# √√ Work@ Membrane

SENIOR BACKEND ENGINEER

### **B** Market Status API REST

The goal of this project is to create a public API REST that retrieves market information for trading pairs.

#### Specifications:

- Use Express framework to set up the server.
- The API should expose two endpoints:
  - One that receives a pair name, and retrieves the tips of the orderbook (i.e. the better prices for bid-ask). Response should include both the total amounts and prices.
  - Other endpoint that is called with the pair name, the operation type (buy/sell) and the amount to be traded. Should return the effective price that will result if the order is executed (i.e. evaluate <u>Market Depth</u>).
- API should return market values for the following pairs: BTC-USD and ETH-USD. We expect to handle unexpected pairs.

This engine must be written in Node.js and it must use websockets, without persistent storage. It should also support a HTTP interface to fetch the endpoints.

The backend should consume data from an external exchange. You could use the orderbook websocket stream from <u>Bittrex API</u> or <u>Bitfinex API</u>.

Submit your solution to a **private** github repository. Keep the organization of branches and commits as if you were working in a team. Give access to the following list of github users:

- gaston-rather
- mainqueg
- ramirocarra
- hgpalumbo
- ecanavesio
- Ldtorres-ratherlabs
- gonza4

#### **Bonus:**

- In the second endpoint, include a parameter to set a limit for the effective price and retrieves the maximum order size that could be executed.
- Create a set of unit tests for the logic used in the Market Depth implementation.



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### Evaluation

- Show us how you create clean, maintainable code.
- Focus your solution on performance and scalability.
- Make the code aesthetic, clean code (use linter)
- Senseful folder structure
- Scalable solution
- Error handling and logging