

- ```
PS C:\Users\mgian\OneDrive\Desktop\GIT_REPOS\EncodeEVMBootcampProjects\Homework2\evm_bootcamp_25_group5\ballot> npm ts-node --files .\scripts\delegat
teViem.ts "0xC35c40Bd72F7528893a259dbf40Fcb266002663e"
Delegating votes to address: 0xC35c40Bd72F7528893a259dbf40Fcb266002663e
Delegator address: 0xC35c40Bd72F7528893a259dbf40Fcb266002663e
Delegator balance: 0.378899252968472095 ETH
Error: Self-delegation is disallowed.
```

c) It is not possible to delegate someone else if the delegator already voted

```
PS C:\Users\mgslan\OneDrive\Desktop\GIT\REPOS\EncodeFVM\bootcampProjects\Homework2\evm_bootcamp_25_group5\ballot> npm ts-node --files .\scripts\delegate.ts
telem.ts "0x2A276A0F7e4A24c52DEdDdb6732a4944a59043a2"
Delegating votes to address: 0x2A276A0F7e4A24c52DEdDdb6732a4944a59043a2
Delegator address: 0xC35c408D72F7528893a259dbf40Fcb266002663e
Delegator balance: 0.378899252968472095 ETH
Delegating votes...
ContractFunctionExecutionError: The contract function "delegate" reverted with the following reason:
You already voted.

Contract Call:
  address: 0x2f10e393076f2637ebfb3cef00ca8faa00cc3288
  function: delegate(address to)
  args:      (0x2A276A0F7e4A24c52DEdDdb6732a4944a59043a2)
  sender:    0xC35c408D72F7528893a259dbf40Fcb266002663e
```

### 3) vote script

In the following one result is showcased:

a) It is not possible to vote twice

[illegible]

#### 4) queryResults script

In the following three results are showcased:

a) It is possible to retrieve informations about the chairperson, the proposals and which is the winning one

```
PS C:\Users\mgian\OneDrive\Desktop\GIT REPOS\EncodeEVM\BootcampProjects\Homework2\evm_bootcamp_25_group5\ballot> npx ts-node --files .\scripts\queryR
esults\view.ts
Last block number: 7920766n
Contract address : 0x2f10e393076f2637ebfb3cef00ca8faa00cc3288

--- Ballot Contract Query Results ---

Chairperson: 0x0936203E154ed749c099fc585770063fAD30BE35

Winning Proposal Index: 0n
Winning Proposal Name: Star Wars

--- All Proposals ---

Proposal 0:
Name: Star Wars
Vote Count: 3

Proposal 1:
Name: Star Trek
Vote Count: 0
```

- b) If an address is passed as an argument to the script, it is possible to retrieve informations about the voters. Two different voters are reported, one that voted and one that didn't

```
PS C:\Users\mgian\OneDrive\Desktop\GIT REPOS\EncodeEVMBootcampProjects\Homework2\evm_bootcamp_25_group5\ballot> npx ts-node --files .\scripts\queryR
esultsViem.ts "0xC35c40Bd72F7528893a259dbf40Fcb266002663e"
Last block number: 7920782n
Contract address : 0x2f10e393076f2637ebfb3cef00ca8faa00cc3288

--- Ballot Contract Query Results ---

Chairperson: 0x0936203E154ed749c099fc585770063fAD30BE35

Winning Proposal Index: 0n
Winning Proposal Name: Star Wars

--- All Proposals ---

Proposal 0:
Name: Star Wars
Vote Count: 3

Proposal 1:
Name: Star Trek
Vote Count: 0

--- Voter Information ---

Voter Address: 0xC35c40Bd72F7528893a259dbf40Fcb266002663e
Weight: 1
Has Voted: true
Delegated To: Nobody
Voted for Proposal: 0
```

```
PS C:\Users\mgian\OneDrive\Desktop\GIT REPOS\EncodeEVMBootcampProjects\Homework2\evm_bootcamp_25_group5\ballot> npx ts-node --files .\scripts\queryR
esultsViem.ts "0x81D51adbC06827784cE72184Fce6861FFF31D16C"
Last block number: 7920788n
Contract address : 0x2f10e393076f2637ebfb3cef00ca8faa00cc3288

--- Ballot Contract Query Results ---

Chairperson: 0x0936203E154ed749c099fc585770063fAD30BE35

Winning Proposal Index: 0n
Winning Proposal Name: Star Wars

--- All Proposals ---

Proposal 0:
Name: Star Wars
Vote Count: 3

Proposal 1:
Name: Star Trek
Vote Count: 0

--- Voter Information ---

Voter Address: 0x81D51adbC06827784cE72184Fce6861FFF31D16C
Weight: 1
Has Voted: false
Delegated To: Nobody
Voted for Proposal: Has not voted
```

