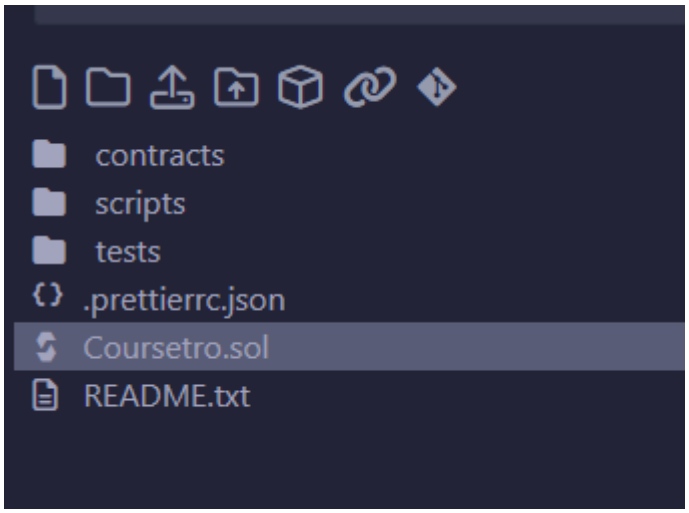
Name: Priyanka, Stu-id: 20179

Ethereum Lab 2

Ethereum Smart Contracts Variable and Types

1. Go to http://remix.ethereum.org

2. create a new le named Coursetro.sol

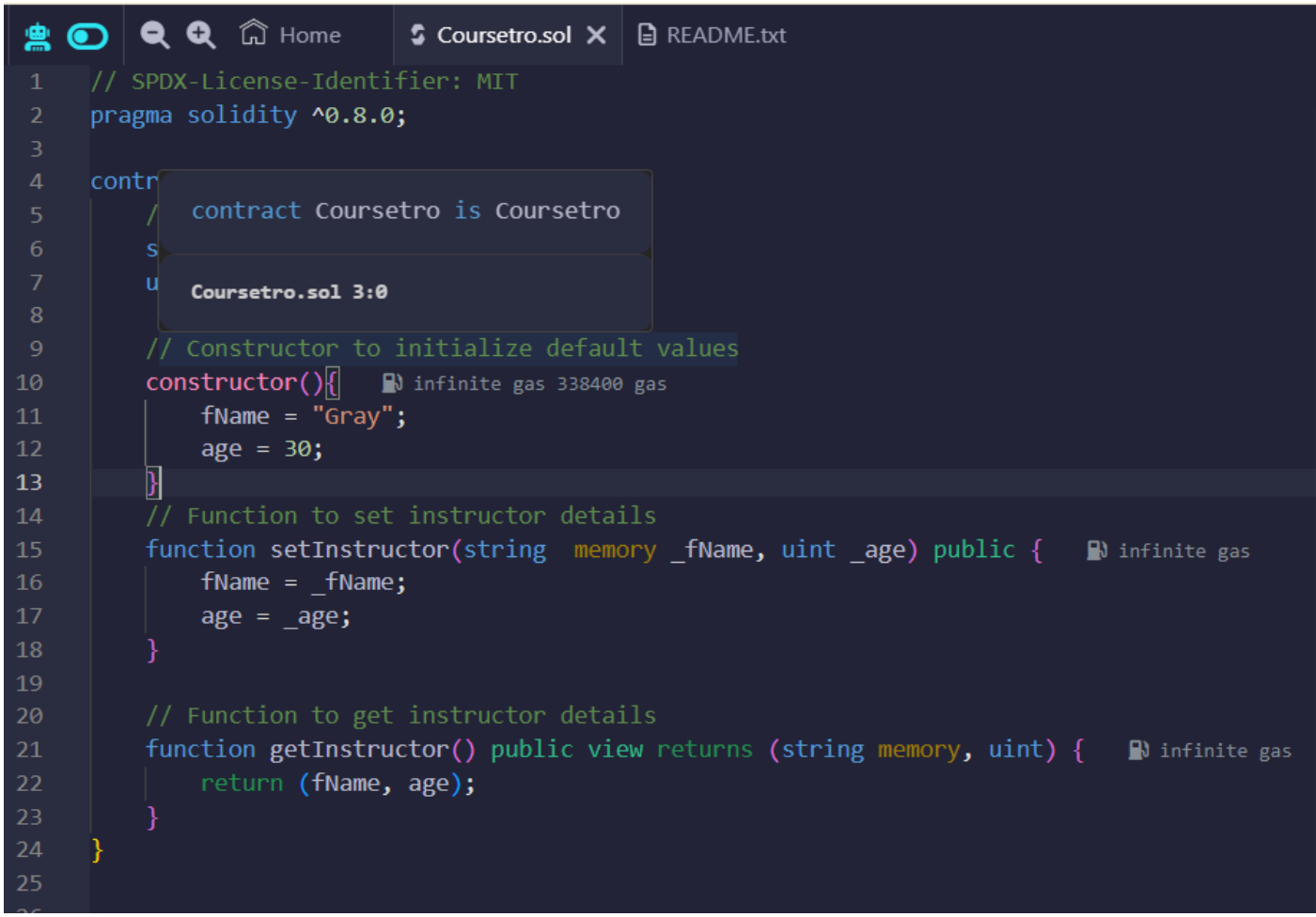


- **Content**

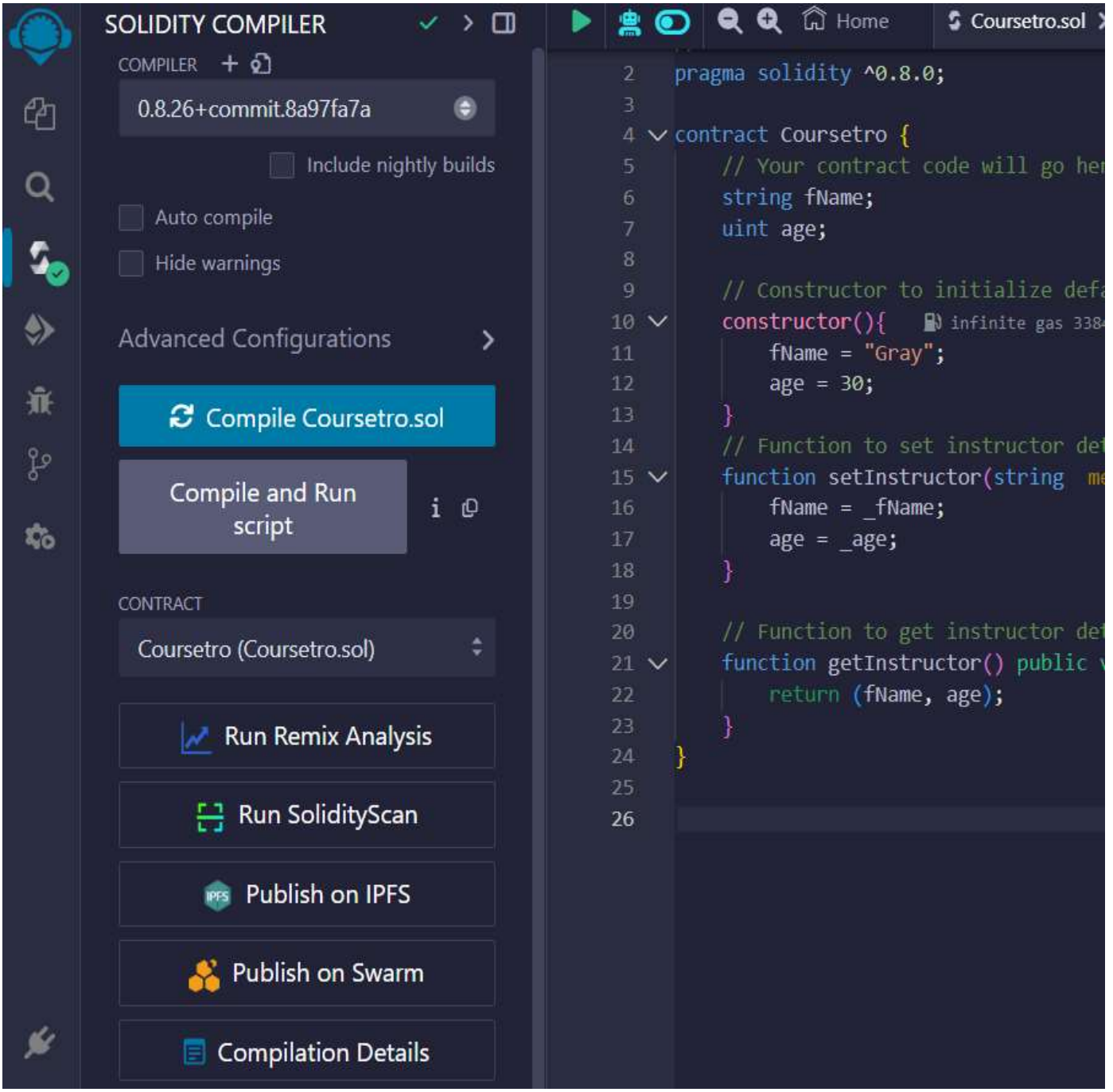
```
// SPDX-License-Identifier: MIT
pragma solidity ^0.8.0;

contract Coursetro {
  // Your contract code will go here
  string fName;
  uint age;

  // Constructor to initialize default values
  constructor(){
    fName = "Gray";
    age = 30;
  }
  // Function to set instructor details
  function setInstructor(string  memory _fName, uint _age) public {
    fName = _fName;
    age = _age;
  }

  // Function to get instructor details
  function getInstructor() public view returns (string memory, uint) {
    return (fName, age);
```

