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Semester: ..... Program: ..... Branch: ..... Specialization: .....

Date: .....

Applied and Action Learning

(Learning by Doing and Discovery)

Name of the Experiement : Helllo Solidity- Writting First Smart Contract

*Coding Phase: Pseudo Code / Flow Chart / Algorithm:

Algorithm:

1. Start
2. Install MetaMask extension in your browser and create a wallet.
3. Connect to a testnet like sepolia and collect test ETH from any faucet.
4. Open Remix IDE in your brave browser.
5. Create a new file and name it as SimpleStorage.sol.
6. Write a simple contract in solidity.
7. Compile the contract using the Solidity Compiler in Remix.
8. In the Deploy tab, select Injected Provider - MetaMask and connect.
9. Click Deploy and confirm the transaction in MetaMask.
10. After deployment, click the greet() function to view the output.
11. End

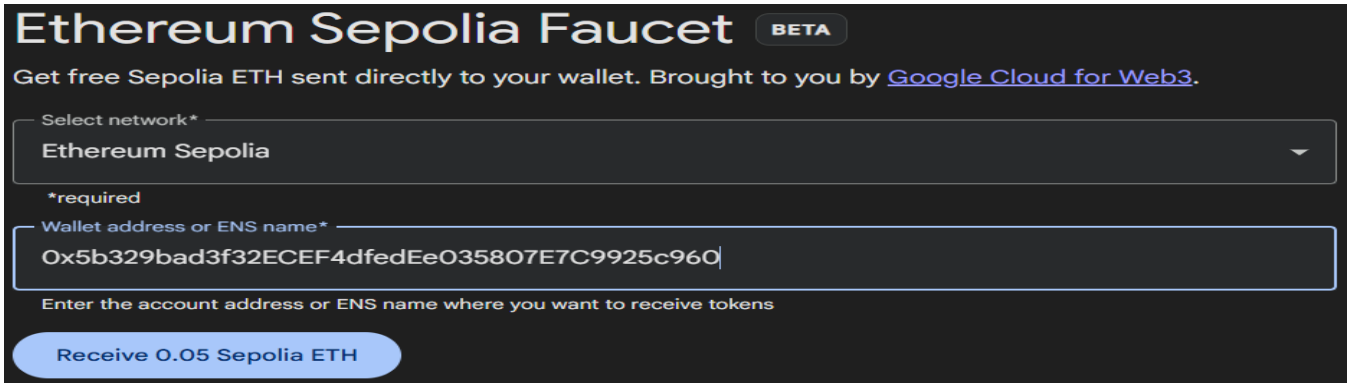
*Software Used:

1. Remix IDE
2. MetaMask Wallet
3. Ethereum Sepolia Faucet
4. Brave Browser

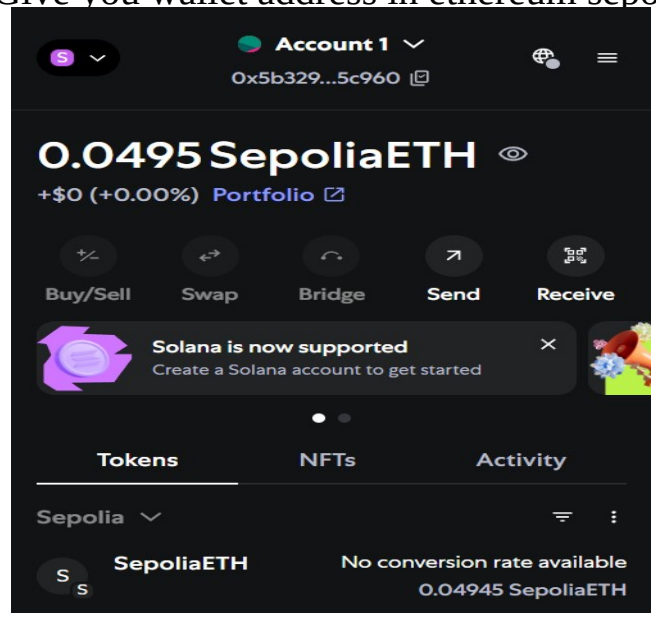
*As applicable according to the experiment.
Two sheets per experiment (10-20) to be used.

*Testing/Implementation Phase:

First we have to download the MetaMask and add the extension on the brave browser where we are going to use Remix IDE. Then go to ethereum cloud to receive faucet.



