total (Out of 10)	Sign
			Date: -

#(RPP – Regularity, Punctuality, Performance), (SPO – Submission, Presentation, Oral)

Important Questions: -
1.What is JavaSwing?
2.What is JFC?
3.What are the differences between AWT and Swing?
4. Explain about JApplet?