

#FTW17

Ethereum Token Hackathon

SCREEN BY SCREEN WALKTHROUGH

LONDON FINTECH
WEEK
2016

Hackathon Challenge

Build a Project based on Ethereum Tokens

“Build something” on top of the ERC20/ERC233 Ethereum Token Standard(s)

Please make sure go through to all the slides first and before you start, read the following recommendations:

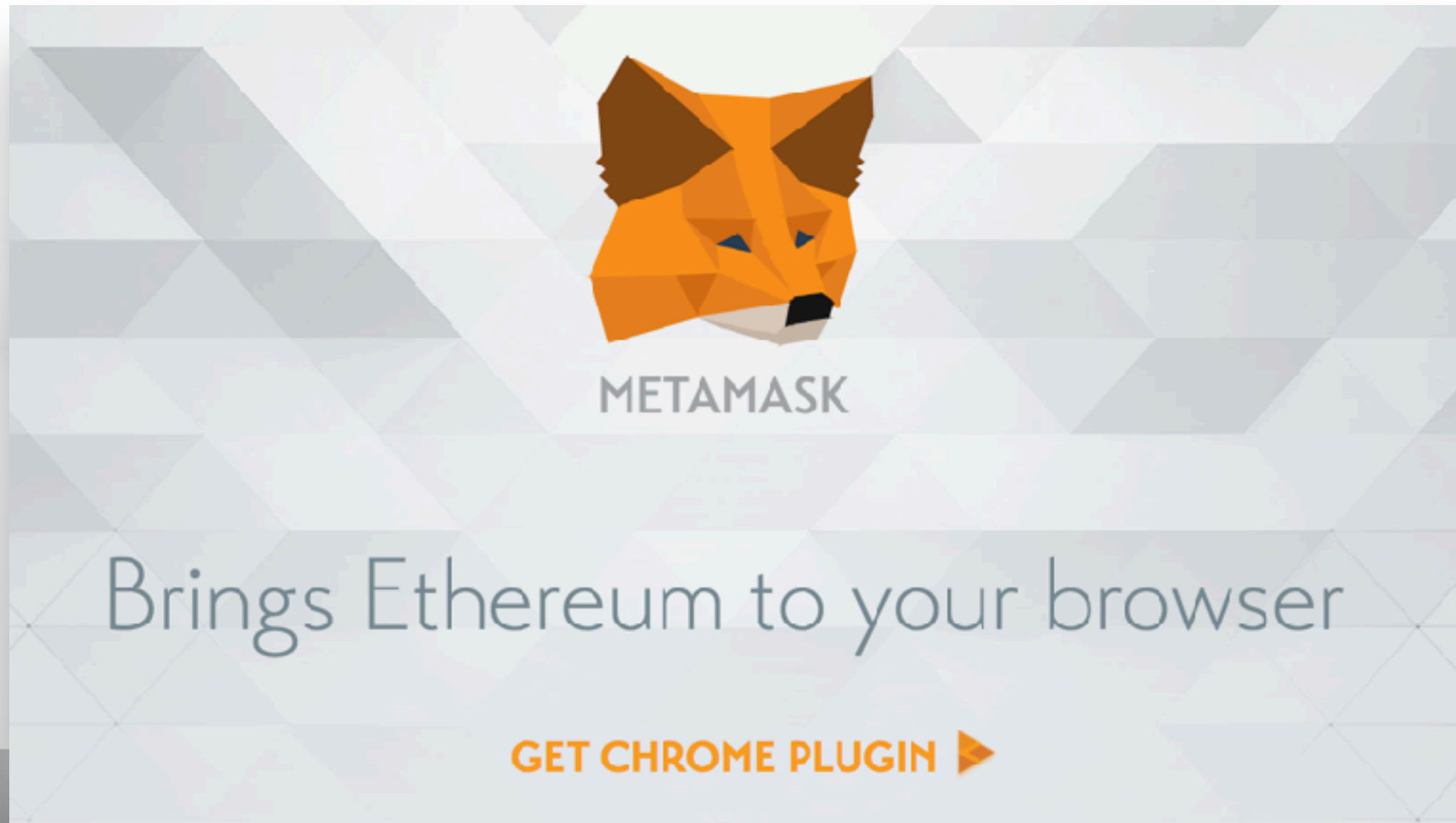
**Check you're doing ALL your operations on Testnet
(Rinkeby Testnet)**

