BankAccount.sol

```
// SPDX-License-Identifier: MIT
pragma solidity ^0.8.20;

contract BankAccount {
    // Mapping to store user balances
    mapping(address => uint256) private balances;
    // Events for deposit and withdrawal
    event Deposit(address indexed account, uint256 amount);
    event Withdraw(address indexed account, uint256 amount);
    // Deposit ETH into your account
    function deposit() public payable {
        require(msg.value > 0, "Deposit amount must be greater than 0");
        balances[msg.sender] += msg.value;
        emit Deposit(msg.sender, msg.value);
    }
    // Withdraw ETH from your account
    function withdraw(uint256 amount) public {
        require(amount > 0, "Withdraw amount must be greater than 0");
        require(balances[msg.sender] >= amount, "Insufficient balance");
        balances[msg.sender] -= amount;
        payable(msg.sender).transfer(amount);
        emit Withdraw(msg.sender, amount);
    }
    // View your current balance
    function getBalance() public view returns (uint256) {
        return balances[msg.sender];
    }
}
```

Step	Action	Details
1️⃣ **Open Remix IDE**	Go to https://remix.ethereum.org	Online Solidity IDE
2️⃣ **Create New File**	File Explorer → "New File" → name it BankAccount.sol	Paste the code above
3️⃣ **Compile the Contract**	Select **Solidity Compiler** tab → Compiler version **0.8.20** → EVM **Cancun or London** → click **Compile BankAccount.sol**	Green ✔ indicates success
4️⃣ **Deploy**	Go to **Deploy & Run Transactions** tab	
	Environment → **Remix VM (Cancun / London)**	Local blockchain simulation
	Account → choose first address	Comes with 100 fake ETH
	Gas Limit → 6000000	Safe default
	Value → 0	Nothing needed for deployment
	Click **Deploy**	Contract appears under "Deployed Contracts"
5️⃣ **Test Deposit**	In "Value" field above, enter 1 and select ETH → click **deposit**	Deposits 1 ETH into your account
6️⃣ **Check Balance**	Click **getBalance()**	Shows 1000000000000000000 → equals **1 ETH**
7️⃣ **Withdraw**	Enter 1000000000000000000 in **withdraw(uint256 amount)** → click **transact**	Withdraws your 1 ETH
8️⃣ **Verify Again**	Click **getBalance()**	Should return 0
9️⃣ **Optional Multi-Account Test**	Switch account (top-right dropdown) → deposit from another address	Each address has its own balance mapping
🔟 **Done!**	Contract works perfectly 💪	All transactions are local in Remix VM

To deploy to real testnet:

Step	Action
1	Open MetaMask → Switch to **Sepolia Test Network**
2	Go to **https://sepoliafaucet.com/** → get free test ETH
3	In Remix → Environment = **Injected Provider - MetaMask**
4	Click **Deploy** → confirm transaction in MetaMask
5	Interact with your live contract (same functions)