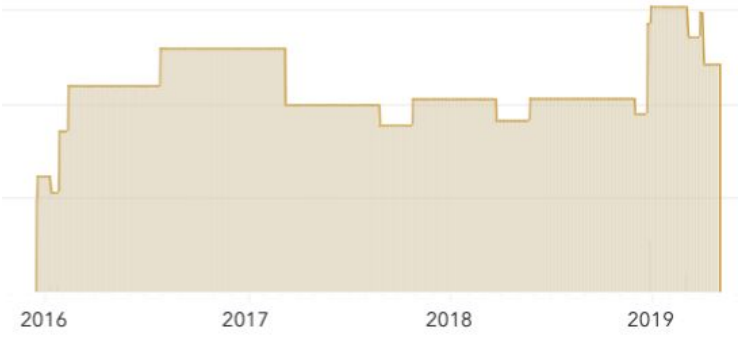
Python Recruitment Exercise

Essentia Analytics - March 2020

In Financial Investments a portfolio manager will buy and sell stock in a particular investment. These are generally referred to as trades (Positive buys and negative sells).
Over a period of time the portfolio manager will hold, or own, stock in an investment and will eventually sell it all and hold no stock. Within Essentia Analytics this period of time is called an 'Episode'. An Episode could be over any period of time. Days, Months or Years.



This representation of an Episode shows the number of stocks held by the portfolio manager. You can see that it doesn't stay steady and there is a clear start and finish to the Episode.

Included with this document is a CSV data file of trades for an example Episode.

Write a Python 3 program that will draw a visual representation of the Episode.
You may use any freely available open source libraries.
You may spend as much or as little time on the exercise as you wish. (It would be nice to know how much time you put it for comparison purposes)
The CSV also contains the price per share for each purchase and sale. This is always a positive value for both buys and sells.

Please calculate the total profit or loss for the Episode.

Due to the current global situation with Corvid-19 and long term remote working, written communication has become a very important skill that this role requires. Therefore could you please provide documentation for the following.

- How to install and execute the submission
- The approach taken in developing the submission
- Any caveats or assumptions made

Please do not put your submission on publicly viewable source code repositories (such as Github) as this makes it easy for future candidates to 'Google' for a solution.

When we receive your code we will be running it with 5 additional CSV files and observing the resulting visualisation and total profit calculation.

Thanks and regards,
The Essentia Analytics engineering team