FILECOIN HACKATHON

By Prithvi P Rao, EE22B024 Mith R Jain, CS22B097

FREELANCING INDUSTRY

Freelancing, a dynamic and ever-expanding industry, has become a cornerstone of the modern workforce. With millions of freelancers globally, its impact on the job market and the economy is undeniable. Freelancing has transformed the way people work, offering professionals the flexibility to choose their projects, clients, and work locations.

The freelancing industry is indeed substantial, and its growth underscores the importance of automation. According to a study conducted by Upwork and Freelancers Union in 2020, freelancers comprised 36% of the U.S. workforce, contributing approximately \$1.2 trillion to the economy. Moreover, the COVID-19 pandemic accelerated the adoption of freelancing, with 58% of non-freelancers expressing an interest in starting freelancing work due to its flexibility and potential income.

SOLUTION

As the freelancing industry continues to expand, automation becomes increasingly vital to meet the demands of this dynamic sector, enhancing productivity, reducing overhead costs, and driving innovation.

Blockchain technology presents a compelling solution for automating the freelancing industry. Its decentralized ledger system offers several key advantages that can streamline various aspects of freelancing including smart contracts, identity verification, immutability, decentralisation of marketplace and much more!

By harnessing blockchain's capabilities, the freelancing industry can evolve into a more efficient, secure, and trustworthy ecosystem, benefiting both freelancers and clients alike.

In the transition of Web2 to Web3, we would like to reel in the Freelancing industry.

The Dapp (Decentralised Application) handles all the the internal work of a freelancing project.

FUNCTIONALITIES

- A Lancer is a structural class in the code representing a registered user who can upload Freelancing Projects to the Dapp
- A project is the structural class in the code representing a project that has been uploaded to the chain, with its own details, including a status which represents what stage the project is at.
- The CreateProject function allows a user to create a new project by providing a name, description, and fees after checking the sender's balance and transfers the specified fees to the contract.

- The addLancer function allows a user to register as a freelancer by providing the details.
- The take_Project function allows a freelancer to take a project that is in the "Advertised" status, updates the project's status and assigns it to the freelancer and records the project in the freelancer's list of projects.
- The submit_project function allows a freelancer to submit a project they've completed and changes the project status to "NeedtoCheck."
- The accept_project function allows the project owner to accept a submitted project and changes the project status to "Completed." while transferring the cryptocurrency to the freelancer's accuount
- The reject_submission function allows the project owner to reject a submitted project. and changes the project status to "Advertised" and removes the association of the project with the freelancer.

SCOPE OF IMPROVEMENT

- Implementing a secure and decentralized communication protocol within the platform can enhance collaboration between freelancers (Lancers) and clients. This protocol could utilize blockchain's inherent security features to protect sensitive project information and discussions.
- Implementing a deadline-setting mechanism enhances project management and accountability. Smart contracts can include an option for clients to specify project deadlines when creating a project. Freelancers can agree to these deadlines when accepting a project, and the contract can automatically enforce them. If a freelancer fails to meet the deadline without a valid reason, the smart contract can trigger penalties or dispute resolution mechanisms, ensuring timely project completion
- Introducing a mechanism to handle project advertising time and refunds can improve the platform's fairness and attractiveness to both clients and freelancers.
 Smart contracts can be designed to include a predefined advertising period during which freelancers can bid on a project.