

REMX v1.13

FILE EXPLORER

- ✓ Compiled
- bank.sol

default\_workspace

```
// SPDX-License-Identifier: MIT
pragma solidity ^0.8.0;

contract Bank {
    mapping(address => uint256) private balances;
    function deposit() public payable {
        balances[msg.sender] += msg.value;
    }
    function withdraw(uint256 amount) public {
        require(balances[msg.sender] >= amount, "Insufficient balance");
        balances[msg.sender] -= amount;
        payable(msg.sender).transfer(amount);
    }
    function getBalance() public view returns (uint256) {
        return balances[msg.sender];
    }
}
```

Explain contract

AI copilot

0 Listen on all transactions

Welcome to Remix 1.1.3

Your files are stored in indexedDB. 19.53 KB / 276.47 GB used

```

// SPDX-License-Identifier: MIT
pragma solidity ^0.8.0;

contract Bank {
    mapping(address => uint256) private balances;

    function deposit() public payable {
        balances[msg.sender] += msg.value;
    }

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

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

```

The screenshot shows the Remix IDE interface with two main panels: 'Deploy a contract' on the left and 'Deployed Contracts' on the right.

**Deploy a contract (Left Panel):**

- Account 1:** Shows a purple account icon.
- Deploy a contract:** The title of the dialog.
- Description:** "This site wants you to deploy a contract".
- Estimated changes:** "No changes".
- Network:** Set to Sepolia.
- Request from:** remix.ethereum.org
- Network fee:** 0.0001 SepoliaETH.
- Speed:** Market (~12 sec).
- Buttons:** "Cancel" and "Confirm".

**Deployed Contracts (Right Panel):**

- Deployed Contracts (1):** Shows one deployed contract named "BANK AT 0X931...8826B (BLOCK)".
- Balance:** 0 ETH.
- Functions:**
  - deposit
  - withdraw (highlighted)
  - getBalance
- Low level interactions:** CALldata input field and "Transact" button.

```

transact to Bank.deposit pending ...

view on Etherscan view on Blockscout

✓ [block:9556887 txIndex:17] from: 0x75f...a2647 to: Bank.deposit() 0x931...8826b Debug
value: 1 wei data: 0xd0e...30db0 logs: 0 hash: 0xec1...9fbde

transact to Bank.withdraw errored: Error encoding arguments: TypeError: invalid BigNumberish string: Cannot conver

transact to Bank.withdraw pending ...

view on Etherscan view on Blockscout

✓ [block:9556895 txIndex:22] from: 0x75f...a2647 to: Bank.withdraw(uint256) 0x931...8826b value: 0 wei data: 0x2e1...00001 logs: 0 hash: 0x591...c0b25 Debug

call to Bank.getBalance

CALL [call] from: 0x75f387d09bAe4A3D689962257Bb29724D22a2647 to: Bank.getBalance() data: 0x120...65fe0 Debug

```

**DEPLOY & RUN TRANSACTIONS**

Bank - bank.sol

evm version: prague

Verify Contract on Explorers

Automatically verify contract on explorers after deployment. Ethereum Key can be set in the global Settings panel.

**Deploy & Verify**

**At Address** Load contract from Address

Transactions recorded 5 i

Deployed Contracts 1

BANK AT 0X931...8826B (BLOCKCHAIN)

Balance: 0 ETH

**deposit**

**withdraw** uint256 amount

**getBalance**

0: uint256: 0

Low level interactions

CALL DATA

**MetaMask**

Account 1

## Transaction request

**Estimated changes**

You send - <0.000001 \$ SepoliaETH

Network s Sepolia

Request from remix.ethereum.org

Interacting with Alert >

0x93112...8826b

Network fee 0.0001 \$ SepoliaETH

Speed Market ~12 sec

**Cancel** **Confirm**

DEPLOY & RUN TRANSACTIONS

Deploy & Verify

At Address Load contract from Address

Transactions recorded 6 i

Deployed Contracts 1

BANK AT 0X931...8826B (BLOCKCHAIN)

Balance: 0.000000000000000000000000000000001 ETH

deposit

withdraw 1

getBalance

0: uint256: 0

Low level interactions i

CALldata

Transact

MetaMask

Account 1

## Transaction request

Estimated changes ?

