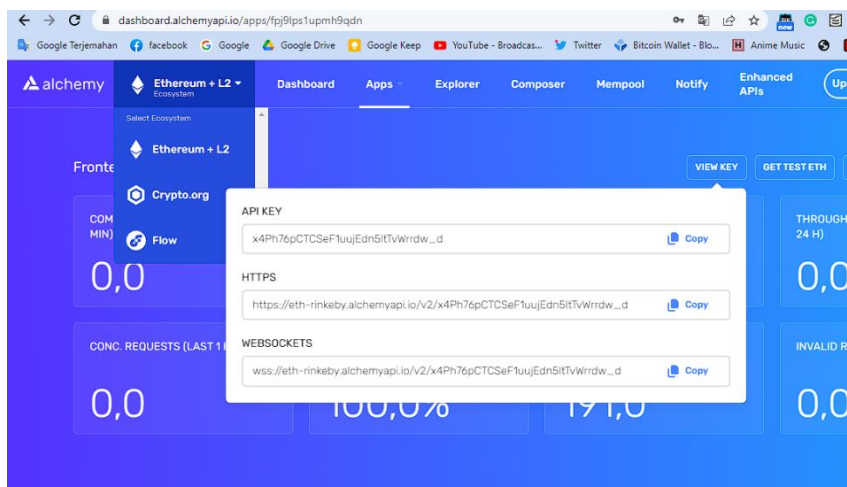
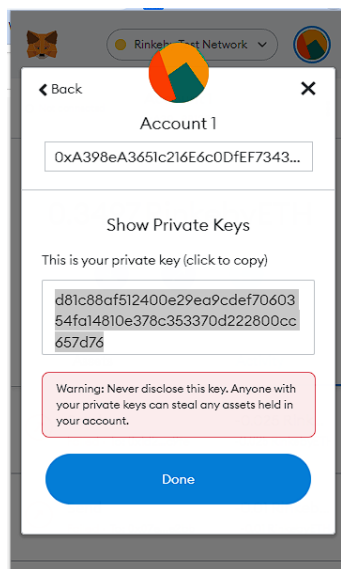
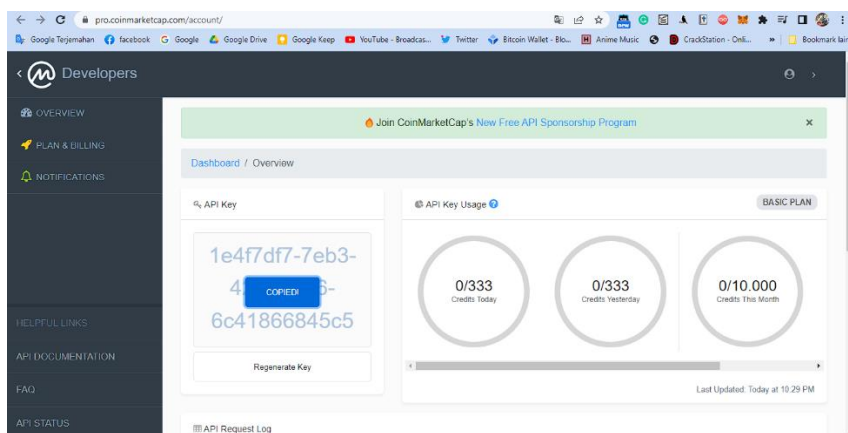
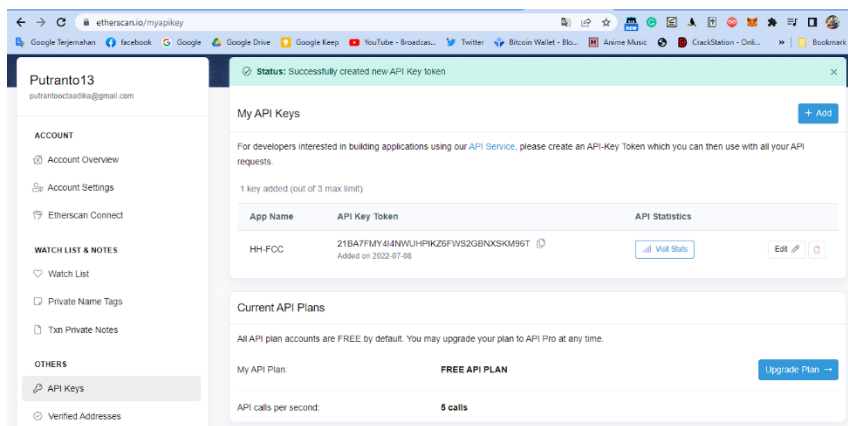


