Mini Project: Develop a basic to-do list application using functions and data structures

Code :

import java.util.ArrayList;

import java.util.Scanner;

public class ToDoListApp {

private static ArrayList<String> tasks = new ArrayList<>();

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

int choice;

do {

System.out.println("\nOptions:");

System.out.println("1. Add a task");

System.out.println("2. Remove a task");

System.out.println("3. Display tasks");

System.out.println("4. Quit");

System.out.print("Enter your choice (1/2/3/4): ");

choice = scanner.nextInt();

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

switch (choice) {

case 1:

System.out.print("Enter the task to add: ");

String taskToAdd = scanner.nextLine();

addTask(taskToAdd);

break;

case 2:

System.out.print("Enter the task to remove: ");

String taskToRemove = scanner.nextLine();

removeTask(taskToRemove);

break;

case 3:

displayTasks();

break;

case 4:

System.out.println("Goodbye!");

break;

default:

System.out.println("Invalid choice. Please enter 1, 2, 3, or 4.");

}

} while (choice != 4);

scanner.close();

}

private static void addTask(String task) {

tasks.add(task);

System.out.println("Task '" + task + "' has been added to the to-do list.");

}

private static void removeTask(String task) {

if (tasks.remove(task)) {

System.out.println("Task '" + task + "' has been removed from the to-do list.");

} else {

System.out.println("Task '" + task + "' not found in the to-do list.");

}

}

private static void displayTasks() {

if (tasks.isEmpty()) {

System.out.println("Your to-do list is empty.");

} else {

System.out.println("Your to-do list:");

for (int i = 0; i < tasks.size(); i++) {

System.out.println((i + 1) + ". " + tasks.get(i));

}

}

}

}