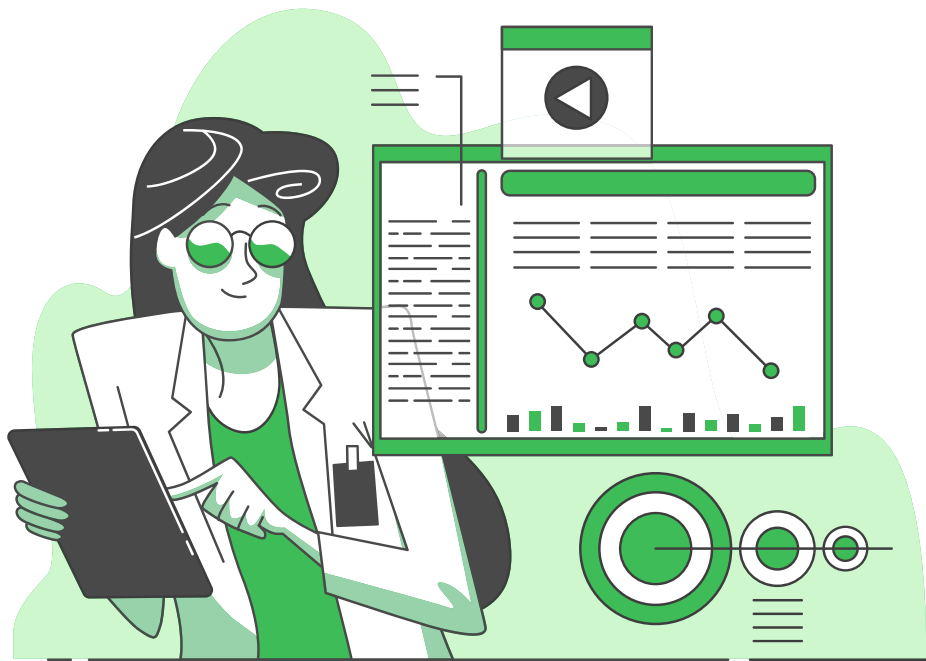


BABY SEALS

PROYECTO BLOCKCHAIN
RED CELO - PLATZI



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Equipo

Elvia Pineda

Estudiante de Programación Web en **Colombia**, entusiasta, autodidacta y con muchas ganas de practicar todo lo aprendido.

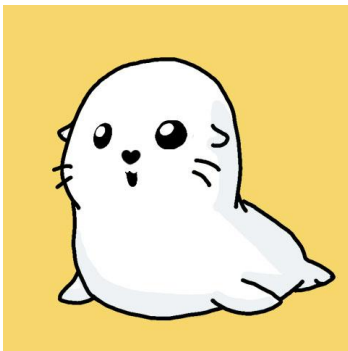
Emily Perez

Estudiante de Ing. de Software en la República Dominicana, amante de python, diseño de UX/UI y de las focas

Luis Fernando

Ingeniero industrial de **Colombia** y desarrollador web entusiasta en blockchain.





AIRDROP

PROYECTO BABY SEALS

Es un proyecto **NFT** con la finalidad de donar dinero recaudado a organizaciones ambientales y ser parte de comunidades.

Los diferentes NFT creados proporcionarán un **acceso** a una comunidad para ir a lugares a colaborar en la lucha ambiental. **(en construcción)**

Como incentivo existirá un **airdrop** y varias funcionalidades para los primeros visitantes de la página. <https://subtle-sable-fbd574.netlify.app/>

Herramientas

HERRAMIENTAS

- Remix IDE
- Celo wallet
- **Alfajores tesnet**
- Explorador de bloques celo
- contract kit
- Hardhat
- **HashLips**
- Web3.js



