

Color Minter – NFT Vision Hack

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Description

- It's a web app written with React components.
- Here, colours are considered NFTs, uniquely identified by HTML colour codes.
- For eg. Black is 000000 and white is FFFFFFFF. We can't mint the same colour twice.
- The smart contract for the colour is written in Solidity.
- Ganache is used to generate a local blockchain for testing.
- Metamask is used as a wallet to connect the blockchain and web app.

What it looks like:

Color Tokens 0x95f9697AC8b374971b6D3Ff283AE6fAF2A22D8CA

Issue Token

MINT

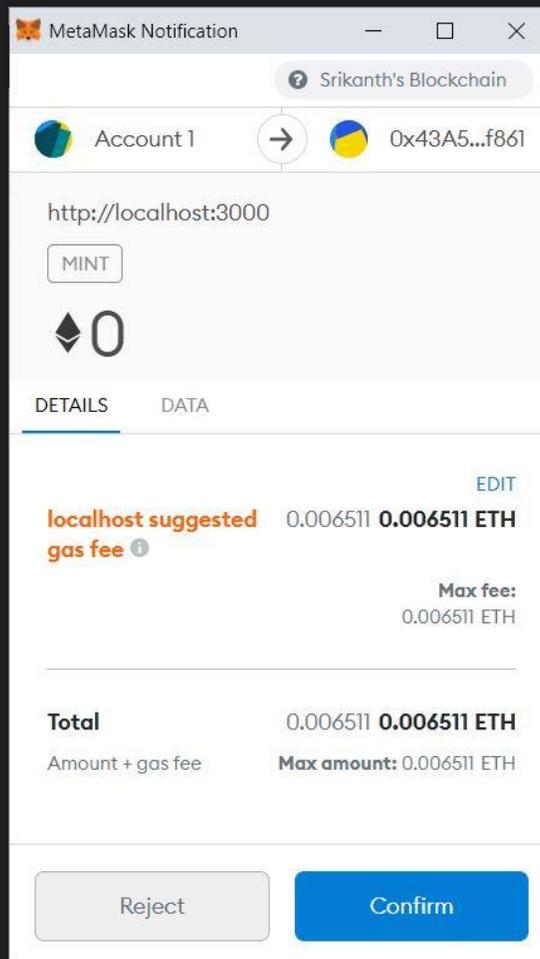
No colours have been minted, so it's blank. You can see the address of the blockchain account on top right.

Gas Fees

When you enter a colour code and tap the mint button, this window appears.

It's a Metamask confirmation window.

A gas fee is incurred every time an NFT is minted. Here, I'm not using real money, only a test blockchain.

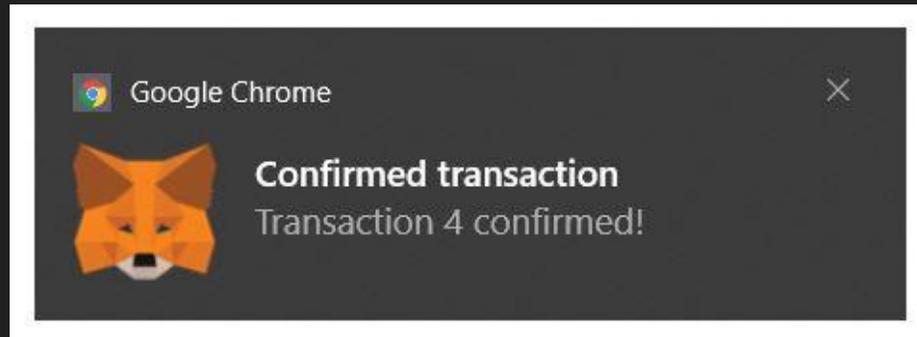


The diamond icon stands for ethereum (ETH), which is the cryptocurrency used for NFTs.