Give you wallet address in ethereum sepolia faucet to receive 0.05 faucet.



Open Remix IDE on the same browser and create a solidity file named as SimpleStorage.sol and write the code which we have to deploy.

```
//SPDX-License-Identifier: MIT
pragma solidity ^0.8.0;
contract SimpleStorage {
    uint public storedData;

    constructor(uint _data) {
        storedData = _data;
    }
    function set(uint x) public {
        storedData = x;
    }
    function get() public view returns (uint) {
        return storedData;
    }
}
```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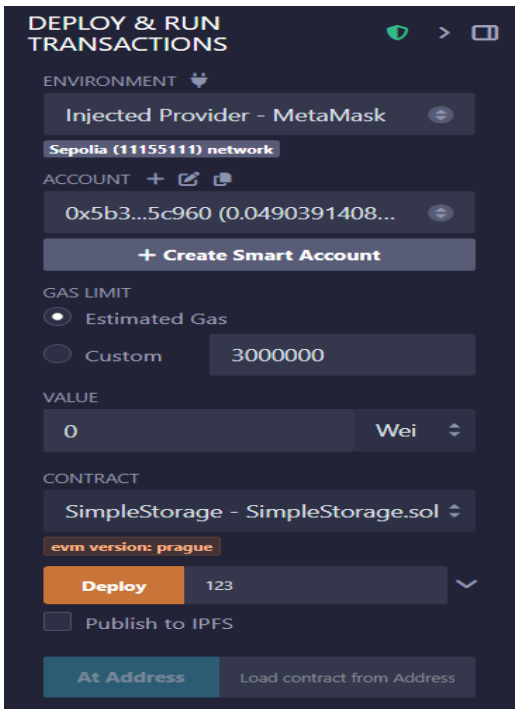
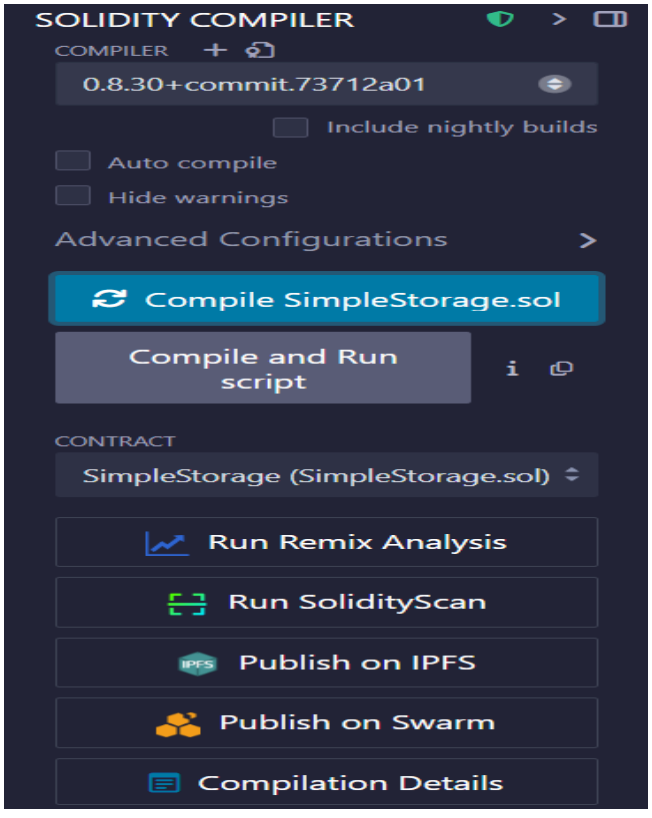
Two sheets per experiment (10-20) to be used.

*Testing/Implementation Phase:

In code we have to create two functions named as get() and set(). Get function to get the data and set function to set the data after writting thw smart contract go to the environment and choose Injected Provider-MetaMask and we can see there are autogenerate of your MetaMask Wallet address with the test balance.



Then click on compile after clicking our file is successfully compiled.