## TESTNET INTERACTIONS









### 1) Contract creation

Address: 0x2f10E393076f2637ebFB3CeF00Ca8fAA00cC3288

Tx hash: 0x5639bdbe4292b3a824aa9233f49d491a5926ea9b4babea651afdb807d7f5153

Contract creator: 0x0936203E154ed749c099fc585770063fAD30BE35

Event: successful

 [0x5639bdbe42...](#)   [0x60806040](#) [7909194](#) 41 hrs ago  [0x0936203E...fAD30BE35](#)    [Contract Creation](#)  0 ETH 0.00217856

## List of contract interactions:

| Transaction Hash                 | Method                            | Block   | Age        | From                                   | To                                                        | Amount | Txn Fee    |
|----------------------------------|-----------------------------------|---------|------------|----------------------------------------|-----------------------------------------------------------|--------|------------|
| <a href="#">0x4f944c38bde...</a> | <a href="#">Give Right To ...</a> | 7919219 | 5 hrs ago  | <a href="#">0x0936203E...fAD30BE35</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00000469 |
| <a href="#">0x3ac6f32e610...</a> | <a href="#">Give Right To ...</a> | 7916611 | 14 hrs ago | <a href="#">0xC35c40Bd...66002663e</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00003663 |
| <a href="#">0xc2b6d34feb6...</a> | <a href="#">Delegate</a>          | 7916474 | 15 hrs ago | <a href="#">0xC35c40Bd...66002663e</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00004071 |
| <a href="#">0x599c26de7fe...</a> | <a href="#">Vote</a>              | 7916449 | 15 hrs ago | <a href="#">0xC35c40Bd...66002663e</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00008597 |
| <a href="#">0xe612213fa6d...</a> | <a href="#">Vote</a>              | 7916368 | 15 hrs ago | <a href="#">0xE9A6D4CE...1c0D2961E</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00000057 |
| <a href="#">0xa40e1f3c21f...</a> | <a href="#">Give Right To ...</a> | 7915980 | 17 hrs ago | <a href="#">0x0936203E...fAD30BE35</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00008697 |
| <a href="#">0x2d4f7672aec...</a> | <a href="#">Vote</a>              | 7913803 | 24 hrs ago | <a href="#">0x0936203E...fAD30BE35</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00016976 |
| <a href="#">0x855b4d7a02...</a>  | <a href="#">Give Right To ...</a> | 7912616 | 28 hrs ago | <a href="#">0x0936203E...fAD30BE35</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00000167 |
| <a href="#">0xed3a78c81b...</a>  | <a href="#">Give Right To ...</a> | 7909586 | 39 hrs ago | <a href="#">0x0936203E...fAD30BE35</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00003332 |

## 2) giveRightToVote function call

As can be seen, the chairperson gave the right to vote to 4 different persons.

It is possible to see also that one voter tried to give right to vote to someone else, but the transaction failed since he/she was not the chairperson.

| Transaction Hash                 | Method                            | Block   | Age        | From                                   | To                                                        | Amount | Txn Fee    |
|----------------------------------|-----------------------------------|---------|------------|----------------------------------------|-----------------------------------------------------------|--------|------------|
| <a href="#">0x4f944c38bde...</a> | <a href="#">Give Right To ...</a> | 7919219 | 5 hrs ago  | <a href="#">0x0936203E...fAD30BE35</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00000469 |
| <a href="#">0x3ac6f32e610...</a> | <a href="#">Give Right To ...</a> | 7916611 | 14 hrs ago | <a href="#">0xC35c40Bd...66002663e</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00003663 |
| <a href="#">0xc2b6d34feb6...</a> | <a href="#">Delegate</a>          | 7916474 | 15 hrs ago | <a href="#">0xC35c40Bd...66002663e</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00004071 |
| <a href="#">0x599c26de7fe...</a> | <a href="#">Vote</a>              | 7916449 | 15 hrs ago | <a href="#">0xC35c40Bd...66002663e</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00008597 |
| <a href="#">0xe612213fa6d...</a> | <a href="#">Vote</a>              | 7916368 | 15 hrs ago | <a href="#">0xE9A6D4CE...1c0D2961E</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00000057 |
| <a href="#">0xa40e1f3c21f...</a> | <a href="#">Give Right To ...</a> | 7915980 | 17 hrs ago | <a href="#">0x0936203E...fAD30BE35</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00008697 |
| <a href="#">0x2d4f7672aec...</a> | <a href="#">Vote</a>              | 7913803 | 24 hrs ago | <a href="#">0x0936203E...fAD30BE35</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00016976 |
| <a href="#">0x855b4d7a02...</a>  | <a href="#">Give Right To ...</a> | 7912616 | 28 hrs ago | <a href="#">0x0936203E...fAD30BE35</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00000167 |
| <a href="#">0xed3a78c81b...</a>  | <a href="#">Give Right To ...</a> | 7909586 | 39 hrs ago | <a href="#">0x0936203E...fAD30BE35</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00003332 |