**Double check that you are not using
the same addresses of testnet ;)**

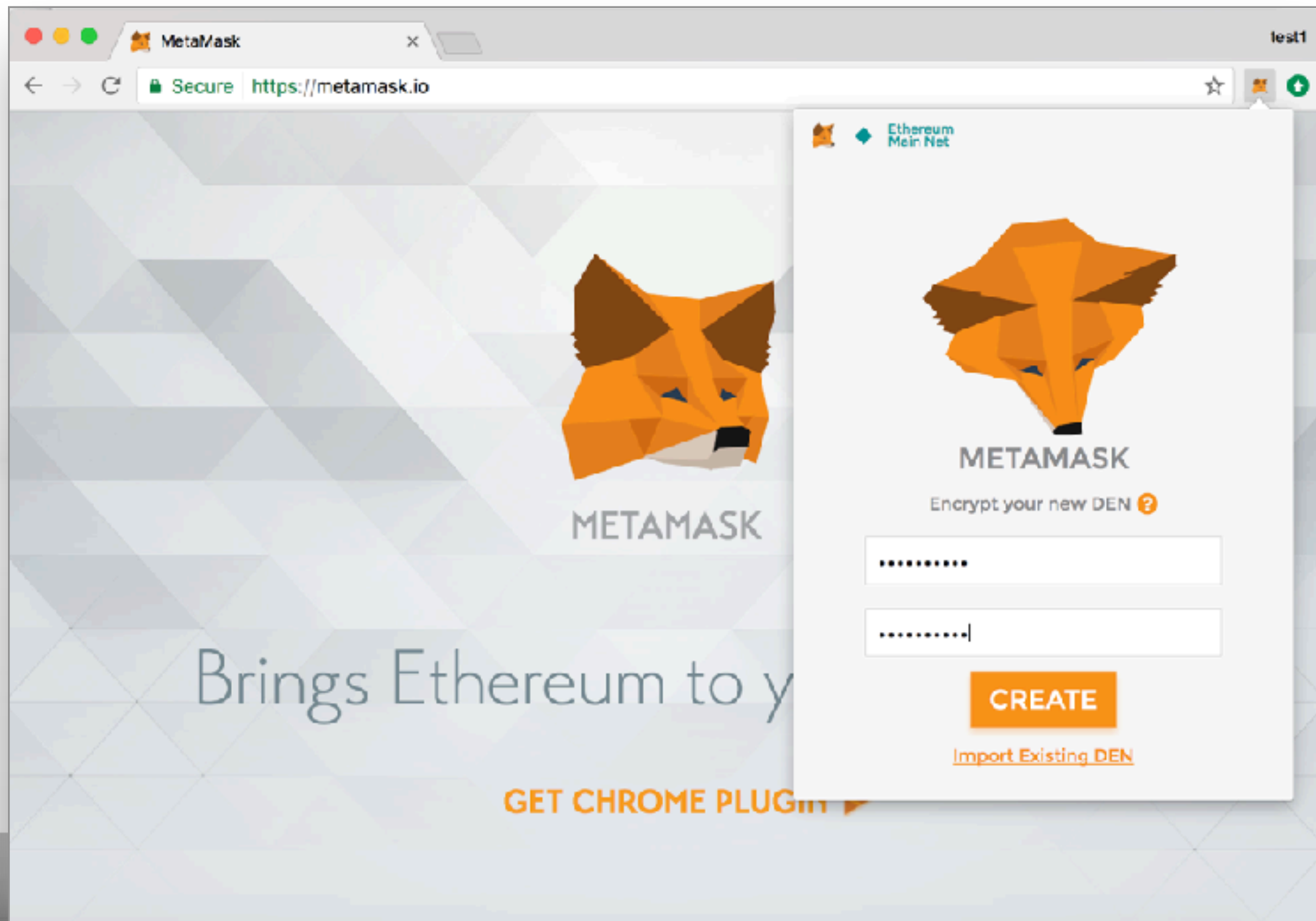
**You can use a different chrome user/account to be sure
browser extensions data is not shared between browser accounts**

