JAVA MICROPORJECT

MEMBERS :

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TOPIC : TO DO LIST

CODE :

```
import java.io.*;
import java.util.ArrayList;
import java.util.Scanner;

public class ToDoList {
    private static final String FILE_NAME = "tasks.txt";

    public static void main(String[] args) {
        ArrayList<String> tasks = new ArrayList<>();
        loadTasks(tasks);
        Scanner scanner = new Scanner(System.in);
        String task;

        while (true) {
            System.out.println("\n\n1. Add Task");
            System.out.println("2. View Tasks");
            System.out.println("3. Mark Task as Completed");
            System.out.println("4. Remove Task");
            System.out.println("5. Save and Exit");
            System.out.print("Enter your choice: \n");
            int choice;
            try {
                choice = scanner.nextInt();
                scanner.nextLine();
            } catch (Exception e) {
                System.out.println("Invalid input! Please enter a
number.");
                scanner.nextLine();
                continue;
            }

            switch (choice) {
                case 1:
                    System.out.print("Enter task: ");
```

```
                    task = scanner.nextLine();
                    tasks.add(task);
                    System.out.println("Task added successfully!");
                    break;
                case 2:
                    if (tasks.isEmpty()) {
                        System.out.println("No tasks added yet.");
                    } else {
                        System.out.println("Tasks:");
                        for (int i = 0; i < tasks.size(); i++) {
                            System.out.println((i + 1) + ". " +
tasks.get(i));
                        }
                    }
                    break;
                case 3:
                    if (tasks.isEmpty()) {
                        System.out.println("No tasks to mark as
completed.");
                    } else {
                        System.out.print("Enter task number to mark as
completed: ");
                        int completedIndex;
                        try {
                            completedIndex = scanner.nextInt();
                            scanner.nextLine();
                        } catch (Exception e) {
                            System.out.println("Invalid input! Please
enter a number.");
                            scanner.nextLine();
                            continue;
                        }
                        if (completedIndex < 1 || completedIndex >
tasks.size()) {
                            System.out.println("Invalid task number!");
                        } else {
                            tasks.remove(completedIndex - 1);
                            System.out.println("Task marked as
completed!");
                        }
                    }
                    break;
                case 4:
                    if (tasks.isEmpty()) {
                        System.out.println("No tasks to remove.");
                    } else {
                        System.out.print("Enter task number to remove:
");
```

```
                        int removeIndex;
                        try {
                            removeIndex = scanner.nextInt();
                            scanner.nextLine();
                        } catch (Exception e) {
                            System.out.println("Invalid input! Please
enter a number.");
                            scanner.nextLine();
                            continue;
                        }
                        if (removeIndex < 1 || removeIndex >
tasks.size()) {
                            System.out.println("Invalid task number!");
                        } else {
                            tasks.remove(removeIndex - 1);
                            System.out.println("Task removed
successfully!");
                        }
                    }
                    break;
                case 5:
                    saveTasks(tasks);
                    System.out.println("Tasks saved. Exiting...");
                    System.exit(0);
                default:
                    System.out.println("Invalid choice! Please try
again.");
            }
        }
    }

    private static void loadTasks(ArrayList<String> tasks) {
        try (BufferedReader reader = new BufferedReader(new
FileReader(FILE_NAME))) {
            String line;
            while ((line = reader.readLine()) != null) {
                tasks.add(line);
            }
            System.out.println("Tasks loaded successfully.");
        } catch (IOException e) {
            System.out.println("No tasks found. Starting with an empty
list.");
        }
    }

    private static void saveTasks(ArrayList<String> tasks) {
        try (BufferedWriter writer = new BufferedWriter(new
FileWriter(FILE_NAME))) {
```

```
            for (String task : tasks) {
                writer.write(task);
                writer.newLine();
            }
            System.out.println("Tasks saved successfully.");
        } catch (IOException e) {
            System.out.println("Unable to save tasks.");
        }
    }
}
```

Output :

```
1. Add Task
2. View Tasks
3. Mark Task as Completed
4. Remove Task
5. Save and Exit
Enter your choice:
1
Enter task: genoside
Task added successfully!


1. Add Task
2. View Tasks
3. Mark Task as Completed
4. Remove Task
5. Save and Exit
Enter your choice:
2
Tasks:
1. Eat 5 kilos of uranium
2. Lets eat school
3. Bomb a shelter
4. genoside
```

```
1. Add Task
2. View Tasks
3. Mark Task as Completed
4. Remove Task
5. Save and Exit
Enter your choice:
1
Enter task: Drink water
Task added successfully!


1. Add Task
2. View Tasks
3. Mark Task as Completed
4. Remove Task
5. Save and Exit
Enter your choice:
2
Tasks:
1. Eat food
2. Drink water
```