START2IMPACT

Ethereum Project

SONIC

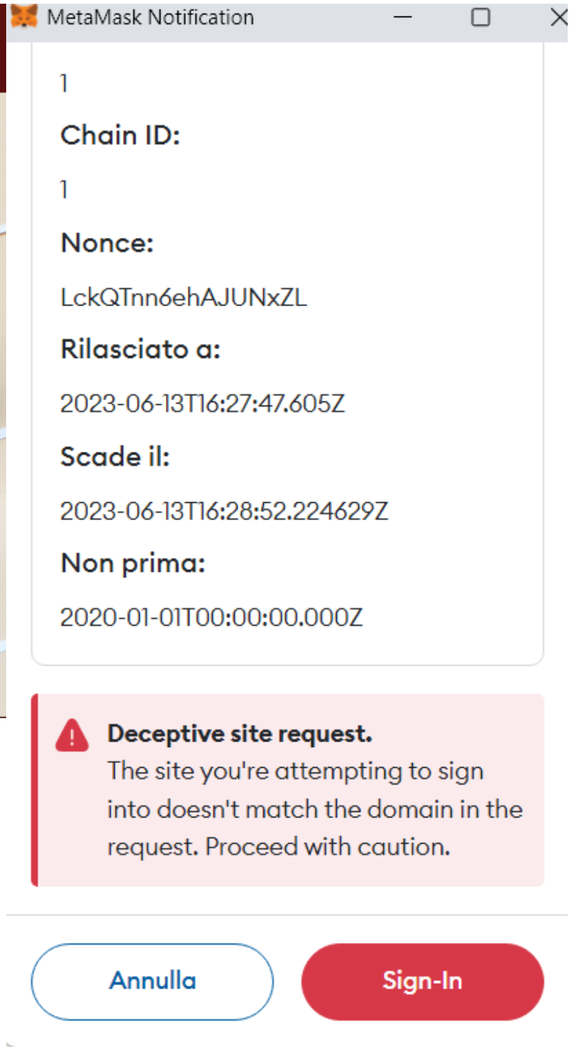
PLATFORM

A platform that collects user-related data about the crypto sector in exchange for a reword in Sonic Tokens

Features implemented

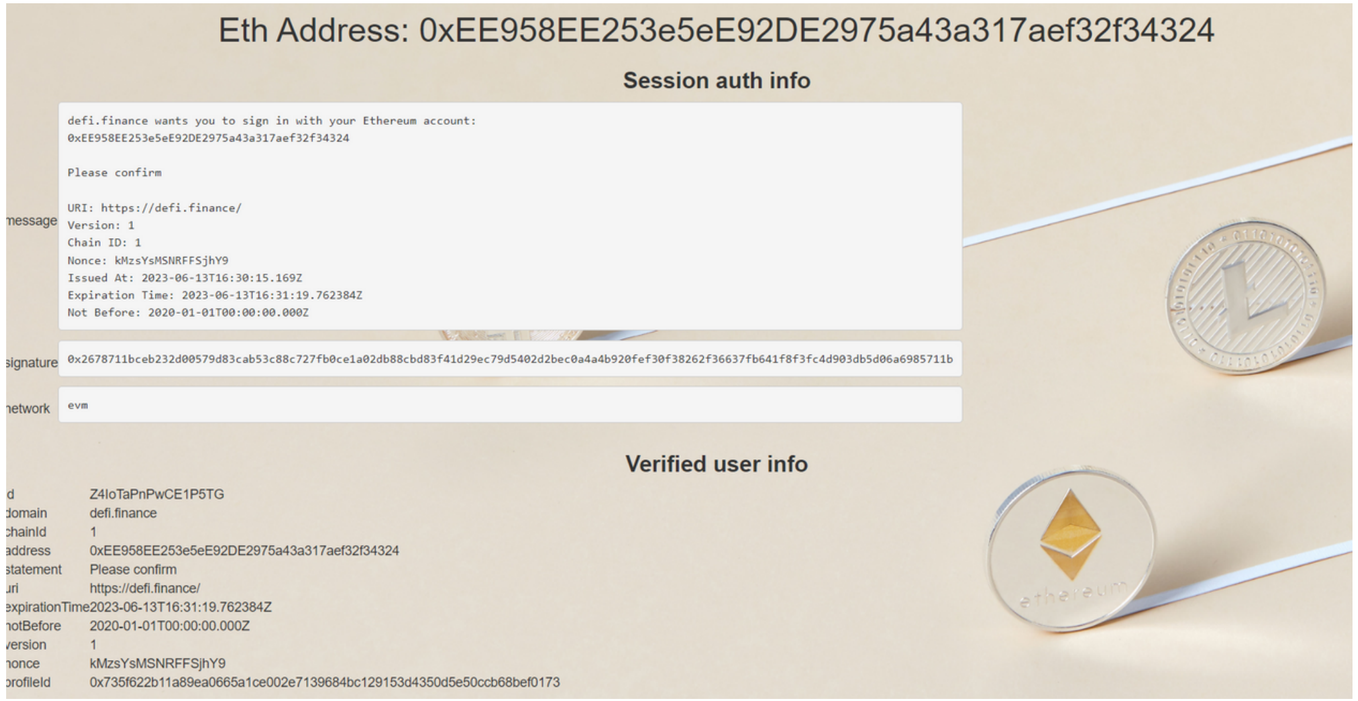
- User authentication through Metamask, check profile info
- Test Smart Contract with Brownie and Ganache
- Deploy on Remix Sonic Smart Contract (ERC20)
- Fill out the Survey and receive a reward in Sonic Tokens
- Get the transaction receipt after the survey submission
- Save all the surveys in Mongo DB Database

