//13-a program:

import java.util.ArrayList;

import java.util.Scanner;

public class StringOperationsApp {

public static void main(String[] args) {

ArrayList<String> stringList = new ArrayList<>();

Scanner scanner = new Scanner(System.in);

// Populate the string list (you can customize this part)

stringList.add("apple");

stringList.add("banana");

stringList.add("orange");

stringList.add("grape");

stringList.add("pear");

// Display the menu

while (true) {

System.out.println("\nString Operations Menu:");

System.out.println("1. Search for a string");

System.out.println("2. Display strings starting and ending with letters");

System.out.println("3. Exit");

System.out.print("Enter your choice (1-3): ");

int choice = scanner.nextInt();

scanner.nextLine(); // consume the newline character

switch (choice) {

case 1:

System.out.print("Enter the string to search: ");

String searchString = scanner.nextLine();

searchForString(stringList, searchString);

break;

case 2:

System.out.print("Enter the starting letter: ");

char startLetter = scanner.next().charAt(0);

System.out.print("Enter the ending letter: ");

char endLetter = scanner.next().charAt(0);

displayStringsStartAndEndWith(stringList, startLetter, endLetter);

break;

case 3:

System.out.println("Exiting the program. Goodbye!");

scanner.close();

System.exit(0);

break;

default:

System.out.println("Invalid choice. Please enter a number between 1 and 3.");

}

}

}

private static void searchForString(ArrayList<String> stringList, String searchString) {

if (stringList.contains(searchString)) {

System.out.println("String '" + searchString + "' found in the list.");

} else {

System.out.println("String '" + searchString + "' not found in the list.");

}

}

private static void displayStringsStartAndEndWith(ArrayList<String> stringList, char startLetter, char endLetter) {

System.out.println("Strings starting with '" + startLetter + "' and ending with '" + endLetter + "':");

for (String str : stringList) {

if (str.length() > 0 && str.charAt(0) == startLetter && str.charAt(str.length() - 1) == endLetter) {

System.out.println(str);

}

}

}

}