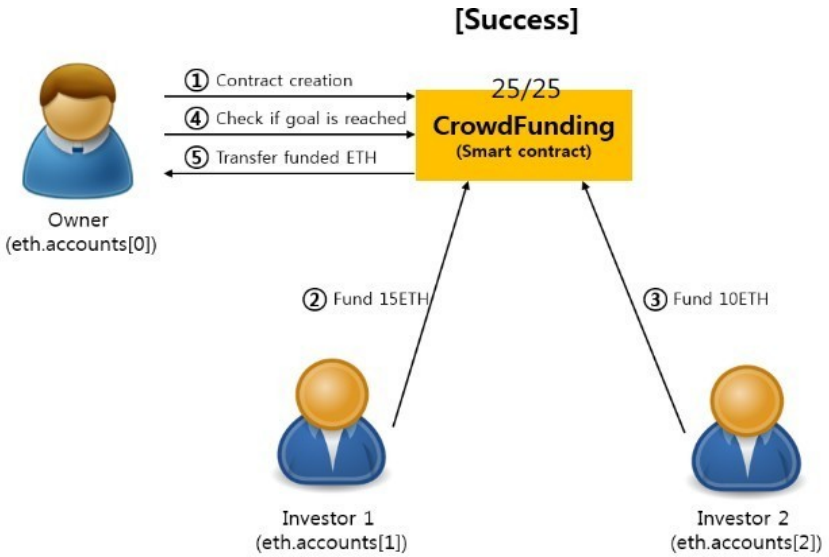
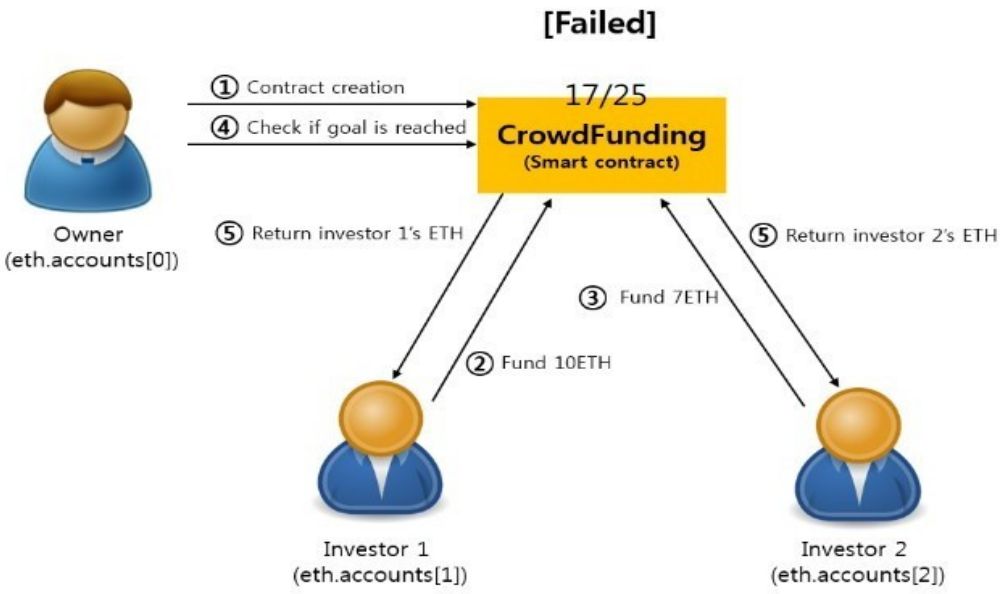
Lab Assignment 2

1) Create a smart contract for Crowdfunding smartcontact

Crowdfunding smart contact creates contracts for fundraising purposes only and collects ETH. An investor can invest in a way that creates a transaction that sends an investor to this contract. The contract sets up the deadline and target amount for the fundraising activities and remits the collected ETH to the owner of the contract when the target value is achieved at the closing date. If the target value is not achieved, return ETH to the investor.

There are two scenarios,Success and Failed of funding.





1) Prepare three accounts for testing your contract.(Account1:Owner,Account2:Investor1, Account3:Investor2)

2) Complete CrowdFunding smartcontract and save it as“CrowdFunding.sol”.

