

Coding Exercise (PHP)

We have a list of purchases of our customers in the last quarter and we need to issue them invoices.

Your task is to write a software that takes a list of purchases as an input and will output a list of amounts to be invoiced to our customers.

Purchases can happen in different currencies, but invoices are always issued in EUR.

Business rules

Our business honours loyal customers, so we offer the following discounts:

- Every 3rd order (3rd, 6th, 9th etc.) of one customer in one calendar month receives 10% discount.
- If the total amount of orders after discounts in one month exceeds 10,000.00 EUR, all orders in the following month receive 5% discount.

If more than one rule would apply to the same order, we apply the rule more beneficial to the customer.

All discounts are computed after possible currency conversion and the results are rounded to 2 digits mathematically.

Input file

A list of purchases is given in a CSV file, where each line contains:

`<Supplier ID>,<Purchase date>,<Purchase amount>,<Currency>`

Where:

- **Supplier ID** is a 9-digit number
- **Purchase date** is in format YYYY-MM-DD in the range of 2018-01-01 to 2018-03-31
- **Total Amount** is a decimal number matching the regular expression `/^\d{1,8}(\?:\.\d{2})?\$/`
- **Currency** is one of USD, EUR, GBP

The input file is not sorted.

Lines are terminated with **LF** character, the file can contain up to 10.000 lines. The input file contains no errors according to the format.

Example input file

```
234234234,2018-03-14,3000.50,GBP
123123123,2018-03-15,1000.99,EUR
123123123,2018-02-14,12000.00,EUR
234234234,2018-01-14,12100.00,USD
123123123,2018-01-27,2000,EUR
345345345,2018-02-01,12200.00,USD
123123123,2018-01-02,7000.50,GBP
234234234,2018-02-14,10000.00,EUR
```

```
123123123,2018-03-10,1000.30,GBP
345345345,2018-01-02,8700.10,GBP
345345345,2018-03-01,10000,GBP
123123123,2018-03-01,1000.00,EUR
```

Output

The output is a CSV file, where each line contains:
<Supplier ID>,<Invoice amount>,EUR

Conversion Rate

The currency conversion rates are:

- 1 EUR = 1.21 USD
- 1 EUR = 0.87 GBP

Amount after conversion is rounded up to 2 digits mathematically.

Task result

Your task is to provide a PHP CLI script that receives an input and output filenames in the parameters, performs the calculations on the input file and writes them into the output file.

Assessment criteria are:

- following of principles of clean code (e.g. SOLID principles)
- testability of the code (tests are not required)
- time and memory efficiency of the solution

Programming Language:

- Any 64-bit PHP version

Concerns not specified in this document are entirely at your discretion.