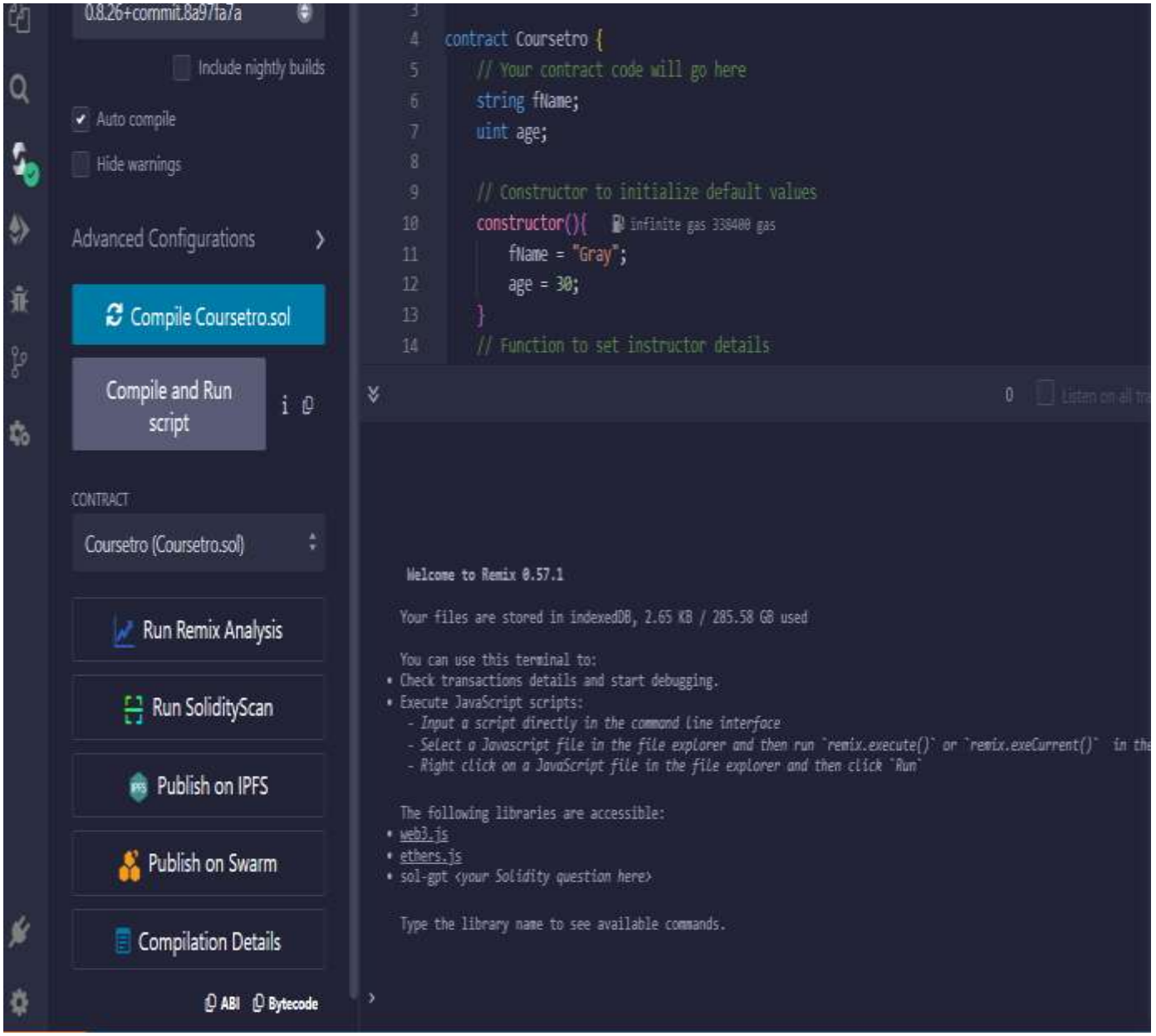
```
  }
}
```

3. write some code in this file

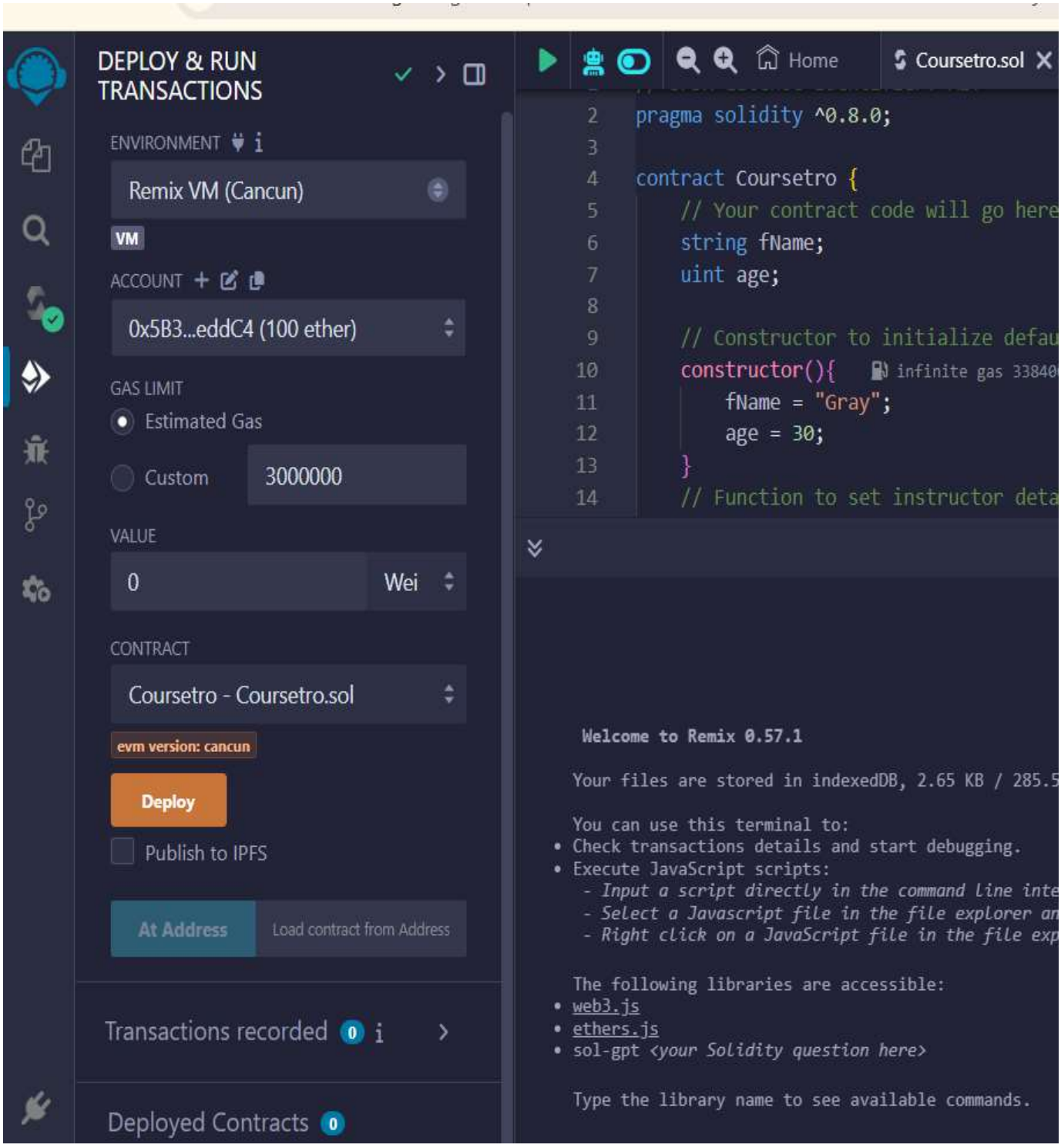


4. compile the contract and click auto compile, make sure there is no error or warning