NFT

CUERPO



OJOS

ojos tiernos

ojos con fuego

ojos de corazon

ojos normales

ojos tristes



BOCA

una boca sacando
la lengua

una mostrando los
dientes enojado

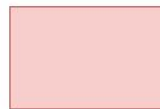
una boca triste

una boca de gatico
:3

una sonrisa linda



COLOR



ACCESORIO

una bufanda

un gorrito de
inverno

unas orejeras

un sombrero
vaquero

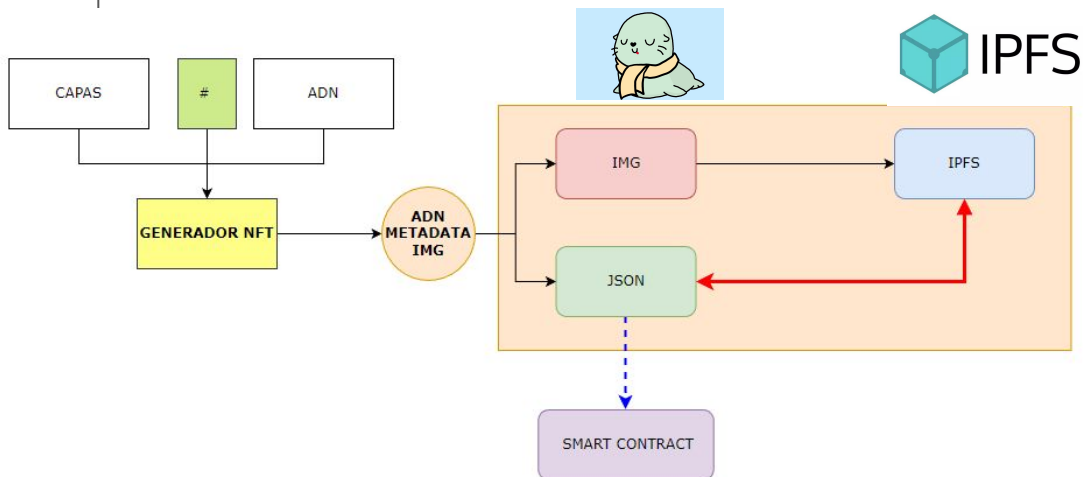


FONDO





ART_ENGINE BY hashlips



```
const layerConfigurations = [
  {
    growEditionSizeTo: 100, //TAMAÑO DE COLECCION NFT
    layersOrder: [
      { name: "Fondo_" },
      { name: "Cuerpo_" },
      { name: "Accesorios_" },
      { name: "Bocas_" },
      { name: "Ojos_" },
    ],
  },
]
```

```
{
  "name": "BABY SEALS #1",
  "description": "PLATZI CELO - RETOS",
  "image": "https://ipfs.io/ipfs/QmV1bp1EgqNnonS8S2HYQA2jzwxBSvYYJ9E8Wo8WhJYL3u/1.png",
  "dna": "0cb3912fd365ee9e34a287681b7290a561aada15",
  "edition": 1,
  "date": 1654927194524,
  "attributes": [
    {
      "trait_type": "Fondo_",
      "value": "fondo_amarillo"
    },
    {
      "trait_type": "Cuerpo_",
      "value": "cuerpo_rosado"
    },
    {
      "trait_type": "Accesorios_",
      "value": "acc_bufanda"
    },
    {
      "trait_type": "Bocas_",
      "value": "boca_vampiro"
    },
    {
      "trait_type": "Ojos_",
      "value": "ojos_corazon"
    }
  ],
  "compiler": "HashLips Art Engine"
}
```