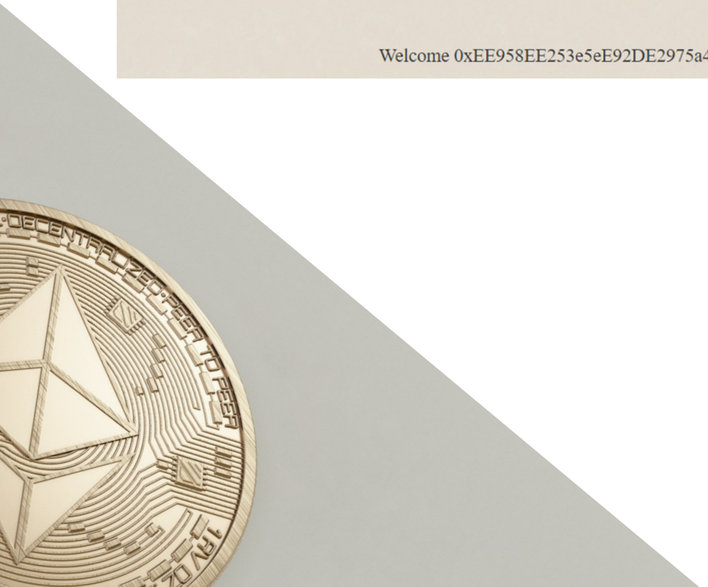
Login with Metamask



After clicking on the "login with Metamask" button, you will have the opportunity to confirm your Metamask account access to the platform.
(Remember to add Metamask extension on your browser)

Welcome message and profile info





After logging in, a welcome message will appear with your eth address and you will be able to see the account info at this endpoint: http://127.0.0.1:8000/my_profile/