SOLIDITY COMPILER
COMPILER
0.8.26+commit.8a97fa7a
Include nightly builds
Auto compile
Hide warnings
Advanced Configurations
Compile Coursetro.sol
Compile and Run script
CONTRACT
Coursetro (Coursetro.sol)
Run Remix Analysis
Run SolidityScan
Publish on IPFS
Publish on Swarm
Compilation Details
Home
Coursetro.sol
pragma solidity ^0.8.0;
contract Coursetro {
// Your contract code will go her
string fName;
uint age;
// Constructor to initialize defa
constructor(){
infinite gas 338
fName = "Gray";
age = 30;
}
// Function to set instructor de
function setInstructor(string
fName = _fName;
age = _age;
}
// Function to get instructor de
function getInstructor() public
return (fName, age);
}
}



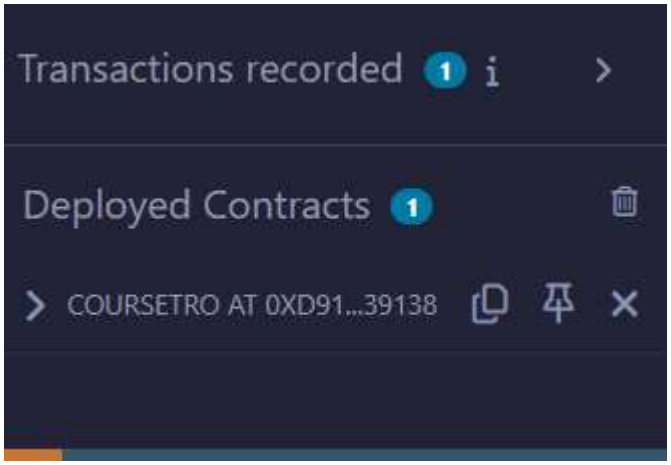
5. deploy the contract, you can a new record on the Deployed Contracts section and the message on the console

