Program Setup and Launch guide

Background

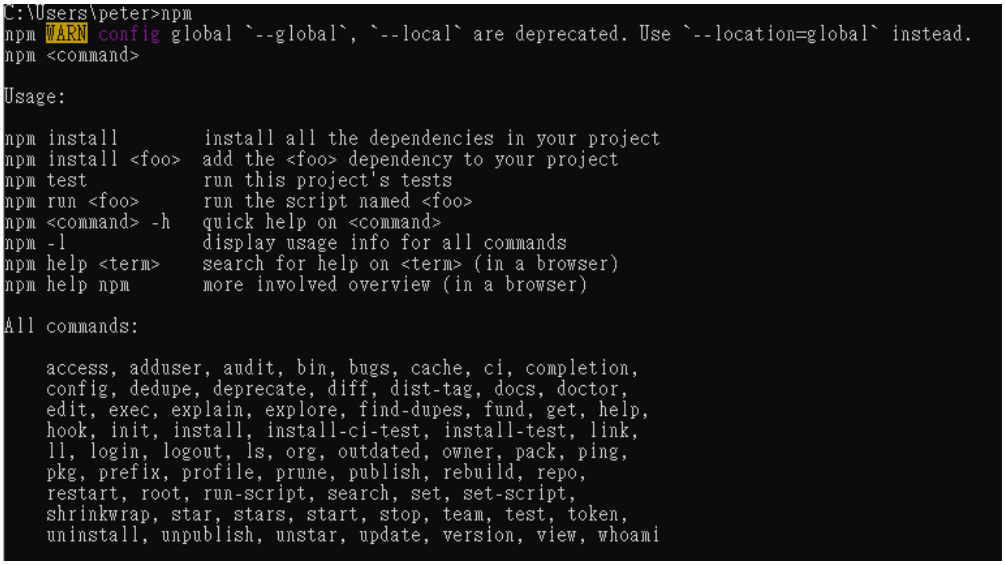
This is a group project. The current repository is finalized based on project **22CS016** only and may/does not reflect the final contribution for **22CS015**.

GitHub repository reference: https://github.com/hung0125/CS4514_FYP_Blockchain_ipfs

Prerequisites

- Setup OS should be Windows. The following guidelines were only tested on Windows.

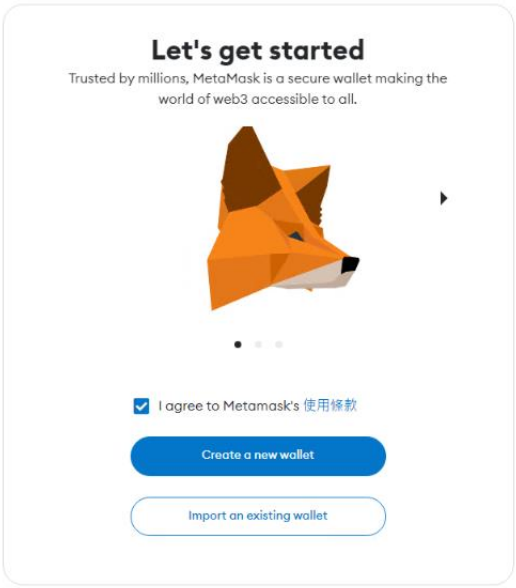
Step 1 – repository settings (do once)

1. Install NPM (can be downloaded here).
    - Upon installation, make sure the command 'npm' is responsive.
    - 

2. CD to **app** folder, issue command "npm i".
3. Repeat step 2 for **smart_contract** folder.

Step 2 – wallet settings (do once)

