

Back-end developer tech assignment

In this tech assignment your task is to create a server for blockchain indexes.

Base item is Group (Solidity smart contract code):

```
struct Group {  
    string name;  
    uint256[] indexes;  
}
```

Group contains a list of ids. Each id represents index:

```
struct Index {  
    uint256 id;  
    string name;  
    uint256 ethPriceInWei;  
    uint256 usdPriceInCents;  
    uint256 usdCapitalization;  
    uint256 percentageChange;  
}
```

Data you should get from a smart contract, which is deployed on **Ropsten** (ETH test network) using **web3.js** (<https://github.com/ethereum/web3.js/>). For connecting to a smart contract you have to create your own Infura API key.

Contract ABI's serve as an interface to the smart contract:

<https://github.com/HvrlK/abi-contract>

Contract address is `0x4f7f1380239450AAD5af611DB3c3c1bb51049c29`

You should implement next methods:

GET group-ids (`getGroupIds` method in smart contract)

GET group/{groupId} (`getGroup(groupId)` method in smart contract)

GET index/{indexId} (`getIndex(indexId)` method in smart contract)

GET last-block (get last block from **Ropsten** test network)

Use NestJS framework. Use Caching API provided by NestJS, store groups, indices and the last block in the database (use typeORM), create swagger documentation.

When the task is finished, push code to your github and provide a link for us.

If you have any questions - feel free to write to us.
Good luck!