**Mini Project 1 : Develop a basic to-do list application using functions and data structures**

**Ans:-**

package intenship\_voc;

import java.util.ArrayList;

import java.util.Scanner;

public class TodoListApp {

private ArrayList<String> todoList = new ArrayList<>();

static Scanner *sc*=new Scanner(System.***in***);

public void displayList() {

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

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

}

}

public void addTask(String task) {

todoList.add(task);

System.***out***.println("Task "+task+" is added");

}

public void removeTask(int taskIndex) {

if (taskIndex >= 0 && taskIndex < todoList.size()) {

System.***out***.println(todoList.get(taskIndex)+" is Successfully Deleted ");

todoList.remove(taskIndex);

}

else {

System.***out***.println("Index out of Range ");

}

}

public static void main(String[] args) {

TodoListApp todoApp=new TodoListApp();

int ch;

do {

System.***out***.println("~~~~~~~~~~Menu:~~~~~~~~~~");

System.***out***.println("1. Display To-Do List");

System.***out***.println("2. Add Task");

System.***out***.println("3. Remove Task");

System.***out***.println("4. Exit");

System.***out***.print(" Enter your Choice: ");

ch = *sc*.nextInt();

switch (ch) {

case 1:

todoApp.displayList();

break;

case 2:

*sc*.nextLine();

System.***out***.println("Enter The Task : ");

String task=*sc*.nextLine();

todoApp.addTask(task);

break;

case 3:

System.***out***.println("Enter the Position of task to be deleted : ");

int taskIndex=*sc*.nextInt();

todoApp.removeTask(taskIndex-1);

break;

case 4:

System.***out***.println("Thank you for using us");

break;

default:

System.***out***.println("Invalid choice!! Please try again...");

}

}while(ch!=4);

}

}

**Test 1 : Adding the task :**

~~~~~~~~~~Menu:~~~~~~~~~~

1. Display To-Do List

2. Add Task

3. Remove Task

4. Exit

Enter your Choice: 2

Enter The Task :

First

Task First is added

~~~~~~~~~~Menu:~~~~~~~~~~

1. Display To-Do List

2. Add Task

3. Remove Task

4. Exit

Enter your Choice: 2

Enter The Task :

Second

Task Second is added

~~~~~~~~~~Menu:~~~~~~~~~~

1. Display To-Do List

2. Add Task

3. Remove Task

4. Exit

Enter your Choice: 2

Enter The Task :

Third

Task Third is added

~~~~~~~~~~Menu:~~~~~~~~~~

1. Display To-Do List

2. Add Task

3. Remove Task

4. Exit

Enter your Choice: 1

1.First

2.Second

3.Third

**Test 2 : Removing the Task :**

1.First

2.Second

3.Third

~~~~~~~~~~Menu:~~~~~~~~~~

1. Display To-Do List

2. Add Task

3. Remove Task

4. Exit

Enter your Choice: 3

Enter the Position of task to be deleted :

2

Second is Successfully Deleted

~~~~~~~~~~Menu:~~~~~~~~~~

1. Display To-Do List

2. Add Task

3. Remove Task

4. Exit

Enter your Choice: 3

Enter the Position of task to be deleted :

1

First is Successfully Deleted

~~~~~~~~~~Menu:~~~~~~~~~~

1. Display To-Do List

2. Add Task

3. Remove Task

4. Exit

Enter your Choice: 1

1.Third

**Test 3: Exit Loop :**

~~~~~~~~~~Menu:~~~~~~~~~~

1. Display To-Do List

2. Add Task

3. Remove Task

4. Exit

Enter your Choice: 4

Thank you for using us