

EXPERIMENT:1

User Interface for Welcome screen

Aim:

To design a user interface for welcome screen

Program:

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

public class LoginFrame extends javax.swing.JFrame {

    private JLabel nameLabel;
    private JLabel passwordLabel;
    private JTextField nameTextField;
    private JPasswordField passwordField;
    private JButton loginButton;

    public LoginFrame() {
        initComponents();
    }

    private void initComponents() {

        nameLabel = new JLabel("Name:");
        passwordLabel = new JLabel("Password:");
        nameTextField = new JTextField();
        passwordField = new JPasswordField();
        loginButton = new JButton("Login");

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
        setTitle("Login Screen");

        loginButton.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent evt) {
                loginButtonActionPerformed(evt);
            }
        });

        GroupLayout layout = new GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
            layout.createParallelGroup(GroupLayout.Alignment.LEADING)
```

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        .addGroup(layout.createSequentialGroup())
        .addGap(50, 50, 50)
        .addGroup(layout.createParallelGroup(GroupLayout.Alignment.TRAILING)
        .addComponent(loginButton)
        .addGroup(layout.createSequentialGroup()
        .addGroup(layout.createParallelGroup(GroupLayout.Alignment.LEADING)
        .addComponent(nameLabel)
        .addComponent(passwordLabel))
        .addGap(18, 18, 18)
        .addGroup(layout.createParallelGroup(GroupLayout.Alignment.LEADING,
false)
        .addComponent(nameTextField)
        .addComponent(passwordField, GroupLayout.DEFAULT_SIZE, 200,
Short.MAX_VALUE))))
        .addContainerGap(50, Short.MAX_VALUE))
    );
    layout.setVerticalGroup(
        layout.createParallelGroup(GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
        .addGap(30, 30, 30)
        .addGroup(layout.createParallelGroup(GroupLayout.Alignment.BASELINE)
        .addComponent(nameLabel)
        .addComponent(nameTextField, GroupLayout.PREFERRED_SIZE,
GroupLayout.DEFAULT_SIZE, GroupLayout.PREFERRED_SIZE))
        .addGap(18, 18, 18)
        .addGroup(layout.createParallelGroup(GroupLayout.Alignment.BASELINE)
        .addComponent(passwordLabel)
        .addComponent(passwordField, GroupLayout.PREFERRED_SIZE,
GroupLayout.DEFAULT_SIZE, GroupLayout.PREFERRED_SIZE))
        .addGap(18, 18, 18)
        .addComponent(loginButton)
        .addContainerGap(30, Short.MAX_VALUE))
    );

    pack();
    setLocationRelativeTo(null);
}

private void loginButtonActionPerformed(ActionEvent evt) {
    String name = nameTextField.getText();
    char[] password = passwordField.getPassword();

    // Sample credentials for demonstration purposes
    String correctName = "admin";
    String correctPassword = "password";

```

```

        if (name.equals(correctName) && String.valueOf(password).equals(correctPassword)) {
            JOptionPane.showMessageDialog(this, "Welcome " + name + "!", "Login
Successful", JOptionPane.INFORMATION_MESSAGE);
        } else {
            JOptionPane.showMessageDialog(this, "Invalid name or password.", "Login Failed",
JOptionPane.ERROR_MESSAGE);
        }
    }

    public static void main(String[] args) {
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                new LoginFrame().setVisible(true);
            }
        });
    }
}

```

Output:



Result:

A user interface for welcome screen was successfully designed and implemented.