Blockchain Assignments – Decentralized Applications

Recovery code:
clerk core shop pumpkin van ketchup hero napkin bounce bid reveal summer

Assignment 1: Smart Contract Development & Testnet Deployment
Ass1 Contarct ID
0x75534834EFC9899D98700e129b9F963aC3Bd54d2
0x2c915b97639F39481Cde6eb5d31bFfE582ea5640

Sepolia Testnet is a specialized test network designed for developers to experiment with and test their Ethereum-based applications and smart contracts.

Challenges faced:
1. Install Meta Mask: Use chrome instead of Safari on Mac.
2. Generated Etherum faucet but was getting over when we ran contact multiple times. So imported from a different Google account.
3. Sepolia testnet takes time , so we need to wait using sepolia.etherscan.io
4. Every day went to https://cloud.google.com/ anded Ethereal sepolia fauce to maintain balance.

Steps :
1.Create two programs, one for Assigning values and retrieving and other for Storing string and retrieving it.
2. After Compiling and deploying checked details in https://sepolia.etherscan.io/

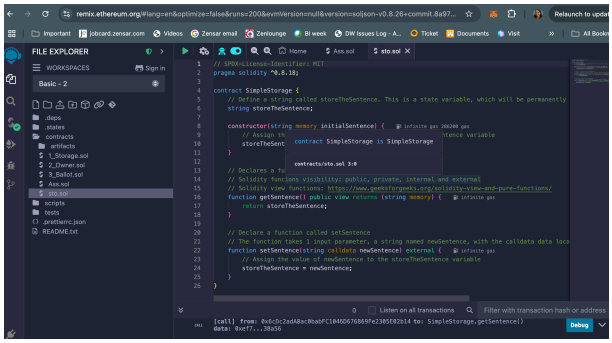
Part 2
Mintable contract id: 0x4d97a889F9178558139C97FA34029E1c2d0D8Bce
0x766C0EfC93D7bc744d00b3E05ff426c53307bc80

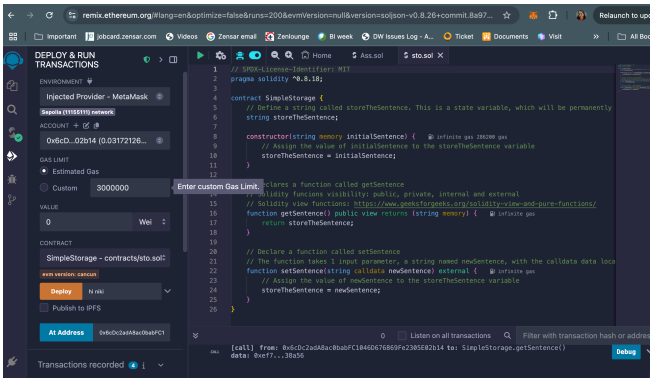
ERC-20 defines a set of API methods and events to ensure that all tokens created using this standard are compatible with other Ethereum tokens

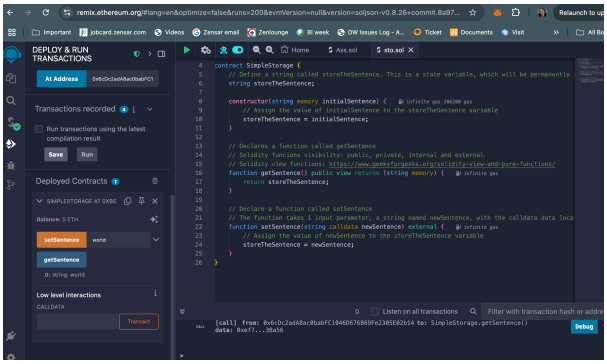
Steps:
Prerequisite
1. MetaMask should be installed and select sepolia.
2. Using **cloud.google.com** , load free 0.5 Sepolia Ether faucet.
3. Select ERC20
4. Click on Mineable, Burnable
5. Click on Remix button on top right to open the code.
6. Modify the code for other functions and put
7. Save and compile the contact
8. Depoy on Injected provider meta mask

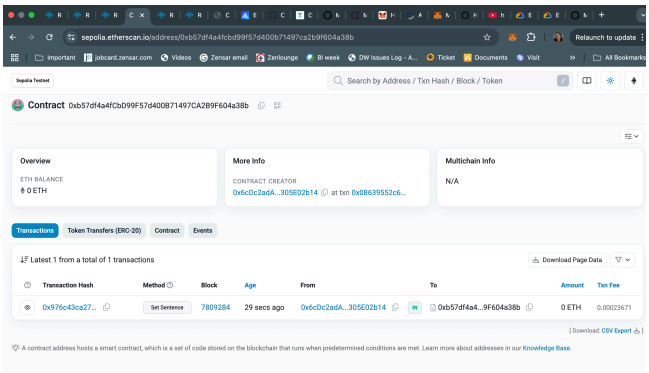
9. Select account that has more that 0.05 in Account
10. Click on Deploys Contact and select mint.Enter Address and amount to min
11. On **https://sepolia.etherscan.io/** enter the address Deployed
12. Checked mint, burn, transfer and balance options.
13. Verified deals on **https://sepolia.etherscan.io/** and activity tab on Metamask.
14. Saved Workspace by the name of “Ether Assignment”