1. Install Metamask

<https://metamask.io>

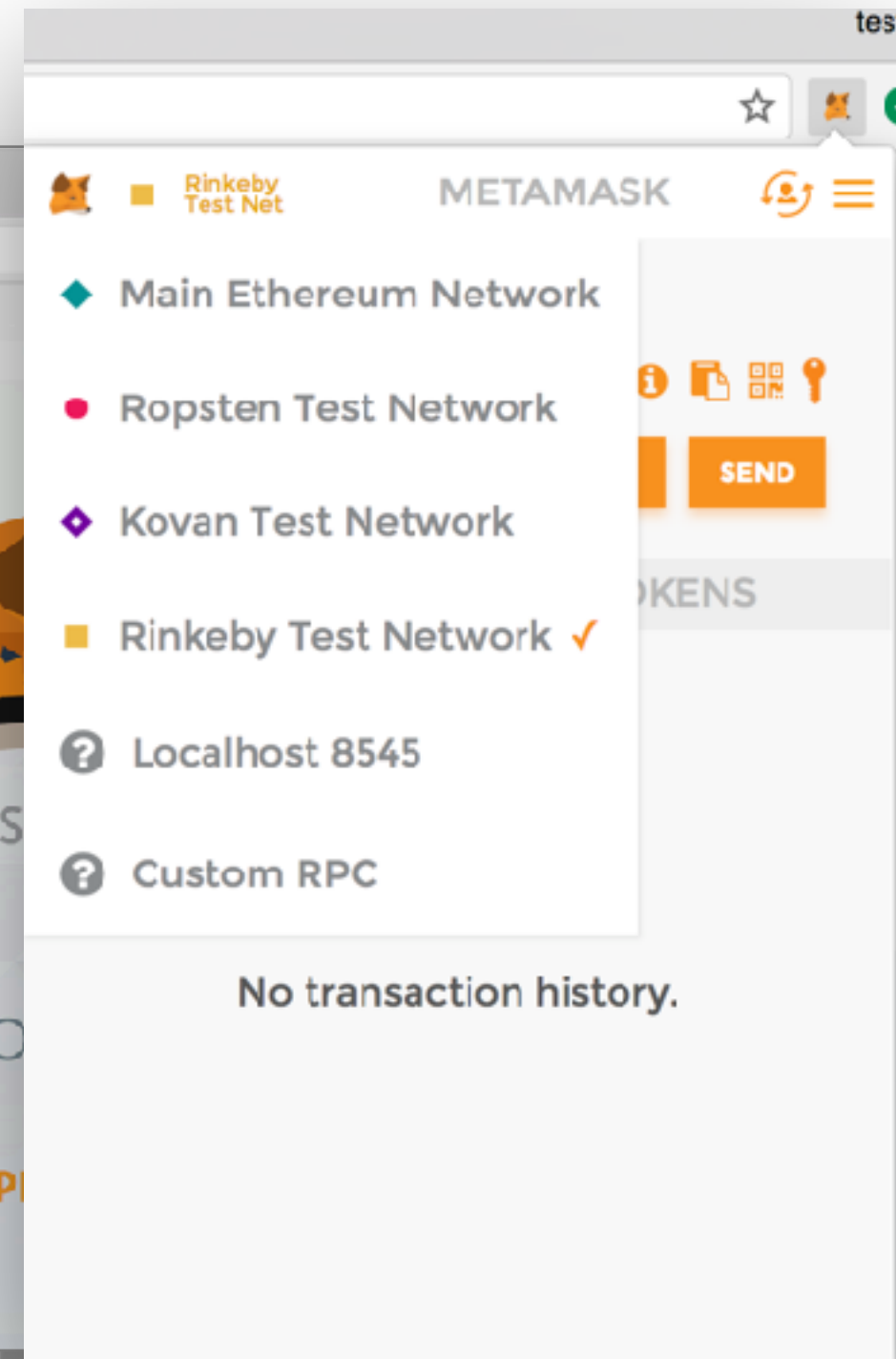
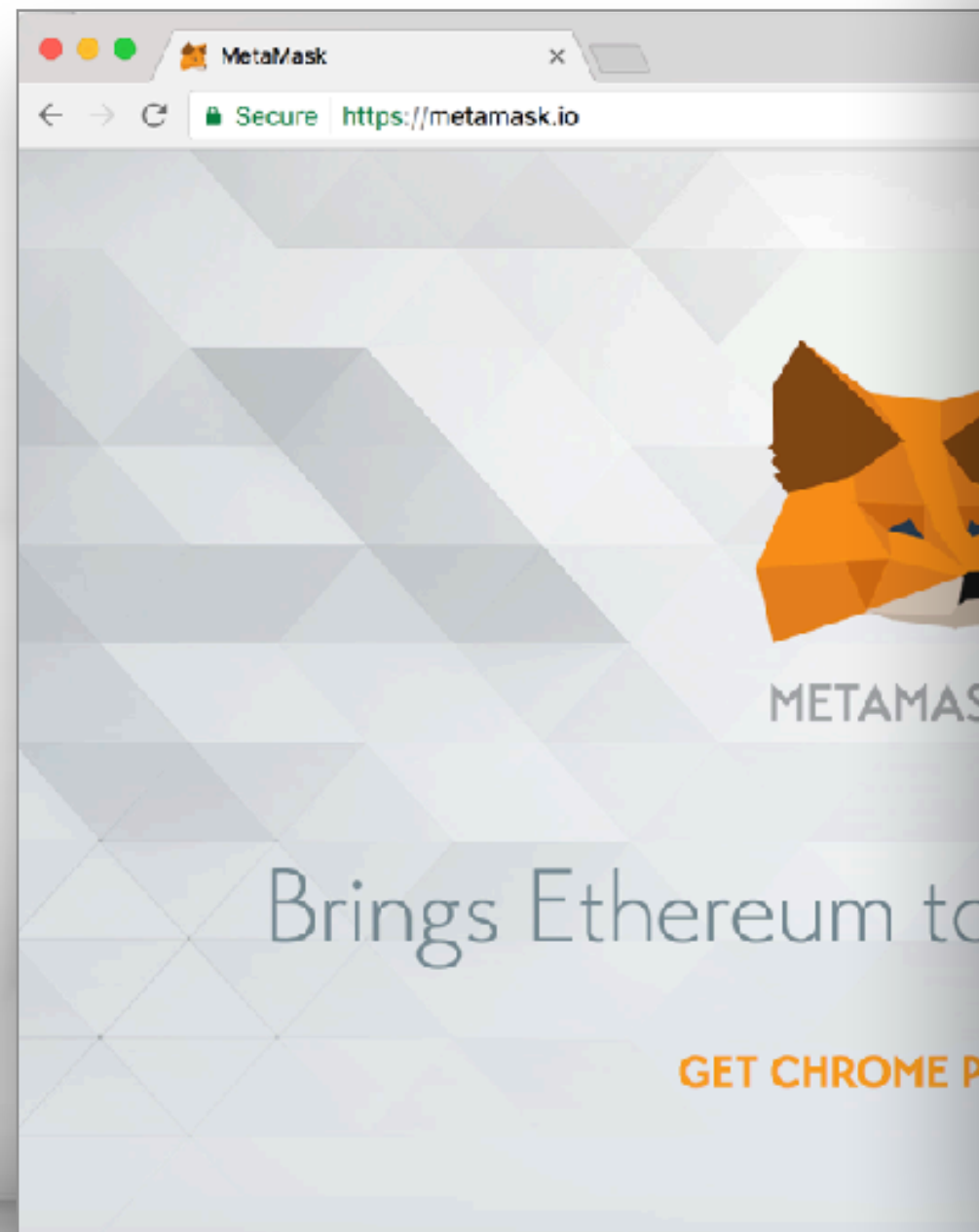


GET CHROME PLUGIN ►



Copy your 12 words mnemonic seed (master private key)

