Encode Bootcamp

Weekend project 2

Group 9

Team Members

Lorraine Makuyana
Anna Minina
Abdullah Melik Yildiz
Ata Kasimoglu
Zahary Ninov

Deployment Experience

Assignment is separated into 6 different scripts. They are run in order
- DeployToken.ts
    Deploys the token used in the Ballot
- DistributeToken.ts
    Mints tokens to the accounts
- Delegate.ts
    Delegates the voting power to oneself or other
- DeployBallot.ts
    Deploys the ballot contract using the token deployed above using the current block of
the network as the target block and the proposals of "Raspberry", "Vanilla", "Pistacchio".
- Vote.ts
    Votes for one of the proposals by index number
- FinalizeBallot.ts
    Returns the final winner of the ballot by its name

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

Logs from Sepolia Network

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

1. Deploying Token Contract

Token Contract is deployed by Account 0.

Logs:
——--

The token contract is deployed.
Token contract address: 0xF9de83d41e68d3a15b98Cf3d4656eaf4CF3Aac8B
https://sepolia.etherscan.io/address/0xF9de83d41e68d3a15b98Cf3d4656eaf4CF3Aac8B

Minter address: 0x1fAA864C0bf78E7fEF5eAfBE0A33Fa7c2586Bdde
https://sepolia.etherscan.io/address/0x1fAA864C0bf78E7fEF5eAfBE0A33Fa7c2586Bdde

2. Minting & Distributing the Tokens

Account 0 mints 10 tokens to Account 0, Account 1 and Account 2

Logs:
——--

Using the account: 0x1fAA864C0bf78E7fEF5eAfBE0A33Fa7c2586Bdde

Token Balance of the address before minting: 0.0 -
0x1fAA864C0bf78E7fEF5eAfBE0A33Fa7c2586Bdde

Minting 10.0 Tokens to address: 0x1fAA864C0bf78E7fEF5eAfBE0A33Fa7c2586Bdde

Transaction Hash: 0x6b8b3e4721cddface972aa8a68f2bfebd9057f7af1dc6a113fd1f78f807ac832

Token Balance of the address after minting: 10.0 -
0x1fAA864C0bf78E7fEF5eAfBE0A33Fa7c2586Bdde

https://sepolia.etherscan.io/tx/0x6b8b3e4721cddface972aa8a68f2bfebd9057f7af1dc6a113fd1f78f807ac832

——

Using the account: 0x1fAA864C0bf78E7fEF5eAfBE0A33Fa7c2586Bdde

Token Balance of the address before minting: 0.0 -
0x01592c6e3d8eF0499D9E438Ca4a47e3709208202

Minting 10.0 Tokens to address: 0x01592c6e3d8eF0499D9E438Ca4a47e3709208202

Transaction Hash:
0x3aa810d1b6c23064feaa95336051c309e34c0bdb1aa4e1e6fca76a12b5ec8cc6

Token Balance of the address after minting: 10.0 -
0x01592c6e3d8eF0499D9E438Ca4a47e3709208202

https://sepolia.etherscan.io/tx/0x3aa810d1b6c23064feaa95336051c309e34c0bdb1aa4e1e6fca76a12b5ec8cc6

—-

Using the account: 0x1fAA864C0bf78E7fEF5eAfBE0A33Fa7c2586Bdde

Token Balance of the address before minting: 0.0 -
0x087e1e59594b6f5fC4F3EBd44872ae3fB792653e

Minting 10.0 Tokens to address: 0x087e1e59594b6f5fC4F3EBd44872ae3fB792653e

Transaction Hash:
0xa975956a06ef88e15bea627dea70f3699f39e2e86ab1264d98a5fa25c2900cb2

Token Balance of the address after minting: 10.0 -
0x087e1e59594b6f5fC4F3EBd44872ae3fB792653e

https://sepolia.etherscan.io/tx/0xa975956a06ef88e15bea627dea70f3699f39e2e86ab1264d98a5fa25c2900cb2

3. Delegating Votes

Account 0 delegates to Account 1
Account 1 delegates to Account 1
Account 2 delegates to Account 2

Logs:
—----

Token Balance of the delegator: 10.0 - 0x1fAA864C0bf78E7fEF5eAfBE0A33Fa7c2586Bdde
Token Balance of the delegated: 10.0 - 0x01592c6e3d8eF0499D9E438Ca4a47e3709208202
Vote Power of the delegated before delegation: 0.0 -
0x01592c6e3d8eF0499D9E438Ca4a47e3709208202

Transaction Hash:
0x5499144a734264d5d819c3f28721f1c8b4c9e09612b843b83e60dd02cff50552
Delegation tx finished.

