Store Item Sale Price Calculator

Problem Statement

A shop sells many grocery items. Shop offers different types of discounts. Discounts could be based on unit count or flat discount on price.

Example of Unit count discounts would be of type - buy 1 and get 1 free, or buy 3 and get 1 free. Example of flat percentage discount would be 10% off on Thumbs Up, or Toilet Cleaner. On any item, discount would be either flat discount or on unit count, not both. On special weekdays, shop may give discount on total bill. For example 5% off on Wednesday.

The sequence of applying discounts needs be first apply item level discount, and then on total, if applicable.

Program that you will be writing needs to calculate bill amount, given the items on the bill, date of the sale.

Example configuration for item level discounts

Name of Item	Discount configuration
Thumbs up	10% **Toilet**
Cleaner	10% **Mangoes**
No discount	
Cooking Oil Bottle - 1 liter	Buy 3 bottles and get 1 for free
Sugar	No discount
Tea	5%
Bulbs	No discount

Example configuration for weekday discounts

Weekday	Discount configuration
Monday	2%
Tuesday	No discount
Wednesday	5%
Thursday	No discount

Friday	No discount
Saturday	No discount
Sunday	No discount

The discount configuration can be hard-coded in the program. To read date and items on the bill, it would be nice to have program reading values either from user interface like console or from a file. However, we would recommend that you start with pre-populating them by literal strings.