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package Lesson\_5;

import java.util.ArrayList;

import java.util.Scanner;

public class Main {

private static boolean addState = true; // to disable adding expenses after first call

private static ArrayList<Integer> expenses = new ArrayList<Integer>();

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>();

if(addState) {

expenses.add(1000);

expenses.add(2300);

expenses.add(45000);

expenses.add(32000);

expenses.add(110);

expenses.addAll(arrlist);

addState = false; // to disable adding expenses after first call

}

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:

expenses = sortExpenses(expenses); // sort the 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) {

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

//Complete the method

Scanner kb=new Scanner(System.in);

int key = kb.nextInt(); // get value from the user

boolean foundStatefalse = true; // found state wither found or not

for(int value : arrayList) { // iterate through the array

if(value == key) { // check if key found

System.out.println("Expenditure found : "+value);

foundStatefalse= false;

break;

}// End if

}// End for loop

if(foundStatefalse) // if key no found

System.out.println("Expenditure Not found !!");

}

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

int arrlength = arrayList.size();

//Complete the method. The expenses should be sorted in ascending order.

// This is my own algorithm, it works fine :) .

for(int i=0; i<arrlength ; i++) { // iterate the expenses ArrayList

int minValue = arrayList.get(i); // Minimum value found yet

int minIndex = i; // index of minimum value

for(int j=i; j<arrlength-1; j++) { // iterate through the unsorted side (right side) of the ArrayList

if(arrayList.get(j+1)< minValue) { // if minimum value found, update the minValue variable and index

minValue = arrayList.get(j+1);

minIndex = j+1;

} // End of if

}// End of j loop

arrayList.set(minIndex, arrayList.get(i)); // Swap, current value go to minimum value location

arrayList.set(i, minValue); // Swap, minimum value go to current value location

}// End of i loop

System.out.println("Sorted list: "+arrayList);

return arrayList;

}

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();

}

}