IT465: Cryptocurrencies and Blockchain Technologies
Lab Assignment 1

Name: Chinmayi C. Ramakrishna **Date:** 28.09.2021
Roll No.: 181IT113

---

1) **A basic Ethereum smart contract for very simple cell phone contract between a cell company and a subscriber.**

   Contract details:

   costPerMonth is initialised during deployment.

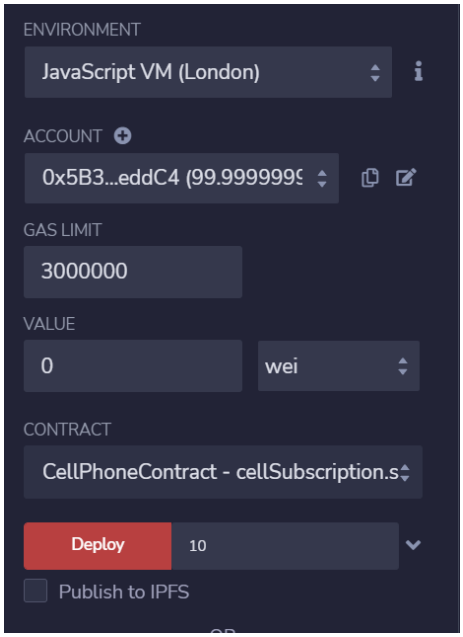
   depositBalance(): the subscriber pays a monthly fee in ether to the contract

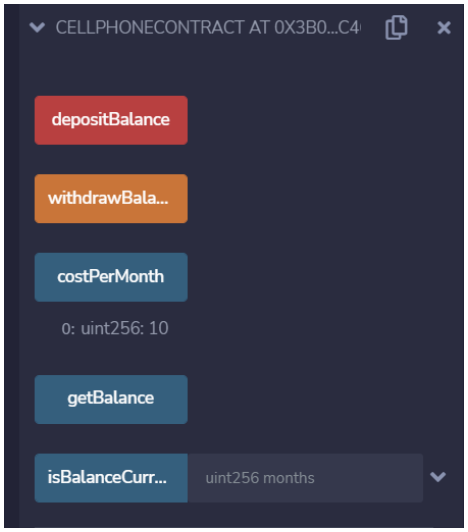
   withdrawBalance(): Ability to withdraw funds from the contract so they can be transferred to the company's own accounts

   getBalance(): returns the balance of the contract

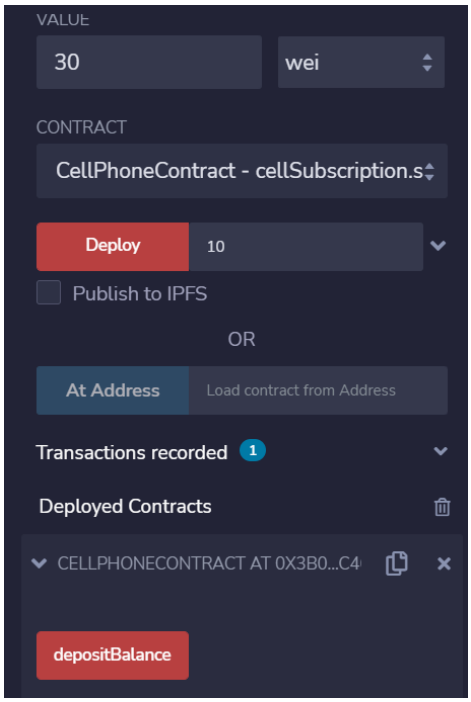
   isBalanceCurrent(uint256 months): allows the cell phone company to check the status of the account on a given date

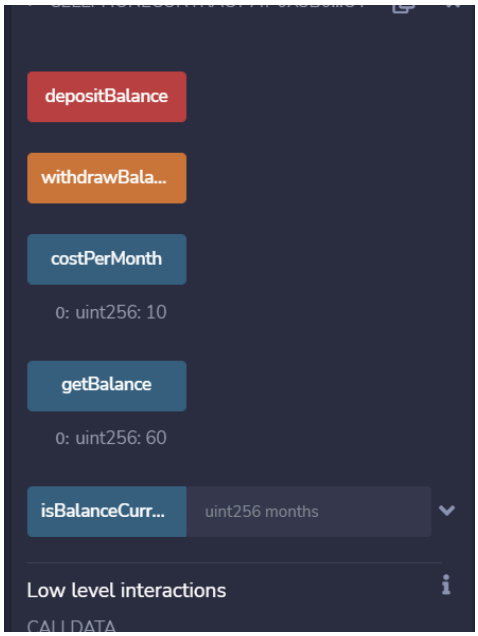
   The contract is deployed with an initial cost of 10 wei.