You receive + <0.000001 \$ SepoliaETH

Network s Sepolia

Request from ? remix.ethereum.org

Interacting with ? Alert >

0x93112...8826b

Network fee ? 0 \$ SepoliaETH

Speed 🐾 Market ~12 sec

Cancel Confirm

```
[vm]
from: 0x583...40225
to: Bank.(constructor)
value: 0 wei
data: 0x608...e0033
logs: 0
hash: 0x632...f5c39
transact to Bank.deposit pending ...
[vm]
from: 0x583...40225
to: Bank.deposit() 0x7ED...70E2F
value: 0 wei
data: 0xd0e...30db0
logs: 0
hash: 0x13d...bd6fe
transact to Bank.withdraw pending ...
[vm]
from: 0x583...40225
to: Bank.withdraw(uint256) 0x7ED...70E2F
value: 0 wei
data: 0x2e1...00001
logs: 0
hash: 0x20f...2cc01
transact to Bank.withdraw errored: Error occurred: revert.

revert
    The transaction has been reverted to the initial state.
Reason provided by the contract: "Insufficient balance".
If the transaction failed for not having enough gas, try increasing the gas limit gently.
transact to Bank.deposit pending ...
[vm]
from: 0x583...40225
to: Bank.deposit() 0x7ED...70E2F
value: 1 wei
data: 0xd0e...30db0
logs: 0
hash: 0x8e5...e809b
transact to Bank.withdraw errored: Error encoding arguments: TypeError: invalid BigNumberish
string: empty string (argument="value", value="", code=INVALID_ARGUMENT, version=6.14.0)
transact to Bank.withdraw pending ...
[vm]
from: 0x583...40225
to: Bank.withdraw(uint256) 0x7ED...70E2F
value: 0 wei
data: 0x2e1...00001
logs: 0
hash: 0x3aa...1e668
call to Bank.getBalance
call
[call]
from: 0x583031D1113aD414F02576BD6afaBfb302140225
to: Bank.getBalance()
data: 0x120...65fe0
```

REMX v1.1.3

FILE EXPLORER

```

artifacts
  build-info
  Bank_metadata.json
  Bank.json
contracts
  scripts
  tests
  .prettierrc.json
  bank.sol
  README.txt
  remix.config.json
StudentData.sol

```

default\_workspace

Compile

```

1 // SPDX-License-Identifier: MIT
2 pragma solidity ^0.8.0;
3
4 contract StudentData {
5
6   struct Student {
7     uint256 rollNo;
8     string name;
9     uint8 age;
10    string course;
11  }
12
13  Student[] public students;
14
15  event FallbackCalled(address sender, uint256 value, string message);
16
17  function addStudent(uint256 _rollNo, string memory _name, uint8 _age, string memory _course) public {
18    students.push(Student(_rollNo, _name, _age, _course));
19  }
20
21  function getStudentCount() public view returns (uint256) {
22    return students.length;
23  }
24
25  function getStudent(uint256 index) public view returns (uint256, string memory, uint8, string memory) {
26    require(index < students.length, "Invalid index");
27  }

```

Explain contract

AI copilot

Deployed Contracts

STUDENTDATA AT 0xfc7...fe2Bb (MEMORY)

Balance: 0 ETH

addStudent 16, "Chetan", 20, "BT"

getStudent 0

0: uint256: 16  
1: string: Chetan  
2: uint8: 20  
3: string: BT

getStudentCount 0

students uint256

Low level interactions

CALldata

Transact

Explain contract

AI copilot

0 Listen on all transactions Filter with transaction hash or address

--- to: StudentData.getStudent(uint256) data: 0x642...00010 revert call to StudentData.getStudent errored: Error occurred: revert.

revert The transaction has been reverted to the initial state. Reason provided by the contract: "Invalid index". If the transaction failed for not having enough gas, try increasing the gas limit gently. transact to StudentData.addStudent pending ...

[vm] from: 0x583...40225 to: StudentData.addStudent(uint256,string,uint8,string) 0xfc7...fe2Bb value: 0 wei data: 0x4c5...00000 logs: 0 hash: 0x654...d4eea call to StudentData.getStudent

CALL [call] from: 0x583031D1113aD414F02576B06afaBfb302140225 to: StudentData.getStudent(uint256) data: 0x642...00000 call to StudentData.getStudentCount

CALL [call] from: 0x583031D1113aD414F02576B06afaBfb302140225 to: StudentData.getStudentCount() data: 0x41e...0c407

Debug

Debug

Debug

```
// SPDX-License-Identifier: MIT
pragma solidity ^0.8.0;

contract StudentData {

    struct Student {
        uint256 rollNo;
        string name;
        uint8 age;
        string course;
    }

    Student[] public students;

    event FallbackCalled(address sender, uint256 value, string message);

    function addStudent(uint256 _rollNo, string memory _name, uint8 _age, string memory
    _course) public {
        students.push(Student(_rollNo, _name, _age, _course));
    }

    function getStudentCount() public view returns (uint256) {
        return students.length;
    }

    function getStudent(uint256 index) public view returns (uint256, string memory, uint8, string
    memory) {
        require(index < students.length, "Invalid index");
        Student memory s = students[index];
        return (s.rollNo, s.name, s.age, s.course);
    }

    fallback() external payable {
        emit FallbackCalled(msg.sender, msg.value, "Fallback function triggered");
    }

    receive() external payable {}
}
```

