

Test assignment

Simple option pricer

This is a simplified part of the interface used for option pricing. These types of interfaces will be present in all parts of the trading platform.

Option price depends on many different parameters like underlying price, strike price, volatility, interest rate, time to expiry etc. Model used for pricing options on futures is called “Black 76” and is enclosed in the attachment (`black76.js` and `stat.js`).

The goal of this simple pricer is to compute the option price when given the volatility and vice-versa. All other parameters are assumed to be known.

The interface should contain:

- Volatility input field
- Price input field
- Submit button

How it should work:

- When user inputs volatility into the volatility field (accepts only positive numeric values, entered in percentage points, but passed to formula as number), option price is computed on-the-fly in the second field like this:

```
price = black76('c', 'price', 102, 100, 0.005, 1.0, vola)
```

- However, user can also input the price into the price field (restricted to positive numerical values). Then the volatility field should display the corresponding volatility (in percentage points). This backward-solution is also already prepared as a function:

```
vola = black76imp('c', price, 102, 100, 0.005, 1.0)
```

- Not all function calls are guaranteed to produce valid results. In case of failure, functions return `NaN`. This should be somehow indicated in the interface.
- Whenever user presses the submit button and valid numbers are present in both fields, the app should make a JSON request to the endpoint described at <http://docs.optxchapiinterview.apiary.io/> and indicate successful response. Endpoint url is `http://35.156.19.202/v1/pricer/`

Requirements

- Please use following
 - ES6
 - Webpack
 - React
 - Redux
- Please write at least some tests