Project Design Phase-I

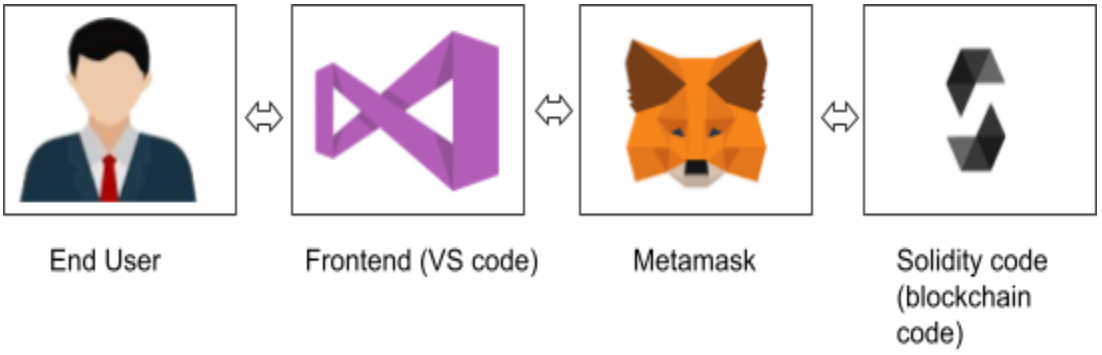
Solution Architecture

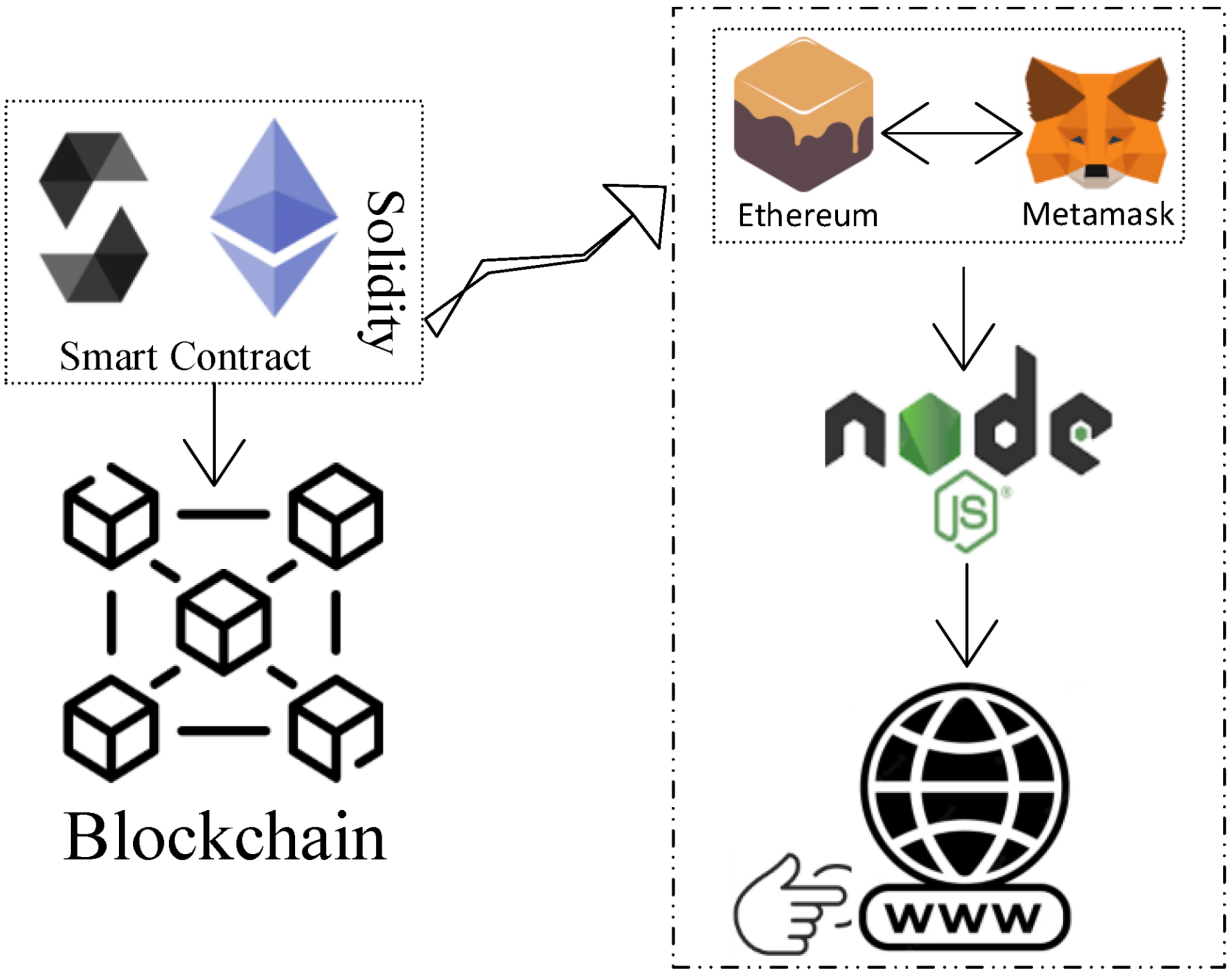
Date	27 october 2023
Team ID	NM2023TMID01896
Project Name	Food tracking system
Maximum Marks	4 Marks

