2022SP CS234 Computer Science II

Lab 5
Total points: 100

1. (Based on P6.11)
A supermarket wants to reward its best customer of each day, showing the customer's name on a screen in the supermarket. For that purpose, the customer's purchase amount is stored, and the customer's name is also stored.

You need to write a **Java program**. Your program **must implement** the following methods and **only these** methods (besides the main method):

```
/**
     Get the input for the prices and names and add them to the Array Lists
     @param an ArrayList for the sales
     @param an ArrayList for the names
*/
```
public static void getValues(ArrayList<Double> sales, ArrayList<String> customers)


```
/**
     Finds the best customer based on the sales.
     @param an ArrayList for the sales
     @param an ArrayList for the customers
     @return a String with the name of the customer
*/
```
public static String nameOfBestCustomer(ArrayList<Double> sales, ArrayList<String> customers)

The **getValues()** method is used to ask the cashier to enter all prices and names and to add them to two array lists.
Use a negative or zero price as **sentinel** to stop asking values. If the price is not a negative or zero price the program must continue asking for values.

The nameOfBestCustomer() method is used to get the name of the best customer. When getting the best customer, if the there are no elements in the lists, then your program needs to send a message to the user.

Examples of execution.

Example 1

```
Enter the price
30
Customer's last name:
Ceh
Enter the price
25
Customer's last name:
Lizama
Enter the price
10
Customer's last name:
Peraza
Enter the price
0
Best customer's name Ceh
```

This is a single execution

Example 2

```
Enter the price
0
Sorry, no customers in the list
```

Example 3

```
Enter the price
24
Customer's last name:
Ceh
Enter the price
-1
Best customer's name Ceh
```

Example 4

```
Enter the price
-24
Sorry, no customers in the list
```

Submission details:

Upload a **single ZIP** file.
Name your file as follows: **Lab5_Lastname_Firstname.zip**
There is a **10% points deduction** if your file does not have the correct name.

Your .zip file must contain the following items (and only those items):
   1. Your **.java** source file (no .class).
   2. A **SINGLE PDF** with screenshots from your program running. Show all possible cases. (10% points deduction if you don't submit a **SINGLE PDF** file)
   3. A **.txt file** (i.e., readme.txt) with the instructions on how to compile and execute your program **using the command line interface** (i.e., javac and java). Remember that for execution you just use the name of your file without the .class (i.e., java TopCustomer).

In your .java file, **write** as a multiline comment at the beginning of the file the following:
1. Your name
2. The course section

The **zip** file must be uploaded to Canvas. I do not accept answers via email. I do not accept image files; it must be a PDF file. Don't wait until the last minute! Something can go wrong with your submission (i.e., Internet errors, Canvas errors, file errors, etc.)

Tip: As soon as you have a first version of your program submit it. Then, you can make changes to improve it. But at least you already have submitted something. Then, you can submit your improvement versions.

Make sure to check the **due date** for this activity on Canvas.
Make sure you are **submitting the correct files**. I will grade the file uploaded to Canvas.
Make sure you test your program using the *javac* and *java* commands before submitting your solution. Follow your own instructions in the .txt file. Be careful with "packages".
Make sure to review the grading rubric.
Late submissions are not allowed.