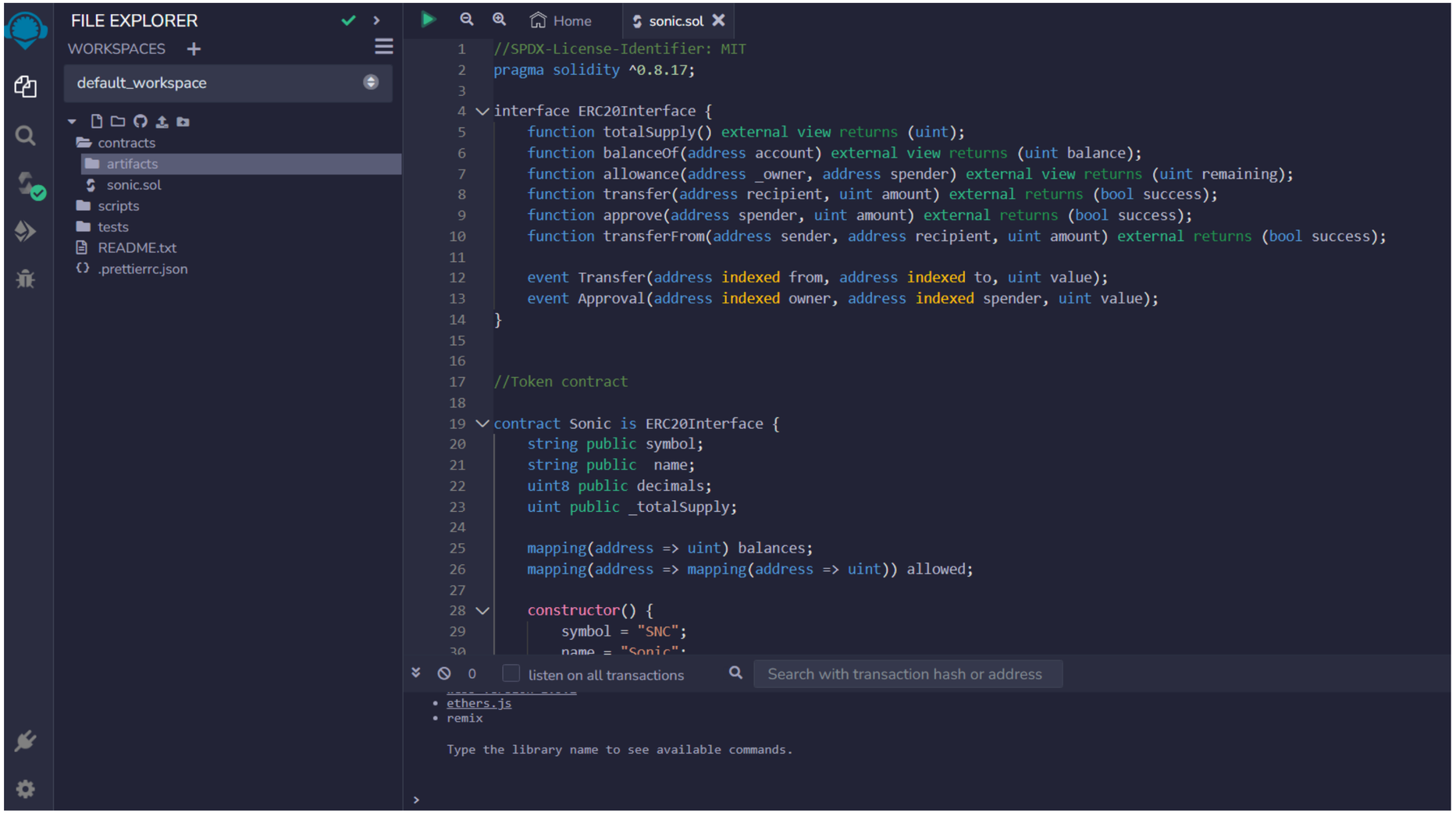
Test Smart Contract with Brownie and Ganache


```
BrownieTestingProject is the active project.

Launching 'ganache-cli.cmd --port 8545 --gasLimit 12000000 --accounts 10 --hardfork istanbul --mnemonic brownie'...

Running 'scripts\test_deploy_Sonic.py::main'...
Transaction sent: 0x5f5d2733720755dad8a838e49c674f947f257c83a33ee042b3ac210a896229f8
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 0
  Sonic.constructor confirmed   Block: 1   Gas used: 506569 (4.22%)
  Sonic deployed at: 0x3194cBDC3dbcd3E11a07892e7bA5c3394048Cc87
```

```
============================================================================ test session starts =============================
platform win32 -- Python 3.7.9, pytest-6.2.5, py-1.11.0, pluggy-1.0.0
rootdir: C:\Users\andre\OneDrive\Desktop\Progetto Ethereum\ethproject\brownie-testing
plugins: eth-brownie-1.19.3, hypothesis-6.27.3, forked-1.4.0, xdist-1.34.0, web3-5.31.3
collected 5 items

Launching 'ganache-cli.cmd --port 8545 --gasLimit 12000000 --accounts 10 --hardfork istanbul --mnemonic brownie'...

tests\unit\test_Sonic.py .....

============================================================================ 5 passed in 16.82s ==============================
Terminating local RPC client...
```

