Implementation of Smart KYC using Blockchain

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Abstract: *The know your customer or know your client (KYC) is a guideline for the banking system to validate a customer using identity, appropriateness, risk assessment in establishing a banking relationship. With the growing concern of security, the KYC process is complex and involves a high cost for completing for a single customer. In this work, we propose an economical, swift, secure, and transparent platform for KYC document verification for the Banking system through InterPlanetary File System (IPFS) and blockchain technology. The proposed system allows a customer to open an account at one Bank, complete the KYC process there, and generate a hash value using the IPFS network and share it using the blockchain technique. Upon receiving the private key, any Bank/financial organization can retrieve, store customer data (i.e., KYC) securely using IPFS network if the customer wishes to open another account in that Bank/financial organization. The proposed system can save time, money, and repetitive work during the KYC process when someone tries to open an account at multiple Banks.*

Keywords: Blockchain, KYC, IPFS, DLT

I. INTRODUCTION

The know your customer or know your client (KYC) is a guideline for the banking system to validate a customer using identity, appropriateness, risk assessment in establishing a banking relationship. With the growing concern of security, the KYC process is complex and involves a high cost for completing for a single customer. In this work, we propose an economical, swift, secure, and transparent platform for KYC document verification for the Banking system through InterPlanetary File System (IPFS) and blockchain technology. The proposed system allows a customer to open an account at one Bank, complete the KYC process there, and generate a hash value using the IPFS network and share it using the blockchain technique. Upon receiving the private key, any Bank/financial organization can retrieve, store customer data (i.e., KYC) securely using IPFS network if the customer wishes to open another account in that Bank/financial organization. The proposed system can save time, money, and repetitive work during the KYC process when someone tries to open an account at multiple Banks.

II. PURPOSE

Economical, swift, secure, and transparent platform for KYC document verification for the Banking system through InterPlanetary File System (IPFS) and blockchain technology. The proposed system allows a customer to open an account at one Bank, complete the KYC process there, and generate a hash value using the IPFS network and share it using the blockchain technique.

Key objectives and purposes of a include:

To develop an effective and efficient model this can done kyc online and securely.

To develop Efficient Customer Onboarding: Effective KYC processes can streamline the customer onboarding process, making it quicker and more efficient. This benefits both customers and businesses by reducing the time and effort required to start a financial relationship.

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III. OBJECTIVE OF SYSTEM

- Regulatory Compliance: One of the most significant motivations for KYC is to comply with legal and regulatory requirements. Governments and financial authorities around the world have established KYC regulations to combat money laundering, terrorist financing, and other financial crimes. By adhering to these regulations, businesses can avoid legal penalties and reputational damage.

- Risk Management: KYC helps businesses assess and manage the risks associated with their customers. It enables them to identify high-risk customers and take appropriate measures to mitigate the associated risks, such as enhanced due diligence or monitoring.

- Fraud Prevention: KYC processes help prevent fraud by verifying the identity of customers and ensuring that they are who they claim to be. This reduces the likelihood of fraudulent activities and protects both the business and its legitimate customers**.**

IV. SYSTEM ARCHITECTURE

Secure KYC are a widespread concern affecting millions of people worldwide. These conditions can range from mild irritations to severe, potentially data hacking. Early provided security for kyc documents.

SYSTEM ARCHITECTURE
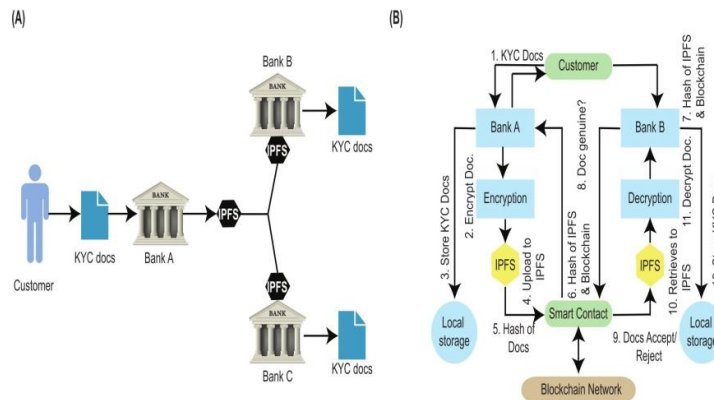
1. Register

Here user can register and user info will be encrypting using blockchain here on portal.

