

# Deploy:

The screenshot shows the Remix Ethereum IDE interface. On the left, the 'SETTINGS' panel is visible with fields for 'TOKEN', 'PRIVATE BEE ADDRESS', 'POSTAGE STAMP ID', and 'IPFS SETTINGS'. The top editor displays a Solidity script for a smart contract named 'Storage.sol'. The right sidebar shows the transaction details for a successful deployment, including the transaction hash, block hash, block number, contract address, and gas used. The logs section at the bottom right shows the execution of the contract.

```
11 uint[] marks;  
12  
13 }  
14  
15 // Array to store multiple students  
16 student[] public students;
```

Transaction details:

- status: 0x1 Transaction mined and execution succeed
- transaction hash: 0x4baf607fa5e5a6a6d1c1761794842b0b7a7f2d3a4e9152e7917a212f70
- block hash: 0xc05467c2b0d8d47d34eb30f20977c34177a5d04064720269e93eefc13ce2
- block number: 6
- contract address: 0x0A06b58753f07f913f4000e64f3693742853
- from: 0x5838c6d701c568545cfc833fcb875f58bdc84
- to: Types.(constructor)
- gas: 1027507
- transaction cost: 893404 gas
- execution cost: 780210 gas
- input: 0x688...a0033
- output: 0x688...a0033

This screenshot shows the same Remix Ethereum IDE interface, but with the 'decoded input' and 'decoded output' sections visible in the right sidebar. The 'decoded input' section shows the input data in hexadecimal, and the 'decoded output' section shows the output data in hexadecimal. The logs section at the bottom right shows the execution of the contract.

Transaction details:

- status: 0x1 Transaction mined and execution succeed
- transaction hash: 0x4baf607fa5e5a6a6d1c1761794842b0b7a7f2d3a4e9152e7917a212f70
- block hash: 0xc05467c2b0d8d47d34eb30f20977c34177a5d04064720269e93eefc13ce2
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- from: 0x5838c6d701c568545cfc833fcb875f58bdc84
- to: Types.(constructor)
- gas: 1027507
- transaction cost: 893404 gas
- execution cost: 780210 gas
- input: 0x688...a0033
- output: 0x688...a0033