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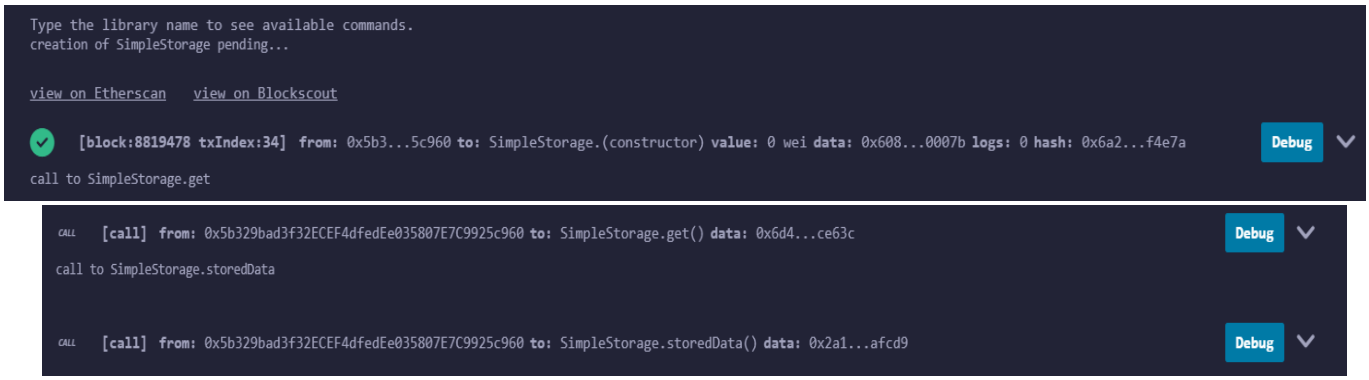
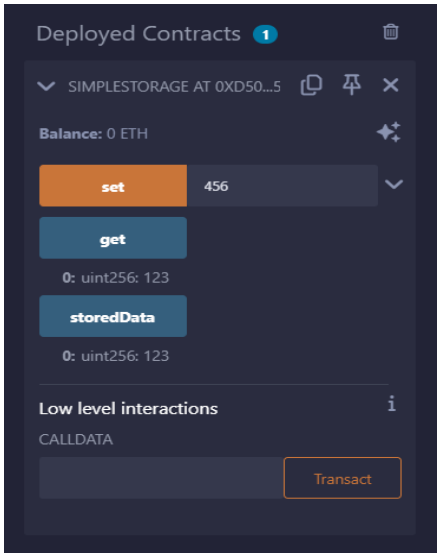
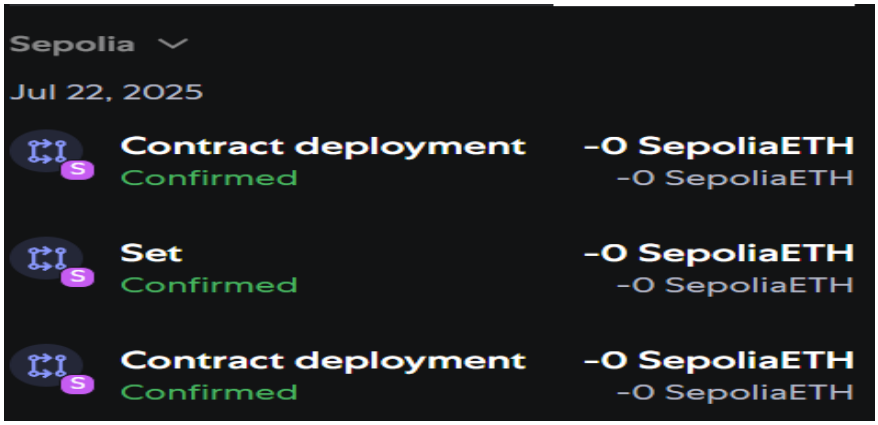
Implementation Phase: Final Output (no error)

Then click deploy





Now our smart contract is successfully connected to our wallet address.



Observation:

1. The smart contract was successfully compiled and deployed on the Ethereum testnet using Remix and MetaMask.
2. MetaMask handled the transaction and confirmed it on the blockchain.

ASSESSMENT

Rubrics	Full Mark	Marks Obtained	Remarks
Concept	10		
Planning and Execution/ Practical Simulation/ Programming	10		
Result and Interpretation	10		
Record of Applied and Action Learning	10		
Viva	10		
Total	**50**		

Signature of the Student:

Name :

Regn. No. :

Signature of the Faculty:

**As applicable according to the experiment.*
Two sheets per experiment (10-20) to be used.