Solution Architecture:

A food shortage, which has increased with the climate crisis, will be one of the biggest problems of the world, together with water scarcity, in the future and will damage the sustainability of the food supply system. With the effect of the COVID-19 pandemic, food resources are decreasing , and food prices are rising all over the world. The decrease in food sources increases the importance of food tracking even more. The exorbitant price increases after the COVID-19 pandemic are the most concrete indicators of this. Blockchain-based food tracking systems will be of critical importance because they will prevent exorbitant price increases with their contribution to food tracking processes, such as reliability and transparency. In this study, the establishment of a blockchain-based food tracking system in Turkey, its operation, and its results will be discussed. It was concluded that 97.54% of the participants using the established system found the application useful and wanted such an application to become widespread. In addition, comparing the performance data of the established blockchain-based system with other blockchain infrastructures, a value of 0.038 s for latency is 435 times better than Ethereum, one of the most popular blockchain infrastructures. A transmission per second value of 285, reception per second value of 335, and CPU load rate value of 19.22 are obtained with the proposed system.

Example - Solution Architecture Diagram:





Prerequisite

1 download node.js : Node.js

2 download vs code: **Li4nk**

3 download metamask : https://metamask.io/

Steps to complete the project

Step 1:-

1. Open the Zip file and download the zip file.

Extract all zip files

Step 2 :

1.Open vs code in the left top select open folder. Select extracted file and open .

2. Select the projectname.sol file and copy the code.

3. Open the remix ide platform and create a new file by giving the name of projectname.sol and paste the code which you copied from vs code.

4. Click on solidity compiler and click compile the projectname.sol

5. Deploy the smart contract by clicking on the deploy and run transaction.

6. select injected provider - MetaMask. In environment

7. Click on deploy. Automatically MetaMask will open and give confirmation. You will get a pop up click on ok.

8. In the Deployed contract you can see one address copy the address.

9. Open vs code and search for the connector.js. In contract.js you can paste the address at the bottom of the code. In export const address.

10. Save the code.

Step 3:

open file explorer

1. Open the extracted file and click on the folder.

2. Open src, and search for utiles.

3 . You can see the frontend files. Select all the things at the top in the search bar by clicking alt+ A. Search for cmd

4. Open cmd enter commands

    npm install

    npm bootstrap

    npm start

5. It will install all the packages and after completing it will open {LOCALHOST IP ADDRESS} copy the address and open it to chrome so you can see the frontend of your project.