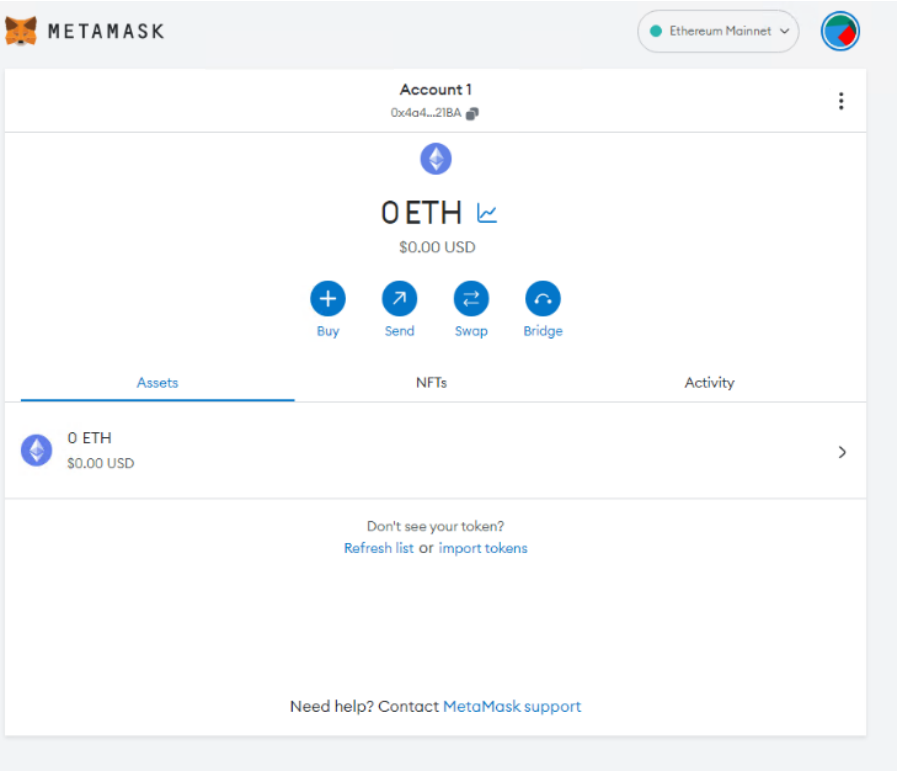
- Install MetaMask for Chrome (can be downloaded here).
- Upon installation, set up Blockchain wallet.
    - A page like this should be automatically opened.



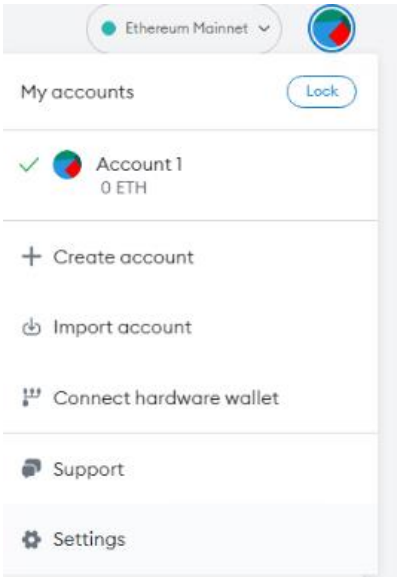
    - Agree the terms then click “Import an existing wallet”. You could also create your own wallet.
    - On the next page, click “I Agree”
    - Input the following secret recovery phrase:
        - *limit error book doll distance lecture traffic mad brick wire essence mean*
        - (Directly copy the whole sentence then paste to the first input box)
    - Click the confirm button.
    - The page should be shown as follows:

    - Set the new password to **Cityufyp2022**
        - **Not recommended to change any new passwords.**

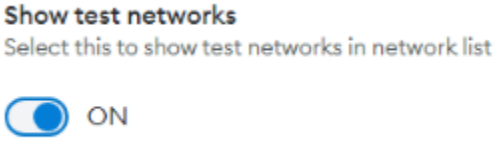
- Click the import button.
- After some confirmation dialogs, initialized page should be displayed as follows:

