Options
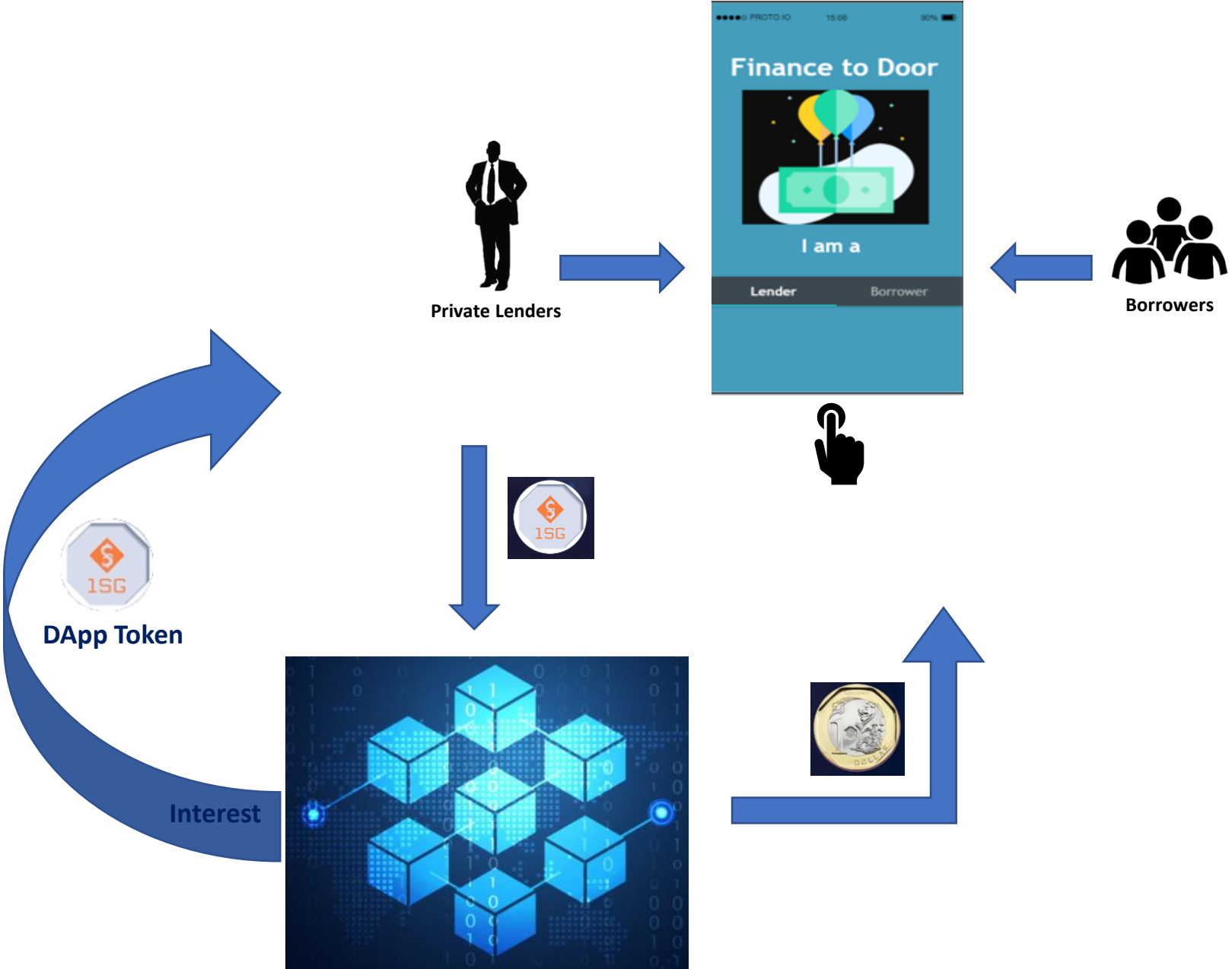
- Convert the Pet Shop (Lab 5) into an e-commerce website (to accept ETH / token into transactions)
- ✓ Totally different implementations, with DAPP (web-based) and smart contract involving sending transactions and reading the state of the contracts

95 How might we boost financial inclusion for low to medium income families through comprehensive solutions (e.g., micro-finance, micro-payments, micro-pension, micro-insurance, micro-savings and micro-investment) that enable them to be have better access to financial services?