Select Rinkeby Testnet

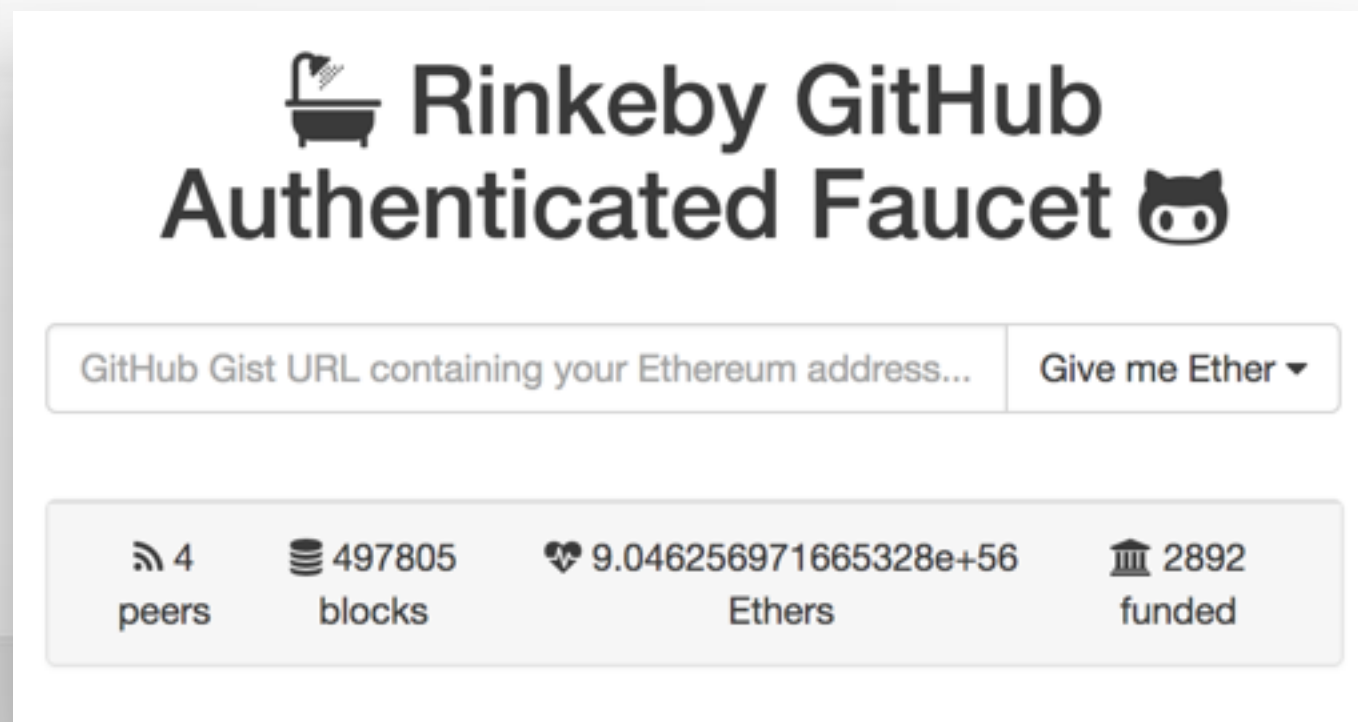


2. Get Test Ethers from Faucet

Get Ethers so you can pay for Gas to create and run your Ethereum Token smart contract

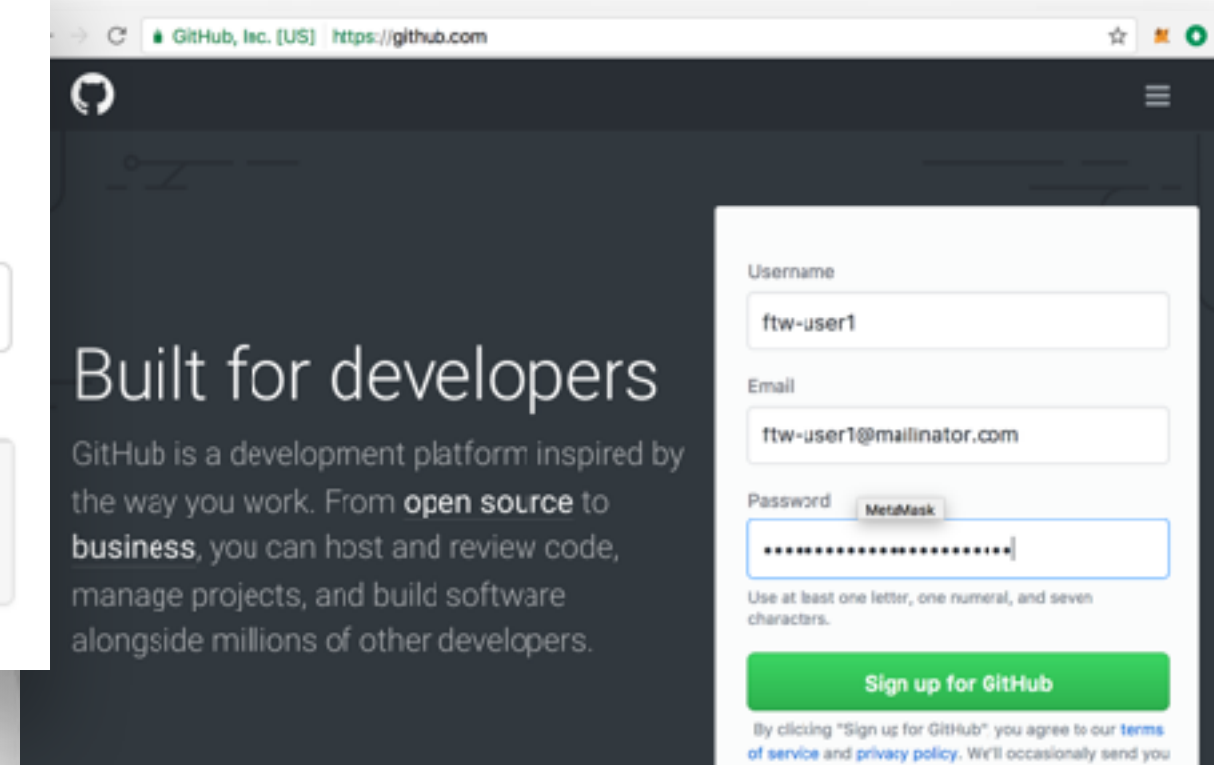
TIP: The smallest Ethereum unit is the **WEI**

faucet.rinkeby.io



The screenshot shows the 'Rinkeby GitHub Authenticated Faucet' interface. At the top, there's a title with a faucet icon and the GitHub logo. Below the title is a text input field labeled 'GitHub Gist URL containing your Ethereum address...' and a button labeled 'Give me Ether'. At the bottom, there's a summary bar with four metrics: 4 peers, 497805 blocks, 9.046256971665328e+56 Ethers, and 2892 funded.

