Encode Bootcamp

Weekend project 3

Group 9

https://github.com/Encode-Solidity-Group9/Week4-v2

https://docs.google.com/document/d/1mq-vdmHTCYSBZ8cytPU7z_etdNSsA_ImJngxRHuIpDg/edit?usp=sharing

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Project Description

The project deploys a voting token and a ballot contract into the blockchain.

A frontend is built with Angular for users to initiate minting tokens, cast & delegate votes and also query the results. A backend built with NestJs is also used to support the functions provided in the frontend.

Instead of forcing users to provide privatekeys in the frontend, this project integrates metamask in the frontend (although buggy!).

Due to the congestion in Goerli network, scripts are configured to be used in the Sepolia testnet.

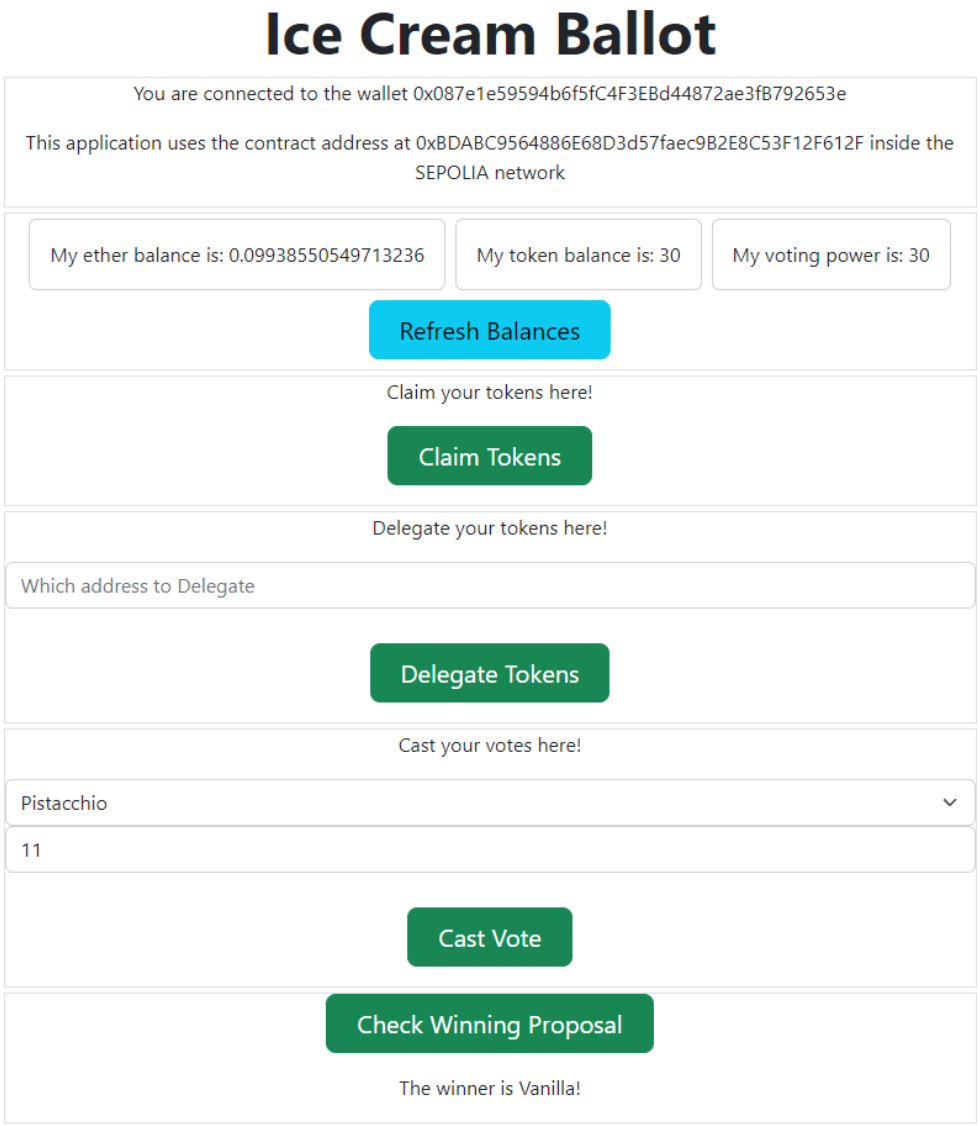

Figure 1: User Interface of the Week4 Project

A few example transactions:

Account 0 : 0x1fAA864C0bf78E7fEF5eAfBE0A33Fa7c2586Bdde
Account 1 : 0x01592c6e3d8eF0499D9E438Ca4a47e3709208202
Account 2 : 0x087e1e59594b6f5fC4F3EBd44872ae3fB792653e

TokenContract:
https://sepolia.etherscan.io/address/0xbdabc9564886e68d3d57faec9b2e8c53f12f612f

BallotContract:
https://sepolia.etherscan.io/address/0x73A76b3f8Ff6A8614F175655e9cEC757fd76e6b2

Token Contract is manually deployed by Account 0.
https://sepolia.etherscan.io/tx/0x3f58e4c104f3b189f6a862f3e06dbf10eadb54c617bc6360edf7bd66e516228e

Account 0 mints tokens to Account 0
https://sepolia.etherscan.io/tx/0xfafb958c9af87e028a14f7028dfe1ba94d051152a36d87dd600bdf585fefa467

Account 0 mints tokens to Account 1 (only 1 of many mints)
https://sepolia.etherscan.io/tx/0xfafb958c9af87e028a14f7028dfe1ba94d051152a36d87dd600bdf585fefa467

Account 0 mints tokens to Account 2 (only 1 of many mints)
https://sepolia.etherscan.io/tx/0x400766c962a2319b5d15a3e25d7e50849d34d9515166f56c131b184f7181d937

Account 0 delegates to Account 1
https://sepolia.etherscan.io/tx/0x4745acae1dd4d55f0d1448e3627de890e2abcd1c4184b03a09f90c43e131934e

Account 1 delegates to Account 1
https://sepolia.etherscan.io/tx/0x14d579bfb642c27ded1ae4317628673e86c27e02a27f64a591fae698abca709c

Account 2 delegates to Account 2
https://sepolia.etherscan.io/tx/0x72fabcbd261b3935192dc3defc589f3c73f381d8e7b1144c66d327812ca7184c

Account 0 manually deploys the TokenizedBallot contract.
https://sepolia.etherscan.io/tx/0xd64dc5f941ff93560a2a2bc55d6434f63234f344f221c9c86d82da754694c38a

Account 1 casts votes to Proposal 1 (“Vanilla”).
https://sepolia.etherscan.io/tx/0x92089b81bf0f4135ff584efe227806d1cb86de21a7772b682daabd9952647a94

Account 2 casts votes to Proposal 2 (“Pistacchio”).
https://sepolia.etherscan.io/tx/0x399e4ceaeb5dfb1300055d03f51ba87ba6df4c5f5aa3a151adfff08091385e2d

Reading the winner of the ballot.

Winner is: Vanilla