HARD HAT + CELO + TS +JS

NFT

Smart contract

React Minting Dapp
Etherjs



Hardhat



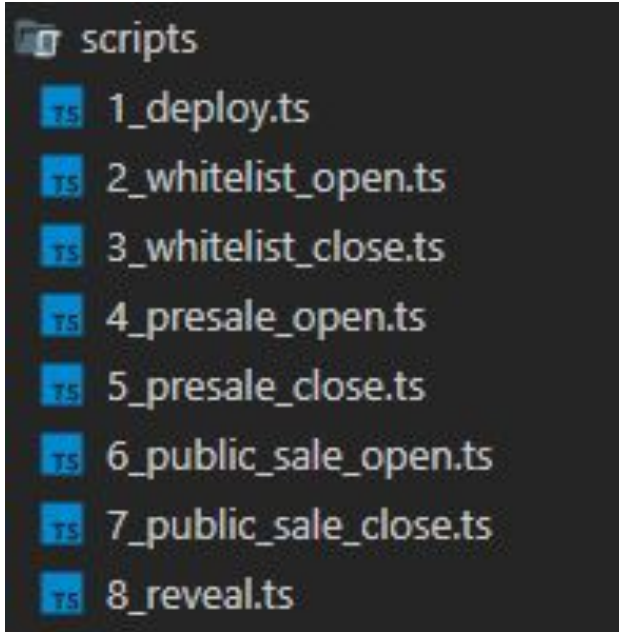
AIRDROP

Smart contract

HTML + WEB 3



HARDHAT + CELO + TS +JS



Hardhat

```
networks: {  
  truffle: {  
    url: 'http://localhost:7545/rpc',  
    timeout: 60000,  
    gasMultiplier: DEFAULT_GAS_MULTIPLIER,  
  },  
  alfajores: {  
    url: 'https://alfajores-forno.celo-testnet.org',  
    chainId: 44787,  
    timeout: 60000,  
    gasMultiplier: DEFAULT_GAS_MULTIPLIER,  
    accounts: ['366ace4d1b9377f8cf3c38fe89ebc2e2c616a'],  
  },  
  rinke: {  
    url: 'https://rinkeby.infura.io/v3/9aa3d95b3bc440',  
    chainId: 4,  
    timeout: 60000,  
    gasMultiplier: DEFAULT_GAS_MULTIPLIER,  
    accounts: ['366ace4d1b9377f8cf3c38fe89ebc2e2c616a'],  
  },  
}
```



HARDHAT + CELO + TS +JS

```
contractName: 'BabySeals',
tokenName: 'BabySeals',
tokenSymbol: 'BS',
hiddenMetadataUri: 'https://ipfs.io/ipfs/QmTJKqRnMHqf2NtmYKEcHfKvQg28cRfvdIBzAjk1qawsJA/',
maxSupply: 100, /// LOS NFT GENERADOS
whitelistSale: {
  price: 0.1,
  maxMintAmountPerTx: 1,
},
preSale: {
  price: 0.2,
  maxMintAmountPerTx: 2,
},
publicSale: {
  price: 0.3,
  maxMintAmountPerTx: 5,
},
contractAddress: "0x648B5b5CEd33b4CDBa10d9aa059FffA8156085B6",
marketplaceIdentifier: 'my-nft-token',
marketplaceConfig: Marketplaces.openSea,
whitelistAddresses,
};
```



CONTRATO + OPENZEPPELIN



```
pragma solidity >=0.8.9 <0.9.0;

import 'erc721a/contracts/ERC721A.sol';
import '@openzeppelin/contracts/access/Ownable.sol';
import '@openzeppelin/contracts/utils/cryptography/MerkleProof.sol';
import '@openzeppelin/contracts/security/ReentrancyGuard.sol';

contract BabySeals is ERC721A, Ownable, ReentrancyGuard {

    using Strings for uint256;

    bytes32 public merkleRoot;
    mapping(address => bool) public whitelistClaimed;

    string public uriPrefix = '';
    string public uriSuffix = '.json';
    string public hiddenMetadataUri;

    uint256 public cost;
    uint256 public maxSupply;
    uint256 public maxMintAmountPerTx;
```



CONTRATO + OPENZEPPELIN

```
pragma solidity >=0.8.9 <0.9.0;

import 'erc721a/contracts/ERC721A.sol';
import '@openzeppelin/contracts/access/Ownable.sol';
import '@openzeppelin/contracts/utils/cryptography/MerkleProof.sol';
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    using Strings for uint256;

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    string public uriPrefix = '';
    string public uriSuffix = '.json';
    string public hiddenMetadataUri;

    uint256 public cost;
    uint256 public maxSupply;
    uint256 public maxMintAmountPerTx;
```



