

3 Questions

Total Marks: 300.0

2 Programming Questions

1. Gift Vouchers

+ 100.0

2. Food Orders

+ 100.0

1 Approximate Question

3. Online Shopping

+ 100.0

Question 3

Max. Marks 100.00

Online Shopping

Company  $X$  an E-commerce website kept decent discounts on all of their products on their initial launch due to which there was a heavy traffic and their website crashed after some time as a result of which they were not able to generate the bills. Fortunately, there is an excel sheet which has the history of all the purchases by the customers.

The manager of the company asked you to help them out and generate the bills for every customer. Since generating the bills manually for every customer would be a very tedious task you decided to write a program which will generate the bills for you.

The excel sheet has the data this way:

Customer ID	Product Type	Quantity	Price (1 Quantity)	Discount Coupon
1	clothes	1	600.00	Yes
3	electronics	2	5000.00	No
1	groceries	1	100.00	Yes
2	clothes	2	500.00	No

Customer ID: This is the unique ID generated for each customer and the bills must be calculated for each of these values.

Product Type: This indicates the type of the product i.e clothes (t-shirt, jeans, etc.) and for each product type there is some discount % associated.

Quantity: The total amount of goods demanded.

Price (1 Quantity): Price of the single quantity of that product.

Discount Coupon: It specifies if the customer has a discount coupon and only 1 can be used for the billing.

Apart from this excel sheet, you have also been provided with the discount % of every available product type and the discount coupon prize.

Now, you have to generate the bills and provide them in such a way that the customers with the higher bills should receive the billing receipt first as the company doesn't want them to be unsatisfied for waiting too long.

Note: If two customers have the same bill then the customer having the greater ID will receive the bill first.

Input Format

The first line of the input contains an integer  $N$ , the total number of product types available.

Then  $N$  lines follow, each line contains two space-separated values  $P_i$  and  $D_i$ , the name of the product type and the total flat discount offered on that product type.

The next line of the input contains a floating-point value  $A_i$ , the discount coupon prize.

The next line of the input contains an integer  $M$ , the total number of entries in the excel sheet.

Then  $M$  lines follow, each line contains five space-separated values  $ID_i$ ,  $PT_i$ ,  $Q_i$ ,  $C_i$  and  $DC_i$ , the customer id, product type, quantity, prize of the single quantity and if they have the discount coupon.

Output Format

Print  $M$  lines, each line should contain two space-separated values, the customer id and the total bill of the customer rounded to 2 decimal places.

Constraints

$1 \leq N \leq 10^3$

$1 \leq |P_i| \leq 20$

$0.00 \leq D_i \leq 100.00$

$0.00 \leq A_i \leq 1000.00$

$1 \leq M \leq 10^5$

$1 \leq ID_i \leq M$

$PT_i \in P$

$1 \leq Q_i \leq 10^3$

$1 \leq C_i \leq 100000.00$

$DC_i \in \{YES, NO\}$

Sample Input

3  
clothes 20.00  
electronics 50.00  
groceries 50.00  
100.00  
4  
1 clothes 1 600.00 YES  
3 electronics 2 5000.00 NO  
1 groceries 1 100.00 YES  
2 clothes 2 500.00 NO

Sample Output

3 5000.00  
2 800.00  
1 430.00

Explanation

Customer 1: clothes  $(600.00 - 120.00 = 480.00)$  + groceries  $(100.00 - 50.00 = 50.00) = 530.00 - 100.00 = 430.00$

Customer 2: clothes  $(500.00 - 100.00 = 400.00) * 2 = 800.00$

Customer 3: electronics  $(5000.00 - 2500.00 = 2500.00) * 2 = 5000.00$

Note: Your code should be able to convert the sample input into the sample output. However, this is not enough to pass the challenge, because the code will be run on multiple test cases. Therefore, your code must solve this problem statement.

Time Limit: 1.0 sec(s) for each input file

Memory Limit: 256 MB

Source Limit: 1024 KB

Marking Scheme: Marks are awarded if any testcase passes

Allowed Languages: Java, Java 8

New Submission

All Submissions

Java (openjdk 1.7.0\_95)

Save

```
1 /* IMPORTANT: Multiple classes and nested static classes are supported */
2
3 /*
4  * uncomment this if you want to read input.
5  */
6 import java.io.BufferedReader;
7 import java.io.InputStreamReader;
8
9 //import for scanner and other utility classes
10 import java.util.*;
11
12
```

```
13 // warning: Printing unwanted or ill-formatted data to output will cause the test cases to fail
14
15 class TestClass {
16     public static void main(String args[] ) throws Exception {
17         /* Sample code to perform I/O:
18          * Use either of these methods for input
19
20          //BufferedReader
21          BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
22          String name = br.readLine();        // Reading input from STDIN
23          System.out.println("Hi, " + name + "."); // Writing output to STDOUT
24
25          //Scanner
26          Scanner s = new Scanner(System.in);
27          String name = s.nextLine();        // Reading input from STDIN
28          System.out.println("Hi, " + name + "."); // Writing output to STDOUT
29
30          */
31
32          // Write your code here
33
34      }
35 }
36
```

1:1

Press Ctrl/Command+Spacebar for autocomplete suggestions (accuracy dependent on connection stability).

☐ Provide custom input

COMPILE & TEST

SUBMIT

