

EXERCISE: 10	JAVA SWINGS
DATE	19.10.2023

1.AIM:

To create a java GUI application using java swings.

DESCRIPTION:

Java Swing is a part of Java Foundation Classes (JFC) that is used to create window-based applications. Swing is a lightweight Java graphical user interface (GUI) that is used to create various applications. Swing has platform-independent components. It enables the user to create buttons and scroll bars. Swing includes packages for creating desktop applications in Java. Swing components are written in Java language.

PROGRAM:

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;

public class Main{

    public static void main(String[] args) {
        // Create and set up the JFrame
        JFrame frame = new JFrame("Login Application");
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frame.setSize(300, 150);

        // Create a JPanel for the login form
        JPanel panel = new JPanel();
        frame.add(panel);

        // Set the layout for the panel
        panel.setLayout(new GridLayout(3, 2));

        // Create username and password labels and fields
        JLabel usernameLabel = new JLabel("Username:");
        JTextField usernameField = new JTextField();
```

```
JLabel passwordLabel = new JLabel("Password:");
JPasswordField passwordField = new JPasswordField();

// Create the login button
JButton loginButton = new JButton("Login");

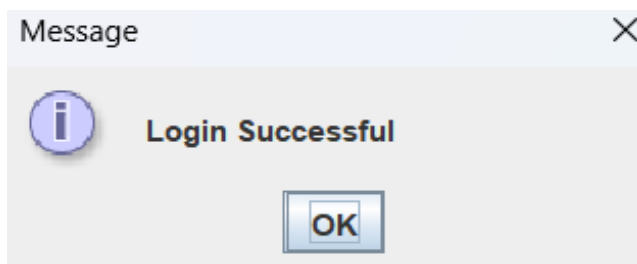
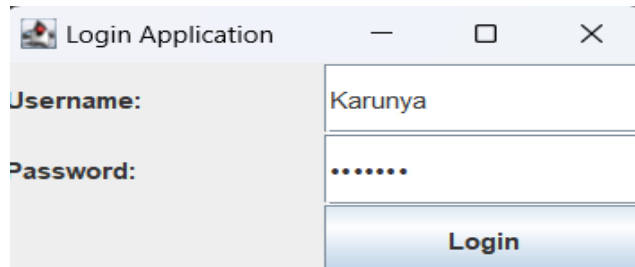
// Add components to the panel
panel.add(usernameLabel);
panel.add(usernameField);
panel.add(passwordLabel);
panel.add(passwordField);
panel.add(new JLabel()); // Empty label for spacing
panel.add(loginButton);

// Add an ActionListener to the login button
loginButton.addActionListener(new ActionListener() {
    @Override
    public void actionPerformed(ActionEvent e) {
        String username = usernameField.getText();
        char[] password = passwordField.getPassword();
        String enteredPassword = new String(password);

        if (username.equals("Karunya") && enteredPassword.equals("Karunya")) {
            JOptionPane.showMessageDialog(frame, "Login Successful");
        } else {
            JOptionPane.showMessageDialog(frame, "Login Failed");
        }

        // Clear the password field after login attempt
        passwordField.setText("");
    }
});

// Make the JFrame visible
frame.setVisible(true);
}
```

OUTPUT:**RESULT:**

The above program is successfully executed.

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DESCRIPTION:

Java Swing is a part of Java Foundation Classes (JFC) that is used to create window-based applications. Swing is a lightweight Java graphical user interface (GUI) that is used to create various applications. Swing has platform-independent components. It enables the user to create buttons and scroll bars. Swing includes packages for creating desktop applications in Java. Swing components are written in Java language.

PROGRAM:

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;

public class ButtonDemo {
    public static void main(String[] args) {
        SwingUtilities.invokeLater() -> createAndShowGUI();
    }

    private static void createAndShowGUI() {
        JFrame frame = new JFrame("Button Demo");
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frame.setSize(300, 150);
        frame.setLayout(new FlowLayout());

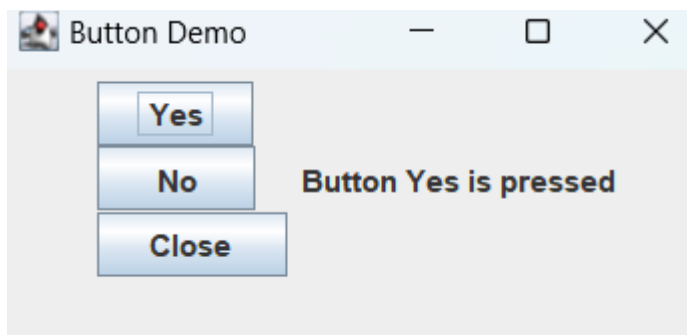
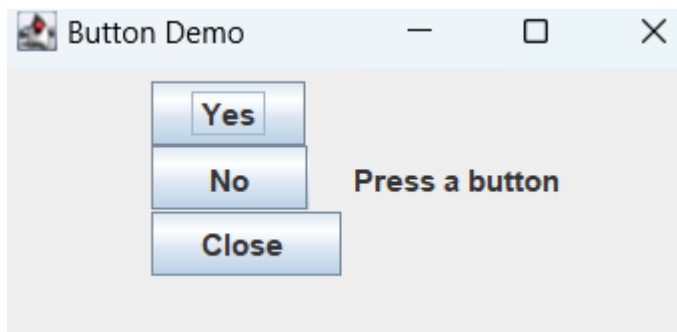
        JPanel buttonPanel = new JPanel();
        buttonPanel.setLayout(new BoxLayout(buttonPanel, BoxLayout.Y_AXIS));

        JLabel label = new JLabel("Press a button");

        JButton yesButton = new JButton(" Yes ");
        JButton noButton = new JButton(" No ");
        JButton closeButton = new JButton(" Close ");

        // Add action listeners to the Yes and No buttons
        yesButton.addActionListener(new ActionListener() {
            @Override
            public void actionPerformed(ActionEvent e) {
                label.setText("Button Yes is pressed");
            }
        });
    }
}
```

```
    }  
});  
  
noButton.addActionListener(new ActionListener() {  
    @Override  
    public void actionPerformed(ActionEvent e) {  
        label.setText("Button No is pressed");  
    }  
});  
  
// Add action listener to the Close button  
closeButton.addActionListener(new ActionListener() {  
    @Override  
    public void actionPerformed(ActionEvent e) {  
        frame.dispose(); // Close the frame  
    }  
});  
  
buttonPanel.add(yesButton);  
buttonPanel.add(noButton);  
buttonPanel.add(closeButton);  
  
frame.add(buttonPanel);  
frame.add(label);  
  
frame.setVisible(true);  
}  
}
```

OUTPUT:**RESULT:**

The above program is successfully executed.