

PRACTICAL 9

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Aim:	Deploying Banking Application through Meta Mask.		

Program

// SPDX-License-Identifier: GPL-3.0

pragma solidity >=0.8.2 <0.9.0;

```
contract MyBank {
    mapping(address => uint256) balances;
    address public owner;

    event Deposit(address indexed account, uint256 amt);
    event Withdraw(address indexed account, uint256 amt);
    event Transfer(address indexed from, address indexed to, uint256 amt);

    modifier onlyOwner() {
        require(msg.sender == owner, "Only owner can perform action");
        _;
    }

    constructor() {
        owner = msg.sender;
    }

    function deposit() public payable {
        require(msg.value > 0, "Amount should be greater than 0");
        balances[msg.sender] += msg.value;
        emit Deposit(msg.sender, msg.value);
    }

    function withdraw(uint256 _amt) public onlyOwner {
        require(msg.sender.balance >= _amt, "Insufficient balance");
        balances[msg.sender] -= _amt;
        payable(msg.sender).transfer(_amt);
        emit Withdraw(msg.sender, _amt);
    }

    function transfer(address _to, uint256 _amt) public {
        require(_to != address(0), "Invalid Address");
        require(msg.sender.balance >= _amt, "Insufficient balance");
        balances[msg.sender] -= _amt;
        balances[_to] += _amt;
        emit Transfer(msg.sender, _to, _amt);
    }
}
```

```

    }

    function getBalance() public view returns(uint256) {
        return balances[msg.sender];
    }

    function getBankWorth() public view returns(uint256) {
        return address(this).balance;
    }
}

```

Output