OpenZeppelin

```
'deploy': "hardhat run scripts/1_deploy.ts",
'verify': "hardhat verify --constructor-args config/ContractArguments.ts",
'whitelist-open': "hardhat run scripts/2_whitelist_open.ts",
'whitelist-close': "hardhat run scripts/3_whitelist_close.ts",
'presale-open': "hardhat run scripts/4_presale_open.ts",
'presale-close': "hardhat run scripts/5_presale_close.ts",
'public-sale-open': "hardhat run scripts/6_public_sale_open.ts",
'public-sale-close': "hardhat run scripts/7_public_sale_close.ts",
'reveal': "hardhat run scripts/8_reveal.ts"
```



CONTRATO – 0x648B5b5CEd33b4CDBa10d9aa059FffA8156085B6



BabySeals



0x648B5b5CEd33b4CDBa10d9aa059FffA8156085B6

[View Contract](#) ERC-721 2 Addresses 14 Transfers

Total Supply

14 BS

Token Transfers

Token Holders

Inventory

Token Transfers

< Page 1 >

Token Minting

0x626f616a513362c4f8eda3e636088c801241283a1e3f857f976646f01f45d3f

0x00 → 0xdA922F873Ebb14f225b474Cb0Aa044bA999253CB

TokenID [14] BS

Block #11919383

3 days ago

Token Minting

0x8b4e8baa14f0a9947a160870e8817772e8579c0590a11cfc35f3f2cfa20a7

0x00 → 0xD9E95A01b3B0fEEba1672Daf14523E137aD6D52a

TokenID [13] BS

Block #11914920

3 days ago

Token Minting

0x2d520f3ba193736a3a3520f0676344db81b40faebfb321b8ab01459874af0f89

0x00 → 0xD9E95A01b3B0fEEba1672Daf14523E137aD6D52a

TokenID [12] BS

Block #11914635

3 days ago




CONTRATO – 0x648B5b5CEd33b4CDBa10d9aa059FffA8156085B6

Contract Address Details

0x648B5b5CEd33b4CDBa10d9aa059FffA8156085B6



Token	BabySeals (BS)
Creator	0xbc67d3-328ba3 at 0x3123e1-77db6b
Balance	4.2 CELO
Tokens	1 token (\$0.00 USD) 
Transactions	18 Transactions
Transfers	13 Transfers
Gas Used	1,034,808
Last Balance Update	11919383

Transactions

Token Transfers

Tokens

Internal Transactions

Coin Balance History

Downtime

Logs

Code

Transactions

Filter: All

< Page 1 >

Contract Call
Success

0x626f616a513362c4f8eda3e636088c801241283a1e3f857f976646f01ff45d3f Mint
0xdA922F873Ebb14f225b474Cb0Aa044bA999253CB → 0x648B5b5CEd33b4CDBa10d9aa059FffA8156085B6
0.3 CELO 0.0000376425 TX Fee

