

Write a program that keeps a record of payments. Each payment includes a currency and an amount. The program should output a list of all the currency and amounts to the console once per minute. The input can be typed into the command line, and optionally also be loaded from a file when starting up.

Sample input:

USD 1000
HKD 100
USD -100
CNY 2000
HKD 200

Sample output:

USD 900
CNY 2000
HKD 300

Detailed requirements:

When your Java program is run, a filename can be optionally specified. The format of the file will be one or more lines with CurrencyCode Amount like in the Sample Input above, where the currency may be any uppercase 3 letter code, such as USD, HKD, CNY, NZD, GBP etc. The user can then enter more lines into the console by typing a currency and amount and pressing enter. Once per minute, the output showing the net amounts of each currency should be displayed. If the net amount is 0, that currency should not be displayed. When the user types "quit", the program should exit.

You may need to make some assumptions. For example, if the user enters invalid input, you can choose to display an error message or quit the program. For each assumption you make, write it down in a readme.txt and include it when you submit the project.

We value:

- Code that builds and runs easily
- Meaningful automated testing
- Threadsafe code
- Code that is easy to understand

Please provide your code in a ZIP file. We should be able to build and run your program easily (you may wish to use Maven, Ant, etc). Include instructions on how to run your program.

Optional bonus question

Allow each currency to have the exchange rate compared to USD configured. When you display the output, write the USD equivalent amount next to it, for example:

USD 900
CNY 2000 (USD 314.60)
HKD 300 (USD 38.62)