In the name of God
Blockchain Technology and cryptocurrencies:
Practical Homework #3

Due on January 10, 2020 at 23:55pm

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Problem1

I deployed the contract as mentioned in the HW with the argument "Hello From 95101847". The snapshot of the result is provided in the bellow figure:
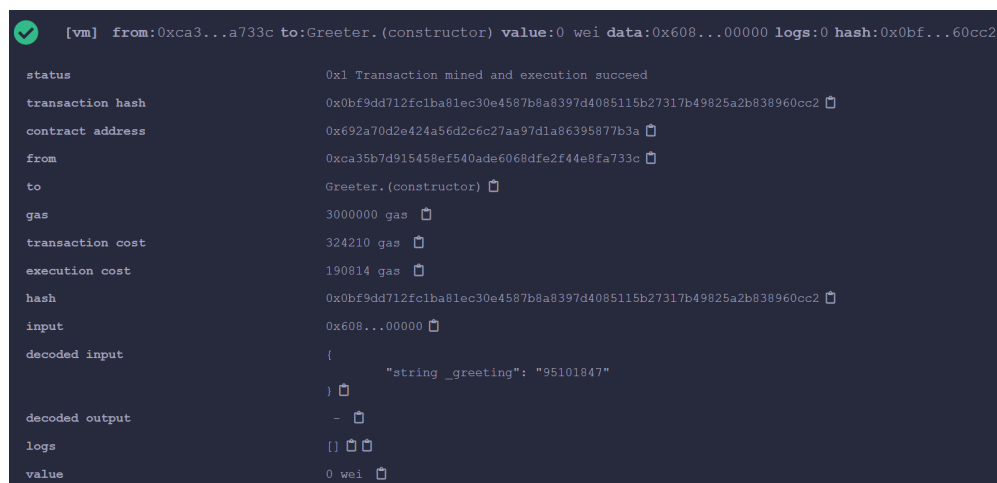

Figure 1: Deployment of Greeter.sol

Problem2

Done as requested.

Problem3

Done as requested.

Problem4

First We Connect Remix IDE to Ropsten Test Network via MetaMask using the following Ethereum address: 0x4dd0D09a24dD255B95759174f9177f4C81599434
Then we deploy the contract on the Ropsten Test Network. The resulting transaction is depicted in figure bellow:

Figure 2: Deployment of EBookLibrary.sol in Ropsten Test Network

Contract Address: 0xd36f505359d7bda00bd0f8e9bdb01319417fad7d

Transaction Hash: 0xd3976a6fe96603762c2cdd7b5c547a378ddf5906dac8c61298485c1ac08719cb

Problem5
Part1.
In this smart contract anybody can generate as many private keys as he wants and keep voting for a candidate. The smart contract only checks that a specific private key cannot vote more than once. The **solution** is to first implement a Token for voting and distribute/crowd-sale it to the people who want to vote. Then we should keep track of their tokens.
Part2.
A person can issue multiple withdraw transactions simultaneously or in a fallback function manner so it can take as much as money as he wants.

Problem6
After doing prerequisites on the localhost:port=7545, the Remix result is depicted in the following figure:
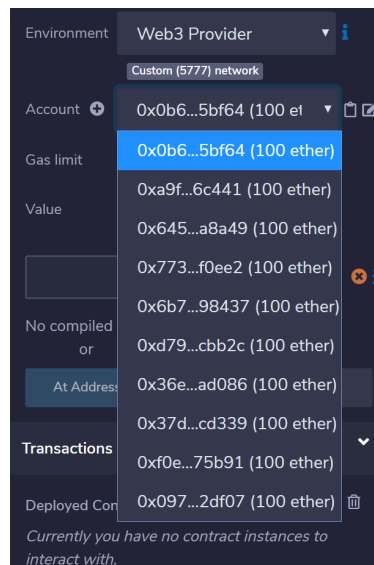

Figure 3: Remix prerequisites

Then we deploy the voting contract with four candidates in the remix:

Then we edit the js file as asked and deploy the DApp, You can see the result in the following figure:
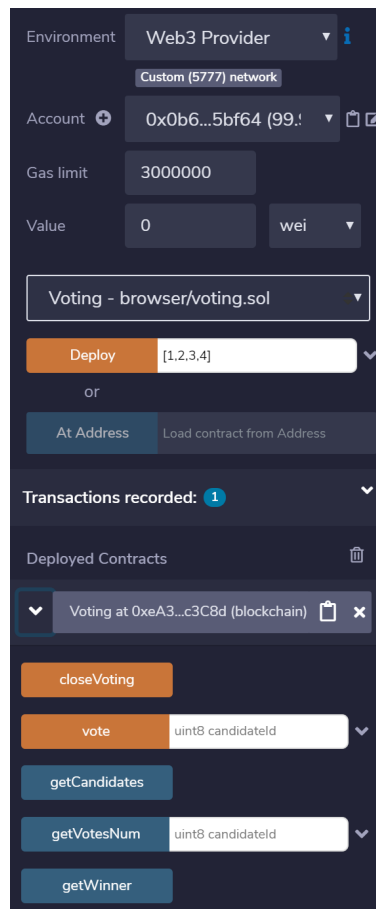
Figure 4: Deployed Voting Contract on Remix

Figure 5: Deployed Voting Contract on Ganache

Results

Candidate	Votes
1	2
2	4
3	1
4	2

Candidate ID

2

Wallet Address

0xf0e1b670c45a69568876e26e61f5109c52675b91

Vote

Close

Figure 6: Result of voting on DApp