Jumo Coding Question

Situation

Every two months we are given a text file from our accounting department detailing all the loans given out on our networks. This needs to be a validated against our internal systems by the tuple of (Network, Product, Month). We will drill down as necessary into problem areas.

Task

Given the below CSV from our accounting department calculate the aggregate loans by the tuple of (Network, Product, Month) with the total currency amounts and counts and output into a file CSV file Output.csv

Loans.csv

```
MSISDN,Network,Date,Product,Amount
27729554427,'Network 1','12-Mar-2016','Loan Product 1',1000.00
27722342551,'Network 2','16-Mar-2016','Loan Product 1',1122.00
27725544272,'Network 3','17-Mar-2016','Loan Product 2',2084.00
27725326345,'Network 1','18-Mar-2016','Loan Product 2',3098.00
27729234533,'Network 2','01-Apr-2016','Loan Product 1',5671.00
27723453455,'Network 3','12-Apr-2016','Loan Product 3',1928.00
27725678534,'Network 2','15-Apr-2016','Loan Product 3',1747.00
27729554427,'Network 1','16-Apr-2016','Loan Product 2',1801.00
```

Solution considerations

- The expectation is a file called Output.csv with a line detailing the totals by the tuple of (Network, Product, Month) summing the amount and count of loans.
- A readme.txt detailing the project, usage and assumptions you've made as well as the choices around your language, plugins and 3rd party libraries.
- Follow proper coding conventions, object orientated design.
- Detail performance and scaling considerations.
- Implement this as you would in a production environment.

Submission guidelines

- Include all source code so that we are able to build, package, and run your application.
- Where possible submit through Github, otherwise package as a single zip file and upload to a cloud storage service.

Implementation notes

- We want to encourage creativity in this technical assignment, however we also want to understand *your* coding style and skills. To that end we will not review submissions that utilise SQL, aggregate libraries, or similar functions built into languages.
- Language functions include any method such as a 'groupBy'

- Aggregate libraries include:
  - Python: Pandas
  - Java: jAgg
  - .NET: LINQ