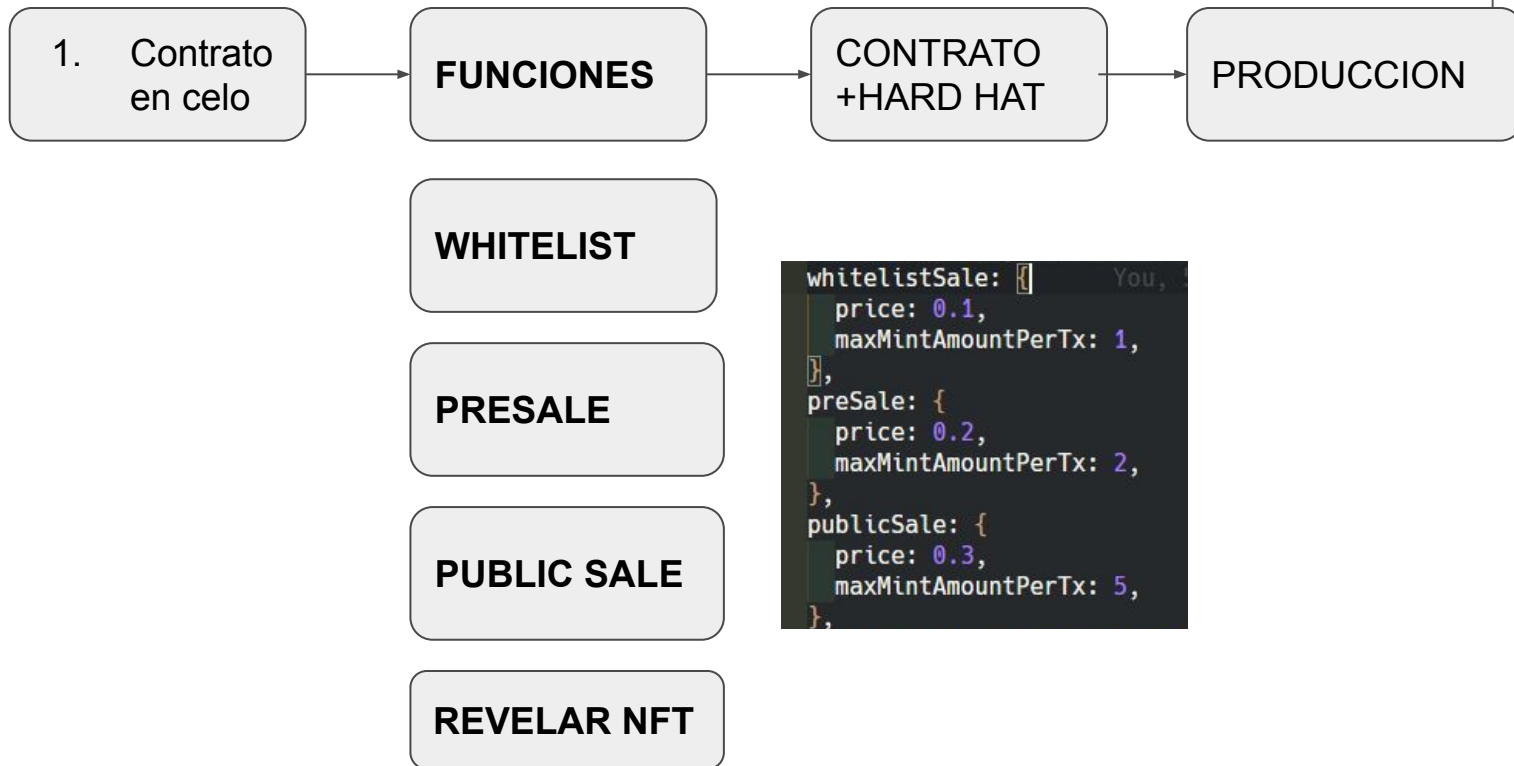
Block #11919383

3 days ago

IN



CONTRATO





CONTRATO – hidden NFT



Token Details



Token ID: 1

ERC-721 1 Transfers



Token Transfers

Metadata

Token Transfers

< Page 1 >


Token Minting

0xb79945e29388030e4ea1cd117ecca288179f04bc55c6f6c43978b98a66f3b44b
0x00 → 0xD9E95A01b3B0fEEba1672Daf14523E137aD6D52a
TokenID [1] 0x648b5b-6085b6

Block #11913647
38 seconds ago

< Page 1 >

CONTRATO – hidden NFT

 Blockchain ▾ Contracts ▾ APIs ▾ More ▾ Alfajores ▾ Search by address, token symbol, name, transaction hash, or block number

