Supermarket Billing

## Design

I have created two separate packages for input/output (com.tw.io) and main logic (com.tw.billingsystem)

Entry point of the system is com.tw.BillingSystem which calls ConsoleReader/TextFileReader(two implementations of interface Reader) to take input and validates the format of the input and then creates the Customer whose responsibility is to get the invoice which have cartItems inside that calculates all the prices for an item in the invoice.

There were two ways to calculate the Discount:

1. by percent
2. by item quantity(eg: 2 on 1 free)

There is one Discount interface which is further implemented by PercentDiscount and ItemDiscount each contains different logic as required. When creating the data, we pass one of these two discount types to decide which algorithm to execute(Following **strategy design patten**).

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## How to Run

Make sure JAVA\_HOME and MVN\_HOME paths are set.

From terminal run the following commands:

1. mvn exec:java -Dexec.mainClass=BillingSystem
2. mvn clean install(app will start)
3. Enter your choice : 1. File reader 2. Console Reader
4. If selected 1 enter following:

Customer Anish Kumar buys following items

Apple 6Kg, Orange 2Kg, Potato 14Kg, Tomato 3Kg, Cow Milk 8Lt, Gouda 2g

1. Otherwise it will read the same format from: src/main/resources/CustomerInput.txt
2. Output format:

Customer: Anish Kumar

Item Qty(Kg/Lt) Amount

Apple 6.0 250.0

Orange 2.0 128.0

Potato 14.0 300.0

Tomato 3.0 189.0

Cow Milk 8.0 300.0

Gouda 2.0 128.0

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Total Amount 1295.0

You saved 1650.0 - 1295.0 = 355.0