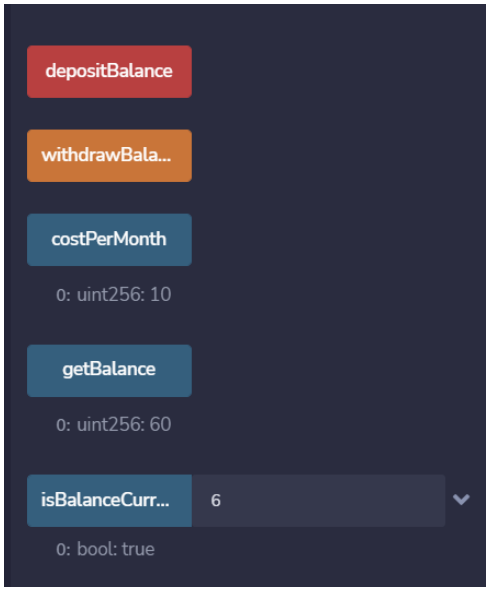


Then, 60 wei is deposited to the contract and can be seen below in the getBalance function.

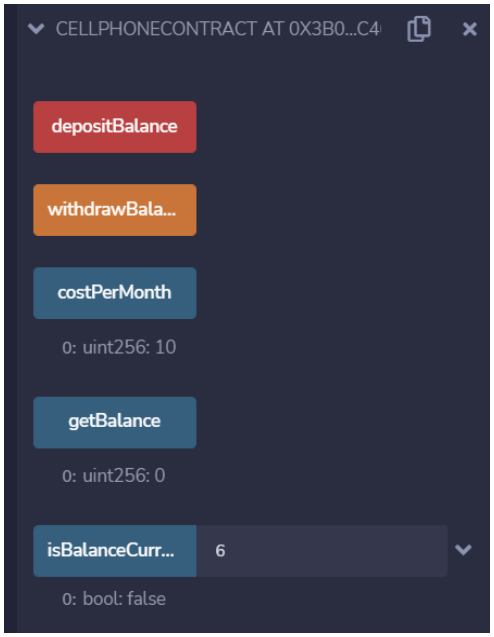




Before withdrawing

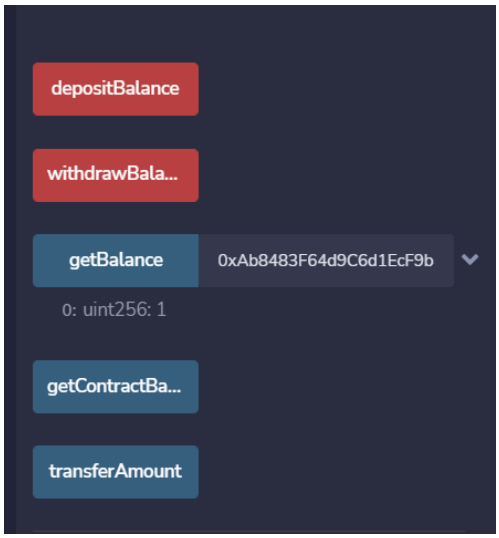


After withdrawing, the balance becomes 0.

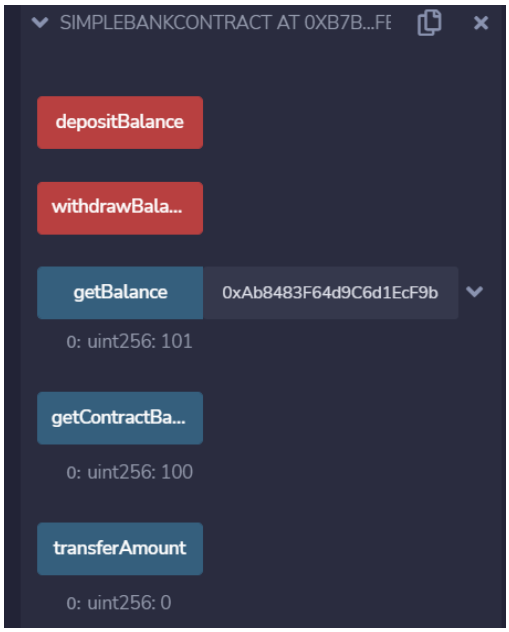


2) **A Simple Bank smart contract code in Solidity programming language.**

getContractBalance(): returns balance in the contract
depositBalance(): deposits a specified amount to the contract
getBalance(address userAddress): returns balance in the user address
withdrawBalance(): withdraws the amount from the contract and transfers sender account.
The initial balance in the user address is 1 wei.



After depositing 100 wei.



After withdrawing from the account.