**SOURCE CODE:-**

**package FixBugs;**

**import java.util.ArrayList;**

**import java.util.Collections;**

**import java.util.Scanner;**

**public class fixbugs {**

**public static void main(String[] args) {**

**/\*System.out.println("Hello World!");\*/**

**System.*out*.println("\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\n");**

**System.*out*.println("\tWelcome to TheDesk \n");**

**System.*out*.println("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");**

***optionsSelection*();**

**}**

**private static void optionsSelection() {**

**String[] arr = {"1. I wish to review my expenditure",**

**"2. I wish to add my expenditure",**

**"3. I wish to delete my expenditure",**

**"4. I wish to sort the expenditures",**

**"5. I wish to search for a particular expenditure",**

**"6. Close the application"**

**};**

**int[] arr1 = {1,2,3,4,5,6};**

**int slen = arr1.length;**

**for(int i=0; i<slen;i++){**

**System.*out*.println(arr[i]);**

**// display the all the Strings mentioned in the String array**

**}**

**ArrayList<Integer> arrlist = new ArrayList<Integer>();**

**ArrayList<Integer> expenses = new ArrayList<Integer>();**

**expenses.add(1000);**

**expenses.add(2300);**

**expenses.add(45000);**

**expenses.add(32000);**

**expenses.add(110);**

**expenses.addAll(arrlist);**

**System.*out*.println("\nEnter your choice:\t");**

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

**int options = sc.nextInt();**

**for(int j=1;j<=slen;j++){**

**if(options==j){**

**switch (options){**

**case 1:**

**System.*out*.println("Your saved expenses are listed below: \n");**

**System.*out*.println(expenses+"\n");**

***optionsSelection*();**

**break;**

**case 2:**

**System.*out*.println("Enter the value to add your Expense: \n");**

**int value = sc.nextInt();**

**expenses.add(value);**

**System.*out*.println("Your value is updated\n");**

**expenses.addAll(arrlist);**

**System.*out*.println(expenses+"\n");**

***optionsSelection*();**

**break;**

**case 3:**

**System.*out*.println("You are about the delete all your expenses! \nConfirm again by selecting the same option...\n");**

**int con\_choice = sc.nextInt();**

**if(con\_choice==options){**

**expenses.clear();**

**System.*out*.println(expenses+"\n");**

**System.*out*.println("All your expenses are erased!\n");**

**} else {**

**System.*out*.println("Oops... try again!");**

**}**

***optionsSelection*();**

**break;**

**case 4:**

***sortExpenses*(expenses);**

***optionsSelection*();**

**break;**

**case 5:**

***searchExpenses*(expenses);**

***optionsSelection*();**

**break;**

**case 6:**

***closeApp*();**

**break;**

**default:**

**System.*out*.println("You have made an invalid choice!");**

**break;**

**}**

**}**

**}**

**}**

**private static void closeApp() {**

**System.*out*.println("Closing your application... \nThank you!");**

**}**

**private static void searchExpenses(ArrayList<Integer> arrayList) {**

**int leng = arrayList.size();**

**Scanner scanner = new Scanner(System.*in*);**

**System.*out*.println("Enter the expense you need to search:\t");**

**int expenseToSearch = scanner.nextInt();**

**if(arrayList.contains( expenseToSearch)) {**

**System.*out*.println("expense found");**

**}**

**else**

**{**

**System.*out*.println("expenses not found");**

**}**

**}**

**private static void sortExpenses(ArrayList<Integer> arrayList) {**

**int arrlength = arrayList.size();**

**Collections.*sort*(arrayList);**

**System.*out*.println("expenses sorted in ascending order:"+arrayList);**

**}**

**}**