

## ASSIGNMENT – 13

### INPUT –

```
// SPDX-License-Identifier: Unlicensed

pragma solidity ^0.8.27;

contract MyBank
{
    mapping(address=> uint ) private _balances;

    address public owner;

    event LogDepositMade(address accountHolder, uint amount );

    constructor ()
    {
        owner=msg.sender;

        emit LogDepositMade(msg.sender, 1000);
    }

    function deposit() public payable returns (uint)
    {
        require ((_balances[msg.sender] + msg.value) > _balances[msg.sender] && msg.sender!=address(0));

        _balances[msg.sender] += msg.value;

        emit LogDepositMade(msg.sender , msg.value);

        return _balances[msg.sender];
    }

    function withdraw (uint withdrawAmount) public returns (uint)
    {
        require (_balances[msg.sender] >= withdrawAmount);

        require(msg.sender!=address(0));

        require (_balances[msg.sender] > 0);

        _balances[msg.sender]-= withdrawAmount;

        payable(msg.sender).transfer(withdrawAmount);

        emit LogDepositMade(msg.sender , withdrawAmount);

        return _balances[msg.sender];
    }

    function viewBalance() public view returns (uint)
    {
        return _balances[msg.sender];
    }
}
```

```
}  
  
}
```

OUTPUT –

The screenshot shows the Remix IDE interface. On the left, the 'SOLIDITY COMPILER' panel is active, displaying version '0.8.27+commit.40a35a09'. Below the version, there are checkboxes for 'Include nightly builds', 'Auto compile', and 'Hide warnings'. A 'Compile MyBank.sol' button is visible. The 'CONTRACT' section shows 'MyBank (MyBank.sol)' selected. Below this, there are buttons for 'Run Remix Analysis', 'Run SolidityScan', and 'Publish on IPFS'. The main editor displays the Solidity code for 'MyBank.sol'. The code includes a pragma statement for Solidity 0.8.27, a contract definition for 'MyBank', a constructor that sets the owner and emits a 'LogDepositMade' event, a 'deposit' function that updates the balance and emits the event, and a 'withdraw' function. The bottom status bar shows '33°C Haze' and the date '02-10-2024'.

The screenshot shows the Remix IDE interface with the 'DEPLOY & RUN TRANSACTIONS' panel on the left. The 'ENVIRONMENT' section shows 'Remix VM (Cancun)'. The 'ACCOUNT' section displays the address '0x5B3...eddC4 (99.99999999999987)'. The 'GAS LIMIT' section has 'Estimated Gas' selected. The 'VALUE' section shows '0' and 'Ether'. The 'CONTRACT' section shows 'MyBank - MyBank.sol' and 'evm version: cancun'. A 'Deploy' button is visible. The main editor displays the same Solidity code as the previous screenshot. The bottom status bar shows '33°C Haze' and the date '02-10-2024'.



MetaMask - Chrome Web Store x Remix - Ethereum IDE x Write a smart contract on a test x +

remix.ethereum.org/#lang=en&optimize=false&runs=200&evmVersion=null&version=soljson-v0.8.27+commit.40a35a09.js

### DEPLOY & RUN TRANSACTIONS

Deployed/Unpinned Contracts

MYBANK AT 0x9D7...B5E99 (v)

Balance: 2 ETH

**deposit**

**withdraw** 30000000000000000000

**owner**

0: address: 0x5B38Da6a701c568545dCfC803Fc875f56beddC4

**viewBalance**

0: uint256: 20000000000000000000

Low level interactions

CALLDATA

Transact

```
1 // SPDX-License-Identifier: Unlicensed
2 pragma solidity ^0.8.27;
3
4 contract MyBank
5 {
6     mapping(address => uint) private _balances;
7     address public owner;
8     event LogDepositMade(address accountHoder, uint amount );
9 }
```

0 ☐ Listen on all transactions

[vm] from: 0x5B3...eddC4 to: MyBank.deposit() 0x9D7...b5E99 value: 5000000000000000000 wei data: 0xa50...ec326 logs: 1 hash: 0xf69...0ce24 **Debug**

call to MyBank.viewBalance

CALL [call] from: 0x5B38Da6a701c568545dCfC803Fc875f56beddC4 to: MyBank.viewBalance() data: 0x3ff...1e05b **Debug**

transact to MyBank.withdraw pending ...

[vm] from: 0x5B3...eddC4 to: MyBank.withdraw(uint256) 0x9D7...b5E99 value: 0 wei data: 0x2e1...c0000 logs: 1 hash: 0x93c...de725 **Debug**

call to MyBank.viewBalance

CALL [call] from: 0x5B38Da6a701c568545dCfC803Fc875f56beddC4 to: MyBank.viewBalance() data: 0x3ff...1e05b **Debug**

Initialize as git repo **Did you know?** You can use the Recorder to record and replay your transactions to any network from the Deploy and Run plugin. RemixAI Copilot (enabled) **Scam Alert**

Type here to search

31°C Haze 06:46 PM 02-10-2024

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remix.ethereum.org/#lang=en&optimize=false&runs=200&evmVersion=null&version=soljson-v0.8.27+commit.40a35a09.js

### DEPLOY & RUN TRANSACTIONS

ENVIRONMENT

Remix VM (Cancun)

VM

ACCOUNT

0x5B3...eddC4 (97.99999999999975)

GAS LIMIT

☒ Estimated Gas

☐ Custom 3000000

VALUE

0 Ether

CONTRACT

MyBank - MyBank.sol

evm version: cancun

**Deploy**

☐ Publish to IPFS

At Address Load contract from Address

```
1 // SPDX-License-Identifier: Unlicensed
2 pragma solidity ^0.8.27;
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4 contract MyBank
5 {
6     mapping(address => uint) private _balances;
7     address public owner;
8     event LogDepositMade(address accountHoder, uint amount );
9 }
```

0 ☐ Listen on all transactions

[vm] from: 0x5B3...eddC4 to: MyBank.deposit() 0x9D7...b5E99 value: 5000000000000000000 wei data: 0xa50...ec326 logs: 1 hash: 0xf69...0ce24 **Debug**

call to MyBank.viewBalance

CALL [call] from: 0x5B38Da6a701c568545dCfC803Fc875f56beddC4 to: MyBank.viewBalance() data: 0x3ff...1e05b **Debug**

transact to MyBank.withdraw pending ...

[vm] from: 0x5B3...eddC4 to: MyBank.withdraw(uint256) 0x9D7...b5E99 value: 0 wei data: 0x2e1...c0000 logs: 1 hash: 0x93c...de725 **Debug**

call to MyBank.viewBalance

CALL [call] from: 0x5B38Da6a701c568545dCfC803Fc875f56beddC4 to: MyBank.viewBalance() data: 0x3ff...1e05b **Debug**

Initialize as git repo **Did you know?** You can use the Recorder to record and replay your transactions to any network from the Deploy and Run plugin. RemixAI Copilot (enabled) **Scam Alert**

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