1 1SG = $1 SGD

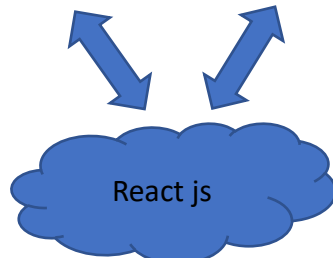https://1.sg/

Private Lenders

Borrowers

Finance to Door

I am a

Lender   Borrower

DApp Token

Interest

Demo
+
Disclosure

Private Lenders

1SG   **DApp Token**

React js

web3js

DApp Token Farm

TokenFarm.sol

1SGToken.sol
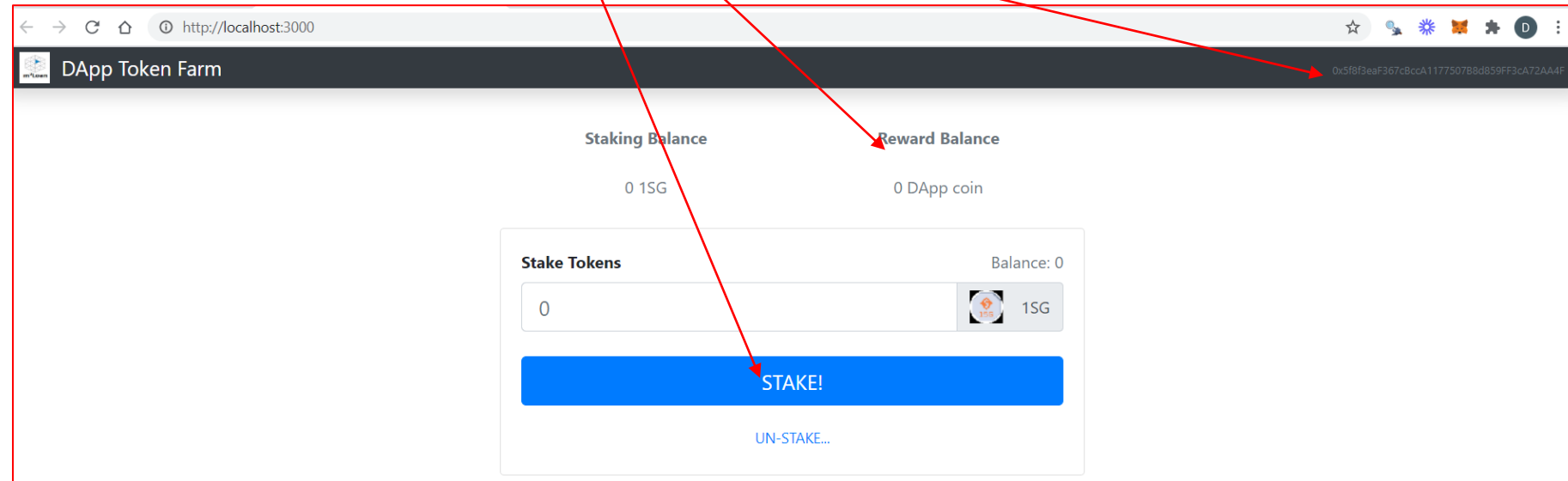**DAppToken.sol**

Ganache

DAppToken.sol & 1SGToken.sol

- event Transfer(address indexed _from, address indexed _to, uint256 _value
- event Approval(address indexed _owner, address indexed _spender, uint256 _value);

- function transfer(address _to, uint256 _value) public returns (bool success)
- function approve(address _spender, uint256 _value) public returns (bool success)
- function transferFrom(address _from, address _to, uint256 _value) public returns (bool success)

TokenFarm.sol

- function stakeTokens(uint _amount) public
- function unstakeTokens() public
- function issueTokens() public

React JS

- Main.js
- Navbar.js
- App.js

http://localhost:3000

DApp Token Farm

0x5f8f3eaF367cBccA1177507B8d859FF3cA72AA4F

Staking Balance   **Reward Balance**

0 1SG   0 DApp coin

Stake Tokens   Balance: 0

0   1SG

STAKE!

UN-STAKE...