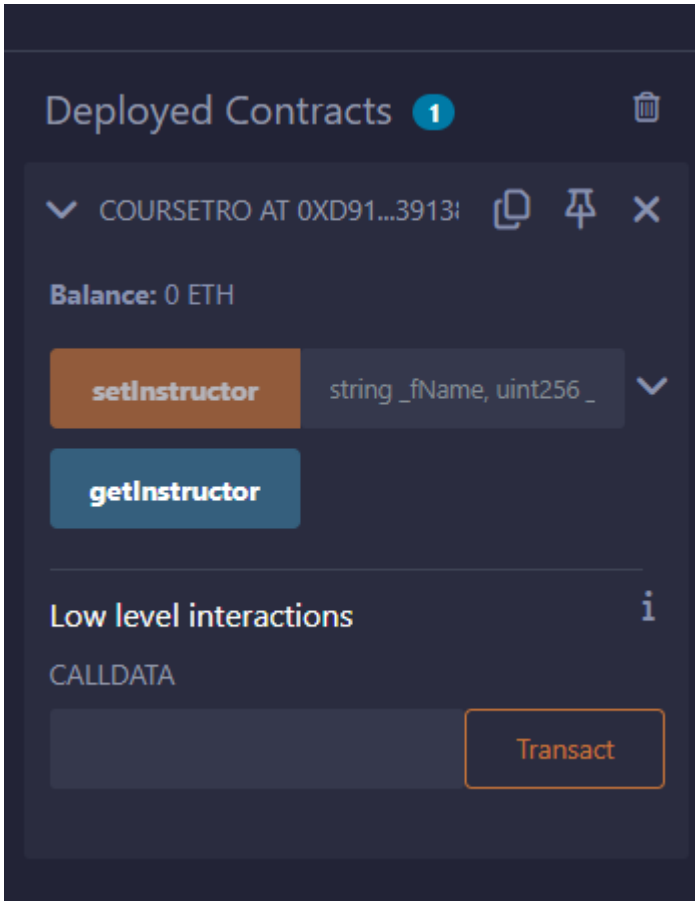

DEPLOY & RUN TRANSACTIONS
ENVIRONMENT
Remix VM (Cancun)
VM
ACCOUNT
0x5B3...eddC4 (100 ether)
GAS LIMIT
Estimated Gas
Custom
3000000
VALUE
0
Wei
CONTRACT
Coursetro - Coursetro.sol
evm version: cancun
Deploy
Publish to IPFS
At Address
Load contract from Address
Transactions recorded 0
Deployed Contracts 0
Home
Coursetro.sol
pragma solidity ^0.8.0;
contract Coursetro {
// Your contract code will go here
string fName;
uint age;
// Constructor to initialize defau
constructor(){
infinite gas 33840
fName = "Gray";
age = 30;
}
// Function to set instructor deta
Welcome to Remix 0.57.1
Your files are stored in indexedDB, 2.65 KB / 285.5
You can use this terminal to:
Check transactions details and start debugging.
Execute JavaScript scripts:
- Input a script directly in the command line inte
- Select a Javascript file in the file explorer an
- Right click on a JavaScript file in the file exp
The following libraries are accessible:
web3.js
ethers.js
sol-gpt <your Solidity question here>
Type the library name to see available commands.

6.

