

# ErisX Interview Test

## Task 1

In this task you will be asked to use a programming language of your choice to get historical trading data from two exchanges, visualize it and comment on the results if you see anything interesting.

- Download a full day of production trade history of BTC/USD from:
  - Coinbase Pro - <https://docs.pro.coinbase.com/>
  - Gemini - <https://docs.gemini.com/rest-api/>
- Store the data in a format of your choice.
- Produce a report for each exchange showing:
  - Hourly bars of:
    - Open, high, low, close, change, Volume
  - Bonus:
    - Add VWAP per bar
    - Add Notional Value per bar
- Keep your data for further analysis tasks.
- Download a full day of production trade history of ETH/BTC from:
  - Coinbase Pro - <https://docs.pro.coinbase.com/>
- Store the data in a format of your choice.
- Produce a report for ETH/BTC showing notional volume in USD.
- Make your results, code and data available for review.

## Task 2

Please describe how you would approach assessing the number of confirmations that a Digital Asset exchange like ErisX should wait before it considers a transaction (deposit to the exchange) in the BTC blockchain as valid in order to minimize the risk of being affected by a potential reorganization in the blockchain but also not having a negative impact on the user experience making the user wait for too long.

In other words, what measures, data and calculations would you look at to determine how many blockchain confirmations should an exchange wait when a client makes a BTC deposit before making the funds available for a client to trade with.