BabySeals

0x648B5b5CEd33b4CDBa10d9aa059FFfA8156085B6

[View Contract](#) ERC-721 1 Addresses 2 Transfers

Total Supply


2 BS

Token TransfersToken HoldersInventory

Inventory


Unique Token

Token ID: 2
Owner Address: 0xD9E95A01b3B0fEba1672D#f14523E137aD6D52a



Unique Token

Token ID: 1
Owner Address: 0xD9E95A01b3B0fEba1672D#f14523E137aD6D52a












< Page 1 >

< Page 1 >



CONTRATO -

Unique Token	Token ID: 10 Owner Address: 0xD9E95A01b3B0fEEba1672Daf14523E137aD6D52a	
Unique Token	Token ID: 9 Owner Address: 0xD9E95A01b3B0fEEba1672Daf14523E137aD6D52a	
Unique Token	Token ID: 8 Owner Address: 0xD9E95A01b3B0fEEba1672Daf14523E137aD6D52a	
Unique Token	Token ID: 7 Owner Address: 0xD9E95A01b3B0fEEba1672Daf14523E137aD6D52a	
Unique Token	Token ID: 6 Owner Address: 0xD9E95A01b3B0fEEba1672Daf14523E137aD6D52a	
Unique Token	Token ID: 5 Owner Address: 0xD9E95A01b3B0fEEba1672Daf14523E137aD6D52a	
Unique Token	Token ID: 4 Owner Address: 0xD9E95A01b3B0fEEba1672Daf14523E137aD6D52a	
Unique Token	Token ID: 3 Owner Address: 0xD9E95A01b3B0fEEba1672Daf14523E137aD6D52a	
Unique Token	Token ID: 2 Owner Address: 0xD9E95A01b3B0fEEba1672Daf14523E137aD6D52a	



AIRDROP

Contrato Token:

0x9de902f7128196690b793A7
3bAF00A8AC728D493

NOMBRE BABYSEALS

SYMBOL BS

CANTIDAD INICIAL 1000

FUNCION AIRDROP TOKEN 10

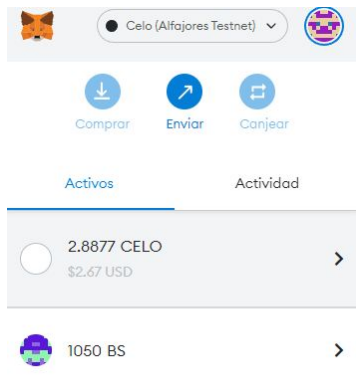
```
1 // SPDX-License-Identifier: MIT
2 pragma solidity >=0.7.0 <0.9.0;
3
4 contract BABYSEALS {
5
6     //DATOS DE TOKEN
7     string public name = "BABYSEALS";
8     string public symbol = "BS";
9     uint256 public totalSupply_ = 1000 * 1 ether; // 1000 TOKENS
10    uint8 public decimals = 18;
11
12    // EVENTO PARA TRANSFERIR
13
14    event Transfer(
15        address indexed _from,
16        address indexed _to,
17        uint256 _value
18    );
19
```

```
59
60 //CANTIDAD DE TOKEN PARA TRANSFERIR
61
62 function airDropToken() public {
63     balances[msg.sender] += 10 * 1 ether;
64     totalSupply_ += 10 * 1 ether;
65 }
66
67 function transferFrom(address _from, address _to, uint256 _value) public returns (bool success) {
68     require(_value <= balances[_from]);
69     require(_value <= allowed[_from][msg.sender]);
70     balances[_from] -= _value;
71     balances[_to] += _value;
72     allowed[_from][msg.sender] -= _value;
73     emit Transfer(_from, _to, _value);
74     return true;
75 }
76
77 function allowance(address _owner, address _spender) public view returns (uint256 remaining) {
78     return allowed[_owner][_spender];
79 }
80 }
```





AIRDROP + WEB3.JS



Airdrop Platzi (TOKEN BS)

