

Practical 3

Practical -

Write a smart contract on a test network, for Bank account of a customer for following operations:

1. Deposit money
2. Withdraw Money
3. Show balance

Code -

Writing Smart Contract on Solidity Remix Editor

```
pragma solidity 0.5.1;
```

```
contract Customer{
    uint public balance = 0;
    string public account_holder = "sanket";
    uint public account_number = 123456789;

    event Increment(uint value);
    event Decrement(uint value);

    //writing function for adding Balance to Account
    function Credit_Balance(uint _balance) public{
        balance += _balance;
    }

    function Debit_Balance(uint _balance) public{
        balance -= _balance;
    }

    function show_balance()view public returns(uint){
        return balance;
    }
}
```

Code -

```
1  pragma solidity 0.5.1;
2
3  contract Customer{
4      uint public balance = 0;
5      string public account_holder = "sanket";
6      uint public account_number = 123456789;
7
8      event Increment(uint value);
9      event Decrement(uint value);
10
11     //writing function for adding Balance to Account
12     function Credit_Balance(uint _balance) public{
13         balance += _balance;
14     }
15
16     function Debit_Balance(uint _balance) public{
17         balance -= _balance;
18     }
19
20     function show_balance()view public returns(uint){
21         return balance;
22     }
23 }
```

Compile -

The screenshot displays the Solidity Compiler interface. On the left, the 'SOLIDITY COMPILER' sidebar is visible, showing the compiler version '0.5.1+commitc8a2cb62' and options for 'Auto compile' and 'Hide warnings'. Below these are buttons for 'Compile Bank.sol', 'Compile and Run script', and 'Publish on Ipfs' and 'Publish on Swarm'. The 'CONTRACT' section shows 'Customer (Bank.sol)' selected. At the bottom of the sidebar are links for 'ABI' and 'Bytecode'. The main editor area on the right shows the Solidity code for 'Bank.sol', which is identical to the code in the previous block. Below the code editor, the 'Debug' console is active, showing a transaction call: 'call to Customer.show_balance' and a detailed log entry: '[call] from: 0x5B38Da6a701c568545dCfcB03FcB875f56beddC4 to: Customer.show_balance() data: 0x946...d0149'.

Deploy & Run -

DEPLOY & RUN
TRANSACTIONS

Customer - contracts/Bank.sol

Deploy

☐ Publish to IPFS

OR

At Address

Load contract from Address

Transactions recorded 3 ⓘ

Deployed Contracts

CUSTOMER AT 0XD91...39138 (ME)

Balance: 0 ETH

Credit_Bal... 12

Debit_Bal... 1

account_h...

account_n...

balance

show_bala...

0. uint256: 11

Low level interactions

CALLDATA

Transact

Home SimpleStorage.sol Bank.sol

```
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3 contract Customer{
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12     function Credit_Balance(uint _balance) public{
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16     function Debit_Balance(uint _balance) public{
17         balance -= _balance;
18     }
19
20     function show_balance()view public returns(uint){
21         return balance;
22     }
23
24 }
```

listen on all transactions

Search with transaction hash or address

call to Customer.show_balance

call [call] from: 0x5B38Da6a701c56854dCfcb03FcB875f56beddC4 to: Customer.show_balance() data: 0x946...d0149

Debug