

Create Your Own Private Blockchain

REVIEW

CODE REVIEW

HISTORY

Meets Specifications

Congratulations 🎉 You have passed all the Project specifications 🏆 and completed your project

You have done an excellent job in making this project. I would like to specially call out a few of the things that I noticed in the project -

- The `validate()` function in Block.js class is perfectly written because usually, students forget to assign the hash value back after calculating the hash value again but your code is perfectly written.
- You've nicely created an endpoint to invoke `validateChain()` function.
- The code looks very clean. It does not contain unnecessary code. It is well formatted.

Also, you can use a new VS Code extension that is an alternative to Postman, you can checkout [this link](#).

In the next project, you will be learning about solidity language to write smart contracts. All the best for future content and project 😊

If you find anything I have missed to point out or anything bad in my review, do give me feedback.

Happy Learning 🍌 and Stay Udacious 🍌

Best,
Anku

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START

Complete unfinished block.js implementation



- Return a new promise to allow the method be called asynchronous.
- Create an auxiliary variable and store the current hash of the block in it (this represent the block object)
- Recalculate the hash of the entire block (Use SHA256 from crypto-js library)
- Compare if the auxiliary hash value is different from the calculated one.
- Resolve true or false depending if it is valid or not.



The `validate()` function is working as expected

- The logic written to validate the block is perfect. It is returning `false` output if any of the block's property is modified.



- Use hex2ascii module to decode the data
- Because data is a javascript object use JSON.parse(string) to get the Javascript Object
- Resolve with the data and make sure that you don't need to return the data for the genesis block OR reject with an error.

Complete unfinished blockchain.js implementation



- Must return a Promise that will resolve with the block added OR reject if an error happen during the execution.
- height must be checked to assign the previousBlockHash
 - Assign the timestamp & the correct height
 - Create the block hash and push the block into the chain array.
- Don't for get to update the `this.height`



- must return a Promise that will resolve with the message to be signed



- must resolve with the Block added or reject with an error.
- time elapsed between when the message was sent and the current time must be less that 5 minutes
- must verify the message with wallet address and signature: `bitcoinMessage.verify(message, address, signature)`
- must create the block and add it to the chain if verification is valid



- must return a Promise that will resolve with the Block



- must return a Promise that will resolve with an array of the owner address' Stars from the chain



- must return a Promise that will resolve with the list of errors when validating the chain
- must validate each block using `validateBlock()`
- Each Block should check with the previousBlockHash
- execute the `validateChain()` function every time a block is added
- create an endpoint that will trigger the execution of `validateChain()`



The `validateChain()` function is working as expected

- It is calling the validate() function to validate the block.
- It is comparing the hash value with the previousBlockHash of the blocks.
- An endpoint is created to invoke `validateChain()` function.
- Every time a new block is added this function is getting invoked.

Test your App functionality



- must use a GET call to request the Genesis block
- must use a POST call to requestValidation
- must sign message with your wallet
- must submit your Star
- must use GET call to retrieve starts owned by a particular address

DOWNLOAD PROJECT

RETURN TO PATH