github.com - login or create an account

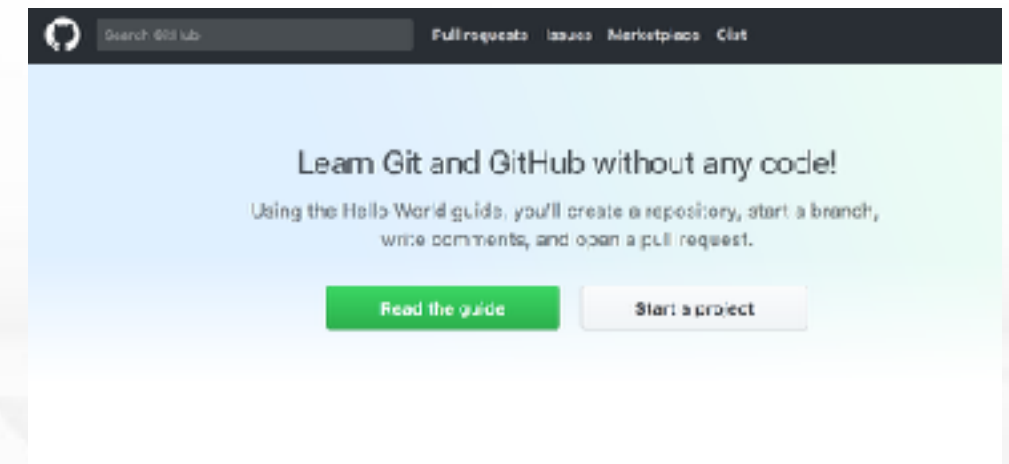
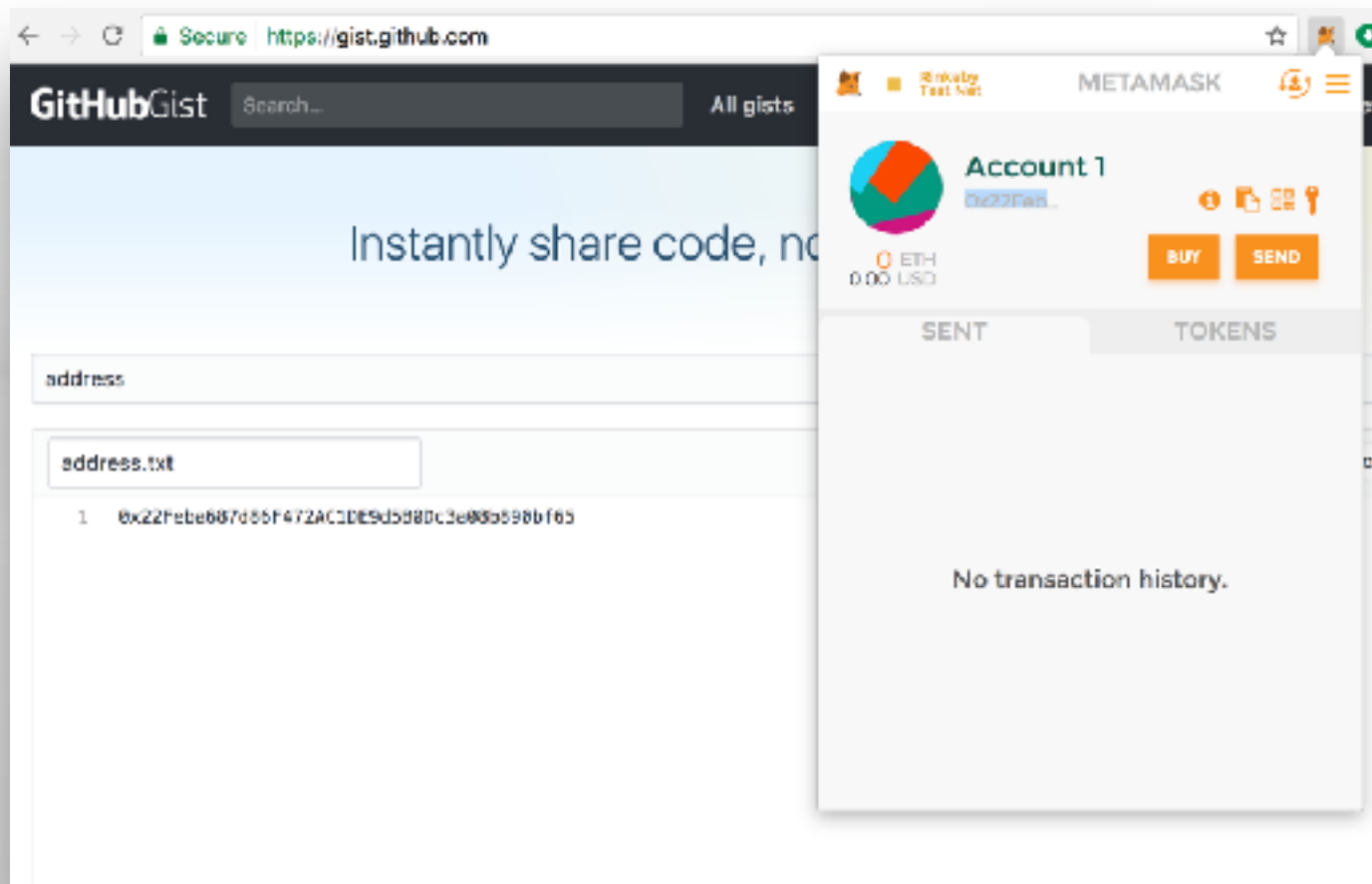


The screenshot shows the GitHub login/signup interface. On the left, there's a dark sidebar with the GitHub logo and the text 'Built for developers'. On the right, there's a white form with fields for 'Username' (filled with 'ftw-user1'), 'Email' (filled with 'ftw-user1@mailinator.com'), and 'Password' (with a 'MetaMask' button and a masked password field). Below the password field is a note: 'Use at least one letter, one numeral, and seven characters.' At the bottom of the form is a green button labeled 'Sign up for GitHub'.