Decoded input:

```
()
```

Decoded output:

```
-
```

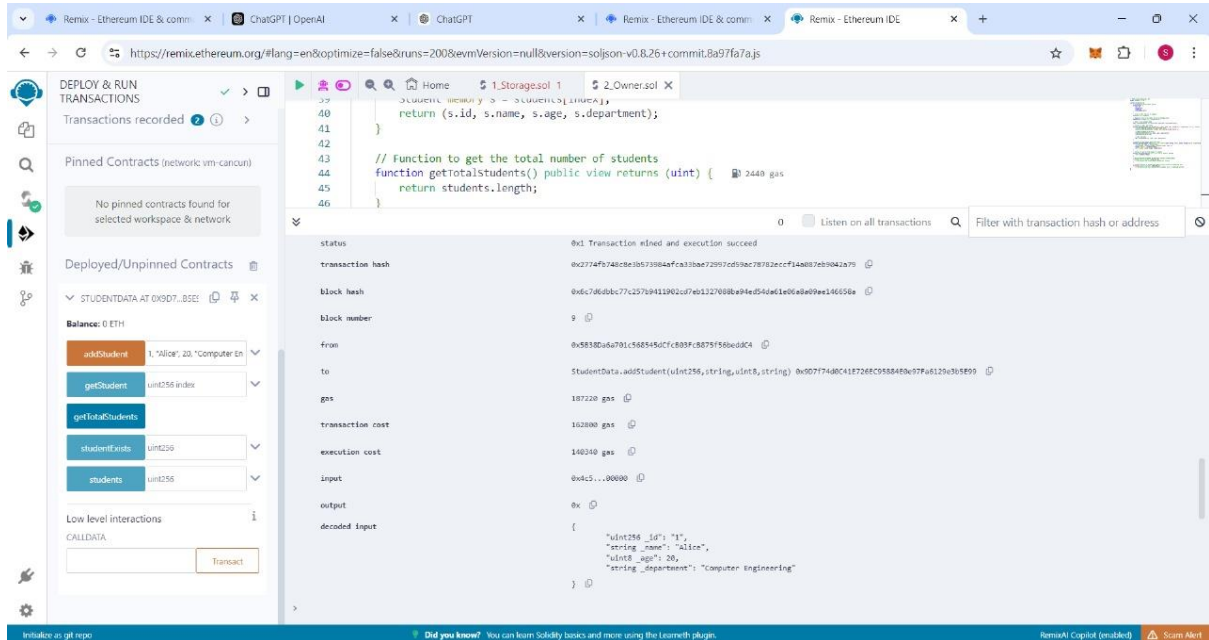
Logs:

```
[1]
```

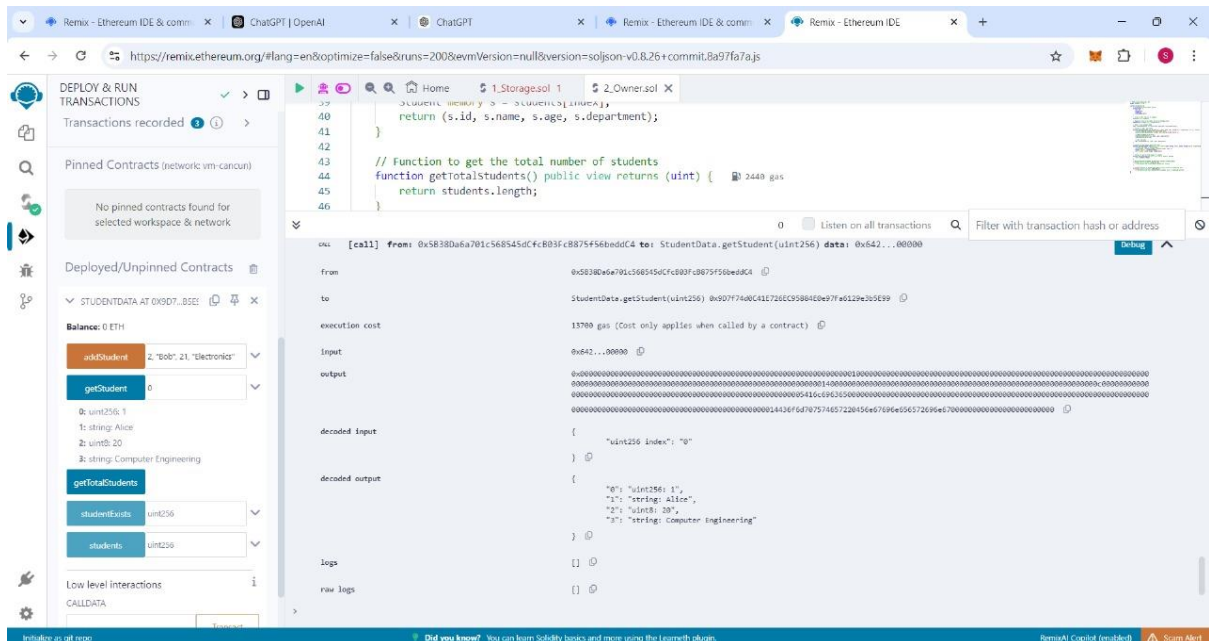
Raw logs:

```
[1]
```

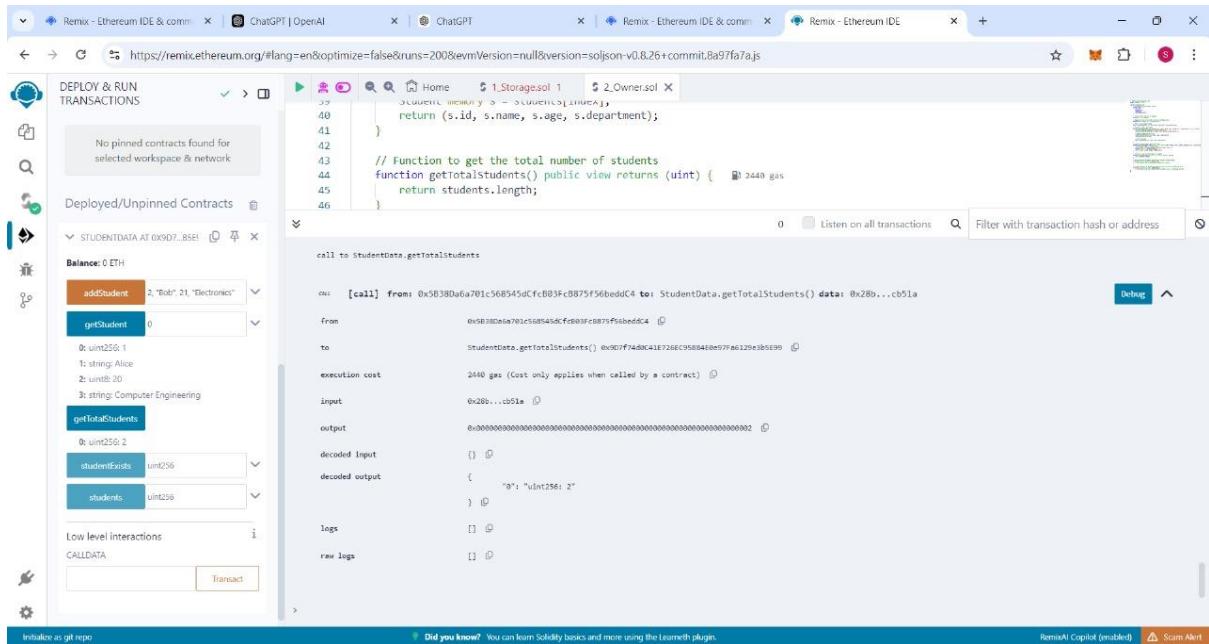
### Add Student:



