



Centurion
UNIVERSITY
*Shaping Lives...
Empowering Communities...*

School: Campus:

Academic Year: Subject Name: Subject Code:

Semester: Program: Branch: Specialization:

Date:

Applied and Action Learning

(Learning by Doing and Discovery)

Name of the Experiment : Contract QA – Testing Smart Contracts

* Coding Phase: Pseudo Code / Flow Chart / Algorithm

ALGORITHM:

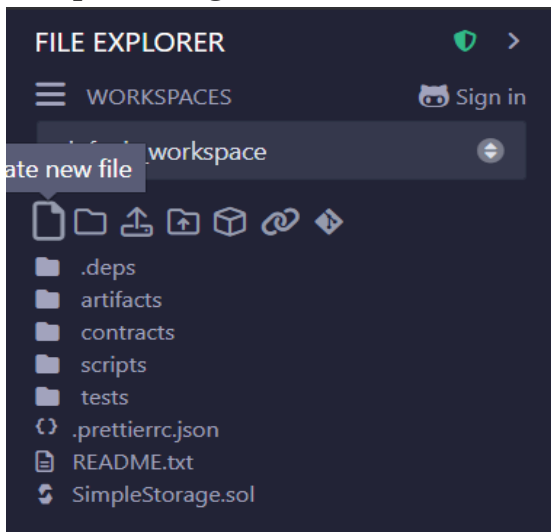
- 1.Start
- 2.Open remix IDE in browser and create a new file named as SimpleStorage.sol.
- 3.Write the solidity code in the file SimpleStorage.sol.
- 4.Now compile that file.
- 5.Then go to deploy and transaction and deploy the file.
- 6.Now we will get an address in the deployed contracts copy that address.
- 7.Now search for etherscan.io in the browser and paste the address you copied.
- 8.Finally we will get a transaction address.
- 9.End

* Software used

- 1.Brave Browser
- 2.Remix IDE
- 3.Etherscan

* Testing Phase: Compilation of Code (error detection)

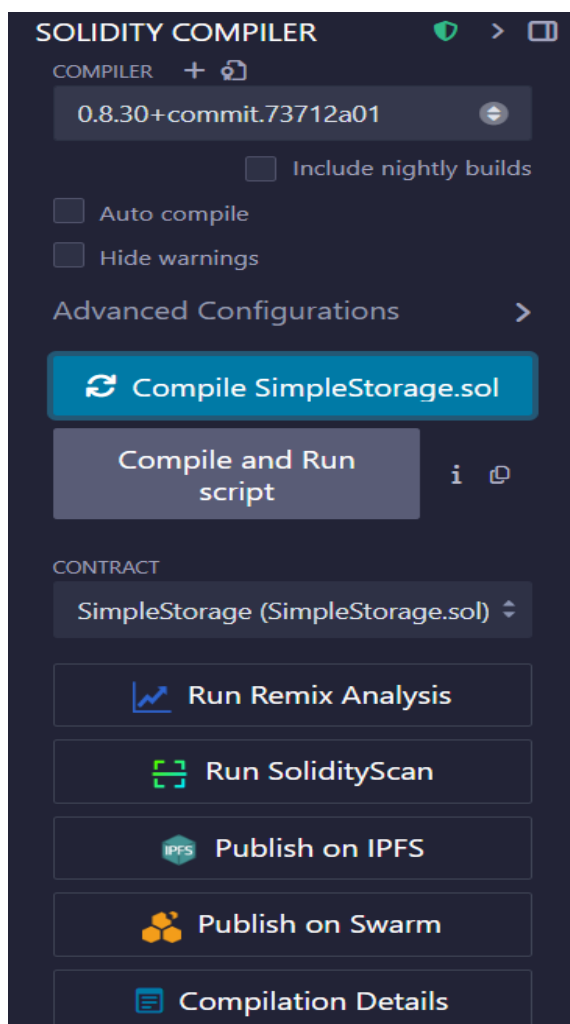
First create a new file and name it as SimpleStorage.sol



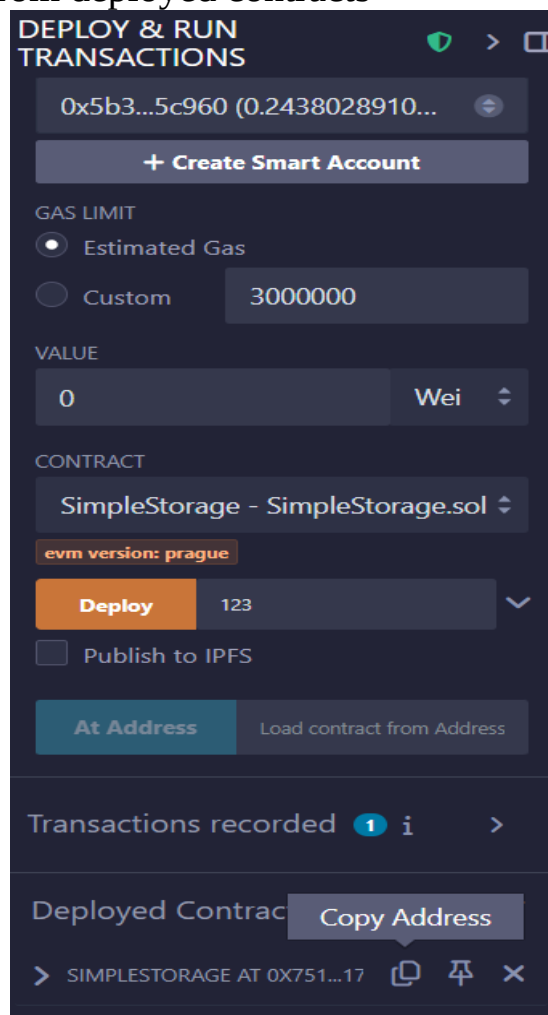
```
//SPDX-License-Identifier: MIT
pragma solidity ^0.8.0;
contract SimpleStorage {
    uint public storedData;

    constructor(uint _data) {
        storedData = _data;
    }
    function set(uint x) public {
        storedData = x;
    }
    function get() public view returns (uint) {
        return storedData;
    }
}
```

Compile the file



Now deploy the file and copy the address from deployed contracts



* Implementation Phase: Final Output (no error)

Applied and Action Learning

Now search for ethaerscan in browser and paste the copied address, you will get your whole transaction history done using your metamask or any other wallet.

The screenshot shows the Etherscan website interface. At the top, there's a search bar with the text "Search by Address / Txn Hash / Block / Token / Domain Name". Below the search bar, the Etherscan logo is visible. The main content area displays a wallet address: "Address 0x751ac4a42b3f1400c8ecFDC2e137a4B5D6E17fbd". A "Copy Address" button is next to it. Below the address, there's a section for "Overview" showing "ETH BALANCE 0 ETH" and "ETH VALUE \$0.00". To the right, there's a "More Info" section with "PRIVATE NAME TAGS" and "TRANSACTIONS SENT" (Latest: N/A, First: N/A). Further right, there's a "Multichain Info" section showing "\$0 (Multichain Portfolio)" and "No addresses found". At the bottom, there's a table with columns: Transaction Hash, Method, Block, Age, From, To, Amount, and Txn Fee. The table is currently empty.

* Observations

1. Understand the structure and key components of a blockchain transaction.
2. Learn how to analyze a real transaction on a blockchain explorer.

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:

Page No.....

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