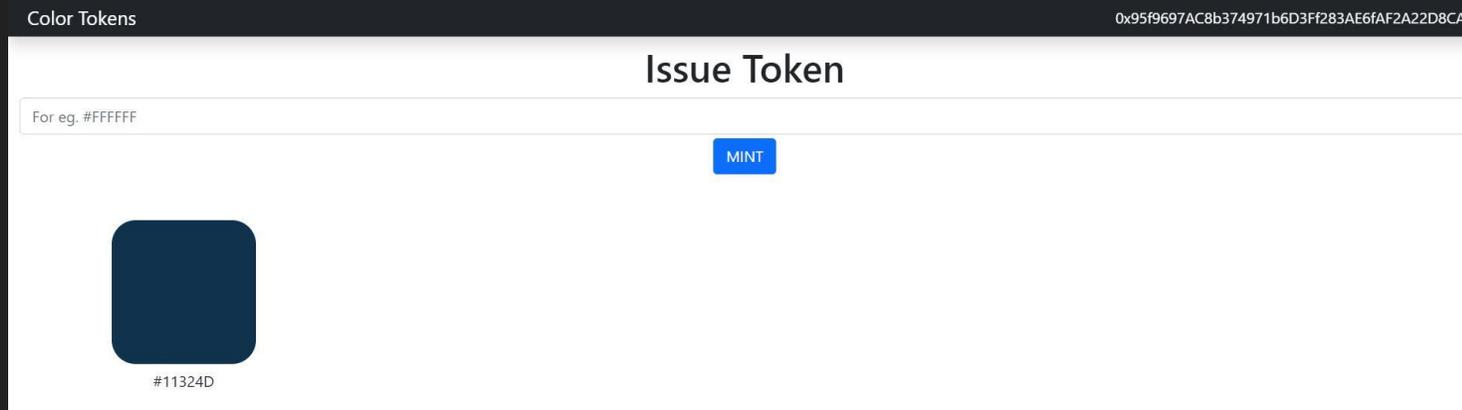
You can see the action [MINT] just below the localhost URL.

And the associated gas fee here is 0 ETH, so it's a pretty low-cost operation to mint a color code. (basically a string)

On Pressing "Mint"....

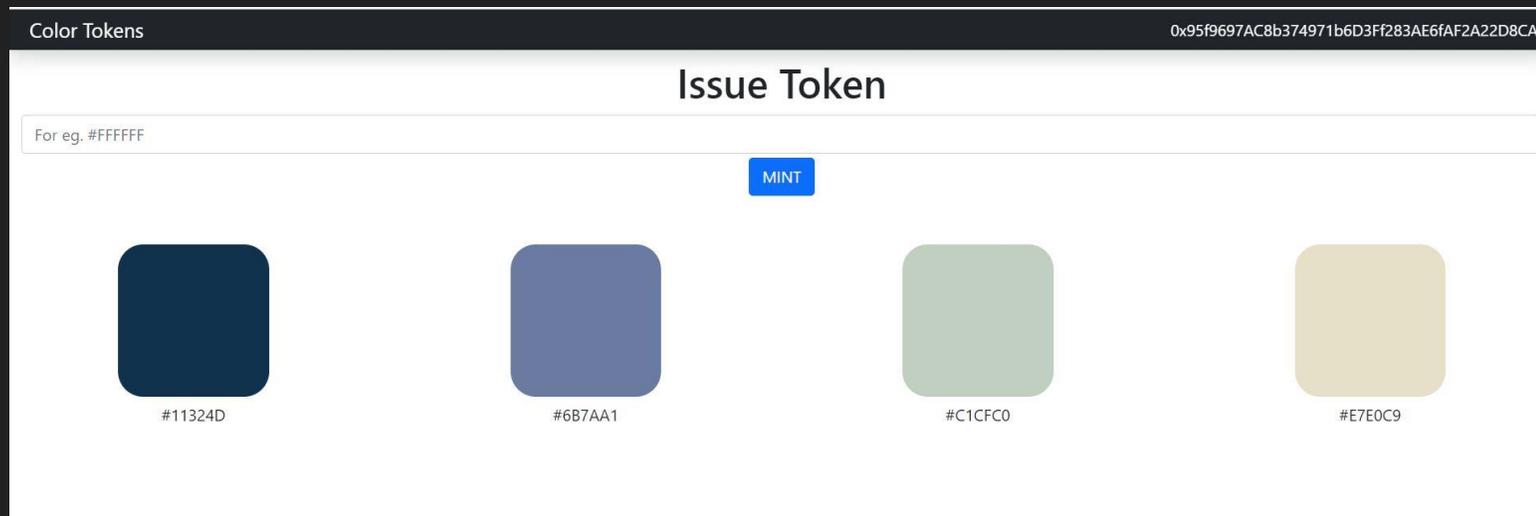


If the colour isn't minted yet, a successful transaction message appears.



The colour that you've minted appears below after refreshing the page.

Continuing Minting...



Four colours minted,
all with unique colour
codes.

Likewise we can
continue minting
colours, as long as
they aren't already
minted.

They are arranged
row wise, four colours
per row in rounded
squares.

Continuing Minting...

Color Tokens

0x95f9697AC8b374971b6D3Ff283AE6fAF2A22D8CA

Issue Token

For eg. #FFFFFF

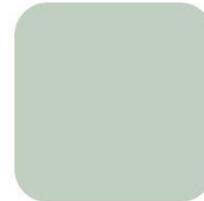
MINT



#11324D



#6B7AA1



#C1CFC0



#E7E0C9



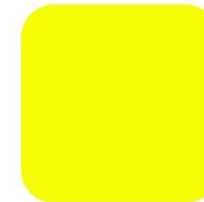
#FC5404



#F98404

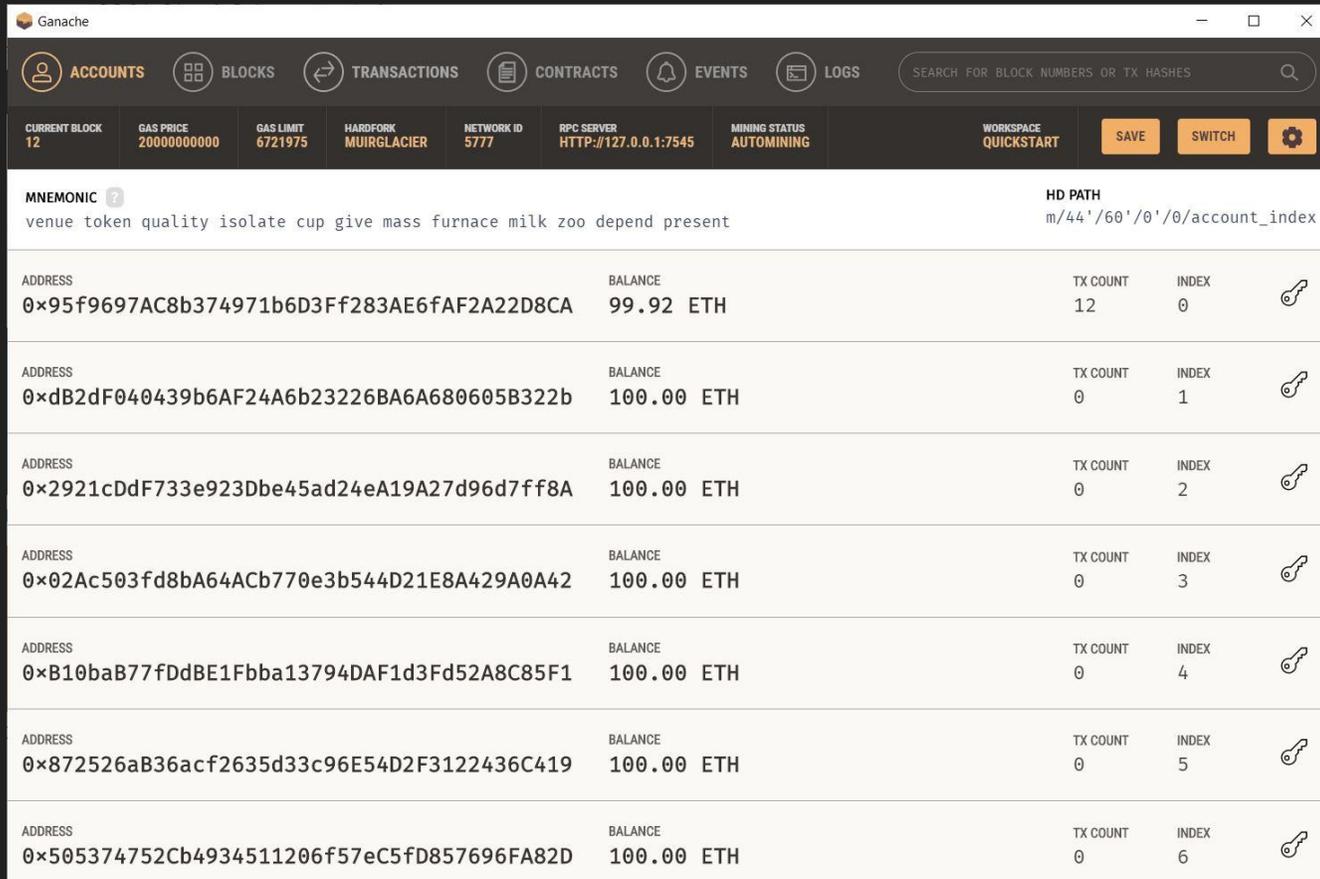


#F9B208



#F7FD04

The blockchain...



The screenshot shows the Ganache application window. The top navigation bar includes 'ACCOUNTS', 'BLOCKS', 'TRANSACTIONS', 'CONTRACTS', 'EVENTS', and 'LOGS'. A search bar is present for block numbers or transaction hashes. The main area displays account information:

- MNEMONIC:** venue token quality isolate cup give mass furnace milk zoo depend present
- HD PATH:** m/44'/60'/0'/0/account_index

ADDRESS	BALANCE	TX COUNT	INDEX
0x95f9697AC8b374971b6D3Ff283AE6fAF2A22D8CA	99.92 ETH	12	0
0xdB2dF040439b6AF24A6b23226BA6A680605B322b	100.00 ETH	0	1
0x2921cDdF733e923Dbe45ad24eA19A27d96d7ff8A	100.00 ETH	0	2
0x02Ac503fd8bA64ACb770e3b544D21E8A429A0A42	100.00 ETH	0	3
0xB10baB77fDdBE1Fbba13794DAF1d3Fd52A8C85F1	100.00 ETH	0	4
0x872526aB36acf2635d33c96E54D2F3122436C419	100.00 ETH	0	5
0x505374752Cb4934511206f57eC5fD857696FA82D	100.00 ETH	0	6

This is Ganache. The local blockchain tool used to generate accounts.

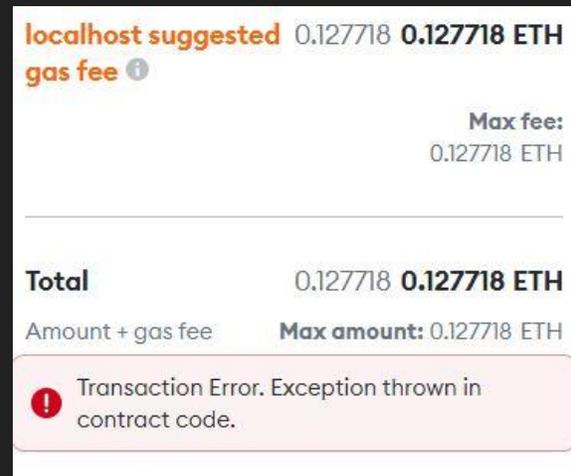
You can see each account has an unique address.

You can see some amount has been credited for gas fees.

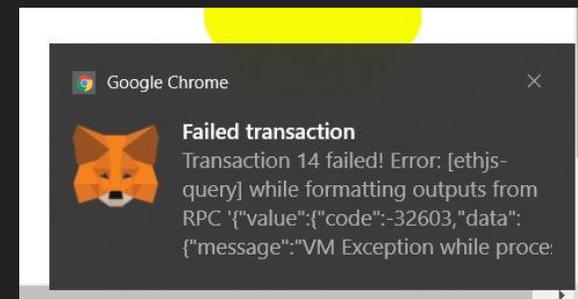
Minting duplicate colours



In the case we try to mine an existing colour...



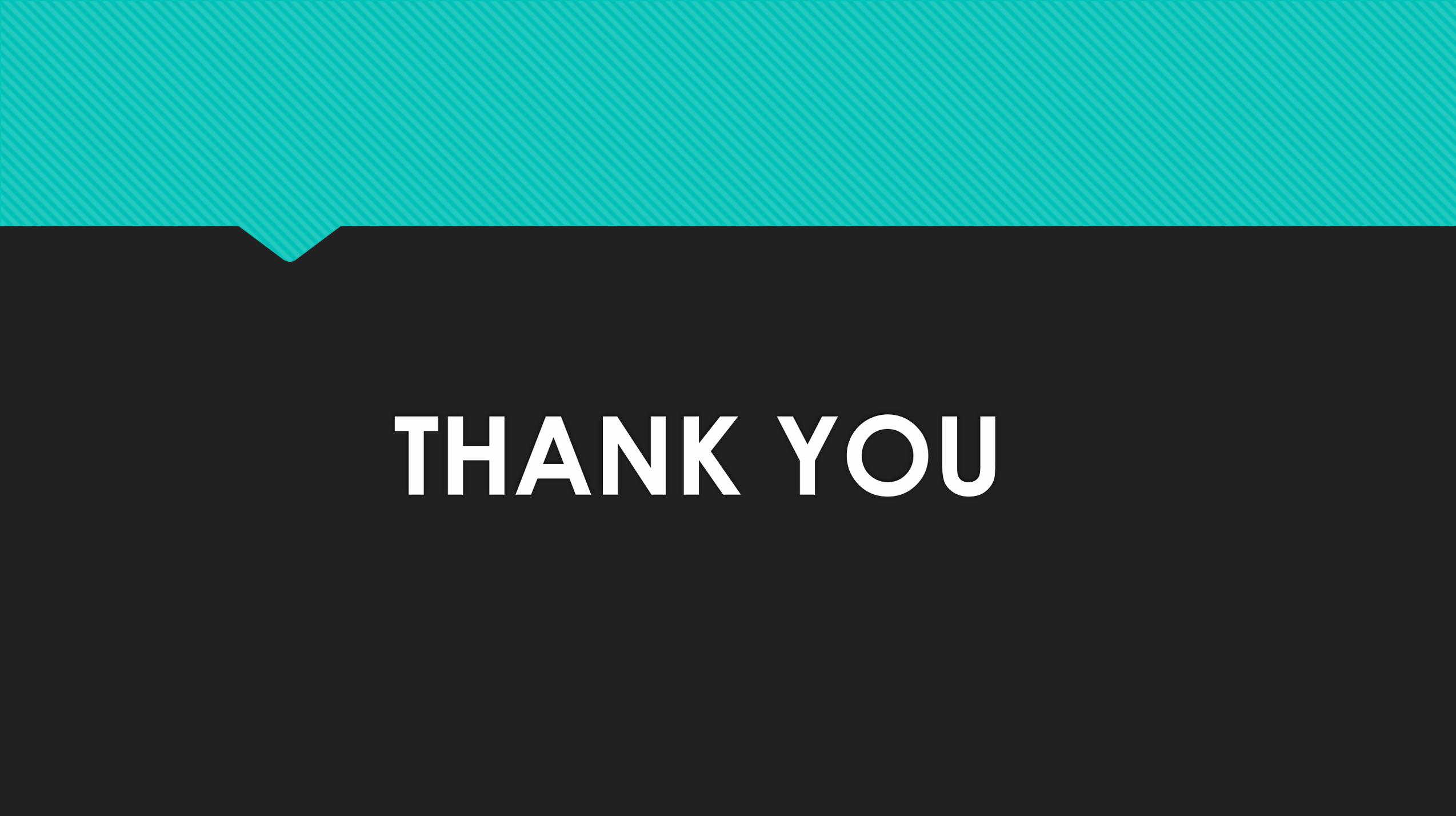
The contract code throws an exception.



And the transaction fails. No gas fees will be credited here.

End note and credits

- I'm mainly participating to learn React JS and Node.js and how smart contracts work.
- Not so much for the prize.
- I owe this project to a tutorial from <https://www.dappuniversity.com/>
- Metamask and Ganache are separate tools. Obviously I haven't made them.
- Thank you for holding this contest.

The image features a teal top section with a white speech bubble shape pointing downwards into a black bottom section. The text 'THANK YOU' is centered in the black section.

THANK YOU