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 Experiement : Hello Solidity – Writing First Smart Contract

Objective/Aim:

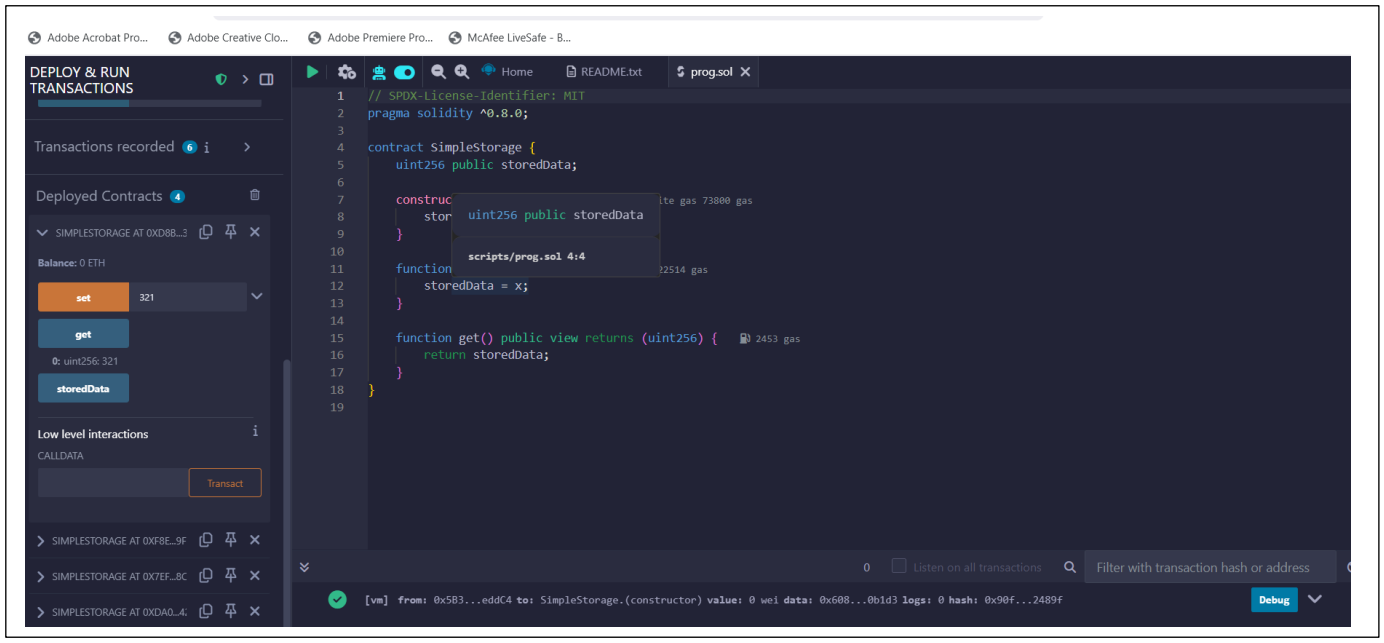
To study and understand about solidity.

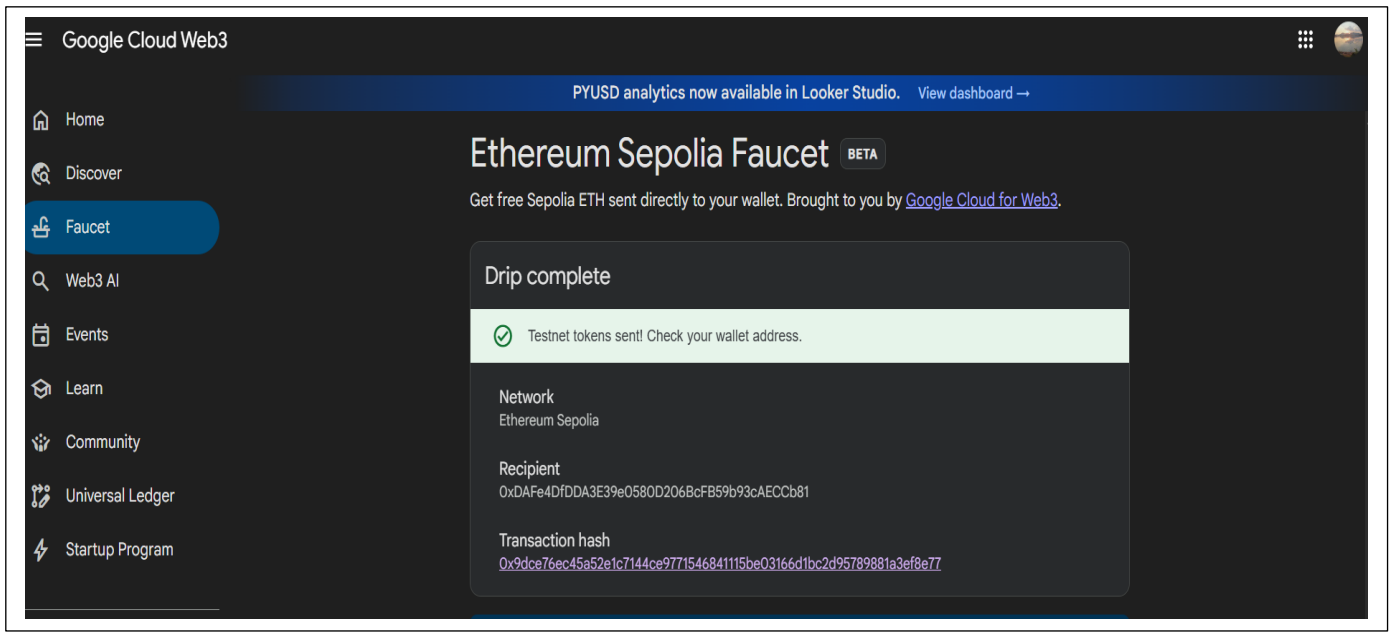
Apparatus/Software Used:

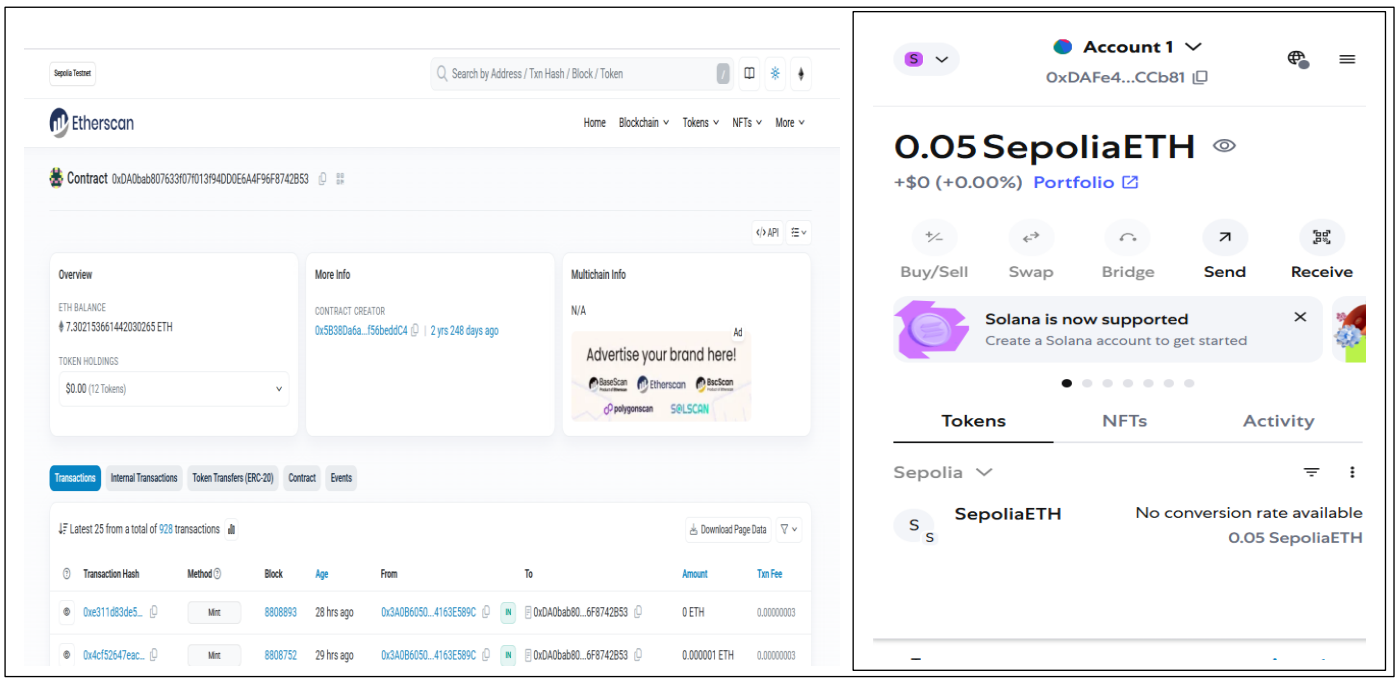
- Laptop/PC
- Remix IDE
- Ethereum cloud
- Sepolia tesnet
- Internet for research