References …

1. Main
- https://docs.soliditylang.org/en/v0.7.5/contracts.html
- https://web3js.readthedocs.io/en/v1.3.0/
- https://eips.ethereum.org/EIPS/eip-20
- https://reactjs.org/

2. Others
- https://medium.com/metamask/https-medium-com-metamask-breaking-change-injecting-web3-7722797916a8
- GitHub
- StackOverflow

3. Videos & Website …
- DappUniversity/Bootcamp (React js, Smart Contract)
- Eat The Block (Openzeppelin, Truffle, Ganache, Web3, Smart Contract)
- Will It Scale (Solidity for Beginner)
- Shlomi Zeltsinger (Truffle)
- Filip Martinsson (Truffle & Web3)
- Tutorialslum (DApp for Beginner)
- Giveth (DApp Step by Step)

Demo steps ..
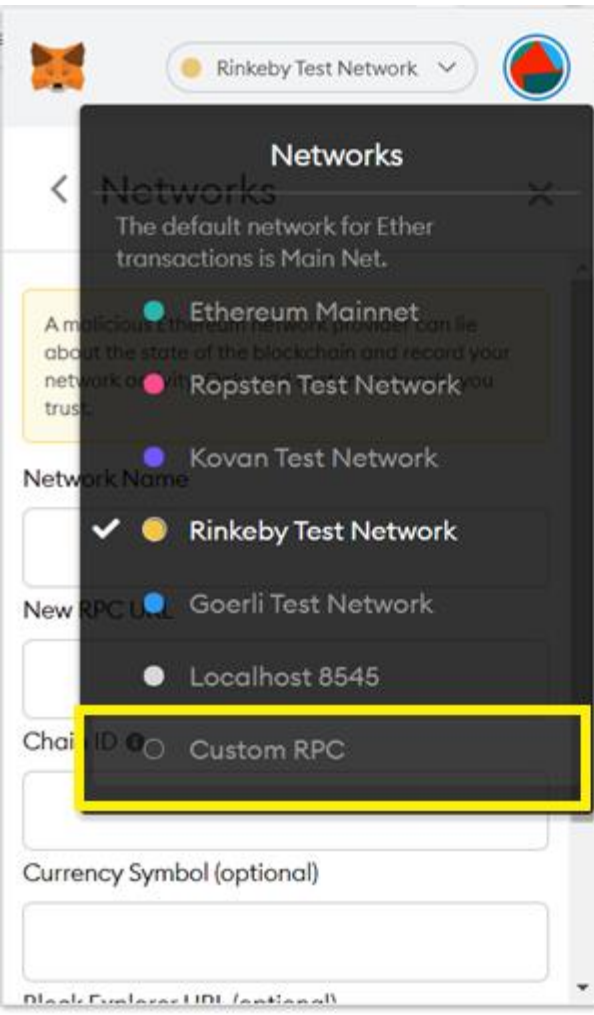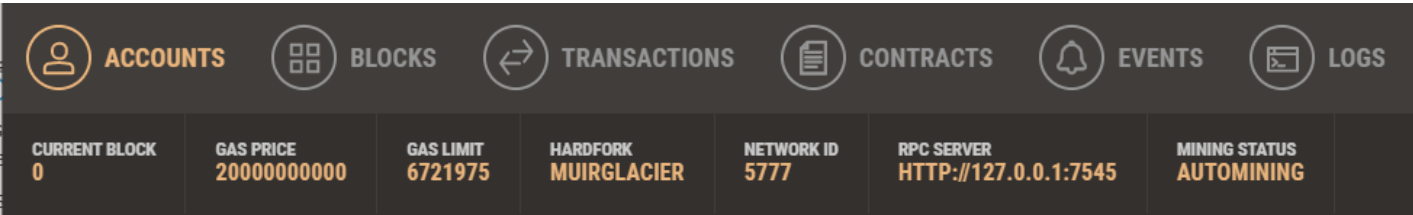
Compile:

- In VSCode, run Terminal
  - Truffle compile

Deploy:

- In Windows, run ganache

- In VSCode, run Terminal
  - Truffle migrate --reset
  - nmp run start

- Goto Metamask login and select account

- Goto website and stake

- In VSCode, run another Terminal
  - Truffle exec scripts/issue-token.js

- Goto website to confirm payout & unstake

Test:

- Truffle test

Metamask setup