

```

pragma solidity ^0.8.0;

contract BankContract{
    struct client_account{
        int client_id;
        address client_address;
        uint client_balance_in_ether;
    }
    client_account[] clients;
    int clientCounter;
    address payable manager;
    mapping(address => uint) public interestDate;
    modifier onlyManager() {
        require(msg.sender == manager,"Only manager can call this!");
        _;
    }
    modifier onlyClients() {
        bool isclient = false;
        for(uint i=0;i<clients.length;i++){
            if(clients[i].client_address == msg.sender){
                isclient = true;
                break;
            }
        }
        require(isclient, "Only clients can call this!");
        _;
    }
    constructor() public{
        clientCounter = 0;
    }

    receive() external payable {}
    function setManager(address managerAddress)
    public returns(string memory){
        manager = payable(managerAddress);
        return "";
    }
    function joinAsClient() public payable
    returns(string memory){
        interestDate[msg.sender] = block.timestamp;
        clients.push(client_account(clientCounter++, msg.sender,
        address(this).balance));
        return "";
    }
    function deposit() public payable onlyClients{
        payable(address(this)).transfer(msg.value);
    }
    function withdraw(uint amount) public payable

```

```

onlyClients{
payable(msg.sender).transfer(amount * 1 ether);
}
function sendInterest() public payable
onlyManager{
for(uint i=0;i<clients.length;i++){
address initialAddress = clients[i].client_address;
uint lastInterestDate = interestDate[initialAddress];
if(block.timestamp < lastInterestDate + 10 seconds){
revert("It's just been less than 10 seconds!");
}
payable(initialAddress).transfer(1 ether);
interestDate[initialAddress] = block.timestamp;
}
}
function getContractBalance() public view
returns(uint){
return address(this).balance;
}
}

```

OUTPUT:

The screenshot displays the Remix IDE interface during the deployment of a smart contract. The left sidebar, titled 'DEPLOY & RUN TRANSACTIONS', shows the following details:

- ENVIRONMENT:** Remix VM (Cancun)
- ACCOUNT:** 0x5B3...eddC4 (91.999999999996)
- GAS LIMIT:** Estimated Gas (3000000)
- VALUE:** 0 Wei
- CONTRACT:** BankContract - contracts/pracsol
- Buttons:** Deploy, Publish to IPFS, At Address, Load contract from Address
- Transactions recorded:** 7
- Pinned Contracts:** No pinned contracts found for selected workspace & network

The main area shows the transaction details for the deployment of the BankContract. The transaction was successful, with the following details:

- Status:** [vm] from: 0x5B3...eddC4 to: BankContract.(constructor) value: 0 wei data: 0x608...a0033 logs: 0 hash: 0xbfb...a013e
- Transaction hash:** 0xbfbfb0eb8f1b769a25c68786c2115d3f7228b44b8cc7e9b115259f55c8a013e
- Block hash:** 0x36b92fdb2e2496d52f6a78c6c9659a8581c50fd58cabaffa567e4b5f686495
- Block number:** 16
- Contract address:** 0xd4fc5412369272EAFBF27606b07389C1fc1c0ee
- From:** 0x5B380d6a781c568545dcfc803fc8b75f5e6eddC4
- To:** BankContract.(constructor)
- Gas:** 887412 gas
- Transaction cost:** 782897 gas
- Execution cost:** 683243 gas
- Input:** 0xd08...a0033
- Decoded input:** ()
- Decoded output:** -
- Logs:** []
- Raw logs:** []

DEPLOY & RUN  
TRANSACTIONS

Pinned Contracts (network: vm-cancun)

No pinned contracts found for selected workspace & network

Deployed/Unpinned Contracts

BANKCONTRACT AT 0XD4A...

Balance: 16 ETH

deposit

joinAsClient

sendInterest

setManager

withdraw

getContractB...

interestDate

Low level interactions

CALLDATA

Transact

BANKCONTRACT AT 0XD4F...

67

block hash

block number

contract address

from

to

transaction cost

execution cost

input

decoded input

decoded output

logs

raw logs

transact to BankContract.joinAsClient pending ...

[vm] from: 0x583...eddC4 to: BankContract.joinAsClient() 0xdda...5482d value: 8000000000000000 wei data: 0xa40...92174 logs: 0

Debug

DEPLOY & RUN  
TRANSACTIONS

Pinned Contracts (network: vm-cancun)

No pinned contracts found for selected workspace & network

Deployed/Unpinned Contracts

BANKCONTRACT AT 0XD4A...

Balance: 26 ETH

deposit

joinAsClient

sendInterest

setManager

withdraw

getContractB...

interestDate

Low level interactions

CALLDATA

Transact

BANKCONTRACT AT 0XD4F...

67

status

transaction hash

block hash

block number

from

to

gas

transaction cost

execution cost

input

decoded input

decoded output

logs

raw logs

[vm] from: 0x583...eddC4 to: BankContract.deposit() 0xdda...5482d value: 1000000000000000000 wei data: 0xd0e...30db0 logs: 0

Debug