Theory/Concept:

1. **Solidity** is a programming language for implementing smart contracts on various blockchain platforms, most notably, Ethereum. Solidity is licensed under GNU General Public License v3.0. Solidity was designed by Gavin Woodand developed by Christian Reitwiessner, Alex Beregszaszi, and several former Ethereum core contributors. Programs in Solidity run on Ethereum Virtual Machine or on compatible virtual machines
2. A **smart contract** is a computer program or a transaction protocol that is intended to automatically execute, control or document events and actions according to the terms of a contract or an agreement.


Adobe Acrobat Pro...
Adobe Creative Clo...
Adobe Premiere Pro...
McAfee LiveSafe - B...
DEPLOY & RUN TRANSACTIONS
Transactions recorded 6
Deployed Contracts 4
SIMPLESTORAGE AT 0XD88...3
Balance: 0 ETH
set
321
get
0: uint256: 321
storedData
Low level interactions
CALLDATA
Transact
SIMPLESTORAGE AT 0XF8E...9F
SIMPLESTORAGE AT 0X7EF...8C
SIMPLESTORAGE AT 0XDA0...4:
Home
README.txt
prog.sol
// SPDX-License-Identifier: MIT
pragma solidity ^0.8.0;
contract SimpleStorage {
uint256 public storedData;
function set(uint256 x) public {
storedData = x;
}
function get() public view returns (uint256) {
return storedData;
}
}
uint256 public storedData
scripts/prog.sol 4:4
2453 gas
Listen on all transactions
Filter with transaction hash or address
[vm] from: 0x5B3...eddC4 to: SimpleStorage.(constructor) value: 0 wei data: 0x608...0b1d3 logs: 0 hash: 0x90f...2489f
Debug


Google Cloud Web3
PYUSD analytics now available in Looker Studio. View dashboard →
Home
Discover
Faucet
Web3 AI
Events
Learn
Community
Universal Ledger
Startup Program
Ethereum Sepolia Faucet BETA
Get free Sepolia ETH sent directly to your wallet. Brought to you by Google Cloud for Web3.
Drip complete
Testnet tokens sent! Check your wallet address.
Network
Ethereum Sepolia
Recipient
0xDAFe4DfDDA3E39e0580D206BcFB59b93cAECCb81
Transaction hash
0x9dce76ec45a52e1c7144ce9771546841115be03166d1bc2d95789881a3ef8e77


Etherscan
Search by Address / Txn Hash / Block / Token
Home
Blockchain
Tokens
NFTs
More
Contract 0xDA0bab807633f07f013f94DD0E6A4F96F8742B53
Overview
ETH BALANCE
7.302153661442030265 ETH
TOKEN HOLDINGS
$0.00 (12 Tokens)
More Info
CONTRACT CREATOR
0x5B38Da6a...f56beddC4 | 2 yrs 248 days ago
Multichain Info
N/A
Advertise your brand here!
Transactions
Internal Transactions
Token Transfers (ERC-20)
Contract
Events
Latest 25 from a total of 928 transactions
Download Page Data
Transaction Hash
Method
Block
Age
From
To
Amount
Txn Fee
0xe311d83de5...
Mint
8808893
28 hrs ago
0x3A0B6050...4163E589C
0xDA0bab80...6F8742B53
0 ETH
0.00000003
0x4cf52647eac...
Mint
8808752
29 hrs ago
0x3A0B6050...4163E589C
0xDA0bab80...6F8742B53
0.000001 ETH
0.00000003
Account 1
0xDAFe4...CCb81
0.05 SepoliaETH
+$0 (+0.00%) Portfolio
Buy/Sell
Swap
Bridge
Send
Receive
Solana is now supported
Create a Solana account to get started
Tokens
NFTs
Activity
Sepolia
SepoliaETH
No conversion rate available
0.05 SepoliaETH

Procedure:

1. Set up your development environment.
2. create a new Solidity file.
3. define the contract with a pragma statement.
4. add state variables and functions.
5. compile the contract, and deploy it to the blockchain.

Observation Table:

1. When writing your first smart contract, it's also important to consider best practices such as using SPDX license identifiers and specifying the compiler version to ensure compatibility. Furthermore, events can be used to log actions on the blockchain, making it easier to track changes and interactions.

2. Overall, writing your first smart contract involves a combination of understanding the language syntax, best practices, and the specific requirements of the contract you are building.

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: