KELVIN KISSI

NFT DAPP - PROFIT PAYMENT SPLITTER

EXECUTIVE SUMMARY

- In this project I used the programming language Solidity to showcase the launch of an actual NFT collection on OpenSea. The ERC-721 tokens from the NFT collection on OpenSea will be used as proof of ticket ownership of an exclusive virtual event. The proceed of those tickets sale will be divided into three profit shares (70,20,10) percent based on their input on the project. I used the Rinkeby test network to deploy my smart contracts and to create a ticket payment model. This model help us identify one of many potential use cases of the blockchain technology.

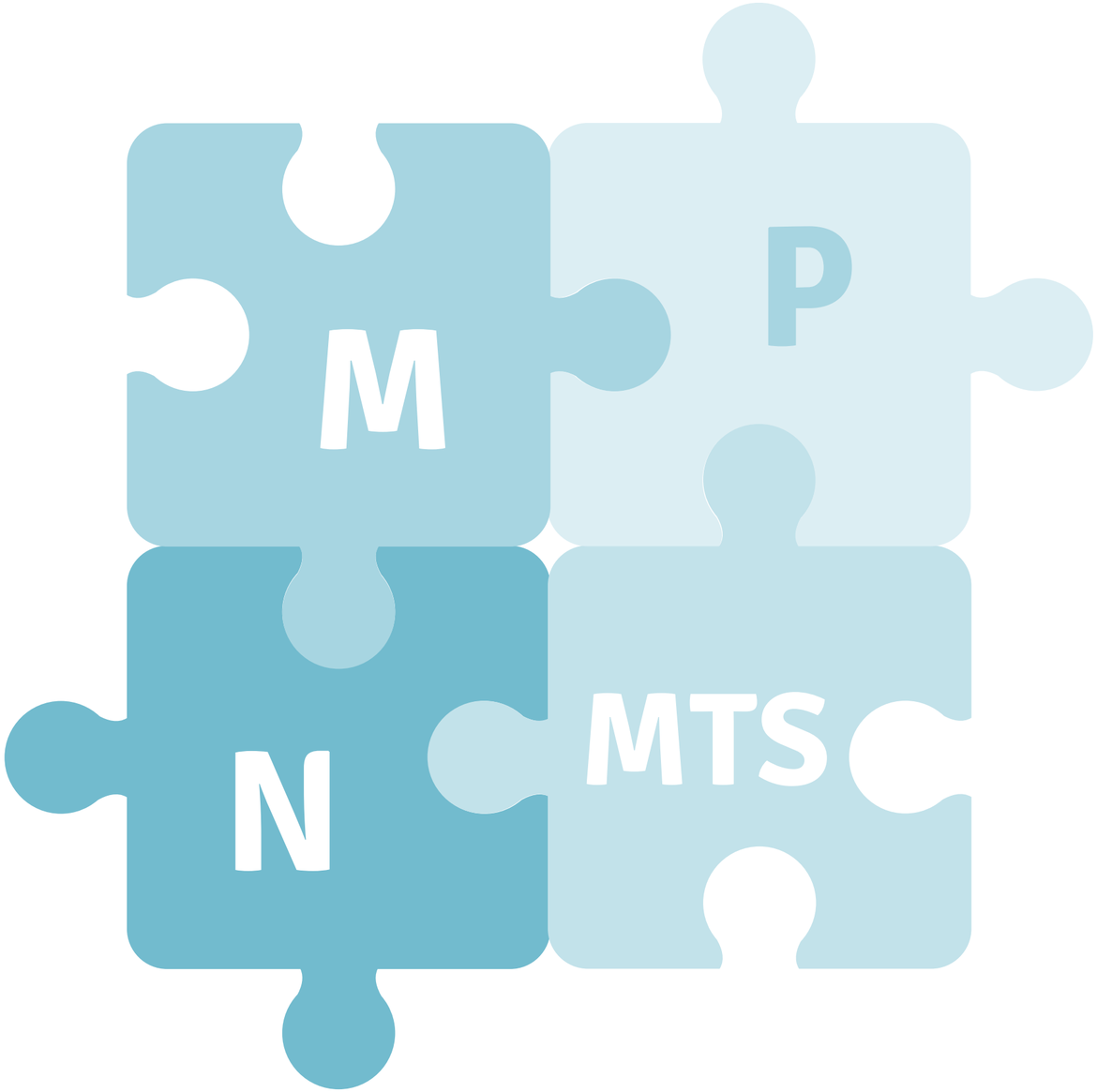
- I used the Openzeppelin libraries to create the different smart contracts (NFT & Payment Splitter) and Node.js for the minting Dapp. I also decided to add another smart contract feature "MultiSiG wallet" for extra security for the largest share holder.
- I picked the Rinkeby network to test my source codes, but the model (smart contract)could be used on the Polygon network as well as ETH mainnet.

- As a front end specialist we understand how crucial it is to have a custom UI for people that are not very technical and have very little knowledge about what is taking place when interacting with the blockchain. This is why I decided to not only integrate a minting Dapp in my project but allow everyone to understand what is really taking place.
- It is important to note that the end user will not interact with the smart contract directly, they use the front end of the app to interact with the blockchain.

SMART CONTRACTS

- Smart contracts are computer programs that can run on a blockchain. This means that people can use them to build decentralized applications (dApps) that can run code in a trustworthy way.

- Because smart contracts exist in a blockchain, they inherit two valuable properties. The first is that smart contracts are immutable, meaning that once a smart contract is created and validated, it can never be changed.
- The second property is that smart contracts are distributed. This means that everyone in the blockchain network validates the terms of the contract. If one party to the contract or member of the blockchain network tries to override the terms of the contract—for example, by trying to trigger an early release of funds—the other network members will recognize the change to the contract as invalid and prevent the action.



PLAN ANALYTICS

MINTING DAPP

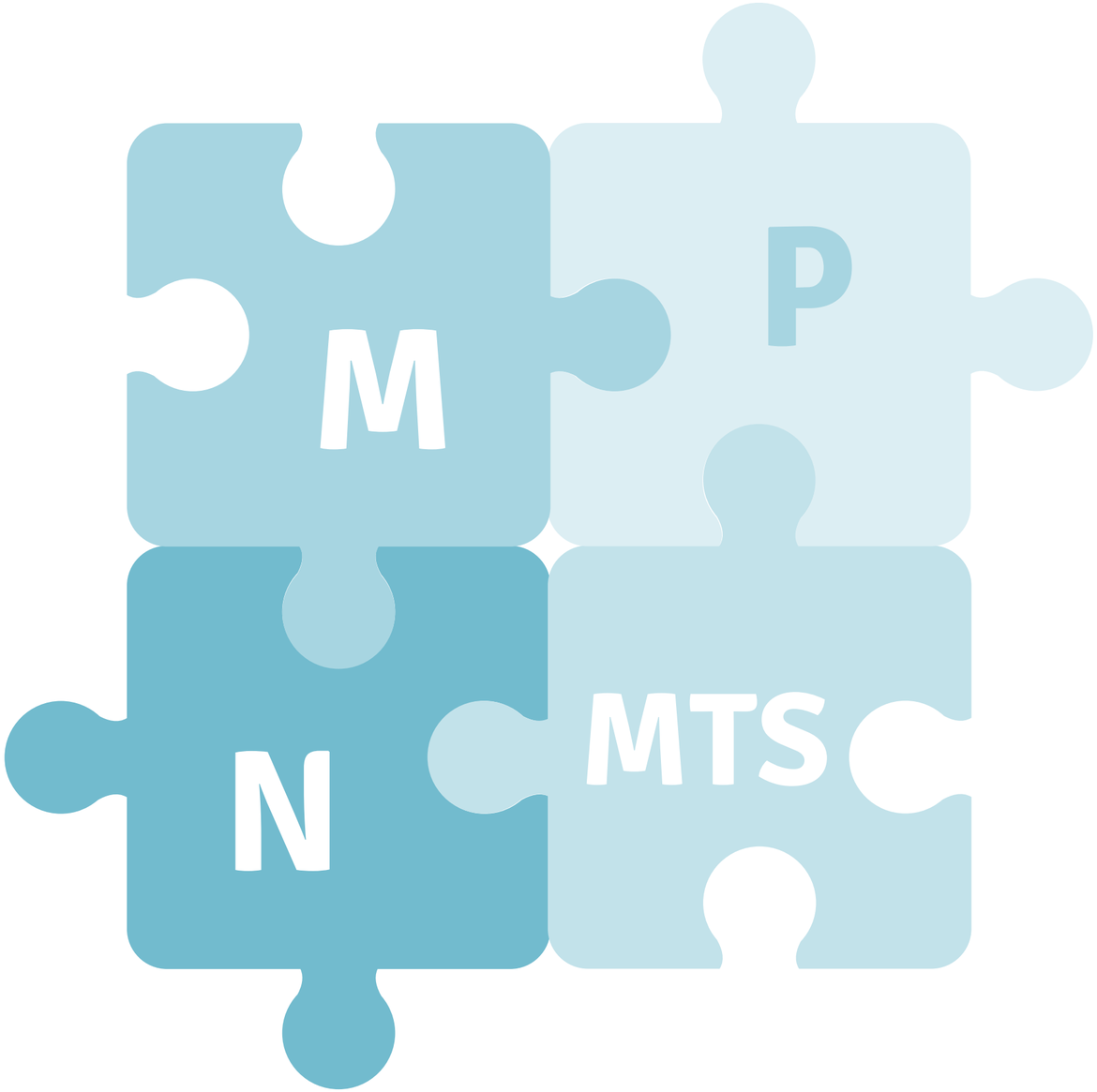
NFT minter DApp is a simple UI (user interface) where you can input information about your NFT or digital creation. Ability to mint NFT from personalized website.

PAYMENT SPLITTER CONTRACT

This contract allows to split Ether payments among a group of accounts. The sender does not need to be aware that the Ether will be split in this way, since it is handled transparently by the contract.

NFT SMART CONTRAT

An NFT smart contract is a mechanism for implementing a sale agreement between the NFT owner and the buyer.



PLAN ANALYTICS

MULTISIG WALLET - SMART CONTRACT

A MultiSig wallet is a digital wallet that operates with multisignature addresses. This means that it requires more than one private key to sign and authorize a crypto transaction or, in some cases, that several different keys can be used to generate a signature.

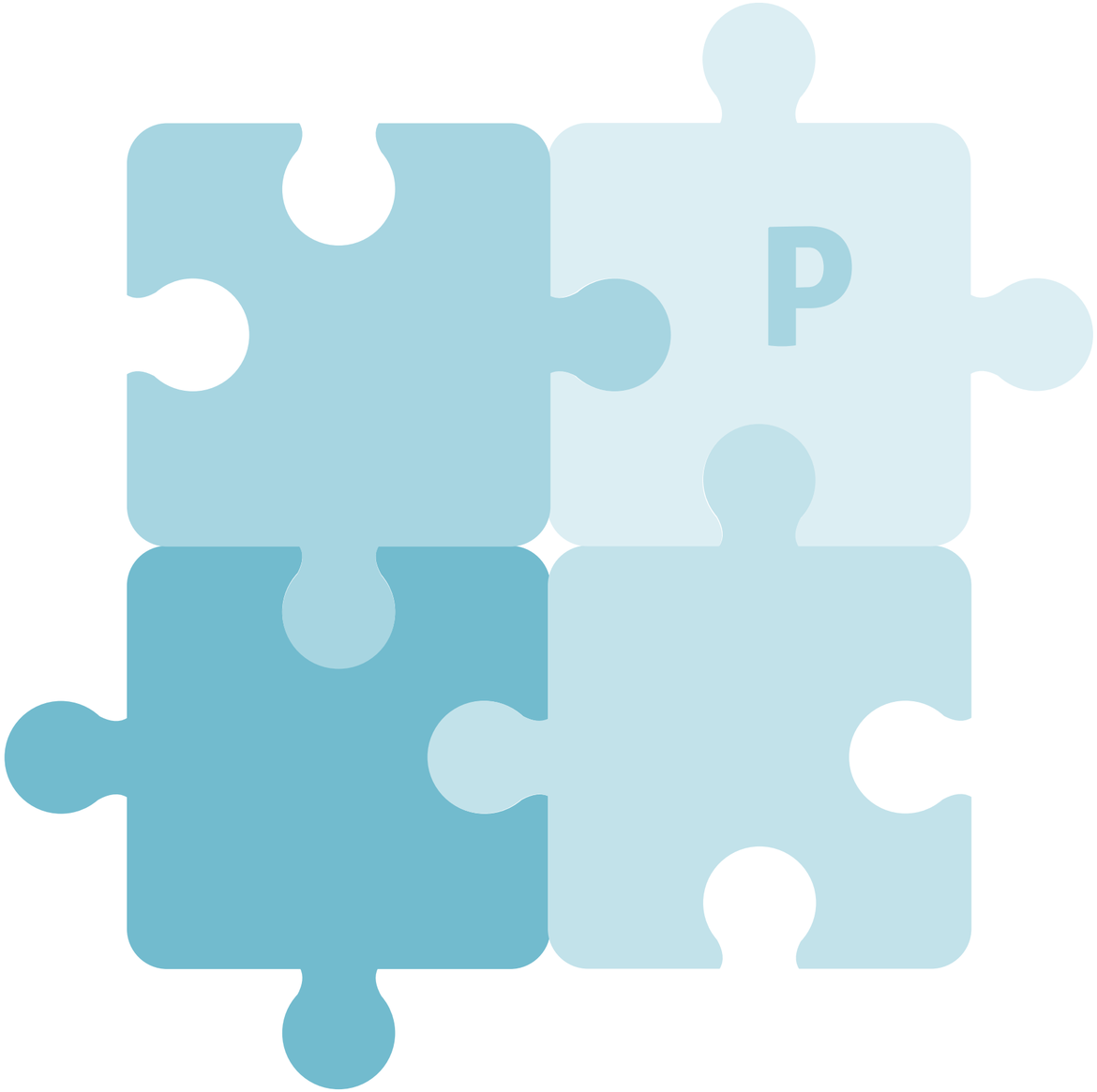
PAYMENT SPLITTER SMART CONTRACT

WALLET ADDRESSES

OWNERS OF THE PROJECT - INVESTORS

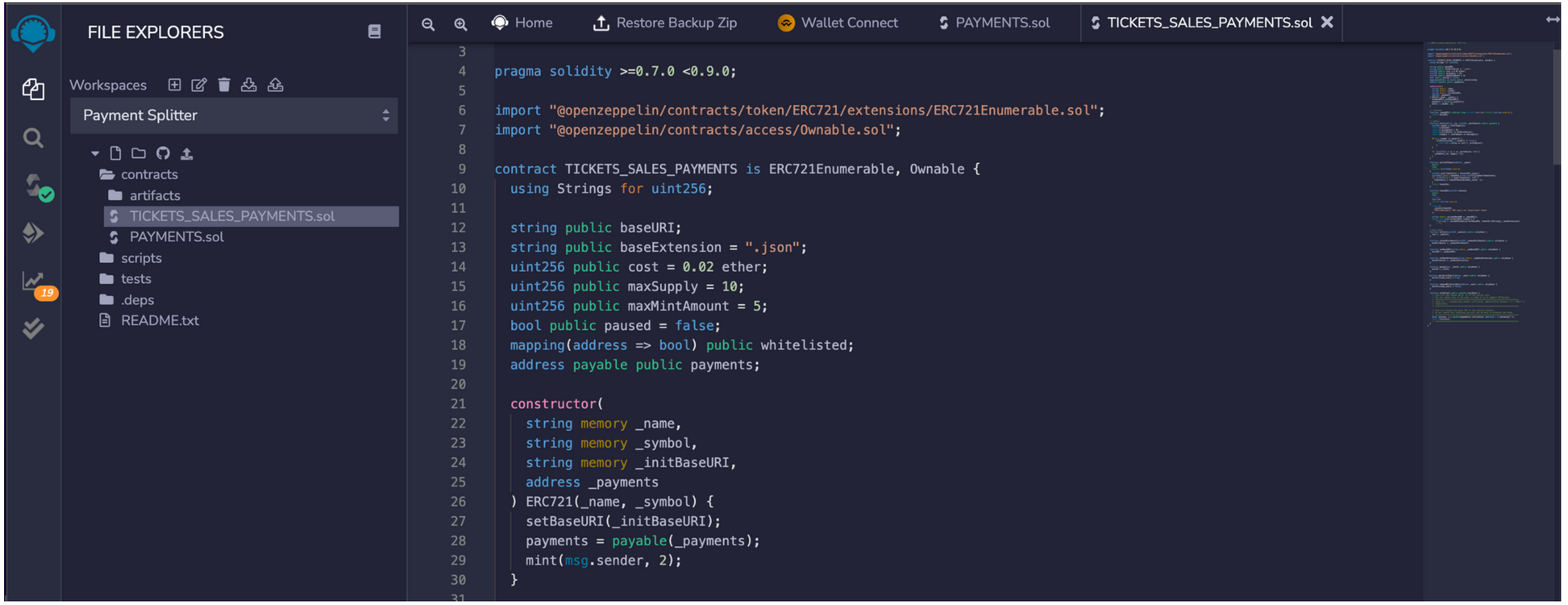
SHARES

OWNERS SHARES BASED ON INPUT



PULL METHOD

Pull Method: Require the User to pull the amount of share (ETH) that is allowed to them.



NFT SMART CONTRACT

CONTRACT DETAILS

-.02 ETH - $22.19 USD

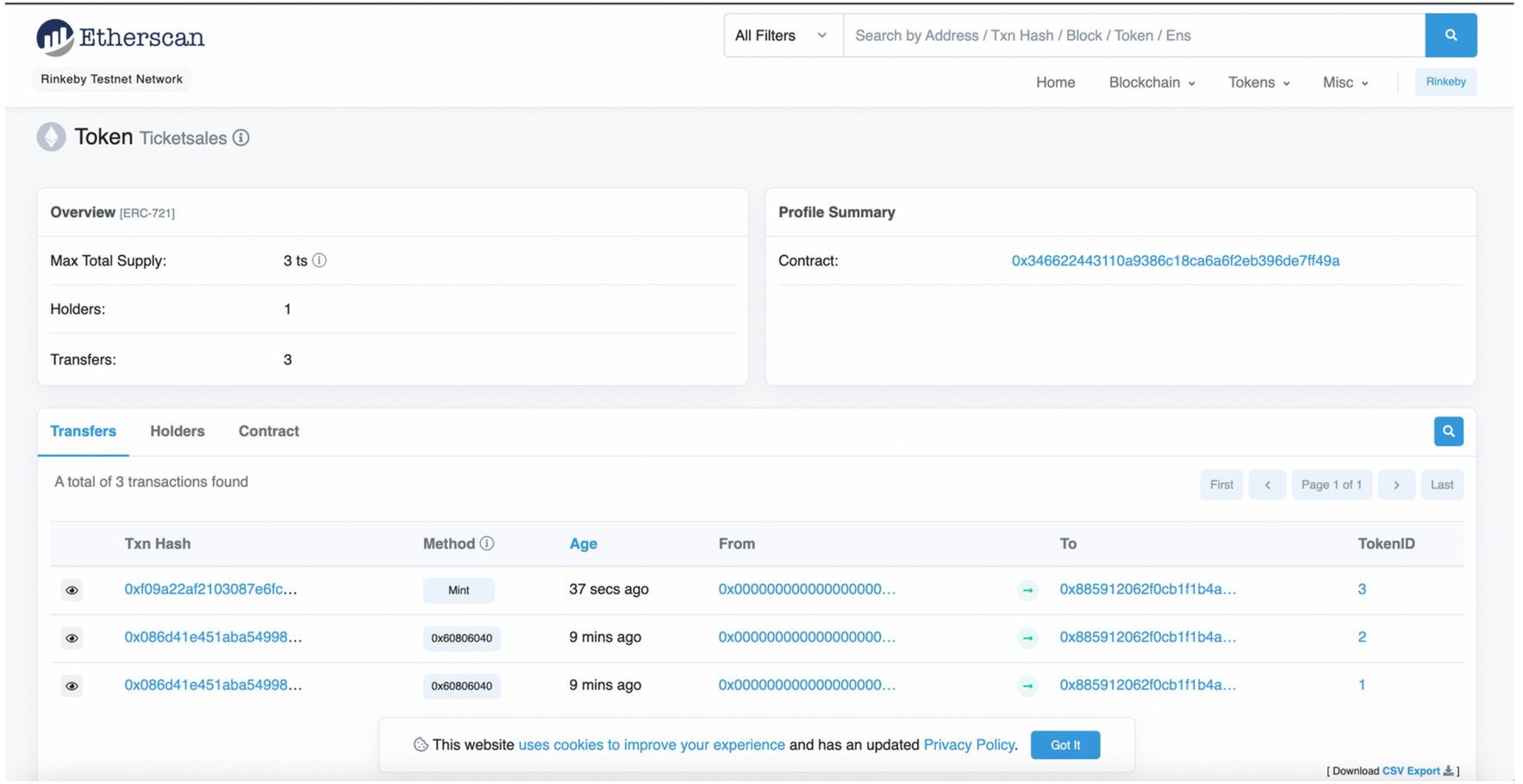
-TOTAL SUPPLY = 10 NFTS

-MAX MINT PER WALLET = 5 NFTS

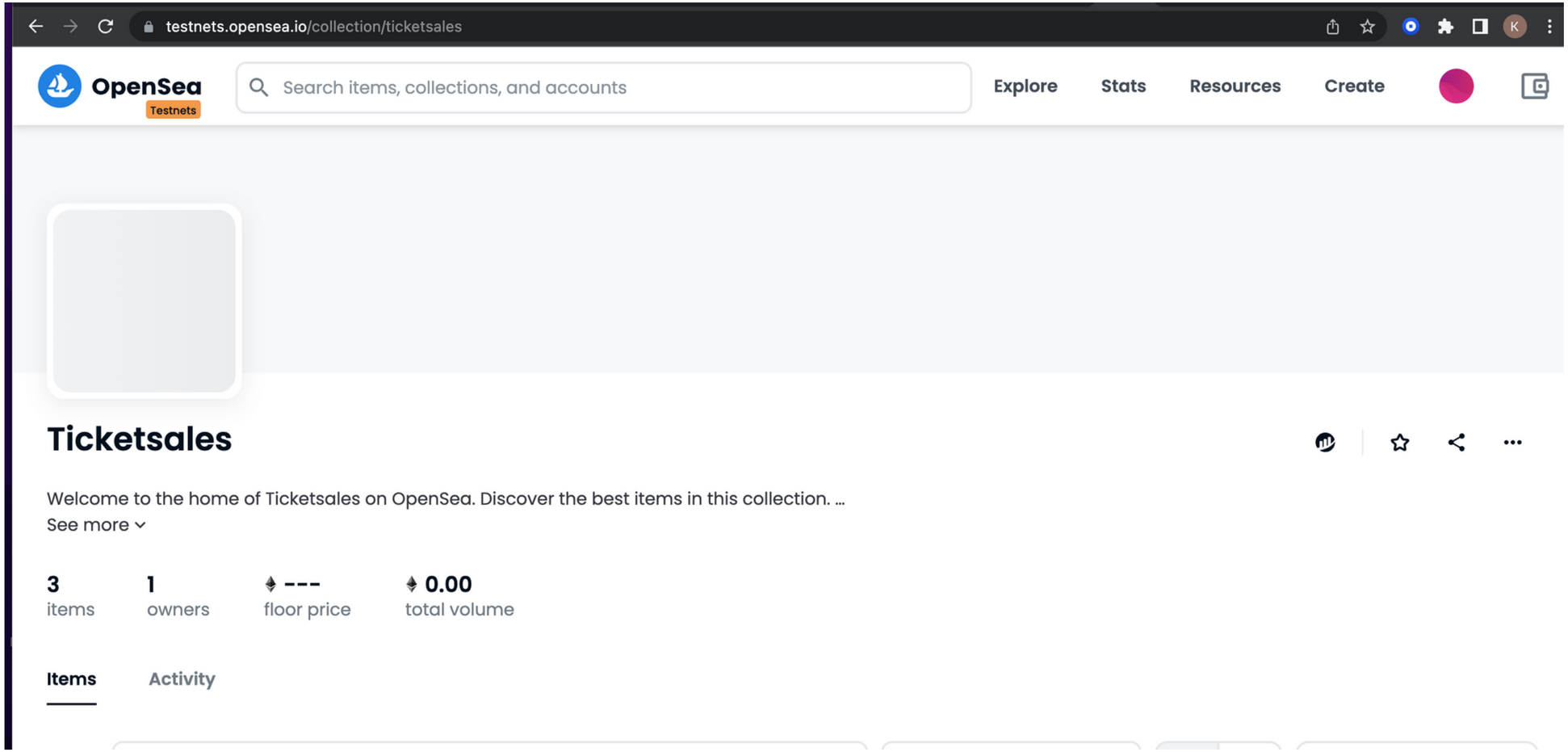
TICKETS

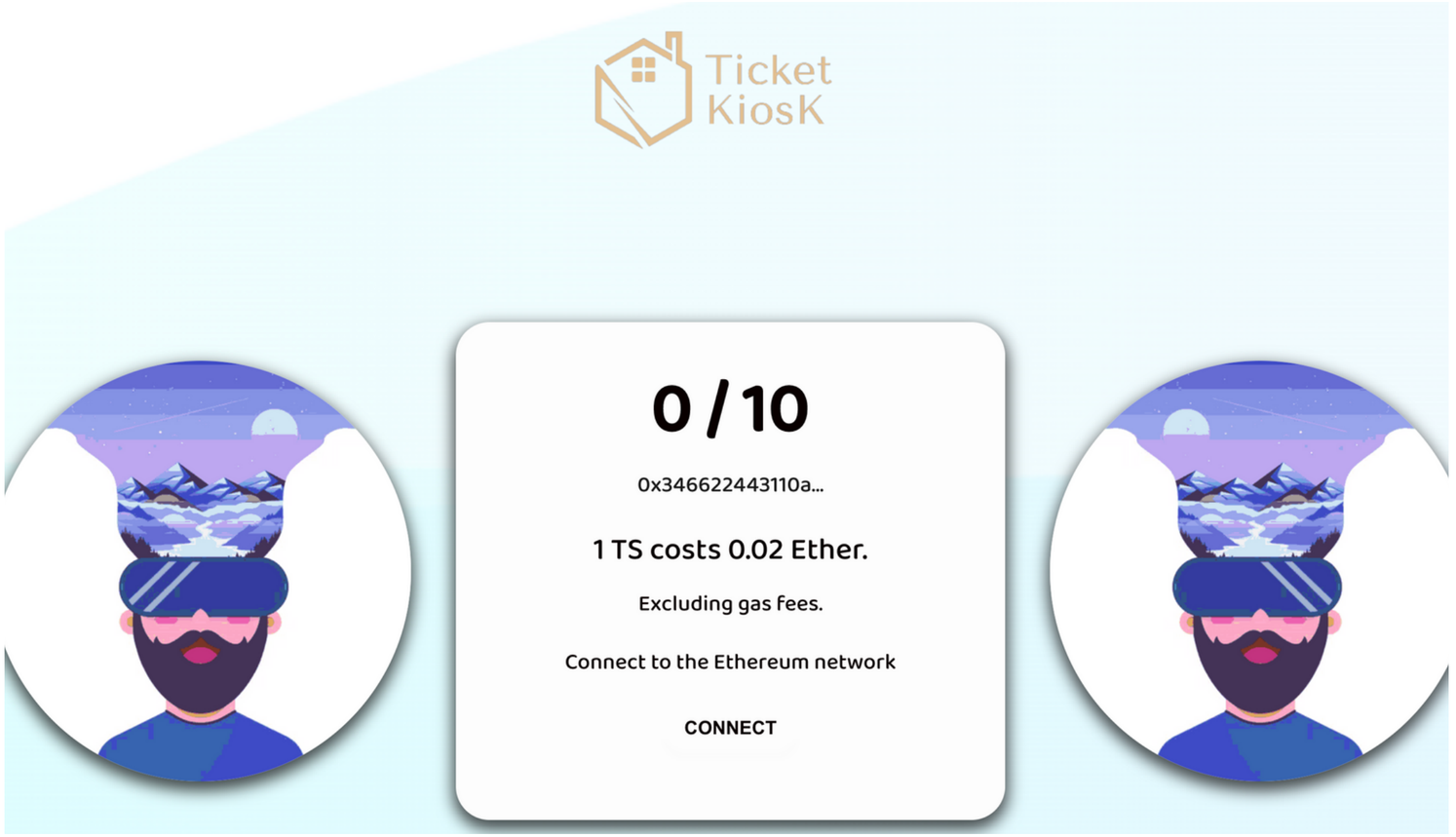
2 TICKETS MINTED FOR THE WALLET OWNER

TOKENSALES CONTRACT - ETHERSCAN



OPENSEA NFT DISPLAY

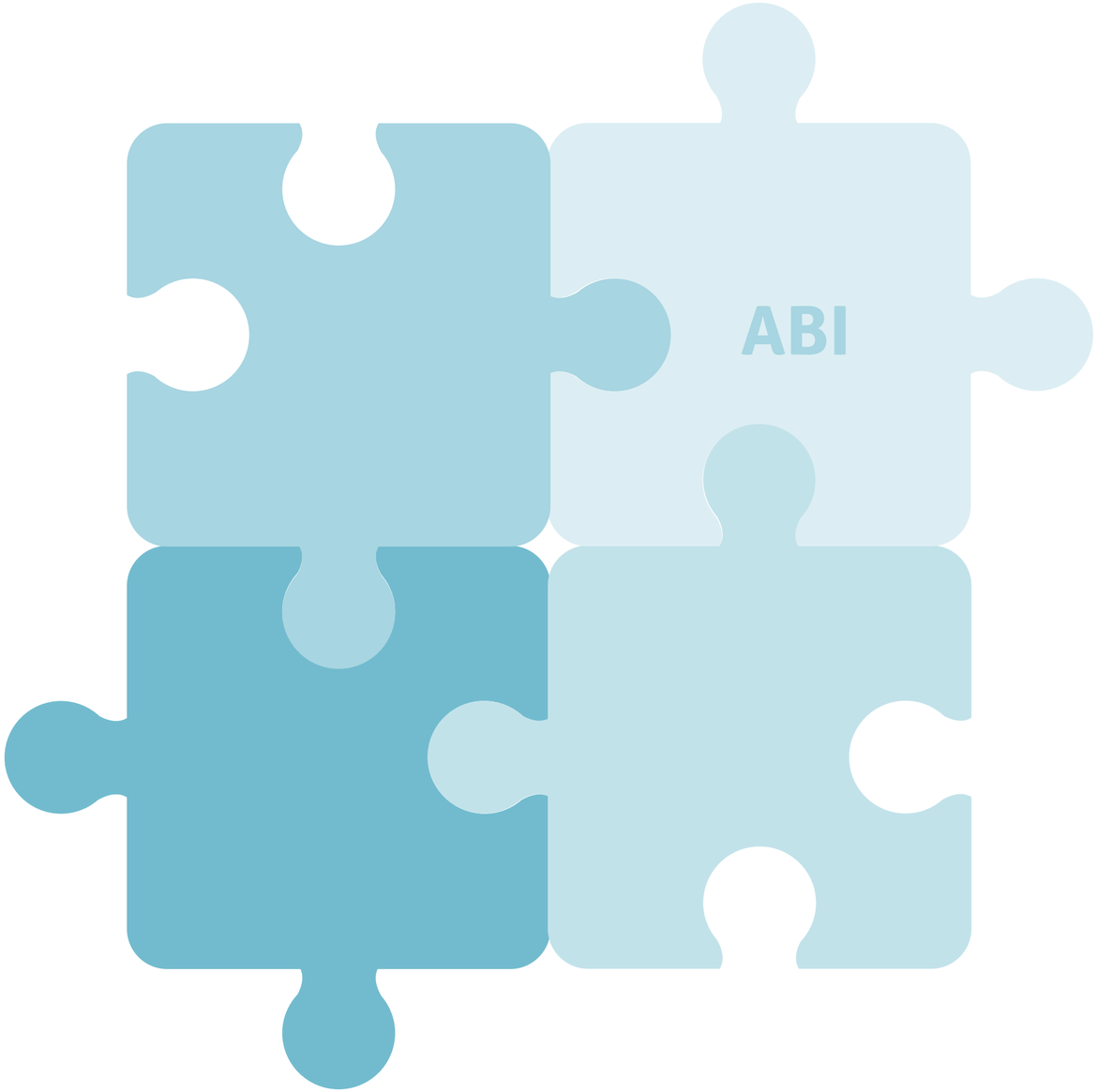




MINTING DAPP

DAPP DETAILS

-FRIENDLY META USER INTERFACE
-TOTAL SUPPLY = 10 NFTS
-CONTRACT ADDRESS
-MINTING CAPABILITY



ABI

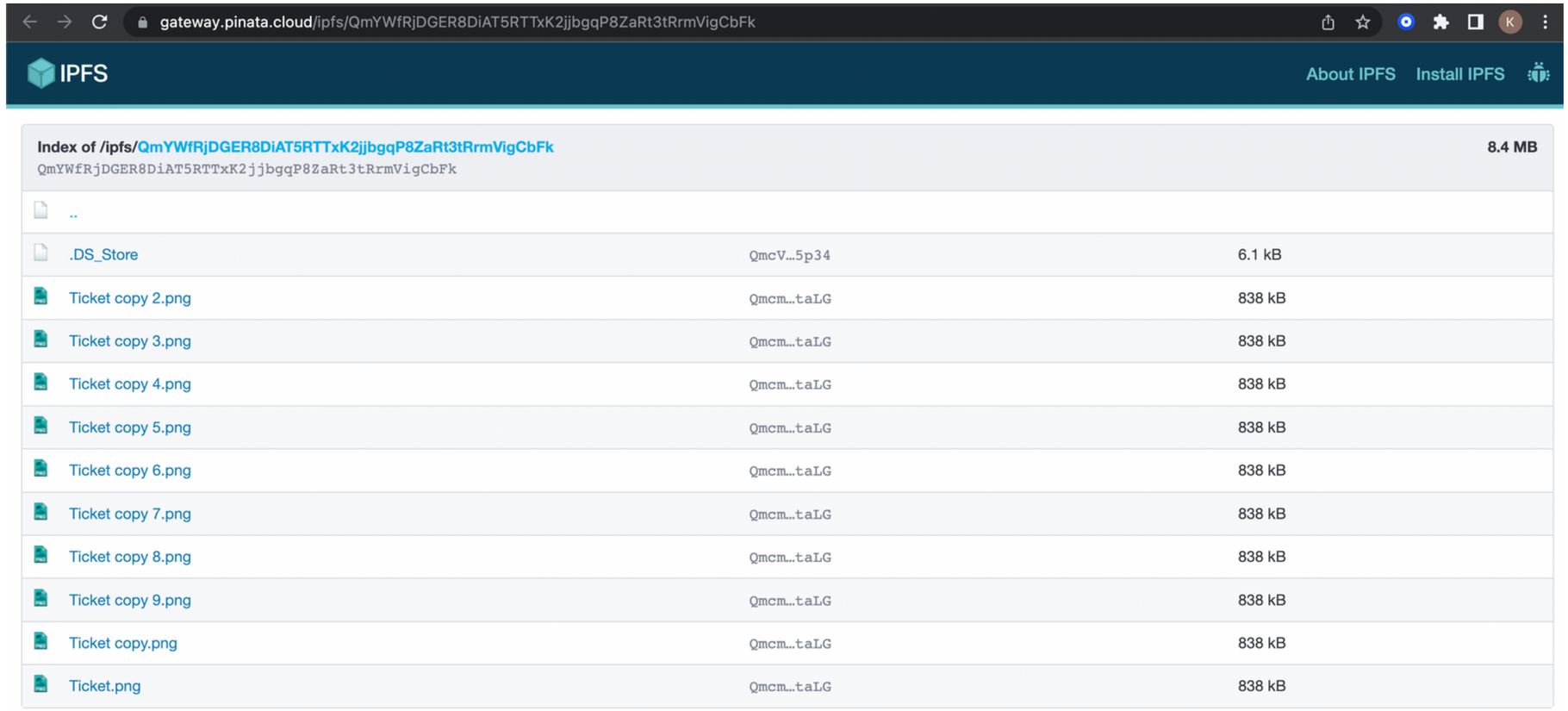
The Contract Application Binary Interface (ABI) is the standard way to interact with contracts in the Ethereum ecosystem, both from outside the blockchain and for contract-to-contract interaction.

DATA COLLECTION & EXPLORATION

The data used in my model is being pulled from IPFS and upoaded via Pinata.

The InterPlanetary File System is a protocol and peer-to-peer network for storing and sharing data in a distributed file system. IPFS uses content-addressing to uniquely identify each file in a global namespace connecting all computing devices.

DATA COLLECTION & EXPLORATION



APPROACH TO ACHIEVING GOALS

This project was initially inspired by my desire to understand how launch an NFT collection. I combined my front end web knowledge with the solidity backend to create a minting Dapp for NFTs that could be used as ticket to an exclusive virtual event and a payment splitter system for the different wallet addresses involved.

In the future I will most likely create and implement different features into the smart contract to have more of a DAO system model.

ISSUE

ERROR MINTING DAPP

An error message appear when attempting to mint an NFT from the UI.
Internal error due to network configuration, will set time aside to fix issue and create a brief on how to avoid problems for potential new users

CONCLUSIONS

POTENTIAL FOR ALL-IN-ONE ANALYSIS

Created a solidity smart contract and front end framework that can eventually be a one-stop-shop for all nft launches.

EASILY CUSTOMIZBLE

Easy implementation and seamless process.

NEXT STEPS

- **PULL METHOD**
- **MINTING DAPP**
- **PAYMENT SPLITTER**
- **NFT SMART CONTRACT**

REFERENCES

https://docs.openzeppelin.com/contracts/2.x/api/payment

https://github.com/kissikelvin/Payment-Splitter-NFT-Dapp-Launch

https://ipfs.io/

https://www.pinata.cloud/