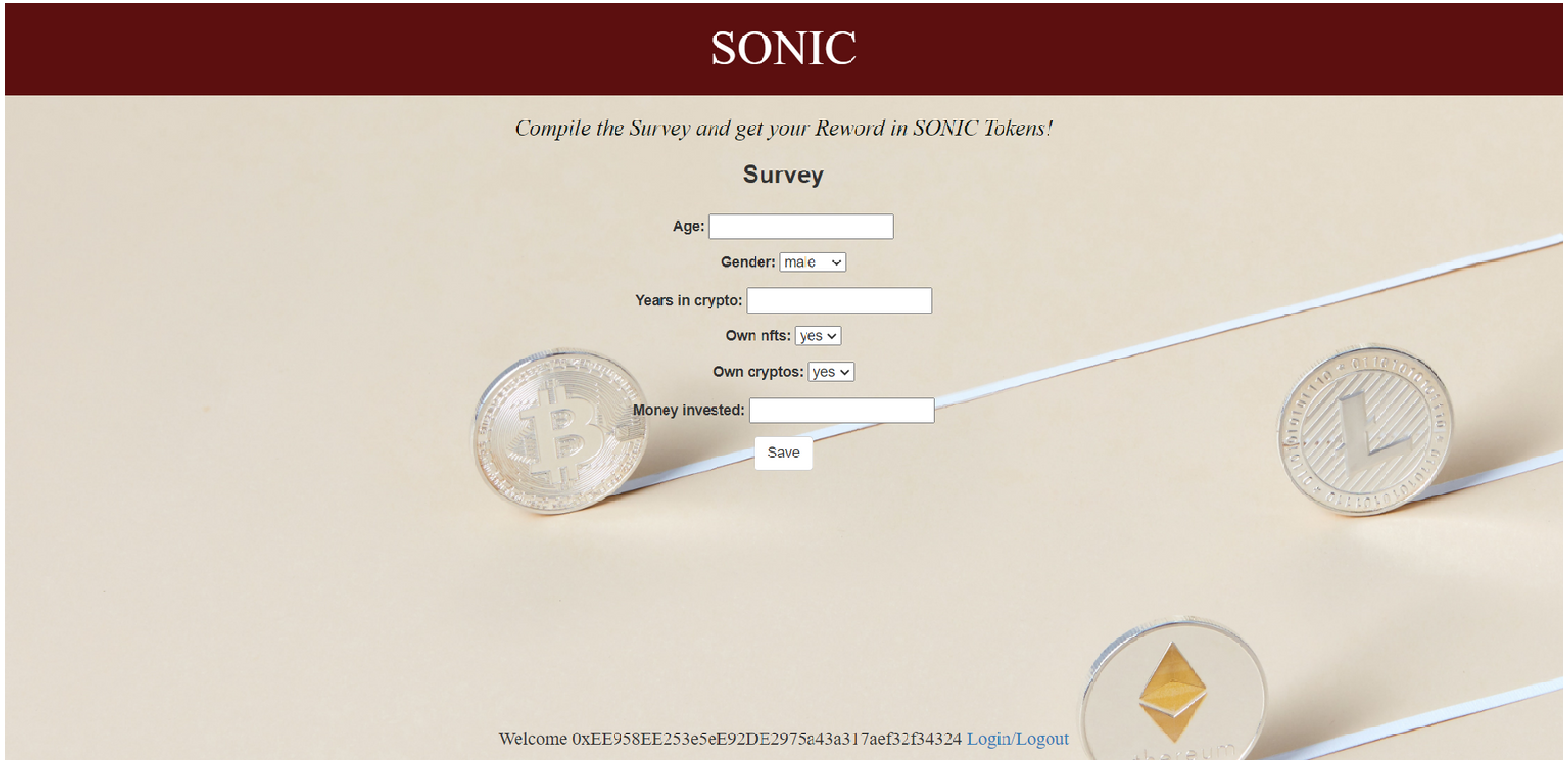
Thanks to Brownie and Ganache I tested Sonic Smart Contract inside VSCode with Python.

Deploy on Remix the Smart Contract Sonic (ERC20)



Thanks to Remix, a powerful toolset for developing, deploying, debugging, and testing Ethereum, I compiled and deploy Sonic Smart Contract.

Compile and submit the Survey



After filling out the survey, a transaction
will send the Sonic Tokens that will arrive directly on the user's address.
The survey will be saved in the mongodb database and the transaction receipt will be print on the monitor

{"blockHash": "0xb0e781cb253d9071b53d93c0892ed22edc6ebff5d3cc3d6c977f004fdbde97d8", "blockNumber": 9178570, "contractAddress": null, "cumulativeGasUsed": 4172989, "effectiveGasPrice": 13600628651, "from": "0x2F34362E3E74b4693610C231378e4C124562faA1", "gasUsed": 34348, "logs": [{"address": "0x6107cA52C7D2E2C575E855AAB10AB94D013ED252", "blockHash": "0xb0e781cb253d9071b53d93c0892ed22edc6ebff5d3cc3d6c977f004fdbde97d8", "blockNumber": 9178570, "data": "0x0000000000000000000000000000000000000000000000000000000000000064", "logIndex": 62, "removed": false, "topics": ["0xddf252ad1be2c89b69c2b068fc378daa952ba7f163c4a11628f55a4df523b3ef", "0x0000000000000000000000002f34362e3e74b4693610c231378e4c124562faa1", "0x000000000000000000000000ee958ee253e5ee92de2975a43a317aef32f34324"], "transactionHash": "0x8358a42a5bd36c0d590ce68f4d1c2d25a76b76400c2c7ab5d416e432a33ed955", "transactionIndex": 43}], "logsBloom": "0x000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000088000000000000000000000000000800000001
"status": 1, "to": "0x6107cA52C7D2E2C575E855AAB10AB94D013ED252", "transactionHash": "0x8358a42a5bd36c0d590ce68f4d1c2d25a76b76400c2c7ab5d416e432a33ed955", "transactionIndex": 43, "type": "0x0"}

THANK YOU
FOR YOUR ATTENTION

Link Git Hub and Pythonanywhere for the project:

https://github.com/andreagenos/ethereum_project.git

Admin User: Username - AndreaAdmin / Password - prova123

Andrea Genovese