ANNA UNIVERSITY
NAAN MUDHALVAN – GUIDED PROJECT
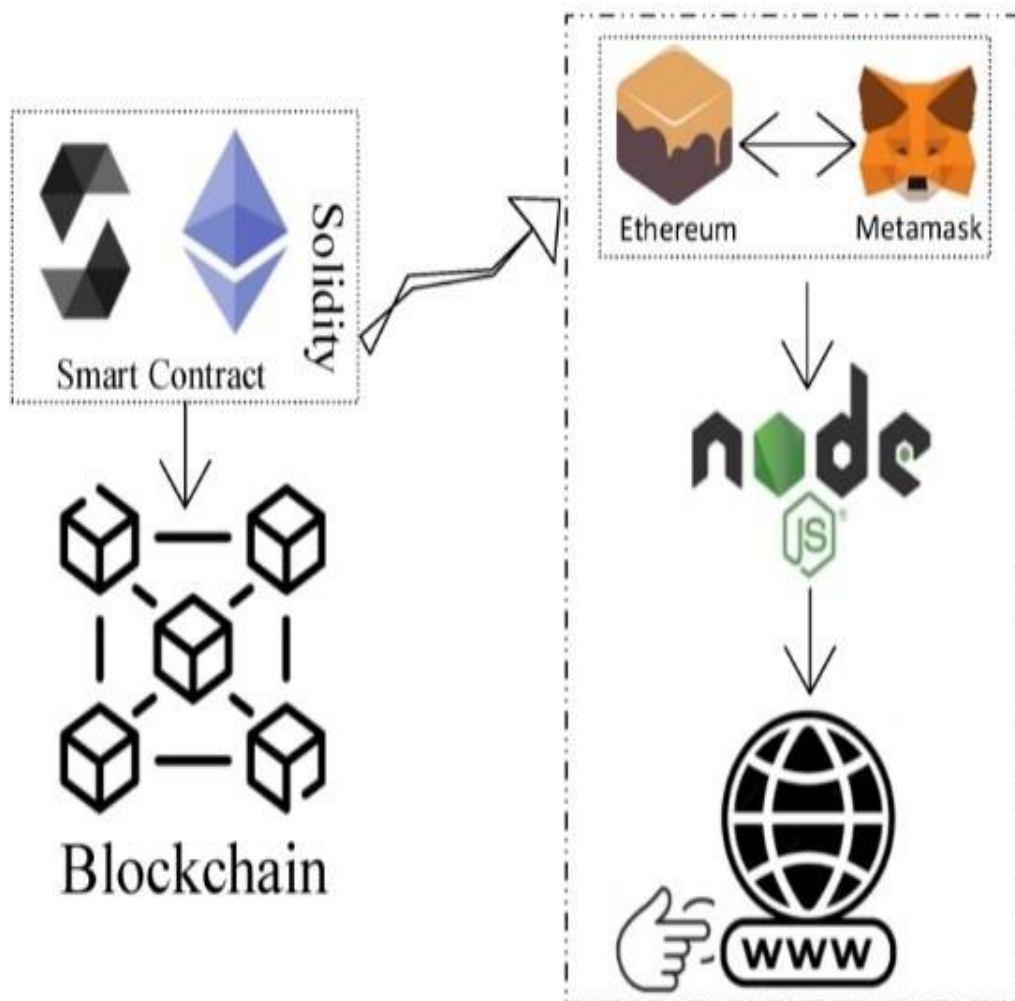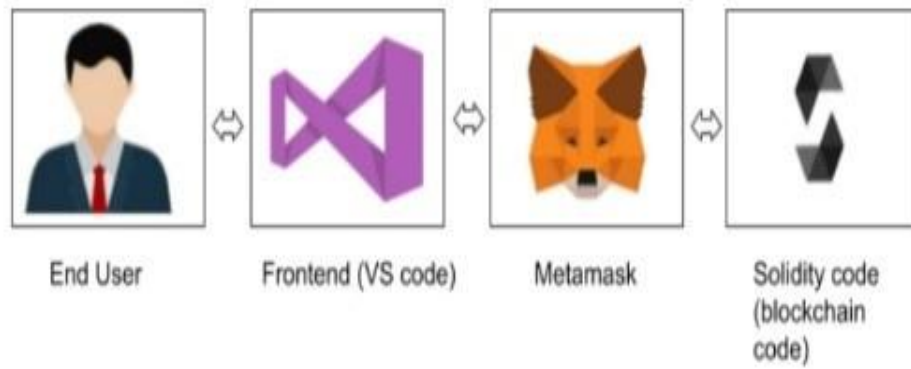
TRANSPARENT EDUCATION DATA MANAGEMENT

SOLUTION ARCHITECTURE

DATE	31 OCTOBER 2023
TEAM MEMBERS WITH NM ID	1) DHARUN M - 0270CBCD3358D93874A40B917EEC65EC 2) DIVYA DHARSHINI - 087EE4C0342F965ADBA46 49B908C2642 3) ELASUKUMARAN E - 23556780714CDCFB5B84BF4E9269022A 4) GOWTHAM R - 0BF3F06AC53C10E89F446EF2C7C77B3C 5) VYSHNAVI M - 4284E4FD1316A93BEA54DC B745B8F87F
PROJECT NAME	TRANSPARENT EDUCATION DATA MANAGEMENT
COLLEGE NAME	ALAGAPPA COLLEGE OF TECHNOLOGY, ANNA UNIVERSITY

Solution Architecture:

Implement a centralized database or data warehouse that serves as the primary repository for all educational data, including student records, assessment results, attendance, and institutional performance data. This centralization ensures data consistency and accessibility. Employ robust user authentication and authorization mechanisms to control access to the system. Implement role-based access control, allowing administrators, educators, students, and parents to access specific data and functionalities based on their roles. Develop data integration processes and ETL workflows to consolidate data from various sources. These processes should include data mapping, transformation, and validation to ensure data accuracy before it is stored in the central repository. Build a data analytics and reporting engine that allows users to create, customize, and schedule reports and visualizations. Implement data analytics tools to derive meaningful insights from the educational data, aiding data-driven decision-making.

End User — Frontend (VS code) — Metamask — Solidity code (blockchain code)

Solidity

Smart Contract

Blockchain

Ethereum — Metamask

node JS

WWW

Schematic Diagram of Solution Architecture

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.

2. 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.