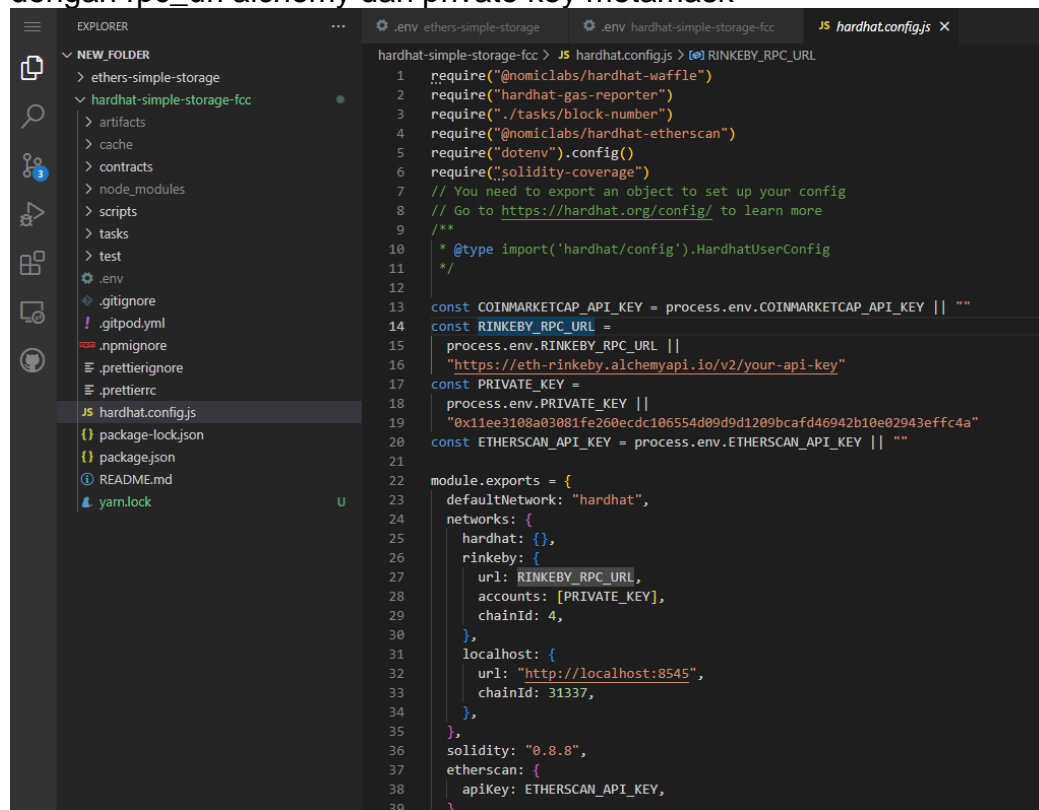


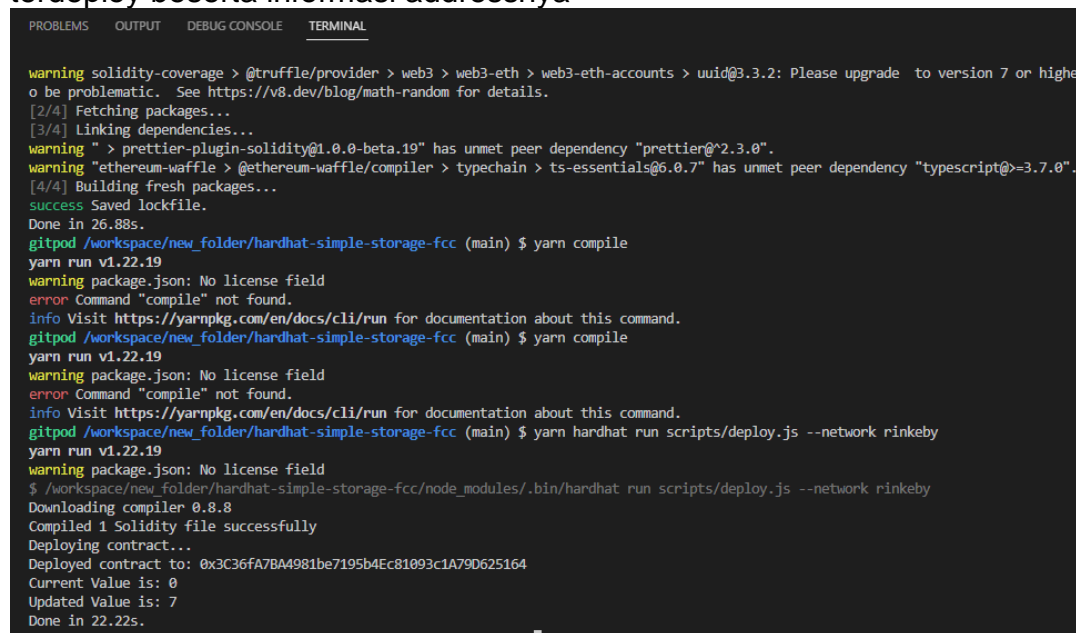
Hardhat simple storage :