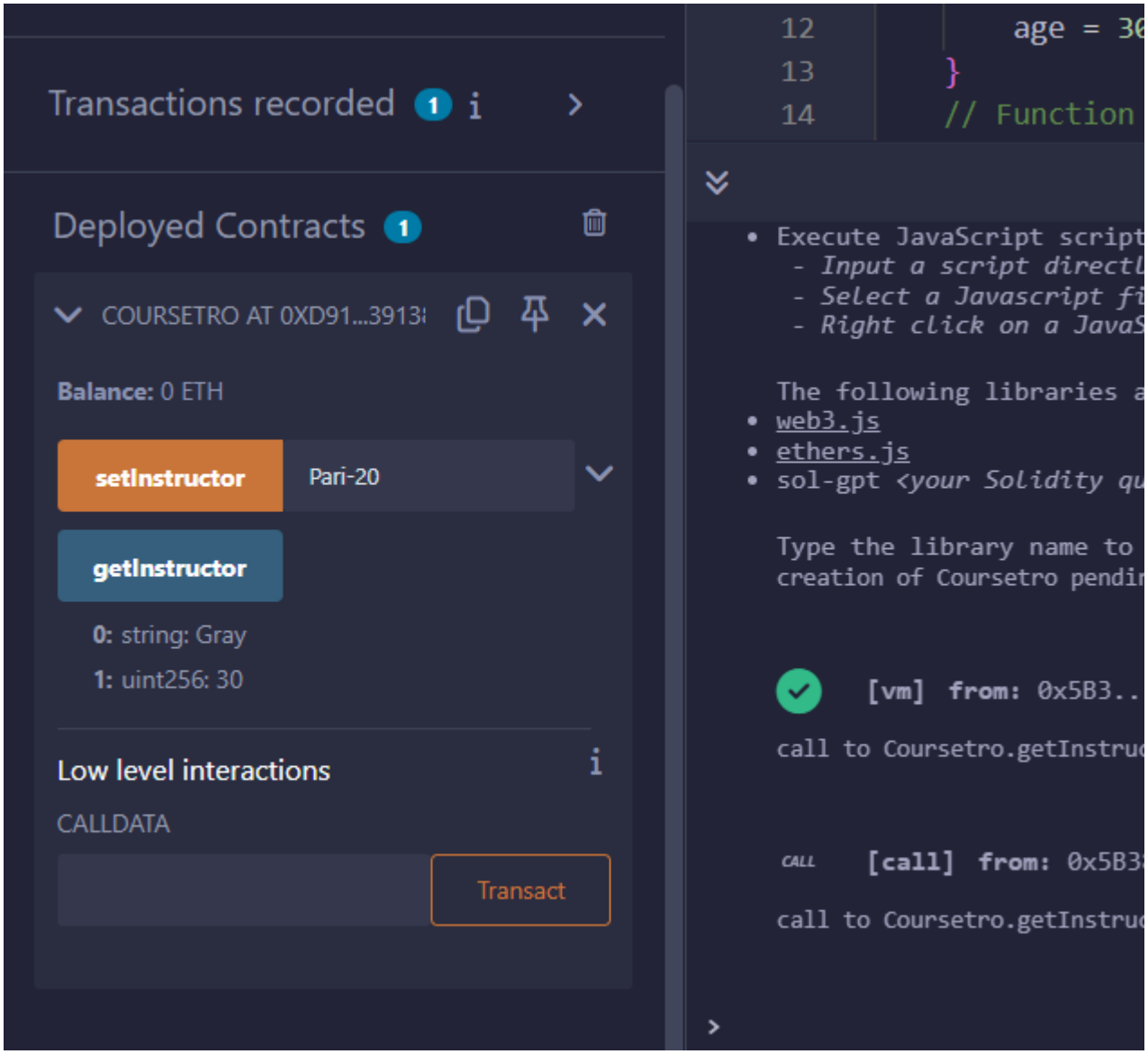
7.)Test the Contract

- expand the contract record
- click getInstructor button and get the initial value from constructor