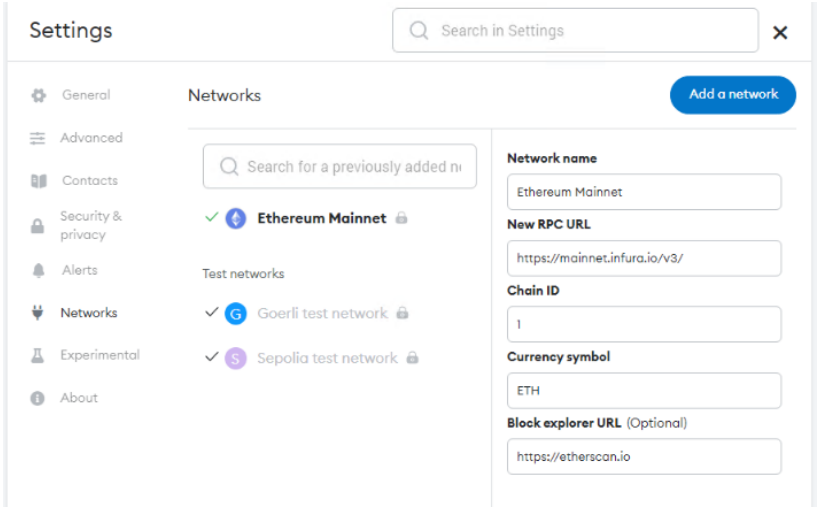


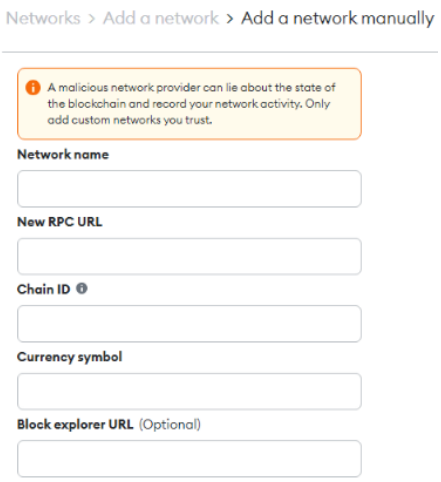
- Open “settings”.

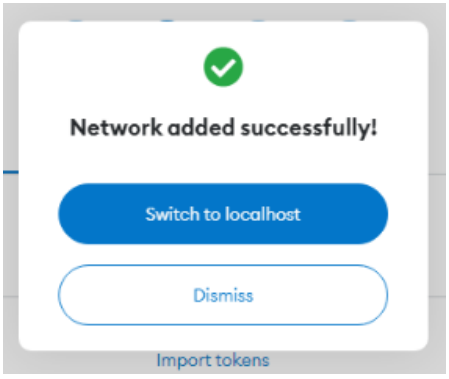


- In the **Advanced** tab, turn on the following feature:



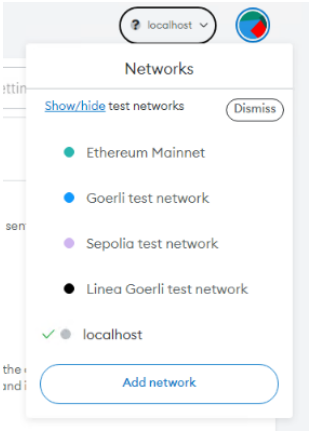
- In the **Networks** tab, click “Add a network” → “Add a network manually”.
  - 

  - 

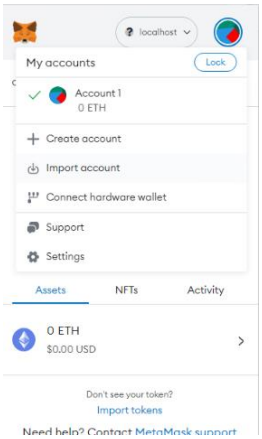
- Input the network information as follows:
  - Network name: localhost
  - New RPC URL: http://localhost:8545
  - Chain ID: 31337
  - ETH
- Save the information.
- If there is a dialog box:
  - 

  - Click “Switch to localhost”

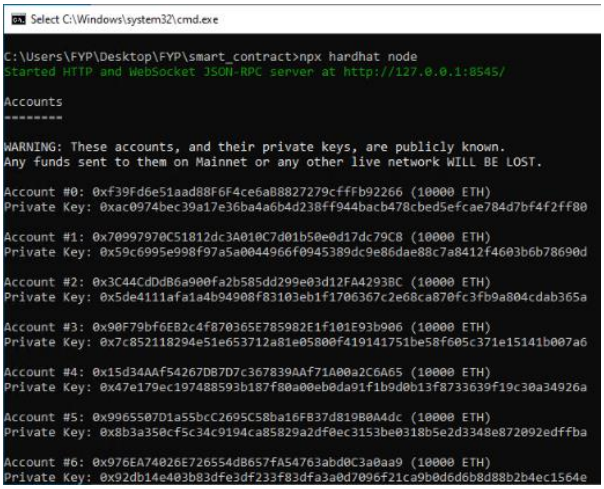
- Else, switch to localhost host using the network tab on the top right corner.