## 3) vote function call

As can be seen, only 3 of 4 persons voted.

| Transaction Hash                 | Method                            | Block   | Age        | From                                   | To                                                        | Amount | Txn Fee    |
|----------------------------------|-----------------------------------|---------|------------|----------------------------------------|-----------------------------------------------------------|--------|------------|
| <a href="#">0x4f944c38bde...</a> | <a href="#">Give Right To ...</a> | 7919219 | 5 hrs ago  | <a href="#">0x0936203E...fAD30BE35</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00000469 |
| <a href="#">0x3ac6f32e610...</a> | <a href="#">Give Right To ...</a> | 7916611 | 14 hrs ago | <a href="#">0xC35c40Bd...66002663e</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00003663 |
| <a href="#">0xc2b6d34feb6...</a> | <a href="#">Delegate</a>          | 7916474 | 15 hrs ago | <a href="#">0xC35c40Bd...66002663e</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00004071 |
| <a href="#">0x599c26de7fe...</a> | <a href="#">Vote</a>              | 7916449 | 15 hrs ago | <a href="#">0xC35c40Bd...66002663e</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00008597 |
| <a href="#">0xe612213fa6d...</a> | <a href="#">Vote</a>              | 7916368 | 15 hrs ago | <a href="#">0xE9A6D4CE...1c0D2961E</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00000057 |
| <a href="#">0xa40e1f3c21f...</a> | <a href="#">Give Right To ...</a> | 7915980 | 17 hrs ago | <a href="#">0x0936203E...fAD30BE35</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00008697 |
| <a href="#">0x2d4f7672aec...</a> | <a href="#">Vote</a>              | 7913803 | 24 hrs ago | <a href="#">0x0936203E...fAD30BE35</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00016976 |
| <a href="#">0x855b4d7a02...</a>  | <a href="#">Give Right To ...</a> | 7912616 | 28 hrs ago | <a href="#">0x0936203E...fAD30BE35</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00000167 |
| <a href="#">0xed3a78c81b...</a>  | <a href="#">Give Right To ...</a> | 7909586 | 39 hrs ago | <a href="#">0x0936203E...fAD30BE35</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00003332 |

#### 4) delegateVote function call

As can be seen, one of the voters tried to delegate someone else for voting, but he/she already voted, so the transaction failed.

| Transaction Hash                 | Method                            | Block   | Age        | From                                   | To                                                        | Amount | Txn Fee    |
|----------------------------------|-----------------------------------|---------|------------|----------------------------------------|-----------------------------------------------------------|--------|------------|
| <a href="#">0x4f944c38bde...</a> | <a href="#">Give Right To ...</a> | 7919219 | 5 hrs ago  | <a href="#">0x0936203E...fAD30BE35</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00000469 |
| <a href="#">0x3ac6f32e610...</a> | <a href="#">Give Right To ...</a> | 7916611 | 14 hrs ago | <a href="#">0xC35c40Bd...66002663e</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00003663 |
| <a href="#">0xc2b6d34feb6...</a> | <a href="#">Delegate</a>          | 7916474 | 15 hrs ago | <a href="#">0xC35c40Bd...66002663e</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00004071 |
| <a href="#">0x599c26de7fe...</a> | <a href="#">Vote</a>              | 7916449 | 15 hrs ago | <a href="#">0xC35c40Bd...66002663e</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00008597 |
| <a href="#">0xe612213fa6d...</a> | <a href="#">Vote</a>              | 7916368 | 15 hrs ago | <a href="#">0xE9A6D4CE...1c0D2961E</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00000057 |
| <a href="#">0xa40e1f3c21f...</a> | <a href="#">Give Right To ...</a> | 7915980 | 17 hrs ago | <a href="#">0x0936203E...fAD30BE35</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00008697 |
| <a href="#">0x2d4f7672aec...</a> | <a href="#">Vote</a>              | 7913803 | 24 hrs ago | <a href="#">0x0936203E...fAD30BE35</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00016976 |
| <a href="#">0x855b4d7a02...</a>  | <a href="#">Give Right To ...</a> | 7912616 | 28 hrs ago | <a href="#">0x0936203E...fAD30BE35</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00000167 |
| <a href="#">0xed3a78c81b...</a>  | <a href="#">Give Right To ...</a> | 7909586 | 39 hrs ago | <a href="#">0x0936203E...fAD30BE35</a> | <a href="#">IN</a> <a href="#">0x2f10E393...A00cC3288</a> | 0 ETH  | 0.00003332 |