



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: UI for DApps – Building a DApp Frontend

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

- Start
- Deploy a sample smart contract using Remix IDE or Hardhat.
- Note down the contract address and ABI (Application Binary Interface).
- Create a new folder for the frontend project in VS Code.
- Initialize the project using: `npm init -y`
- Install Web3.js or Ethers.js: `npm install web3`
- Create an index.html file for the UI layout using HTML and CSS.
- Test DApp by connecting the wallet and performing transactions.
- End

* Software used:

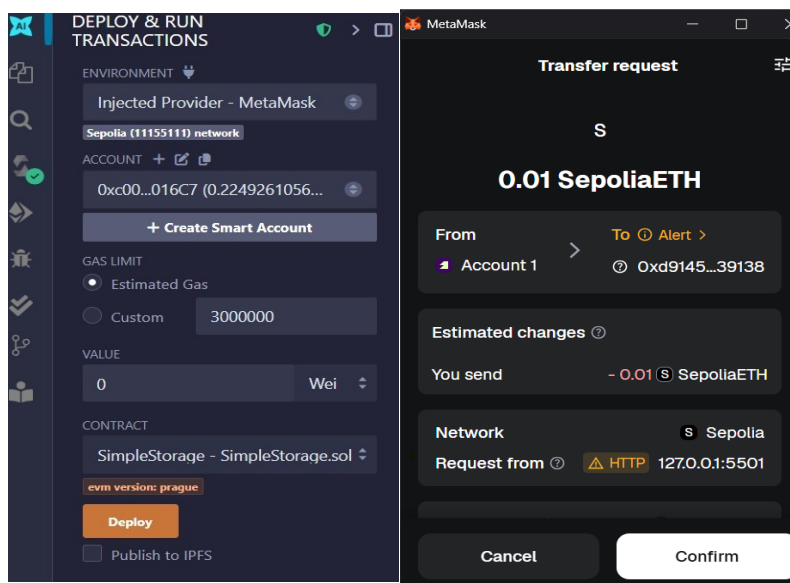
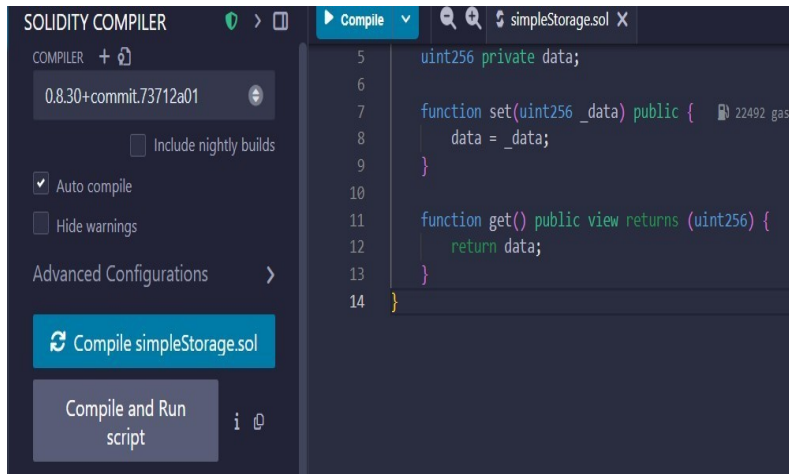
1. Laptop
2. Visual Studio Code (code editor)
3. MetaMask Wallet (browser extension)
4. Remix IDE (web-based smart contract IDE)
5. Node.js
6. React (via create-react-app)
7. Ether.js (Ethereum JavaScript library)
8. dotenv (for environment variables)

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

* Testing Phase: Compilation of Code (error detection)

- Compile and deploy the smart contract without errors.
- Run the DApp in a browser and check if MetaMask connects successfully.
- Call contract functions (e.g., read/write) and observe transaction responses.



* Implementation Phase: Final Output (no error)

- Successfully connected frontend to deployed smart contract.
- Executed functions such as reading/writing data through the UI.
- Verified results on Ganache or blockchain explorer.

Observations:

- DApp frontend interacted smoothly with the blockchain.
- Wallet connection and transaction confirmation worked as expected.
- User interface made blockchain interaction simpler and user-friendly.

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:

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