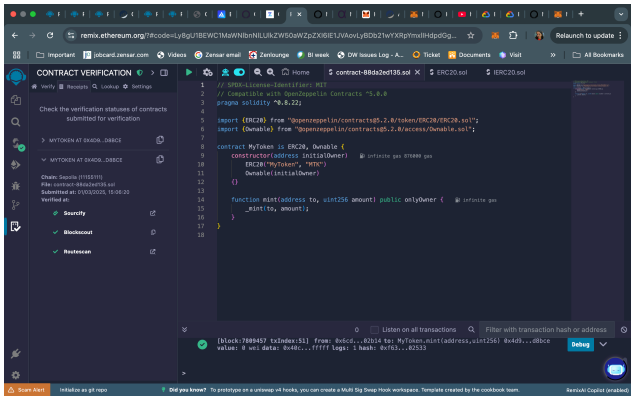
Screen Shots Ass1 :

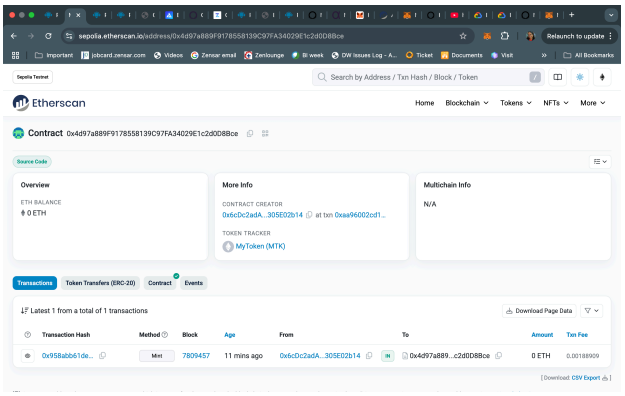




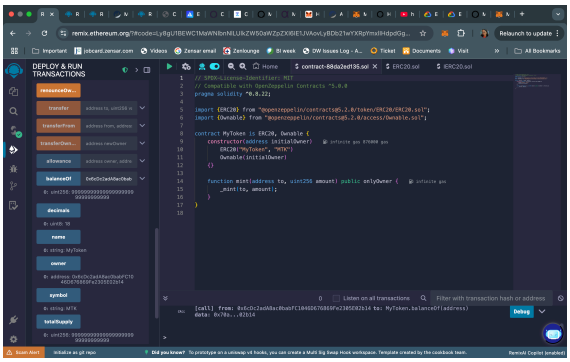


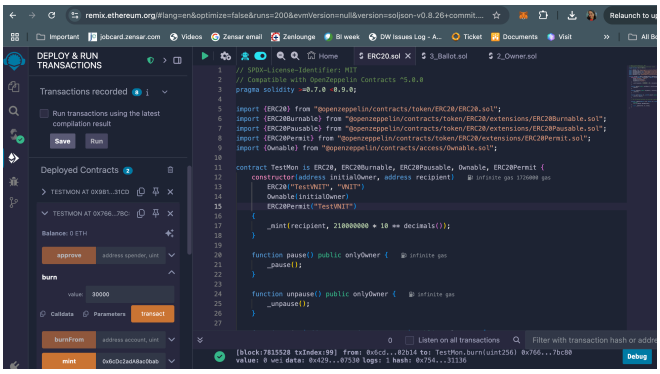


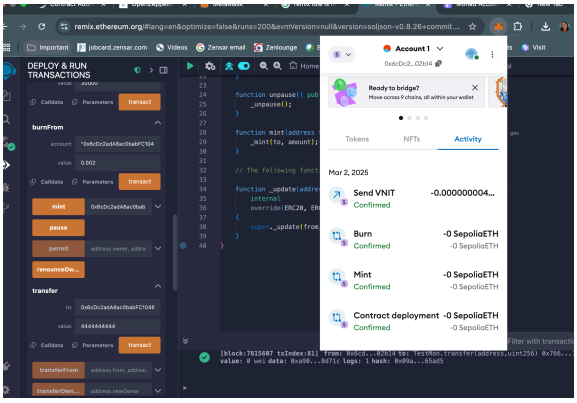


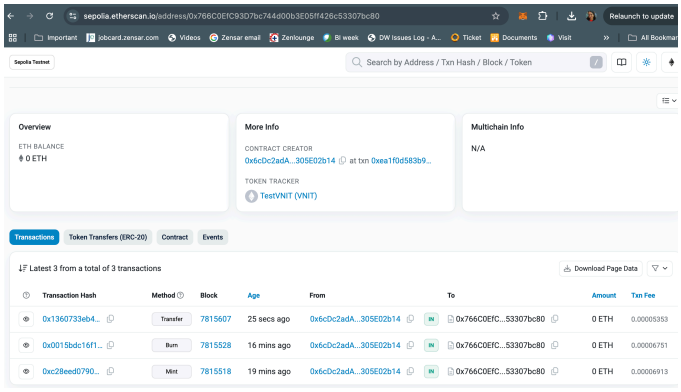


Screen Shots Ass2 :









API_URL = "https://volta-rpc.energyweb.org/"

https://volthttps://volta-rpc.energyweb.org/
a-rpc.energyweb.org/

Contract address: 0x928fb423d9084e5d3a457849Fb182315682dE100

ASS 3 : Voting System
Steps

1. Create a folder Voting
2. npm init
3. npm install
4. npx hardhat
5. npx hardhat compile
6. npx hardhat run --network volta scripts/deploy.js
7. Create-react-app react-app
8. Npm start
9. Npm install ethers@5.7.1

Code is in Github:

```
API_URL = "https://sepolia.drpc.org"
PRIVATE_KEY="1ec1586e16fbffdf68ac58a788b51fe15f77dff2d11c3d37e8416
7765e0ae7ed"
CONTRACT_ADDRESS="0x928fb423d9084e5d3a457849Fb182315682dE100"
```

```
0x4D738B8e7d41881095391AD692545A11f6161130
0x4D738B8e7d41881095391AD692545A11f6161130
```