Contrato Token: 0x9de902f7128196690b793A73bAF00A8AC728D493

Reclama 10 Token BS

Airdrop listo! Total De Supply: 1050

```
async function loadWeb3() {
  if (window.ethereum) {
    window.web3 = new Web3(window.ethereum);
    window.ethereum.enable();
  }
}

async function loadContract() {
  // set ABI
  var abi = [{"inputs": [], "stateMutability": "nonpayable", "type": "constructor"}, {"anonymous": false, "inputs": [{"indexed": true, "internalType": "address", "name": "to", "type": "address"}], "outputs": [{"internalType": "uint256", "name": "value", "type": "uint256"}], "stateMutability": "payable", "type": "function"}];
  //set contract address
  var contractAddress = '0x9de902f7128196690b793A73bAF00A8AC728D493';

  return await new window.web3.eth.Contract(abi, contractAddress);
}

async function getAirdrop() {
  updateStatus('🔍 Consiguiendo airdrop...');
  const account = await getCurrentAccount();
  await window.contract.methods.airDropToken().send({ from: account });
  updateStatus('airdropping');
  await getCurrentAccountBalance();
  updateStatus('Airdrop listo ❤️ ');
}

async function getCurrentAccount() {
  const accounts = await window.web3.eth.getAccounts();
  return accounts[0];
}
```



FRONT END



ethers.js

```
import React from 'react';
import { ethers, BigNumber } from 'ethers'
import { ExternalProvider, Web3Provider } from '@ethersproject/providers';
import detectEthereumProvider from '@metamask/detect-provider';
import NftContractType from '../Lib/NftContractType';
import CollectionConfig from '../../smart-contract/config/CollectionConfig';
import NetworkConfigInterface from '../../smart-contract/lib/NetworkConfigInterface';
import CollectionStatus from './CollectionStatus';
import MintWidget from './MintWidget';
import Whitelist from '../Lib/Whitelist';
```

```
render() {
  return (
    <div className="mint-widget">
      <div className="preview">
        
      </div>

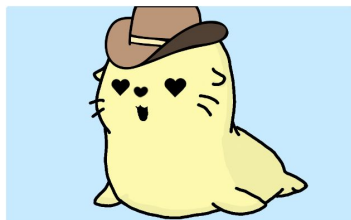
      <div className="price">
        <strong>Precio Total:</strong> {utils.formatEther(this.props.tokenPrice.mul(this.state.mintAmount))}
      </div>

      <div className="controls">
        <button className="decrease" onClick={() => this.decrementMintAmount()}>-</button>
        <span className="mint-amount">{this.state.mintAmount}</span>
        <button className="increase" onClick={() => this.incrementMintAmount()}>+</button>
        <button className="primary" onClick={() => this.mint()}>Mint</button>
      </div>
    </div>
  );
}
```

FRONT END



RED CELO ALFAJORES



View NFT

NFT | BABYSEALS

Creado por:

Luis Herrera

Creado por:

Elvia

Creado por:

Emily

Valor NFT: 0.3 CELO

Wallet: 0xD9E95A01b3B0fEEba1672Daf14523E137aD6D52a

Mintear NFT



Wallet address:

0xD9E95A01b3B0fEEba1672Daf14523E137aD6D52a

Supply
14/100

Sale status
Open



Precio Total: 0.3 CELO

-

1

+

Mint



CONCLUSIONES

- La **web 2.0** y la **web 3.0** comparten aun tecnologías
- **Celo es una blockchain extremadamente económica** para desplegar contratos y nada congestionada **muy rápida al desplegar un contrato.**
- La testnet de **alfajores** comparte gran similitud con su mainnet
- Celo tiene un scan integrado con view para ntfs
- Las Dapps integran todo un **ecosistema de tecnologías**, arte, planeación y uno que otro **dolor de cabeza** pero son bastante cool.
- Desplegar un contrato funcional es la clave para el éxito, hay pequeñas variaciones entre redes leer la documentación y colaborar con las comunidades.



Thanks!



Platzi



celo

Daniel Eugene Botha

@de_botha

Creator of HashLips [@hashlipsnft](#)