### Get Student Data:



## Get Total No.of Students:



The screenshot shows the Remix IDE interface. On the left, the 'DEPLOY & RUN TRANSACTIONS' panel is active, displaying the 'STUDENTDATA' contract. The 'addStudent' function is set with parameters: '2', 'Bob', '21', 'Electronics'. The 'getTotalStudents' function is selected, and its execution details are shown in the main panel. The execution cost is 2448 gas. The decoded output is '0', indicating that the total number of students is 0.

```
39 Student memory s ← students[index];
40 return (s.id, s.name, s.age, s.department);
41 }
42
43 // Function to get the total number of students
44 function getTotalStudents() public view returns (uint) {
45     return students.length;
46 }
```

call to StudentData.getTotalStudents

on: [call] from: 0x583806a701c568545dcfc8b3fc8b75f56bedd4 to: StudentData.getTotalStudents() data: 0x28b...c851a

from: 0x583806a701c568545dcfc8b3fc8b75f56bedd4

to: StudentData.getTotalStudents() 0x007f480c41e726c95840e97f6129e3b5099

execution cost: 2448 gas (Cost only applies when called by a contract)

input: 0x28b...c851a

output: 0x00

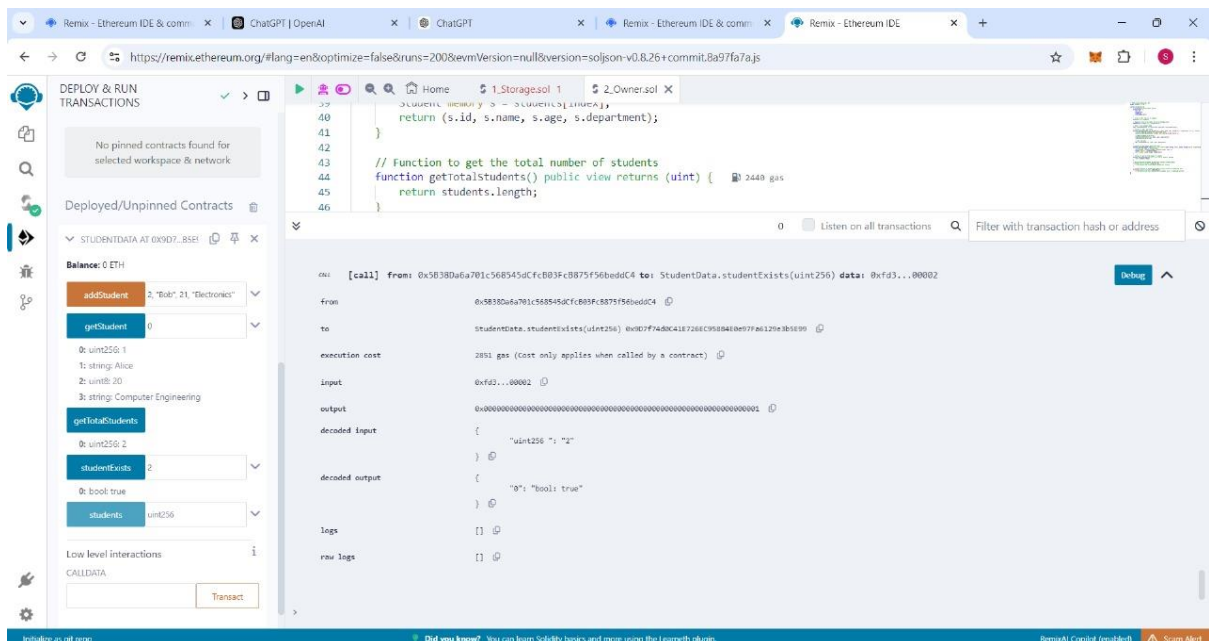
decoded input: {}

decoded output: {"0": "uint256: 2"}

logs: []

raw logs: []

## Student Exist:



The screenshot shows the Remix IDE interface. On the left, the 'DEPLOY & RUN TRANSACTIONS' panel is active, displaying the 'STUDENTDATA' contract. The 'studentExists' function is selected, and its execution details are shown in the main panel. The execution cost is 2851 gas. The decoded output is '0', indicating that the student does not exist.

```
39 Student memory s ← students[index];
40 return (s.id, s.name, s.age, s.department);
41 }
42
43 // Function to get the total number of students
44 function getTotalStudents() public view returns (uint) {
45     return students.length;
46 }
```

on: [call] from: 0x583806a701c568545dcfc8b3fc8b75f56bedd4 to: StudentData.studentExists(uint256) data: 0xf43...00002

from: 0x583806a701c568545dcfc8b3fc8b75f56bedd4

to: StudentData.studentExists(uint256) 0x007f480c41e726c95840e97f6129e3b5099

execution cost: 2851 gas (Cost only applies when called by a contract)

input: 0xf43...00002

output: 0x00

decoded input: {"uint256": "2"}

decoded output: {"0": "bool: true"}

logs: []

raw logs: []

[illegible]