

Store Discount

Algorithm Due: **October 30, 2022**

Program Due: **October 30, 2022**

All work submitted must be your own.

Deliverables:

You must use functions to modularize your work.

You should use exception handling where necessary as well.

50 points off for programs that crash on expected input.

The assignment problem:

You are asked to develop an application that prints a receipt for customers after store 40% discount. In this program you need to read a file of customers data and calculate the total discount for each customer, then print some information.

The input file “input.txt” contains the following information (Transaction ID, Customer first name, Customer last name, and total amount to be paid before discount).

Requirements:

- 1- Must use/create functions to implement the program.
- 2- Must use exception handling where necessary (validate user input, check for correct files,etc.)
- 3- Below is the needed menu to display:
 1. Display transaction ID and username (First and Last name).
 2. Display username (First and Last name), total amount to be paid before discount, total amount to be paid after discount, and the saved amount after discount.
 - i. Round your output to the nearest two digits.
 - ii. You will need to take care of spaces between each column (see sample output).
 3. Quit/Exit.
- 4- You will need to ask the user for the file name, to read the data.
- 5- After 1st attempt to user, your program will ask if user want to see the menu again and have another attempt.
- 6- Program will stop in two cases, either user decided to have no more attempts, or the user chose option 3. (please see output samples for examples)

Output Sample:

1- Print Transaction ID and username

2- Print username, total before and total after discount

3- Quit

Enter your choice ==> 4

Enter valid option

Enter your choice ==> 6

Enter valid option

Enter your choice ==> 1

Enter file name ==> data.txt

Enter correct file name

Enter file name ==> input.csv

Enter correct file name

Enter file name ==> input.txt

Reading data.....

ID	FirstName	LastName
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10	Homer	Smith
----	-------	-------

20	Jack	Stanely
----	------	---------

30	Daniel	Hackson
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Note(this is just a sample of the output)

Do you want to see more option Y/N: y

1- Print Transaction ID and username

2- Print username, total before and total after discount

3- Quit

Enter your choice ==> 2

Enter file name ==> input.txt

Reading data.....

ID	FirstName	LastName	Before	After	Saved
10	Homer	Smith	810.2	486.12	324.08
20	Jack	Stanely	100.0	60.00	40.00
30	Daniel	Hackson	333.90	200.34	133.56
40	Sara	Thomson	1930.02	1158.01	772.01
50	Thomas	Elu	932.0	559.20	372.80
60	Sam	Carol	33.0	19.80	13.20
70	Tina	Jefferson	334.90	200.94	133.96
80	Wael	Lion	8843.2	5305.92	3537.28
90	Carol	Smith	3994.09	2396.45	1597.64
100	Jack	Carlton	99.0	59.40	39.60

Do you want to see more option Y/N: y

1- Print Transaction ID and username

2- Print username, total before and total after discount

3- Quit

Enter your choice ==> 3

Have a great day

Different Output sample:

Do you want to see more option Y/N: n

Have a great day

Submission:

Submit your .py file and the algorithm to Canvas by **Sunday October 30 11:59PM.**