使用 Windows 的同学

- Node https://nodejs.org/en/
- Git https://git-scm.com/download/win
- Python https://www.python.org/downloads/release/python-2715/
- Truffle https://github.com/trufflesuite/truffle

最后走一次 npm install --global --production windows-build-tools

安装 Visual Studio Code, solidity extension 与 material icon theme 之后课堂再安装 web3 与 hdwallet

- a. npm install truffle-hdwallet-provider
- b. npm install web3@1.0.0-beta.37

Mnemonic converter https://iancoleman.io/bip39/

Steps:

- 1. In your truffle working directory (MSFTCoin for example) **npm install openzeppelin-solidity**
- 2. Add MSFTCoin.sol in contracts folder

```
pragma solidity ^0.5.0;
import "openzeppelin-solidity/contracts/token/ERC20/ERC20.sol";
import "openzeppelin-solidity/contracts/token/ERC20/ERC20Detailed.sol";
import "openzeppelin-solidity/contracts/token/ERC20/ERC20Mintable.sol";
import "openzeppelin-solidity/contracts/token/ERC20/ERC20Burnable.sol";
import 'zeppelin-solidity/contracts/token/ERC20/StandardToken.sol';
contract MSFTCoin is ERC20, ERC20Detailed, ERC20Mintable, ERC20Burnable {
    string private _name = "MSFTCoin";
    string private _symbol = "MFC";
    uint8 private _decimals = 2;
    constructor(
        ERC20Burnable()
        ERC20Mintable()
        ERC20Detailed(_name, _symbol, _decimals)
        ERC20()
    {}
```

3. Add 2_deploy_msftcoin.js in migration folder

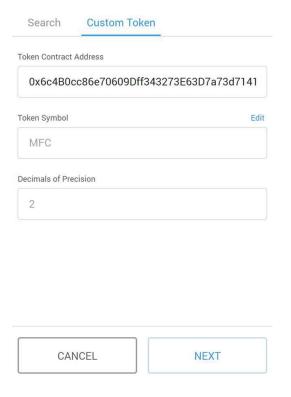
```
const MSFTCoin = artifacts.require("MSFTCoin");
module.exports = function(deployer) {
   deployer.deploy(MSFTCoin);
};
```

4. **Truffle compile** then **truffle migrate --network westlake**Copy the contract address for MetaMask to add token later

```
3_deploy_msftcoin.js
  Replacing 'MSFTCoin'
  > transaction hash:
                         0x06ad8a9246ae3bc2738216ce5e6b6de82425eb985fe94cdf1bdf83d8feb7b5b8
  > Blocks: 3
                         Seconds: 18
  > contract address:
                         0x6c4B0cc86e70609Dff343273E63D7a73d714125E
  > account:
                         0xe1eD86D4B82afE5c7ec3F0FF2A2919eC5E9eEA4f
  > balance:
  > gas used:
                         2158767
  > gas price:
                         0 gwei
    value sent:
                         0 ETH
   > total cost:
                         0 ETH
```

5. Click **Add Token** on the bottom left of MetaMask, paste the contract address and Token Symbol should show up automatically.

Add Tokens



6. Print (**Mint**) money for yourself and should see the value from MetaMask once the transaction is confirmed. You can start to transfer token to other address. truffle console --network Westlake

>networks

>var myCoin = await MSFTCoin.deployed()

>myCoin.mint("metamask_address", 1234500)

