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Decentralized Star Notary

REVIEW

CODE REVIEW 3

HISTORY

Requires Changes

1 SPECIFICATION REQUIRES CHANGES



In case you need help feel free to get in touch with your mentors.

Keep learning!

You are awesome 🎉

Suggestions

Try to follow this awesome twitter accounts related to blockchain:

VitalikButerin

[https://twitter.com/VitalikButerin?](https://twitter.com/VitalikButerin?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E942032830896398336&ref_url=https%3A%2F%2Ffortune.com%2F2017%2F12%2F27%2Fbitcoin-twitter%2F)

[ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E942032830896398336&ref_url=https%3A%2F%2Ffortune.com%2F2017%2F12%2F27%2Fbitcoin-twitter%2F](https://twitter.com/VitalikButerin?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E942032830896398336&ref_url=https%3A%2F%2Ffortune.com%2F2017%2F12%2F27%2Fbitcoin-twitter%2F)

Brian Armstrong

[https://twitter.com/brian_armstrong?](https://twitter.com/brian_armstrong?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E936081853840101376&ref_url=https%3A%2F%2Ffortune.com%2F2017%2F12%2F27%2Fbitcoin-twitter%2F)

[ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E936081853840101376&ref_url=https%3A%2F%2Ffortune.com%2F2017%2F12%2F27%2Fbitcoin-twitter%2F](https://twitter.com/brian_armstrong?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E936081853840101376&ref_url=https%3A%2F%2Ffortune.com%2F2017%2F12%2F27%2Fbitcoin-twitter%2F)

Videos

This is an excellent video: Multicoin Summit May 2018 Exploring Opportunities For Non Fungible Tokens

<https://www.youtube.com/watch?v=nuD4DHJRRPQ>

I want to share this amazing application of blockchain to CURE CANCER

<https://www.youtube.com/watch?v=Vwlji2rBdKU>

<https://www.youtube.com/watch?v=i66ccB4ShXU&t=509s>

I want to share these awesome episodes from Udacity about blockchain

<https://www.udacity.com/built-on-blockchain>

I wanted to share this great video about the fundamentals of Ethereum, so PLEASE WATCH it

<https://www.youtube.com/watch?v=yVN3ppNdwMo>

I recommend this excellent video about the basics of Ethereum, to reinforce the fundamental concepts

<https://www.youtube.com/watch?v=gjwr-7PgpN8>

I want to share this interesting concept called Gitcoin, please check it <https://gitcoin.co/>

https://www.youtube.com/watch?time_continue=4&v=DJartWzDn0E

Write a smart contract with functions

Smart contract implements the ERC-721 or ERC721Token interface

Well done 👍

The star token should have these pieces of metadata added:

- Star coordinators
 - Dec
 - Mag
 - Cent
- Star story

Good job ★

Suggestions

The coordinators actually are `dec, mag, cent` and not `dec, mag, ra`, but this error is not significant for the functionality

Explicitly label the visibility of functions and state variables. Functions can be specified as being external, public, internal or private.

<https://solidity.readthedocs.io/en/v0.4.24/contracts.html#visibility-and-getters>

Smart contract prevents stars with the same coordinates from being added

Very good 🍊

Suggestions

You implemented well the way to check if the coordinates already exist. I want to tell you about an interesting alternative. You don't have to create another mapping variable, you can just use `tokenIdToStarInfo`. This could be done if you create a `tokenId` using the coordinates and you just check if a star with that `tokenId` already exists

Smart contract implements all these functions - `createStar()`, `putStarUpForSale()`, `buyStar()`, `checkIfStarExist()`, `mint()`, `approve()`, `safeTransferFrom()`, `SetApprovalForAll()`, `getApproved()`, `isApprovedForAll()`, `ownerOf()`, `starsForSale()`, `tokenIdToStarInfo()`

Expected response for `tokenIdToStarInfo()`:

```
["Star power 103!", "I love my wonderful star", "ra_032.155", "dec_121.874", "mag_245.978"]
```

Good work 👍

Suggestions

This is a great article that talks about the difference of memory and storage, and how to use them <https://medium.com/coinmonks/what-the-hell-is-memory-and-storage-in-solidity>

them <https://medium.com/coinmonks/what-the-hack-is-memory-and-storage-in-solidity-6b9e62577305>

Test smart contract code coverage

Project contains tests for the following functions and all tests are approved without error:

createStar(), putStarUpForSale(), buyStar(), checkIfStarExist(), mint(), approve(), safeTransferFrom(), SetApprovalForAll(), getApproved(), isApprovedForAll(), ownerOf(), starsForSale(), tokenIdToStarInfo()

Great!!

Suggestions

I really recommend reading this documentation so you can learn you testing to the next level
!!!! <https://mochajs.org/>

I want to share these great tutorials to help improve your solidity skills
<https://medium.com/coinmonks/top-solidity-tutorials-4e7adcaced8>

I want to share this cool tool called Mythril, that is a reversing and bug hunting framework for the Ethereum blockchain <https://github.com/b-mueller/mythril/>

Deploy smart contract on a public test network (Rinkeby)

- Smart contract is deployed on on the Ethereum *RINKEBY* test network
- Execute createStar() function
- Place your star for sale using putStarUpForSale() function

Excellent 😊

Suggestions

Suggestions

To interact with the smart contract in the rikeby network you can use metamask + MyEtherWallet :

<https://ethereum.stackexchange.com/questions/25431/metamask-how-to-access-call-deployed-contracts-functions-using-metamask>

Project submission includes a document (.md, .txt) that includes:

- Transaction ID
- Contract address

Hint: You can view Transaction ID and Contract ID from a blockchain explorer (e.g. Etherscan). Example Contract ID:

<https://rinkeby.etherscan.io/address/0xf80720c0715e68f80c0c0437c9c491abfed9e7ab#code>

Great!!

Modify client code to interact with a smart contract

Front-end is configured to:

- Claim a new star. Each new star support these pieces of metadata:
 - Star coordinators
 - Dec
 - Mag
 - Cent
 - Star story
- Lookup a star by ID using tokenIdToStarInfo()

 Invalid number of arguments to the `createStar` function, you are missing the `tokenId` .

```
✖ Uncaught Error: Invalid number of arguments to Solidity function                               inpage.js:1
  at Object.InvalidNumberOfSolidityArgs (inpage.js:1)
  at u.validateArgs (inpage.js:1)
```

```
at u.toPayload (inpage.js:1)
at u.sendTransaction (inpage.js:1)
at (index):514
at inpage.js:1
at inpage.js:1
at inpage.js:1
at inpage.js:1
at i (inpage.js:1)
```

✖ `tokenId` is not defined in the `infoButtonClicked` function. Please add to the function the code `var tokenId = document.getElementById("star-tokenId").value;` .

```
✖ ▶ Uncaught ReferenceError: tokenId is not defined (index):541
at (index):541
at inpage.js:1
at inpage.js:1
at inpage.js:1
at inpage.js:1
at i (inpage.js:1)
at inpage.js:1
at inpage.js:1
at u (inpage.js:1)
at a (inpage.js:1)
```

 RESUBMIT

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[CODE REVIEW COMMENTS](#)





Best practices for your project resubmission

Ben shares 5 helpful tips to get you through revising and resubmitting your project.

[▶ Watch Video](#) (3:01)

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