Setup smart contract menggunakan hardhat, dan jangan lupa untuk mengisi file .env dengan rpc_url alchemy dan private key metamask



```
hardhat-simple-storage-fcc > JS hardhat.config.js > RINKEBY_RPC_URL
1 require("@nomiclabs/hardhat-waffle")
2 require("hardhat-gas-reporter")
3 require("./tasks/block-number")
4 require("@nomiclabs/hardhat-etherscan")
5 require("dotenv").config()
6 require("solidity-coverage")
7 // You need to export an object to set up your config
8 // Go to https://hardhat.org/config/ to learn more
9 /**
10  * @type import('hardhat/config').HardhatUserConfig
11  */
12
13 const COINMARKETCAP_API_KEY = process.env.COINMARKETCAP_API_KEY || ""
14 const RINKEBY_RPC_URL =
15   process.env.RINKEBY_RPC_URL ||
16   "https://eth-rinkeby.alchemyapi.io/v2/your-api-key"
17 const PRIVATE_KEY =
18   process.env.PRIVATE_KEY ||
19   "0x11ee3108a03081fe260ecdc106554d09d9d1209bcafd46942b10e02943effc4a"
20 const ETHERSCAN_API_KEY = process.env.ETHERSCAN_API_KEY || ""
21
22 module.exports = {
23   defaultNetwork: "hardhat",
24   networks: {
25     hardhat: {},
26     rinkeby: {
27       url: RINKEBY_RPC_URL,
28       accounts: [PRIVATE_KEY],
29       chainId: 4,
30     },
31     localhost: {
32       url: "http://localhost:8545",
33       chainId: 31337,
34     },
35   },
36   solidity: "0.8.8",
37   etherscan: {
38     apiKey: ETHERSCAN_API_KEY,
39   },
40 }
```

Jalankan perintah yarn, setelah itu deploy smart contract dengan perintah yarn hardhat run scripts/deploy.js --network rinkeby. Setelah itu smart contract akan terdeploy beserta informasi addressnya



```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
warning solidity-coverage > @truffle/provider > web3 > web3-eth > web3-eth-accounts > uuid@3.3.2: Please upgrade to version 7 or higher
to be problematic. See https://v8.dev/blog/math-random for details.
[2/4] Fetching packages...
[3/4] Linking dependencies...
warning " > prettier-plugin-solidity@1.0.0-beta.19" has unmet peer dependency "prettier@^2.3.0".
warning "ethereum-waffle > @ethereum-waffle/compiler > typechain > ts-essentials@6.0.7" has unmet peer dependency "typescript@>=3.7.0".
[4/4] Building fresh packages...
success Saved lockfile.
Done in 26.88s.
gitpod /workspace/new_folder/hardhat-simple-storage-fcc (main) $ yarn compile
yarn run v1.22.19
warning package.json: No license field
error Command "compile" not found.
info Visit https://yarnpkg.com/en/docs/cli/run for documentation about this command.
gitpod /workspace/new_folder/hardhat-simple-storage-fcc (main) $ yarn compile
yarn run v1.22.19
warning package.json: No license field
error Command "compile" not found.
info Visit https://yarnpkg.com/en/docs/cli/run for documentation about this command.
gitpod /workspace/new_folder/hardhat-simple-storage-fcc (main) $ yarn hardhat run scripts/deploy.js --network rinkeby
yarn run v1.22.19
warning package.json: No license field
$ /workspace/new_folder/hardhat-simple-storage-fcc/node_modules/.bin/hardhat run scripts/deploy.js --network rinkeby
Downloading compiler 0.8.8
Compiled 1 Solidity file successfully
Deploying contract...
Deployed contract to: 0x3C36fA7BA4981be7195b4Ec81093c1A79D625164
Current Value is: 0
Updated Value is: 7
Done in 22.22s.
gitpod /workspace/new_folder/hardhat-simple-storage-fcc (main) $
```

