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**Subject : -** Blockchain Technology

**Assignment 3 :-** Write a smart contract on a test network, for Bank account of a customer for following operations. Deposit Money Withdraw Money Show balance.

Program:-

```
pragma solidity ^0.8.0;

contract Bank_Account

{
    address payable private account_owner;

    constructor()
    {
        account_owner = payable(msg.sender);
    }

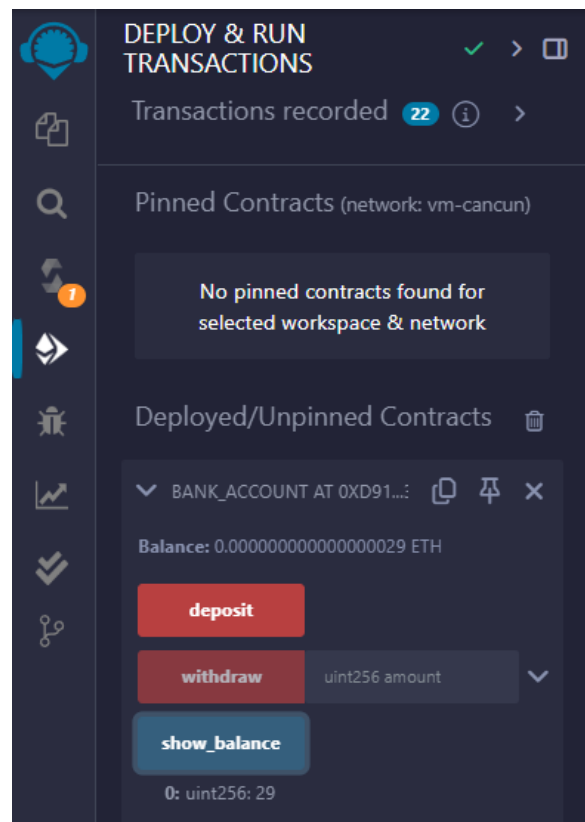
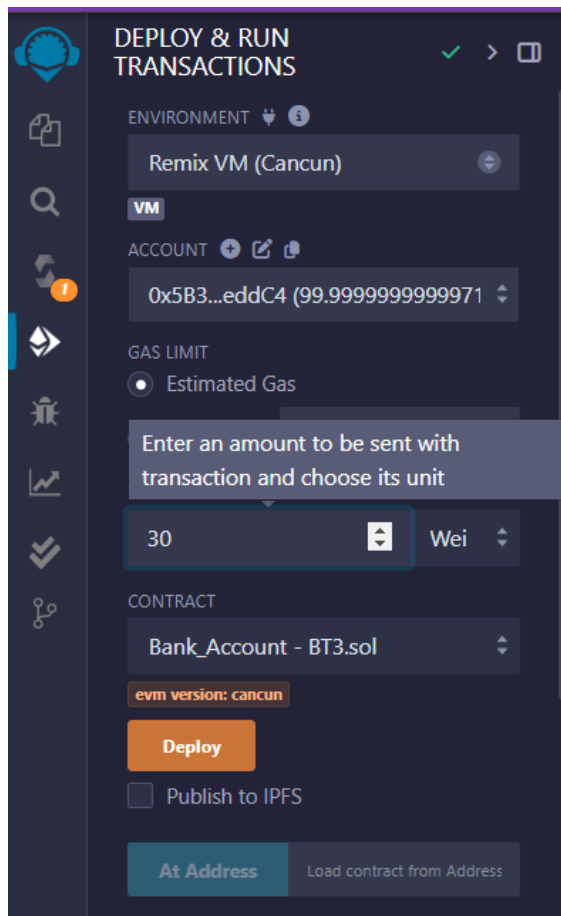
    function deposit() public payable
    {
    }

    function withdraw(uint amount) public payable
    {
        require(msg.sender == account_owner);
        account_owner.transfer(amount);
    }

    function show_balance() public view returns(uint) // View = read-only
    {
        return address(this).balance; //Amount stored in the contract
    }
}
```

## Output:

Deploy the compiled contract, enter the value to be transferred to it and click on the Deposit button. Verify that the amount has been transferred to the contract and deducted from your account.



Enter the amount to be withdrawn from the contract, in the textbox and click Withdraw. Verify the change in your account's balance. (in wei)

The screenshot shows the 'DEPLOY & RUN TRANSACTIONS' window. At the top, the contract 'Bank\_Account - BT3.sol' is selected with 'evm version: cancun'. Below this is a 'Deploy' button and a checkbox for 'Publish to IPFS'. A section labeled 'At Address' contains a button 'Load contract from Address'. The 'Transactions recorded' section shows 22 transactions. The 'Pinned Contracts (network: vm-cancun)' section states 'No pinned contracts found for selected workspace & network'. The 'Deployed/Unpinned Contracts' section shows a contract 'BANK\_ACCOUNT AT 0XD91...' with a balance of '0.0000000000000000029 ETH'. Below the balance are three buttons: 'deposit', 'withdraw', and 'show\_balance'. The 'withdraw' button is active, and a text input field next to it contains the value '20'. At the bottom, the text '0: uint256: 29' is displayed.

The screenshot shows the same 'DEPLOY & RUN TRANSACTIONS' window after a transaction. The 'Transactions recorded' section now shows 23 transactions. The 'Balance' for the contract 'BANK\_ACCOUNT AT 0XD91...' has decreased to '0.0000000000000000009 ETH'. The 'withdraw' button remains active, and the text input field next to it now contains the value '20'. At the bottom, the text '0: uint256: 9' is displayed, indicating the updated balance.