Thanks again for your interest in Deft Consulting! We look forward to continuing the process with you.

Please find the programming exercise below.

Instructions

We ask that the solution be written in your preferred language without the use of any external libraries. You may, however, use libraries for testing purposes such as JUnit.

In addition to your code, please include a brief explanation about your solution, including any assumptions you made for the exercise. Please also include any instructions on how to execute your application.

You may submit your code via email in a zipped file, via a Dropbox or Google Drive link, or a Github page. Please do not include any kind of executable file.

We will be evaluating your solution and abilities, particularly in terms of Object Oriented Design. We hope that your code is clean, concise, and extendible. While oftentimes the simplest solution is the best, don't be afraid to show off your abilities! Please treat this as a real project and submit something that you would be proud of and comfortable submitting in a real-world scenario.

You have 72 hours from receipt of this email to submit your solution. We wish you the best of luck and anxiously await your work. If you have any questions, please do not hesitate to ask.

Jerry's Quick Mart

Jerry's Quick Mart in Orlando, FL is having its grand opening in 3 days. His previously hired software team lost all their files, and Jerry needs a solution for his grand opening.

Jerry has hired you for a quick solution to his problem. For the day of the Grand Opening, he has put out marketing noting that all transactions must be in cash.

The basic functionalities that he needs for his grand opening are the following:
- Select whether customer is a Rewards Member or Regular customer

- Add items to cart
- Remove individual items from cart, with empty cart option
- View cart (including totals)
- Checkout and Print receipt
- Cancel Transaction

Inventory is passed into the application in a text file, with item information on each line. The receipt is printed as a .txt file, with the transaction number and date included in the file name. Inventory is updated after checkout to avoid customers buying items that are out of stock.

<SAMPLE INVENTORY INPUT FORMAT>

<item>: <quantity>, <regular price>, <member price>, <tax status>

<SAMPLE INVENTORY INPUT>

<inventory.txt>
Milk: 5, $3.75, $3.50, Tax-Exempt
Red Bull: 10, $4.30, $4.00, Taxable
Flour: 1, $3.10, $2.75, Tax-Exempt
[…]

<SAMPLE OUTPUT>

<transaction_000001_12082016.txt>
December 8, 2016
TRANSACTION: 000001

ITEM	QUANTITY	UNIT PRICE	TOTAL
Milk	2	$3.50	$7.00
Red Bull	3	$4.00	$8.00
Flour	1	$2.75	$2.75

****
TOTAL NUMBER OF ITEMS SOLD: 6
SUB-TOTAL: $17.75
TAX (6.5%): $0.52
TOTAL: $18.27
CASH: $20.00
CHANGE: $1.73

****

YOU SAVED: $1.75!

<inventory.txt>
Milk: 3, $3.75, $3.50, Tax-Exempt
Red Bull: 7, $4.30, $4.00, Taxable
Flour: 0, $3.10, $2.75, Tax-Exempt
[…]

More information about taxable and tax-exempt items in Florida can be found here:
http://floridarevenue.com/Forms_library/current/dr46nt.pdf