

Public Blockchain: Exercises

Hands-on Intro to Blockchains

Home Assignments Tutorial

Dr. Stefano Ballelli



NOW - Knowledge Base
Learn Blockchain with Blockchain NOW!

How to Submit Home Assignments

In 15 steps...

How to Submit Home Assignments

1. You have registered your wallet address through the ILIAS survey.
2. The address you registered is one of your Metamask's addresses, so you can interact with the course's Dapp.
3. Other Ethereum browser wallets might work but are not tested.

Umfragen



Register Wallet Address for Home Assignments

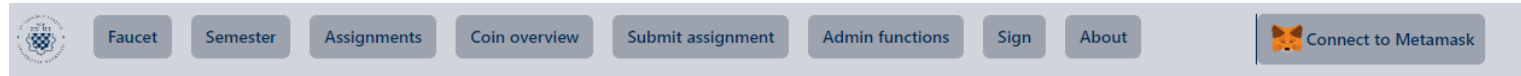
With this brief survey you register a crypto wallet address that you will use to submit the home assignments. Important! Only

Teilnahme: Sie haben bereits an dieser Umfrage teilgenommen

Verfügbarkeit: Gestern, 12:00 - 31. Mär 2023, 12:00

How to Submit Home Assignments

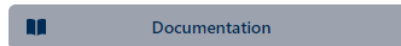
4. Open the browser to the (not) UniMa Blockchain dapp.
5. Connect the Metamask's address that you registered at step 1.



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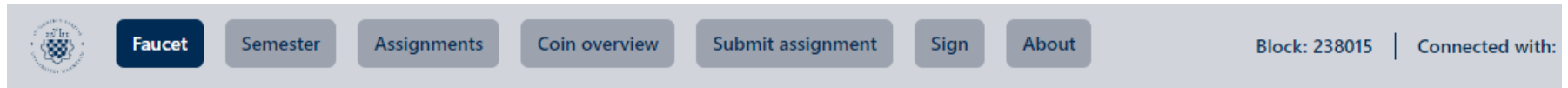
Welcome to the Knowledge Base

To get started, please select a category from the topbar
or take a look at the documentation:

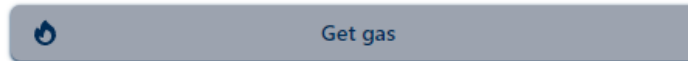


You need metamask to use this web app

6. Get (not) Uni Mannheim ETH from the Faucet (first time gasless).



Get your ETH now



This button is disabled, if you have an ongoing faucet request.

How to Submit Home Assignments

7. Work on the assignment on VS Code (or other editor)...
8. When you are ready, deploy your contract to the (not) UniMa blockchain
9. From a working Hardhat project folder:

```
npx hardhat compile
```

```
npx hardhat run scripts/my_deploy_script.js
```

or

```
npx hardhat ignition deploy ignition/modules/my_module.js
```

Don't forget to add the (not) unima network in hardhat.config.js and set as default

Can use yarn instead of npx

10. Copy the deployment address from the terminal, for instance:

```
PS C:\Users\stefa\www\public-blockchains-assignments> npx hardhat compile
```

```
Compiled 1 Solidity file successfully
```

```
PS C:\Users\stefa\www\public-blockchains-assignments> npx hardhat run .\scripts\deploy_erc20_base.js
```

```
ERC20_base deployed to 0x3A45D2e1e28904628f1EF3A6C4Bc4ff869490cAd
```

```
PS C:\Users\stefa\www\public-blockchains-assignments> █
```

How to Submit Home Assignments

11. In the Dapp, select “Submit Assignment”, pick the assignment you want to validate and then paste the deployed address
12. Try “Test Assignment” to check how many tests your contract will pass
13. If you pass all tests KUDOS! Otherwise, go back to Step 7 and repeat the test as many times as needed without penalty.



Hand in your assignment contract here

Choose Semester

☒ 2023 Summer

Choose Assignment

☒ NFT Minter

0x



Submit assignment

You have not submitted the assignment yet.



Test assignment

Test results:

► Test assignment: Try 1

▼ Test assignment: Try 2

Test number: 0

Exercise A: Some of the required functions are not correctly implemented. Validation not possible!