Deployed Contracts 1

STUDENTDATA AT 0XA13...EAD95 (MEMORY)

Balance: 0 ETH

**addStudent** uint256 \_rollNo, string \_name, uint8 \_age, string \_cou

**getStudent** uint256 index

**getStudentCou...**

**students** uint256

Low level interactions i

CALldata

Transact

```
[vm]
from: 0x583...40225
to: StudentData.addStudent(uint256,string,uint8,string) 0xfc7...fe2Bb
value: 0 wei
data: 0x4c5...00000
logs: 0
hash: 0x654...d4eea
call to StudentData.getStudent
call
[call]
from: 0x583031D1113aD414F02576BD6afaBfb302140225
to: StudentData.getStudent(uint256)
data: 0x642...00000
call to StudentData.getStudentCount
call
[call]
from: 0x583031D1113aD414F02576BD6afaBfb302140225
to: StudentData.getStudentCount()
data: 0x41e...0c407
call
[call]
from: 0x583031D1113aD414F02576BD6afaBfb302140225
to: StudentData.getStudent(uint256)
data: 0x642...00010
call to StudentData.getStudent errored: Error occurred: revert.

revert
      The transaction has been reverted to the initial state.
Reason provided by the contract: "Invalid index".
If the transaction failed for not having enough gas, try increasing the gas limit gently.
transact to StudentData.addStudent pending ...
```

Account 1  4 network addresses 

**\$0.00**  
+\$0.00 (+0.00%) [Discover](#)

   

[Tokens](#) [DeFi](#) [NFTs](#) [Activity](#)

Sepolia 

 SepoliaETH   
No conversion rate available  
0.0505 SepoliaETH

**Sent**

**Status** [View on block explorer](#)  
**Confirmed** [Copy transaction ID](#)

**From**  0x75F38..a2647  **To**  0xfa85..fFBF5

**Transaction**

Nonce	3
Amount	<b>&lt;0.000001 SepoliaETH</b>
Gas Limit (Units)	31500
Gas Used (Units)	21000
Base fee (GWEI)	0.00000001
Priority fee (GWEI)	1.5
Total gas fee	0.000031 SepoliaETH
Max fee per gas	0.00000002 SepoliaETH
Total	<b>0.0000315 SepoliaETH</b>

[+ Activity log](#)

**Review**

**From**  Account 1 **To**  0xfa85..fFBF5

**Network**  Sepolia

**Network fee**  0 SepoliaETH  
Speed  Market ~12 sec

**Cancel** **Confirm**



Send

S  
S

SepoliaETH

To



Oxa...fFBF5



Amount

0.0000000001

SepoliaETH

0.05047 SepoliaETH available [Max](#)

Continue

Account 1 ▾  
4 network addresses



\$0.00

+\$0.00 (+0.00%) [Discover](#) ↗

\$  
Buy

↑  
Swap

▷  
Send

◁  
Receive

[Tokens](#) [DeFi](#) [NFTs](#) [Activity](#)

Sepolia ▾



SepoliaETH

No conversion rate available  
0.0505 SepoliaETH

**Deployed Contracts** 1

Balance: 0 ETH

✓ STUDENTDATA AT 0xfc7...fe2bb (MEMORY)

✖

4 contract StudentData {

5

AI copilot

Explain contract

Filter with transaction hash or ad...

0 Listen on all transactions

Q

Filter with transaction hash or ad...

0

to: StudentData.getStudent(uint256) data: 0x642...00010

call to StudentData.getStudent errored: Error occurred: revert.

revert

The transaction has been reverted to the initial state.

Reason provided by the contract: "Invalid index".

If the transaction failed for not having enough gas, try increasing the gas limit gently.

transact to StudentData.addStudent pending ...

1: string Chetan

2: uint8 20

3: string BT

getStudentCount() 0: uint256: 2

✓ [vm] from: 0x583...40225 to: StudentData.addStudent(uint256, string, uint8, string) 0xfc7...fe2bb value: 0 wei data: 0x4c5...00000 logs: 0 hash: 0x654...d4eeaa call to StudentData.addStudent

Debug

Debug

Low level interactions

i

call [call] from: 0x5830310113ad414f02576bd6afabfb302140225 to: StudentData.getStudentCount(uint256) data: 0x642...00000 call to StudentData.getStudentCount

call [call] from: 0x5830310113ad414f02576bd6afabfb302140225 to: StudentData.getStudentCount() data: 0x41e...0c407

CALLDATA

Transact