- Buat file .env kemudian isi private key dengan private key metamask, isi rinkeby_rpc_url dengan link https akun alchemyapi, isi coinmarket api dan etherscan api juga seperti gambar dibawah ini.

```
.env
1 PRIVATE_KEY=d81c88af512400e29ea9cdef7060354fa14810e378c353370d222800cc657d76
2 RINKEBY_RPC_URL=https://eth-rinkeby.alchemyapi.io/v2/x4Ph76pCTCSeF1uuJEdn5ItTvWrrdw_d
3 COINMARKETCAP_API_KEY=1e4f7df7-7eb3-4274-9f96-6c41866845c5
4 ETHERSCAN_API_KEY=21BA7FMY4I4NMUHPKZ6FW52GBNXSKM96T
```





- Install yarn

```
Administrator: C:\Windows\system32\cmd.exe

E:\A. Putranto Octa Adika\Kuliah\Semester 8\BlockChain\UAS\Lesson 6\hardhat-simple-storage-fcc>yarn
yarn install v1.22.18
warning package.json: No license field
info No lockfile found.
warning package-lock.json found. Your project contains lock files generated by tools other than Yarn. It is advised not
to mix package managers in order to avoid resolution inconsistencies caused by unsynchronized lock files. To clear this
warning, remove package-lock.json.
warning hardhat-project: No license field
[1/4] Resolving packages...
warning ethereum-waffle > @ethereum-waffle/provider > ganache-core@2.13.2: ganache-core is now ganache; visit https://tr
fl.io/g7 for details
warning ethereum-waffle > @ethereum-waffle/provider > ganache-core > debug@3.2.6: Debug versions >=3.2.0 <3.2.7 || >=4 <
4.3.1 have a low-severity ReDos regression when used in a Node.js environment. It is recommended you upgrade to 3.2.7 or
4.3.1. (https://github.com/visionmedia/debug/issues/797)
warning ethereum-waffle > @ethereum-waffle/provider > ganache-core > ethereumjs-tx@2.1.2: New package name format for ne
w versions: @ethereumjs/tx. Please update.
warning ethereum-waffle > @ethereum-waffle/provider > ganache-core > ethereumjs-common@1.5.0: New package name format fo
r new versions: @ethereumjs/common. Please update.
warning ethereum-waffle > @ethereum-waffle/provider > ganache-core > ethereumjs-tx > ethereumjs-common@1.5.2: New packag
e name format for new versions: @ethereumjs/common. Please update.
warning ethereum-waffle > @ethereum-waffle/provider > ganache-core > eth-sig-util@3.0.0: Deprecated in favor of '@metama
sk/eth-sig-util'
warning ethereum-waffle > @ethereum-waffle/provider > ganache-core > ethereumjs-block@2.2.2: New package name format for
new versions: @ethereumjs/block. Please update.
warning ethereum-waffle > @ethereum-waffle/provider > ganache-core > ethereumjs-block > ethereumjs-common@1.5.2: New pac
kage name format for new versions: @ethereumjs/common. Please update.
warning ethereum-waffle > @ethereum-waffle/provider > ganache-core > ethereumjs-block > ethereumjs-tx@2.1.2: New package
name format for new versions: @ethereumjs/tx. Please update.
warning ethereum-waffle > @ethereum-waffle/provider > ganache-core > ethereumjs-account@3.0.0: Please use Util.Account c
done this repo part.
```

- Jalankan node

```
npm exec hardhat node

E:\A. Putranto Octa Adika\Kuliah\Semester 8\BlockChain\UAS\Lesson 6\hardhat-simple-storage-fcc>npx hardhat node
x Help us improve Hardhat with anonymous crash reports & basic usage data? (Y/n) · y
Started HTTP and WebSocket JSON-RPC server at http://127.0.0.1:8545/

Accounts
=====

WARNING: These accounts, and their private keys, are publicly known.
Any funds sent to them on Mainnet or any other live network WILL BE LOST.

Account #0: 0xf39Fd6e51aad88F6F4ce6aB8827279cFfFb92266 (10000 ETH)
Private Key: 0xac09744bec39a17e36ba4a6b4d238ff944bacb478cbed5efcae784d7bf4f2ff80

Account #1: 0x70997970C51812dc3A010C7d01b50e0d17dc79C8 (10000 ETH)
Private Key: 0x59c6995e998f97a5a0044966f0945389dc9e86dae88c7a8412f4603b6b78690d

Account #2: 0x3C44CdDdB6a900fa2b585dd299e03d12FA4293BC (10000 ETH)
Private Key: 0x5de4111afa1a4b94908f83103eb1f1706367c2e68ca870fc3fb9a804cdab365a

Account #3: 0x90F79bf6EB2c4f870365E785982E1f101E93b906 (10000 ETH)
Private Key: 0x7c852118294e51e653712a81e05800f419141751be58f605c371e15141b007a6

Account #4: 0x15d34AAf54267DB7D7c367839AAf71A00a2C6A65 (10000 ETH)
Private Key: 0x47e179ec197488593b187f80a00eb0da91f1b9d0b13f8733639f19c30a34926a

Account #5: 0x9965507D1a55bcC2695C58ba16FB37d819B0A4dc (10000 ETH)
Private Key: 0x8b3a350cf5c34c9194ca85829a2df0ec3153be0318b5e2d3348e872092edffba

Account #6: 0x976EA74026E726554dB657fA54763abd0C3a0aa9 (10000 ETH)
```

