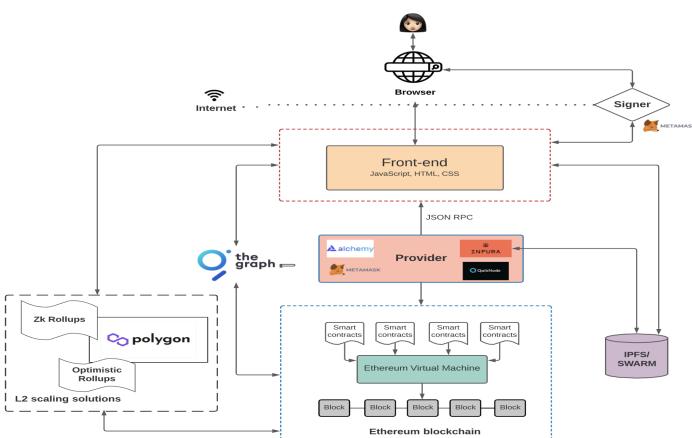


**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

Email:

IVYearB.Tech-IISemesterMajorProjectIndividualSummary Sheet

| <b>Project Title:</b>  | SecureTweet:Blockchain-Based Social Media using web 3.0   |                   |    |                     |         |
|--|---|-------------------|----|---------------------|---------|
| <b>Project Code:</b>   | 8E896   | <b>BatchSize:</b> | 03 | <b>Batch:</b>       | 2021-25 |
| <b>Domain/Area:</b>  | BLOCKCHAIN  |                   |    | Application/Product |         |
| <b>Abstract:</b>   | Blockchain enables innovative solutions for decentralized environments. This project designs a blockchain-based storage system, like IPFS, to reduce social media's reliance on centralized repositories. Leveraging Ganache, MetaMask, Truffle, and Ethereum, we deploy smart contracts, store file metadata on the blockchain, and facilitate transactions on the Goerli test network. By integrating Pinata for storage, the app allows crypto users to tweet, view, and delete content securely, enhancing data privacy and control while addressing limitations of traditional systems.  |                   |    |                     |         |
| Existing System  | Proposed System   |                   |    |                     |         |
| 1. <b>Centralized Storage:</b> Single server, single point of failure.<br>2. <b>Resource Strain:</b> High load on central servers.<br>3. <b>Scalability Issues:</b> Struggles with growth.<br>4. <b>Dependency on Third Parties.</b> | 1. <b>Blockchain Layer:</b> Ethereum (Goerli) for decentralized metadata and transactions.<br>2. <b>Smart Contracts:</b> Truffle for secure metadata storage and rule enforcement.<br>3. <b>File Storage:</b> Pinata/IPFS for decentralized, server-independent storage.<br>4. <b>P2P Network:</b> IPFS for data availability and fault tolerance.  |                   |    |                     |         |
| Technical(S/w&H/w) Specifications  | Specifications  |                   |    |                     |         |
| <b>Hardware Specifications:</b><br>1. Intel i3 700U<br>2. Minimum 4GB RAM  | <b>Software Specifications:</b><br>1. Windows 11/10/8<br>2. VS code   |                   |    |                     |         |
| Architecture Diagram   | Methodology   |                   |    |                     |         |
|   | <p>This project utilizes blockchain to create a decentralized data storage platform similar to IPFS, reducing reliance on centralized social media repositories. Using Ganache for local blockchain development, Truffle for smart contract deployment, and MetaMask for user authentication, we securely store file metadata on Ethereum, while leveraging Pinata for off-chain file storage in IPFS. Deployed on the Goerli test network, the platform allows users to post, view, and delete content through a user-friendly interface integrated with MetaMask, ensuring data security and privacy. Extensive testing and optimizations improve transaction efficiency, retrieval speed, and storage scalability, offering an innovative, decentralized approach to social media data management.</p> |                   |    |                     |         |
| Guide Details  | Batch Members Details   |                   |    |                     |         |
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