Vote Power of the delegated after delegation: 10.0 -
0x01592c6e3d8eF0499D9E438Ca4a47e3709208202

https://sepolia.etherscan.io/tx/0x5499144a734264d5d819c3f28721f1c8b4c9e09612b843b83e60
dd02cff50552

—-

Token Balance of the delegator: 10.0 - 0x01592c6e3d8eF0499D9E438Ca4a47e3709208202
Token Balance of the delegated: 10.0 - 0x01592c6e3d8eF0499D9E438Ca4a47e3709208202
Vote Power of the delegated before delegation: 10.0 -
0x01592c6e3d8eF0499D9E438Ca4a47e3709208202

Transaction Hash:
0x4333852b67e93784920a32c94bfa2ecc0bfc411460c194b8c62c7d13ab8d7783
Delegation tx finished.

Vote Power of the delegated after delegation: 20.0 -
0x01592c6e3d8eF0499D9E438Ca4a47e3709208202

https://sepolia.etherscan.io/tx/0x4333852b67e93784920a32c94bfa2ecc0bfc411460c194b8c62c
7d13ab8d7783

—-

Token Balance of the delegator: 10.0 - 0x087e1e59594b6f5fC4F3EBd44872ae3fB792653e
Token Balance of the delegated: 10.0 - 0x087e1e59594b6f5fC4F3EBd44872ae3fB792653e
Vote Power of the delegated before delegation: 0.0 -
0x087e1e59594b6f5fC4F3EBd44872ae3fB792653e

Transaction Hash:
0x04d7bc024be25ea4e43e1299f62f31214b7b6d490e567932d6b9ce4dbc14b07c
Delegation tx finished.

Vote Power of the delegated after delegation: 10.0 -
0x087e1e59594b6f5fC4F3EBd44872ae3fB792653e

https://sepolia.etherscan.io/tx/0x04d7bc024be25ea4e43e1299f62f31214b7b6d490e567932d6b9ce4dbc14b07c

4. Deploying Ballot

Account 0 deploys the TokenizedBallot contract.

Logs:
—--

Proposals:
Proposal N. 1: Raspberry
Proposal N. 2: Vanilla
Proposal N. 3: Pistacchio

Deploying Ballot contract.

The ballot contract is deployed.
Ballot contract address: 0x62c6FC7a9f592A6f478E0091f4230770997E013f
Target block of the ballot contract vote is: 2331220
Now you can vote!

https://sepolia.etherscan.io/tx/0x652483cf8ceb698b83ef8ab2d20fbd53d6e642a505a4f374d29056213638ad24

5. Voting

Account 1 casts 15 units (x 10**18) of votes to Proposal 0 ("Raspberry").
Account 1 casts 5 units (x 10**18) of votes to Proposal 1 ("Vanilla").
Account 2 casts 10 units (x 10**18) of votes to Proposal 2 ("Pistacchio").

Logs:
—--
ballot address: 0x62c6FC7a9f592A6f478E0091f4230770997E013f
votedProposalIndex: 0
voteAmount: 15.0
Account: 0x01592c6e3d8eF0499D9E438Ca4a47e3709208202
Vote power before: 20.0

Voting for proposal: Raspberry which has the index: 0

Voting with 15.0 token power
Vote transaction hash:
0xbf52574e838cb7feac6b9c397d233bc995ee4436b6dfe638785213041c35e20e
Voting confirmed

Vote power after: 5.0

https://sepolia.etherscan.io/tx/0xbf52574e838cb7feac6b9c397d233bc995ee4436b6dfe6387852
13041c35e20e

—-
ballot address: 0x62c6FC7a9f592A6f478E0091f4230770997E013f
votedProposalIndex: 1
voteAmount: 5.0
Account: 0x01592c6e3d8eF0499D9E438Ca4a47e3709208202
Vote power before: 5.0

Voting for proposal: Vanilla which has the index: 1
Voting with 5.0 token power

Voting confirmed
Vote transaction hash:
0xaffcdbdedb6b556beddaa4c1760950afe0d954825cd824f090537b57652c7cb2
Vote power after: 0.0

https://sepolia.etherscan.io/tx/0xaffcdbdedb6b556beddaa4c1760950afe0d954825cd824f090537
b57652c7cb2

—-

ballot address: 0x62c6FC7a9f592A6f478E0091f4230770997E013f
votedProposalIndex: 2
voteAmount: 10.0
Account: 0x087e1e59594b6f5fC4F3EBd44872ae3fB792653e
Vote power before: 10.0

Voting for proposal: Pistacchio which has the index: 2

Voting with 10.0 token power
Vote transaction hash:
0x9d75f55f3b6d5bea69283b7f750fd304e24b7ba75e3f8724b45b9530d474d4f6
Voting confirmed

Vote power after: 0.0

https://sepolia.etherscan.io/tx/0x9d75f55f3b6d5bea69283b7f750fd304e24b7ba75e3f8724b45b9530d474d4f6

6. Finalizing the Votes

Reading the winner of the ballot.

Logs:
——-
ballot address: 0x62c6FC7a9f592A6f478E0091f4230770997E013f

Winner is: Raspberry