Passed: **false**

How to Submit Home Assignments

14. When ready, click “Submit Assignment” to get your knowledge coins (NOW) and to find out if yours is a late submission.
15. You can check how many coins you have gained so far from the Coin overview tab

Hand in your assignment contract here

Choose Assignment

☒ NFT Minter

0x



Submit assignment

Submitted Block number: **235749**

NOW coins: **10**

Contract address:

0x

Late Submission: **false**



Knowledge overview

Choose the semester:

☒ 2023 Summer

Knowledge needed for exam: 20

Your current knowledge: 0

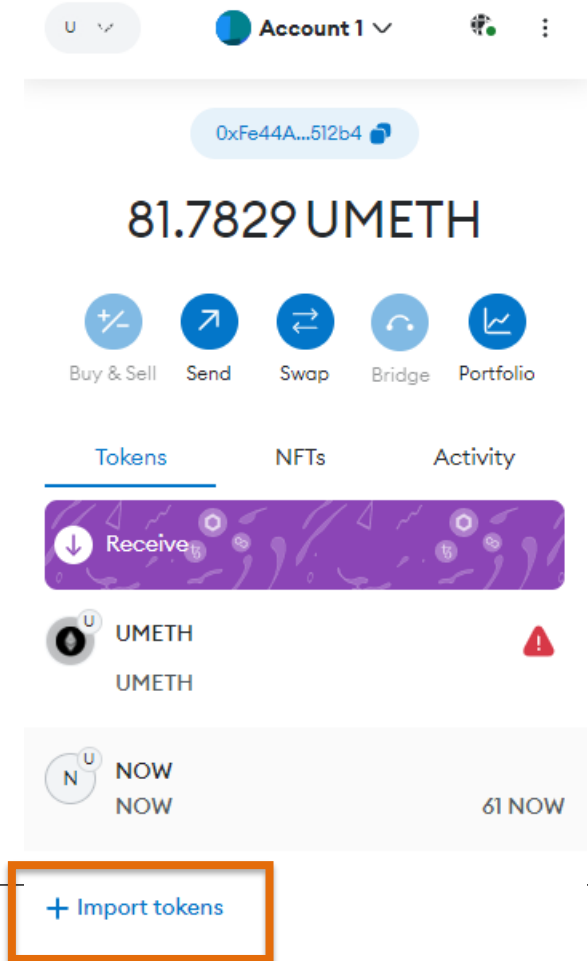
Your missing knowledge: 20

Important!

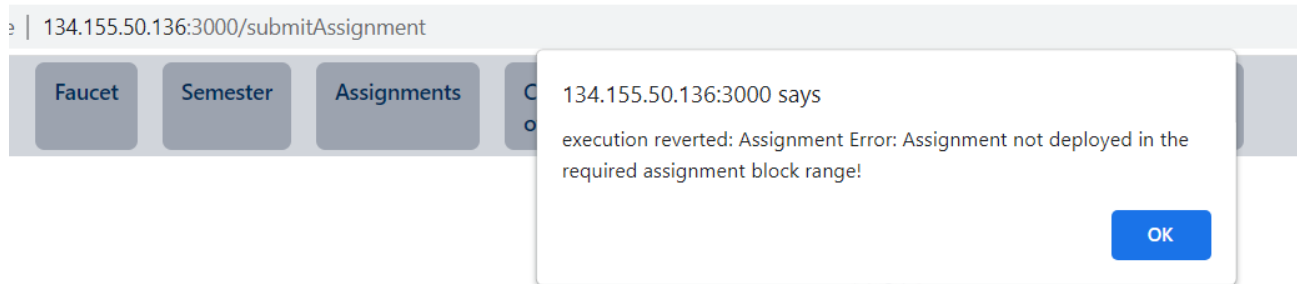
Practical advices for successful submissions...

Practical advices for successful submissions...

- NOW coins are “soul-bounded” ERC-20 tokens, i.e., not transferable.
- NOW coins are not displayed by MetaMask unless you manually add them:
0x61Def87D62EEbBA2BC7419F6a95075d3eC0c132c
- MetaMask might still fail to display NOW coins: <https://community.metamask.io/t/not-able-to-import-custom-tokens-on-mm-from-ganache/22939>



- You can only test/submit contracts that you have deployed yourself.
- Every assignment must inherit the “BaseAssignment” contract; the BaseAssignment takes the Validator Address as input parameter. An error with the BaseAssignment, will get you an error like the one below, because the validator contract cannot properly interact with your submission.



If you interact with your contract with Ethers.JS:

- If you get an error like 'UNPREDICTABLE_GAS_LIMIT', this is usually due to an incorrect invocation (e.g., wrong parameters passed), less often it can be an internal error of the method you created.

- If you have additional pieces of advices to share with your fellow students, please let us know!
 - If you get stuck, ask for help in Discord.
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