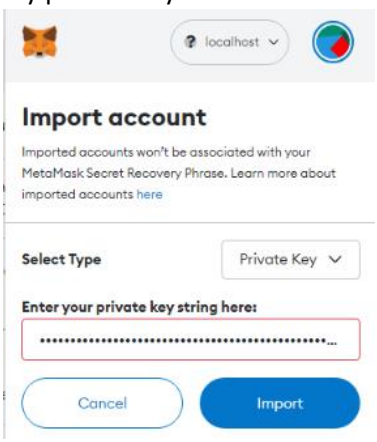


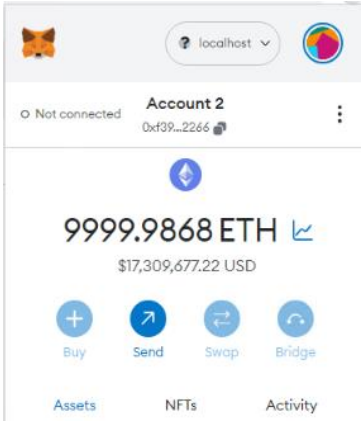
- Import local accounts from **localnode.bat**.



- Right click the account profile → “Import account”
- Open the “localnode.bat”, following information should be displayed:



- Import any private key to the MetaMask window:
  - 

- New account should be set as follows:
  - 

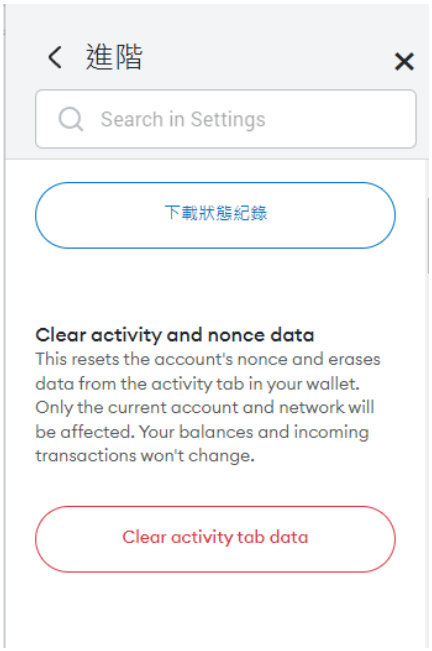
Step 3 (do once)

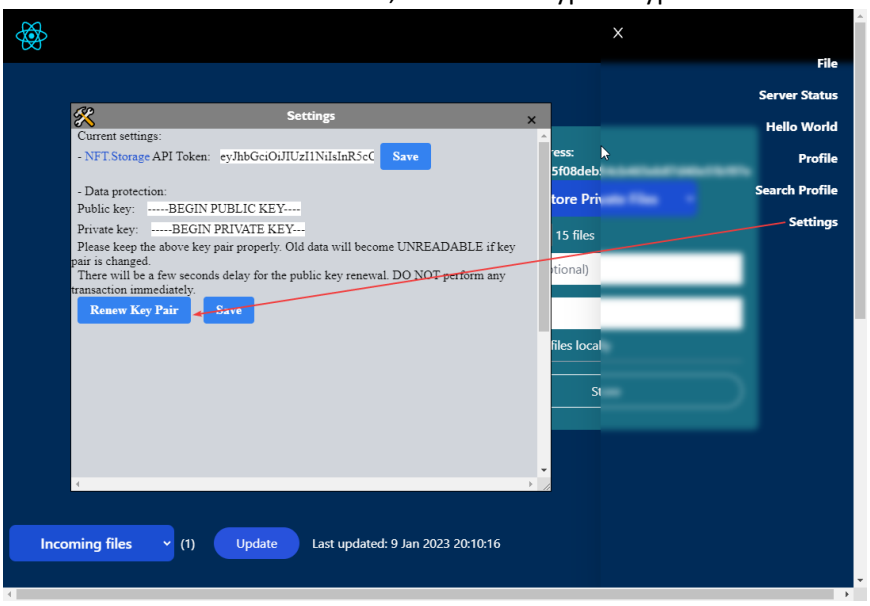
- Install IPFS desktop (can be downloaded here, named "IPFS-Desktop-Setup-{version}.exe").
- After launching the program, go the "Settings" tab then configure the following Json file as follows:
  - 

Step 4 (do every time launch)

- *App folder*: click **run.bat**.
- *Smart_contract folder*: click **localnode.bat** first. When the account list is shown, click **deploy.bat**.
- Start IPFS desktop.

Step 5 (do every time launch)

- Go to localhost:5173
- For each imported MetaMask account: profile icon → Settings → Advanced → Clear activity tab data
  - 

- Connect to an MetaMask wallet account, renew the crypto keypair.
  - 

- At this time, the system should be working.