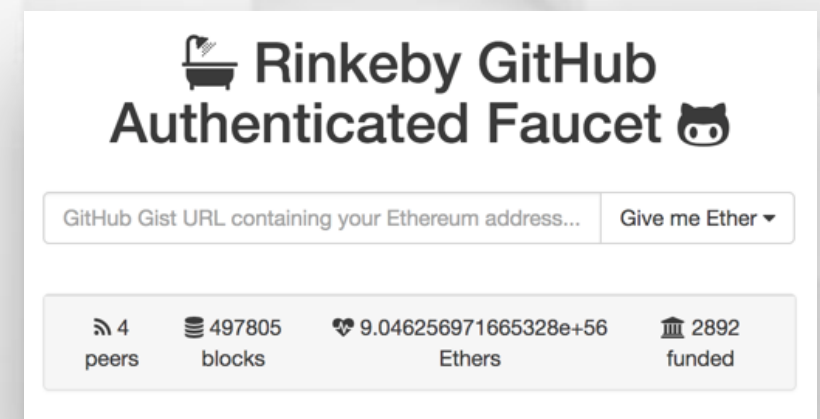
2b. Get Test Ethers from Faucet - GIST



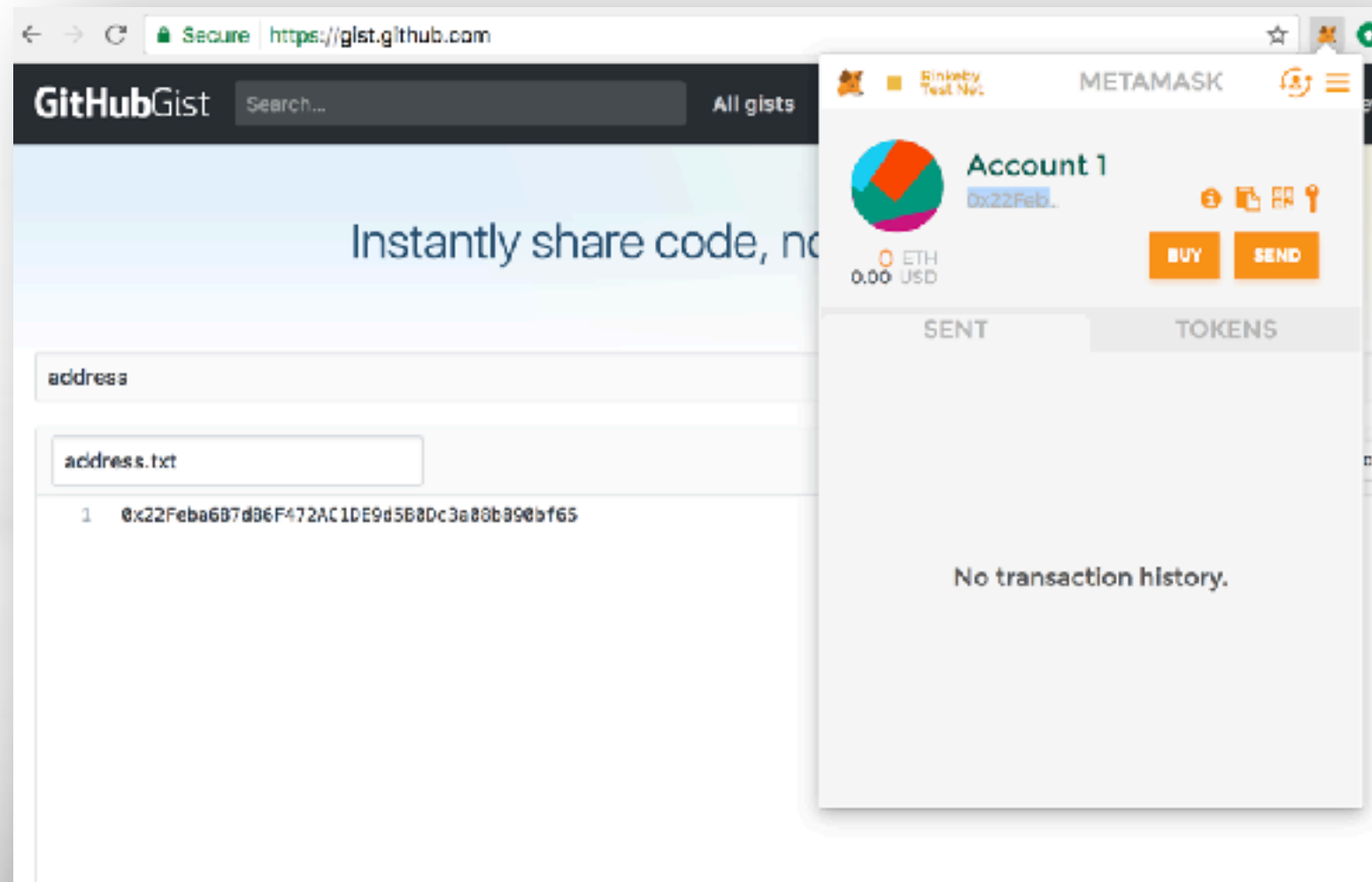
This screen means you
are registered to github



faucet.rinkeby.io



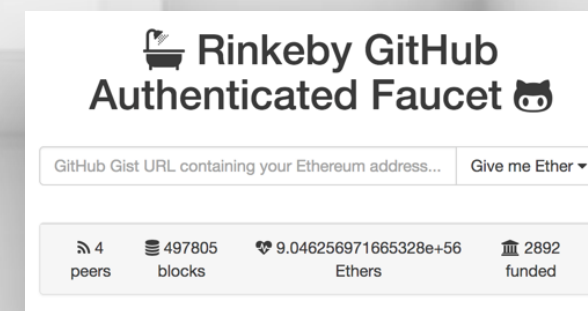
2b. Get Test Ethers from Faucet - github Gist



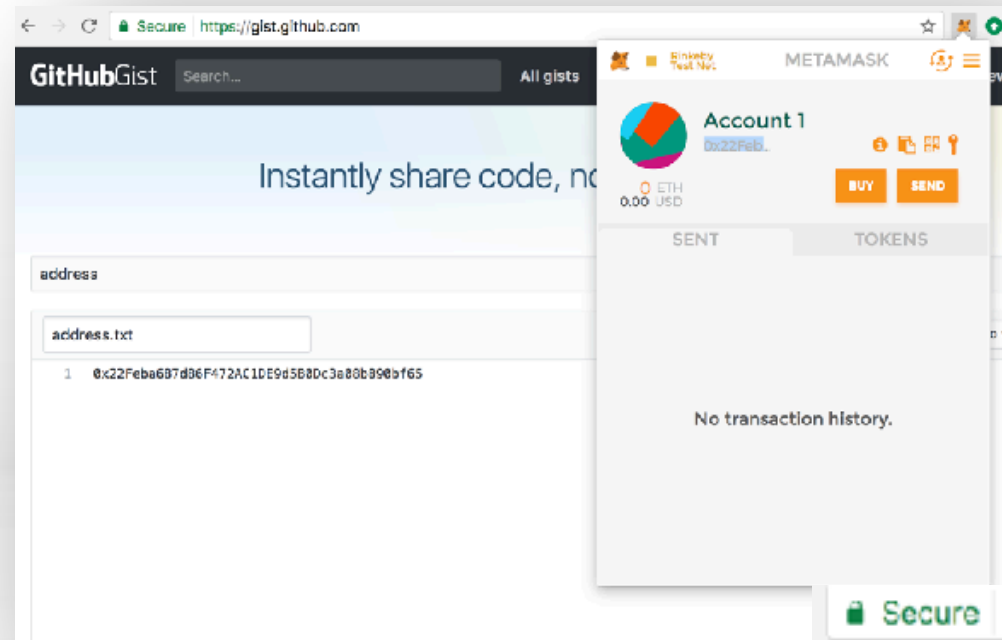
**Paste your metamask wallet address
into a github Gist and save the Gist**