3) Compile the code

4) Send transaction to create the contract,on account1(owner).(When creating the contract,set _duration to 300(5min) and _goalAmount(target amount) to 25ETH)

5)Check deadline and end state.

<<<<<Caseofsuccessfulfund>>>>>

6) Send transaction to execute fund() function in other to fund 15ETH and 10ETH from Investor 1and Investor2 respectively,on account2 and 3.

7) Check investment of Investor1,2.

8) Check total investment of the contract and balance of contract account.

9) Check owner’s balance(Account1)

10) Send transaction to execute check GoalReached() function to check the fundraising results(Do it after the deadline!!!)

11) Check deadline and end state.

12)Check balance of contract account and owner.

<<<<<Caseoffailed fund>>>>>

13) Follow steps from 4to 5.

14) Send transaction to execute fund() function in other to fund 10ETH and 7ETH from Investor 1 and Investor2 respectively,on account2 and 3.

15) Check investment of Investor1,2.

16) Check total investment of the contract and balance of contract account.

17) Check balance of Investor1,2 and owner.

18) Send transaction to execute check GoalReached() function to check the fundraising results(Do it after the deadline!!!)

19) Check deadline and end state.

20)Check balance of contract account.

21)Check balance of Investor1,2 and owner.

1. **Use meta mask as well as GANACHE Truffle Suite to Deploy a Smart Contract in Solidity**
2. **Screenshots of outputs need to be submitted along with the code.**

2) CryptoFlight and its smart contract

The core idea with CryptoFlight is to provide a way for airlines to sell remaining tickets for a price as good as possible and for travelers to get left-over tickets as cheap as possible. An airline posts an offer with a departure and destination as well as their minimum acceptable bid. The travelers can list all available flights and make make sure that all deployed contracts actually uses your code.

we will have a separate factory-contract. This contract is responsible for holding a list of deployed contracts as well as acting as a creator of new contracts.

1. **Use meta mask as well as GANACHE Truffle Suite to Deploy a Smart Contract in Solidity**
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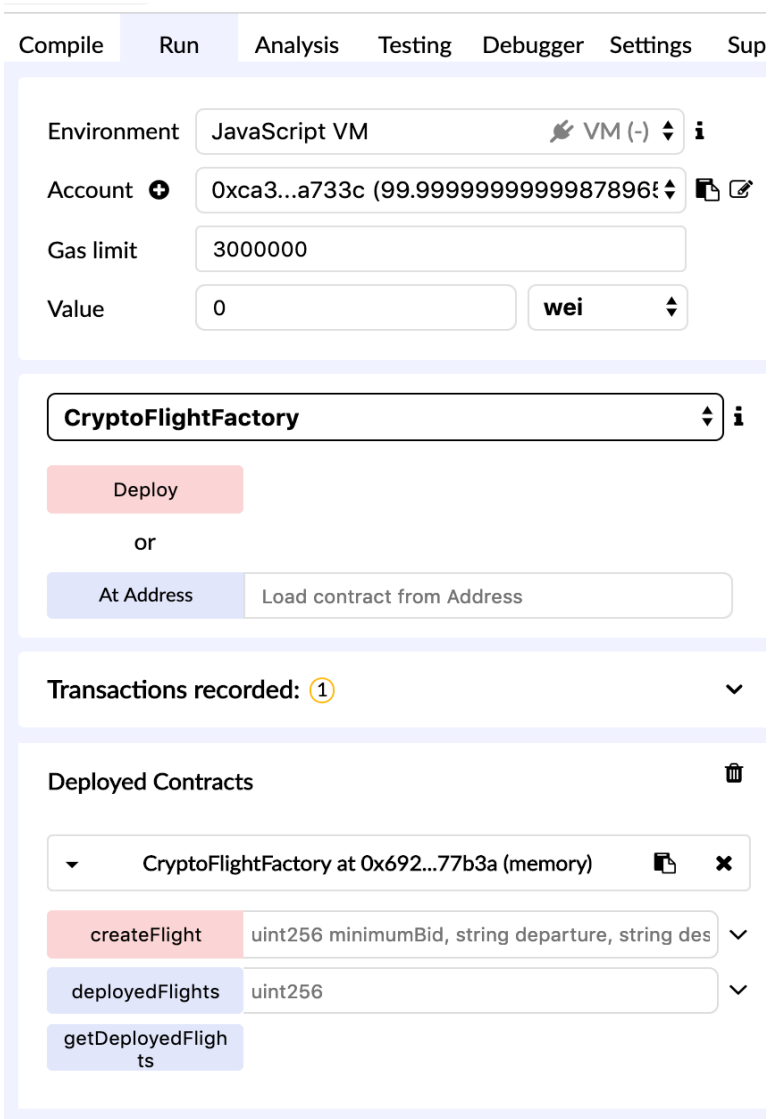