- Jalankan scrip deploy.js

```
Administrator: C:\Windows\System32\cmd.exe

Microsoft Windows [Version 10.0.22000.778]
(c) Microsoft Corporation. All rights reserved.

E:\A. Putranto Octa Adika\Kuliah\Semester 8\BlockChain\UAS\Lesson 6\hardhat-simple-storage-fcc>npx hardhat run scripts/deploy.js --network localhost
x Help us improve Hardhat with anonymous crash reports & basic usage data? (Y/n) · y
Downloading compiler 0.8.8
Compiled 1 Solidity file successfully
Deploying contract...
Deployed contract to: 0x5FbDB2315678afecb367f032d93F642f64180aa3
Current Value is: 0
Updated Value is: 7

E:\A. Putranto Octa Adika\Kuliah\Semester 8\BlockChain\UAS\Lesson 6\hardhat-simple-storage-fcc>
E:\A. Putranto Octa Adika\Kuliah\Semester 8\BlockChain\UAS\Lesson 6\hardhat-simple-storage-fcc>
E:\A. Putranto Octa Adika\Kuliah\Semester 8\BlockChain\UAS\Lesson 6\hardhat-simple-storage-fcc>
  then in a different terminal

npx hardhat run scripts/deploy.js --network localhost

  you should see transactions happen in your terminal that is running npx hardhat node

important localhost note

  you use metamask with a local network, everytime you shut down your node, you'll need to reset your account.
```

- Jalankan script deploy.js dengan network rinkeby

```
Administrator: C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.22000.778]
(c) Microsoft Corporation. All rights reserved.

E:\A. Putranto Octa Adika\Kuliah\Semester 8\BlockChain\UAS\Lesson 6\hardhat-simple-storage-fcc>npx hardhat run scripts/deploy.js --network rinkeby
Deploying contract...
Deployed contract to: 0x7F342eD0bf14B73Db5a84FcBBfa6Bf28E8B99FEF
Waiting for block confirmations...
Verifying contract...
Nothing to compile
Successfully submitted source code for contract
contracts/SimpleStorage.sol:SimpleStorage at 0x7F342eD0bf14B73Db5a84FcBBfa6Bf28E8B99FEF
for verification on the block explorer. Waiting for verification result...


Already Verified!
Current Value is: 0
Updated Value is: 7

E:\A. Putranto Octa Adika\Kuliah\Semester 8\BlockChain\UAS\Lesson 6\hardhat-simple-storage-fcc>
npx hardhat run scripts/deploy.js --network rinkeby
```

Verify on etherscan

If you deploy to a testnet or mainnet, you can verify it if you get an API Key from Etherscan and set it as an environment variable named `ETHERSCAN_API_KEY`. You can pop it into your `.env` file as seen in the `.env.example`


- Hasil contract

 Etherscan

Rinkeby Testnet Network

All Filters Search by Address / Txn Hash / Block / Token / Ens

Home Blockchain Tokens Misc Rinkeby

 Contract 0x7F342eD0bf14B73Db5a84FcBBfa6Bf28E8B99FEF

Contract Overview

Balance: 0 Ether





More Info

My Name Tag: Not Available

Contract Creator: 0xa398ea3651c216e6c0... at txn 0x4b0b6610443238f6c9...

Transactions Erc20 Token Txns Contract Events

Latest 2 from a total of 2 transactions

Txn Hash	Method	Block	Age	From	To	Value	Txn Fee
 0x9813d63739cb748d1b...	Store	10989278	3 mins ago	0xa398ea3651c216e6c0...	 0x7f342ed0bf14b73db5a...	0 Ether	0.00006558
 0x4b0b6610443238f6c9...	0x60806040	10989272	5 mins ago	0xa398ea3651c216e6c0...	 Contract Creation	0 Ether	0.00069552

[Download CSV Export]