Get the link from your browser

faucet.rinkeby.io



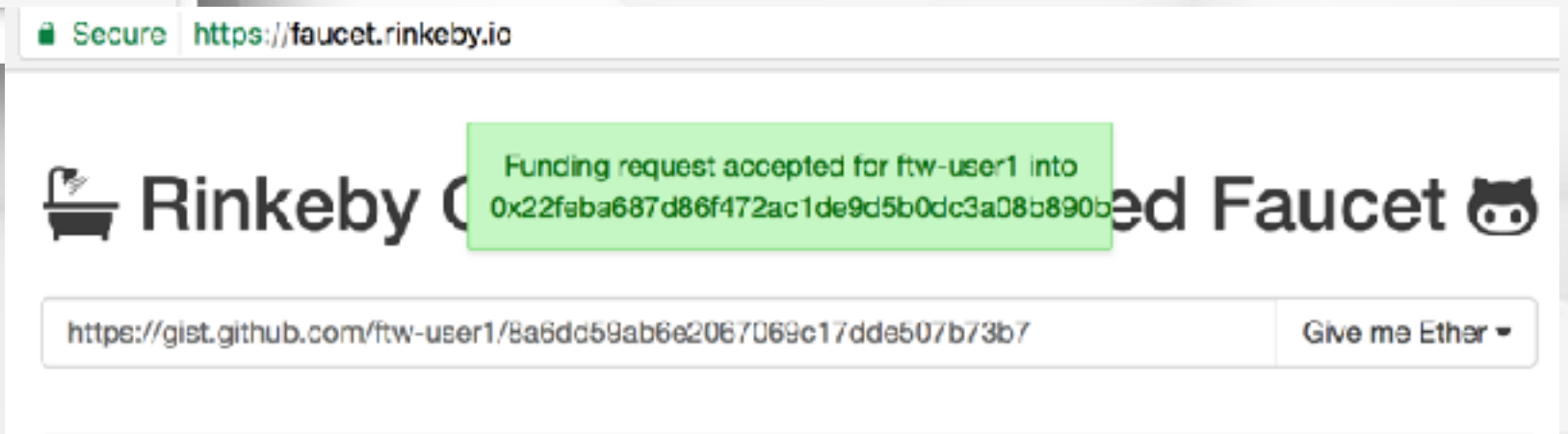
2b. Get Test Ethers from Faucet - github gist



Paste the Github Gist link
into your MetaMask
browser extension wallet



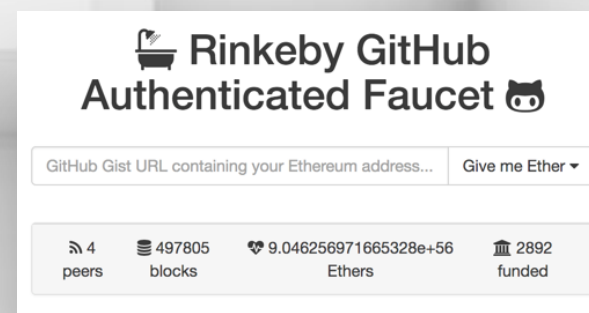
metamask's first account
(ethereum address)
will be the "owner" of the tokens



we are funding that account to have gas to call the
deployment (creation) of the ethereum contract



faucet.rinkeby.io



optional step - level: “advanced”

CUSTOMISE TOKEN CODE

and load ABI+BIN into index.html (at the bottom of the file)

```
// ...

contract FixedSupplyToken is ERC20Interface {
    string public constant symbol = "YT0";
    string public constant name = "Your Token";
    uint8 public constant decimals = 18;
    uint256 _totalSupply = 1000000;

    // Owner of this contract
    address public owner;

    // Balances for each account
    mapping(address => uint256) balances;

    // .....
```

3. open the Demo App (index.html)

ERC20 Playground

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Steps:

1. Visit [Faucet](#) and get test ETHs

2.

3.

note this is the final state

Data:

Balance: **18573706100000000000** wei

Deployed contract address: **0x48edaa6fd7d7577be6c44383c2be1d51dd9f9db3**

Token balance: **999900** FWT

3. inside the Demo App (index.html)

Steps:

1. Visit [Faucet](#) and get test ETHs
2.
3.

Data:

Balance: 0 wei

Deployed contract address: 0x...

Token balance: ...

initial state
before faucet

0 ethers balance
(0 weis)

use the Demo App

Steps:

1. Visit [Faucet](#) and get test ETHs

2. Deploy Contract

3. 0x

Send Tokens

Data:

Balance: **1857577698000000000000** wei

balance OK (not 0 wei anymore)

Deployed contract address: 0x

...



use the Demo App

Steps:

1. Visit [Faucet](#) and get test ETHs

2.

3.

Data:

Balance: **18575776980000000000** wei

Contract deployed

+

Custom Token Balance Funded

Deployed contract address: **0x48edaa6fd7d7577be6c44383c2be1d51dd9f9db3**

Token balance: **1000000 FWT**

note: refresh the browser to see the updated token balance



3. open the Demo App (index.html)

ERC20 Playground

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Steps:

1. Visit [Faucet](#) and get test ETHs

2.