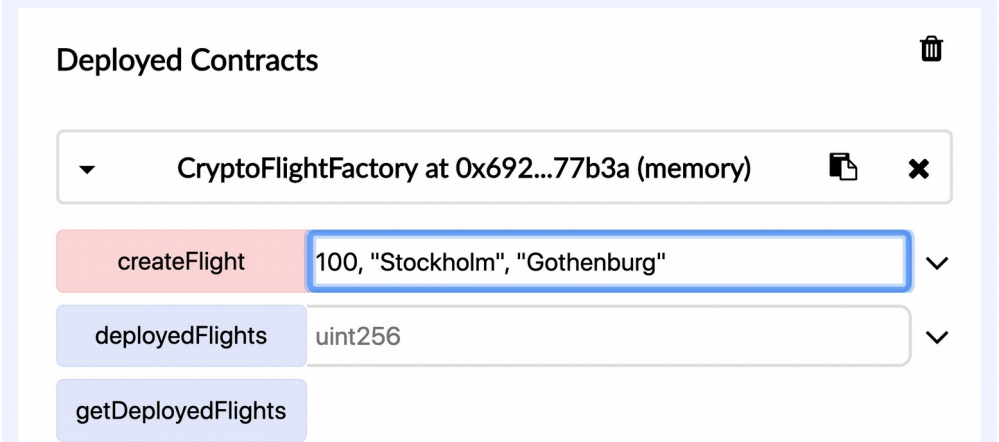

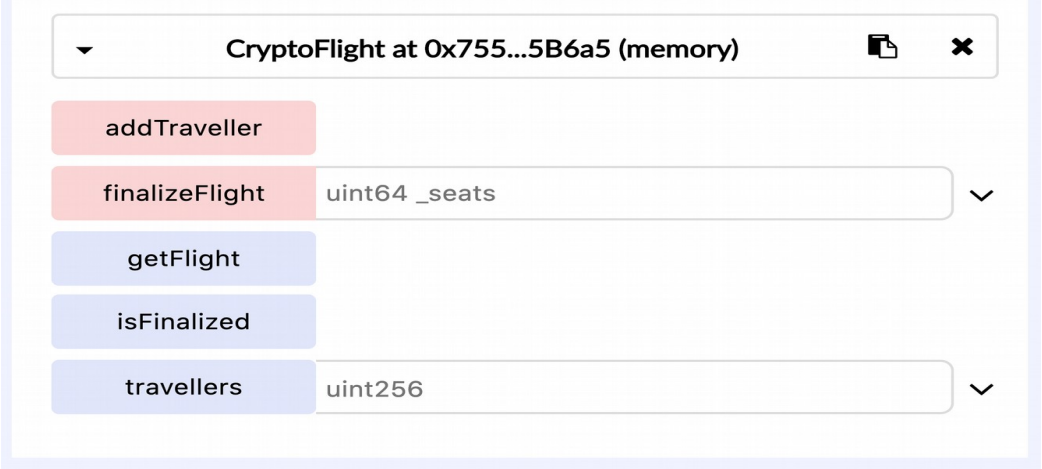
CryptoFlight at 0x755...5B6a5 (memory)
addTraveller
finalizeFlight
uint64 _seats
getFlight
isFinalized
travellers
uint256