import javax.swing.\*;

import java.awt.\*;

import java.util.ArrayList;

import java.util.Collections;

public class SimpleGUI extends JFrame {

private DefaultListModel<String> listModel = new DefaultListModel<>();

private JList<String> list = new JList<>(listModel);

public SimpleGUI() {

setLayout(new FlowLayout());

add(new JScrollPane(list));

add(createButton("Add", e -> addItem()));

add(createButton("Search", e -> searchItem()));

add(createButton("Sort", e -> sortItems()));

setSize(300, 300);

setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

setVisible(true);

}

private JButton createButton(String title, ActionListener action) {

JButton button = new JButton(title);

button.addActionListener(action);

return button;

}

private void addItem() {

String input = JOptionPane.showInputDialog("Enter an item to add:");

if (input != null && !input.isEmpty()) {

listModel.addElement(input);

}

}

private void searchItem() {

String input = JOptionPane.showInputDialog("Enter an item to search:");

if (input != null && !input.isEmpty()) {

JOptionPane.showMessageDialog(null, listModel.contains(input) ? "Item found in the list." : "Item not found in the list.");

}

}

private void sortItems() {

ArrayList<String> sortedItems = Collections.list(listModel.elements());

Collections.sort(sortedItems);

listModel.clear();

sortedItems.forEach(listModel::addElement);

}

public static void main(String[] args) {

SwingUtilities.invokeLater(SimpleGUI::new);

}

}