3.

At this point you should be able to input **any ethereum address** and **Send Tokens** to it using this page

Data:

Balance: **18573706100000000000** wei

Deployed contract address: **0x48edaa6fd7d7577be6c44383c2be1d51dd9f9db3**

Token balance: **999900** FWT

3. open the Demo App (index.html)

ERC20 Playground

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Steps:

1. Visit [Faucet](#) and get test ETHs

2.

3.

The **Send Tokens** button calls the **transfer()** function on the token contract - check all the function used in this page (**coinbase**, **balanceOf**, **symbol**) and eventually define your custom ones

Data:

Balance: **18573706100000000000** wei

Deployed contract address: **0x48edaa6fd7d7577be6c44383c2be1d51dd9f9db3**

Token balance: **999900** FWT

3. open the Demo App (index.html)

ERC20 Playground

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Steps:

1. Visit [Faucet](#) and get test ETHs

2.

3.

SendTokens sends 100 tokens (fixed amount, modifiable in index.html easily) to another address, if you wait for the confirmation (1 minute) and your balance drops by 100 FTW....

Data:

Balance: **18573706100000000000** wei

Deployed contract address: **0x48edaa6fd7d7577be6c44383c2be1d51dd9f9db3**

Token balance: **999900** FWT

3. open the Demo App (index.html)

ERC20 Playground

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Steps:

1. Visit [Faucet](#) and get test ETHs

2.

3.

YOU HAVE YOUR OWN TOKEN

:D

Data:

Balance: **18573706100000000000** wei

Deployed contract address: **0x48edaa6fd7d7577be6c44383c2be1d51dd9f9db3**

Token balance: **999900** FWT

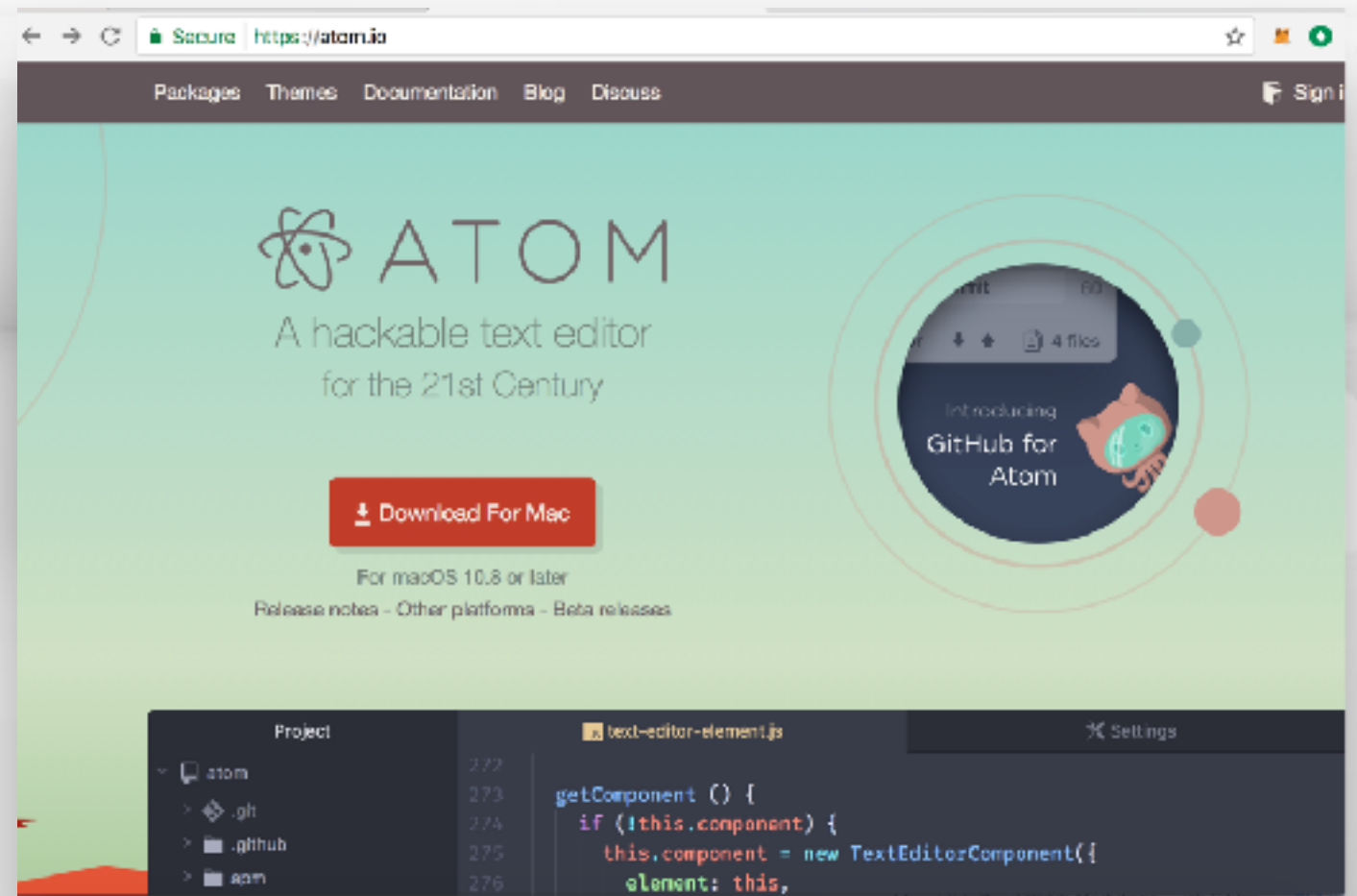
now you “only” need to do the rest :D

**please find @makevoid
and ask him questions on the index.html code
today (Saturday)**

HAVE FUN!

Start by downloading the github repository as ZIP
and by opening the **index.html** file in google
chrome and in any text editor to begin testing and
creating your app

Install Atom if you don't have a text editor yet



<http://bit.ly/token17>