zero#

Software Engineer - Code Evaluation

The goal of this project is to create a real-time VWAP (volume-weighted average price) calculation engine. You will use the coinbase websocket feed to stream in trade executions and update the VWAP for each trading pair as updates become available. You're free to implement the solution however you see fit but you should focus on efficiency.

Problem Specification:

- Retrieve a data feed from the coinbase websocket and subscribe to the matches channel. Pull data for the following three trading pairs:
  - BTC-USD
  - ETH-USD
  - ETH-BTC
- Calculate the VWAP per trading pair using a sliding window of 200 data points. Meaning, when a new data point arrives through the websocket feed the oldest data point will fall off and the new one will be added such that no more than 200 data points are included in the calculation.
  - The first 200 updates will have less than 200 data points included. That's fine for this project.
- Stream the resulting VWAP values on each websocket update.
  - Print to stdout or file is ok. Usually you would send them off through a message broker but a simple print is perfect for this project.

Please implement your solution in python or golang.