Untuk melihat detail contract tersebut, akan dicek dengan etherscan dengan address smart contract yang tampil pada terminal. Dan terbukti contract telah terdeploy beserta interaksi sebelumnya.

Etherscan

All Filters

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

Rinkeby Testnet Network
Home
Blockchain
Tokens
Misc
Rinkeby

Contract
0x3C36fA7bA4981be7195b4Ec81093c1A79D625164

Contract Overview

Balance: 0 Ether

More Info
More

My Name Tag: Not Available

Contract Creator: 0x93471fe3e9c0f59ddb... at bn 0x46cef3ccf4ec0345271...

Transactions
Erc20 Token Txns
Contract
Events

Latest 2 from a total of 2 transactions

| Txn Hash | Method | Block | Age | From | To | Value | Txn Fee |
|--------------------------|------------|----------|------------|-------------------------|-------------------------|---------|------------|
| 0x0e92eb0da37a77875ff... | Store | 10992506 | 3 mins ago | 0x93471fe3e9c0f59ddb... | 0x3c36fa7ba4981be719... | 0 Ether | 0.00005421 |
| 0x46cef3ccf4ec0345271... | 0x80806040 | 10992505 | 3 mins ago | 0x93471fe3e9c0f59ddb... | Contract Creation | 0 Ether | 0.00057486 |

[Download CSV Export]

A contract address hosts a smart contract, which is a set of code stored on the blockchain that runs when predetermined conditions are met. Learn more about addresses in our [Knowledge Base](#).

Terdapat juga gas report tentang biaya saat kita mendeploy smart contract pada sebuah file .txt

OPEN EDITORS

NEW_FOLDER

ethers-simple-storage
 hardhat-simple-storage-fcc
 artifacts
 cache
 contracts
 node_modules
 scripts
 tasks
 test
 .env
 .gitignore
 .gitpod.yml
 .npmignore
 .prettierrc
 gas-report.txt
 hardhat.config.js
 package-lock.json
 package.json
 README.md
 yarn.lock

hardhat-simple-storage-fcc > gas-report.txt


```

1 |-----|-----|-----|-----|-----|-----|
2 | Solc version: 0.8.8 | Optimizer enabled: false | Runs: 200 | Block limit: 30000000 gas |
3 |-----|-----|-----|-----|-----|-----|
4 | Methods |-----|-----|-----|-----|-----|-----|
5 |-----|-----|-----|-----|-----|-----|
6 | Contract | Method | Min | Max | Avg | # calls | gas (avg) |
7 |-----|-----|-----|-----|-----|-----|
8 | SimpleStorage | addPerson | - | - | - | 112407 | 2 |
9 |-----|-----|-----|-----|-----|-----|
10 | SimpleStorage | store | - | - | - | 43724 | 2 |
11 |-----|-----|-----|-----|-----|-----|
12 | Deployments |-----|-----|-----|-----|-----|
13 |-----|-----|-----|-----|-----|-----|
14 | SimpleStorage | - | - | - | 463682 | 1.5 % | - |
15 |-----|-----|-----|-----|-----|-----|

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL


```

gitpod /workspace/ethers-simple-storage-fcc (main) $ ls
deploy.js encryptKey.js img node_modules package.json README.md SimpleStorage.sol yarn.lock
gitpod /workspace/ethers-simple-storage-fcc (main) $ cd ..
bash: cd: ..: No such file or directory
gitpod /workspace/ethers-simple-storage-fcc (main) $ cd ..
gitpod /workspace $ ls
ethers-simple-storage-fcc new folder
gitpod /workspace $ cd new folder/
gitpod /workspace/new_folder $

```