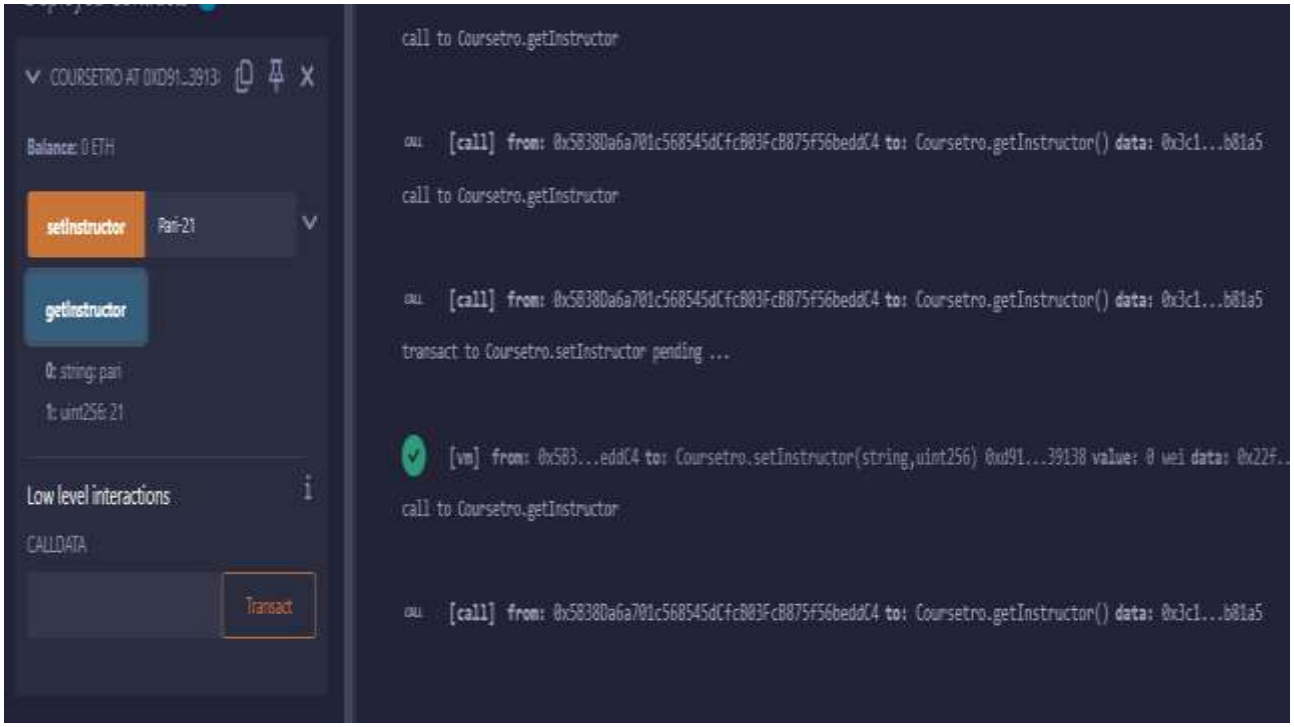


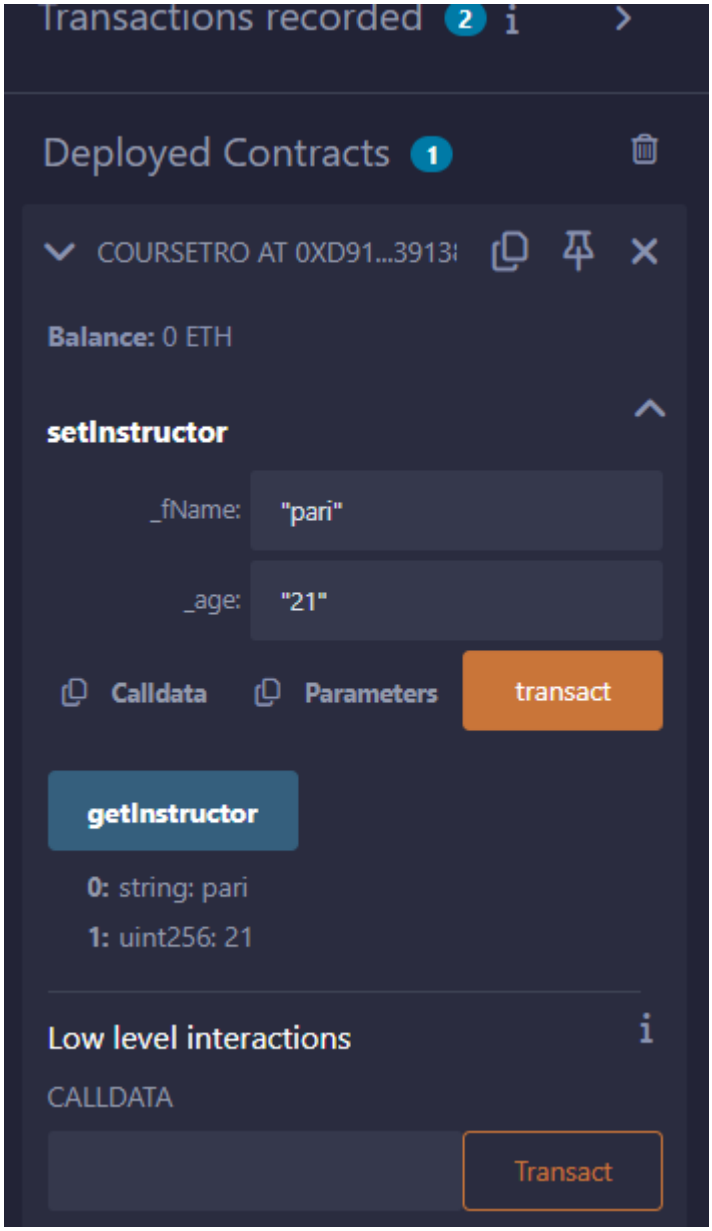


8. enter value and click setInstructor button to set



9. click getInstructor button again and see the value changed


COURSETRO AT 0XD91..3913
Balance: 0 ETH
setInstructor
Pari-21
getInstructor
0: string: pari
1: uint256: 21
Low level interactions
CALLDATA
Transact
call to Coursetro.getInstructor
[call] from: 0x5B38Da6a701c568545dCfcB03FcB875f56beddC4 to: Coursetro.getInstructor() data: 0x3c1...b81a5
call to Coursetro.getInstructor
[call] from: 0x5B38Da6a701c568545dCfcB03FcB875f56beddC4 to: Coursetro.getInstructor() data: 0x3c1...b81a5
transact to Coursetro.setInstructor pending ...
[vm] from: 0x5B3...eddC4 to: Coursetro.setInstructor(string,uint256) 0xd91...39138 value: 0 wei data: 0x22f...
call to Coursetro.getInstructor
[call] from: 0x5B38Da6a701c568545dCfcB03FcB875f56beddC4 to: Coursetro.getInstructor() data: 0x3c1...b81a5


Transactions recorded 2
Deployed Contracts 1
COURSETRO AT 0XD91...3913
Balance: 0 ETH
setInstructor
_fName: "pari"
_age: "21"
Calldata
Parameters
transact
getInstructor
0: string: pari
1: uint256: 21
Low level interactions
CALLDATA
Transact