2. Login

Login Here

3. Upload Documents.

User Can Upload documents in IPFS with encrypt.
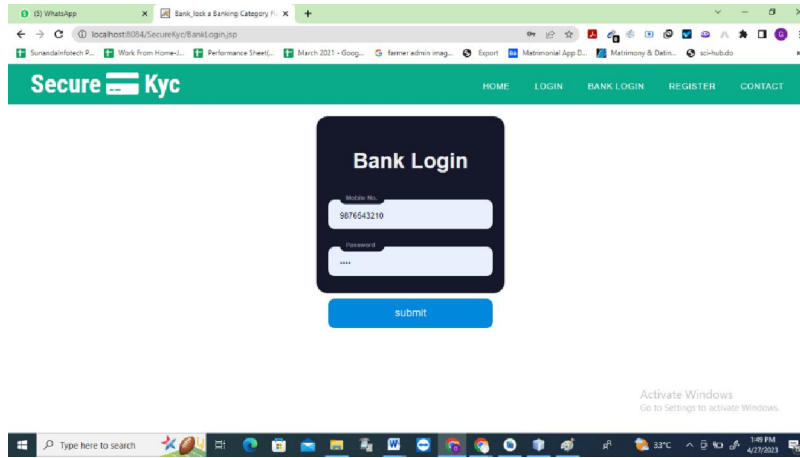
4. Bank to Bank Transfer

Show bank to bank transfer also check kyc if amount greater than 1 lakh
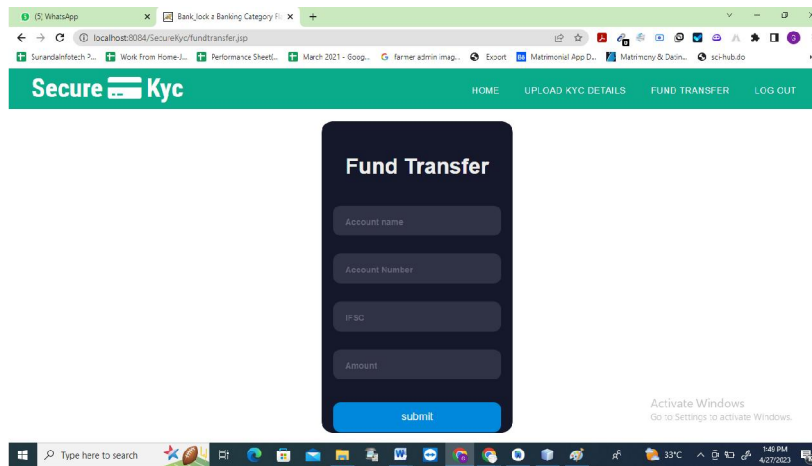
5. Bank Account Creation

Show bank to bank transfer also check kyc if amount greater than 1 lakh
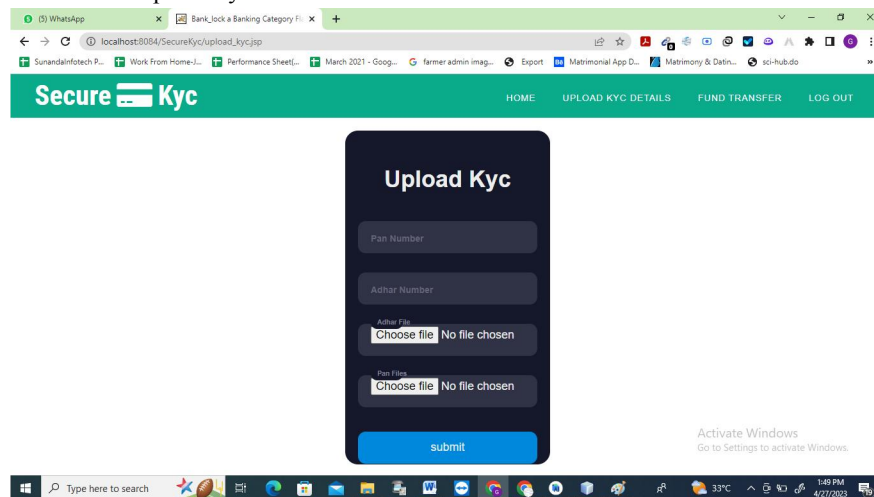
V. RESULT

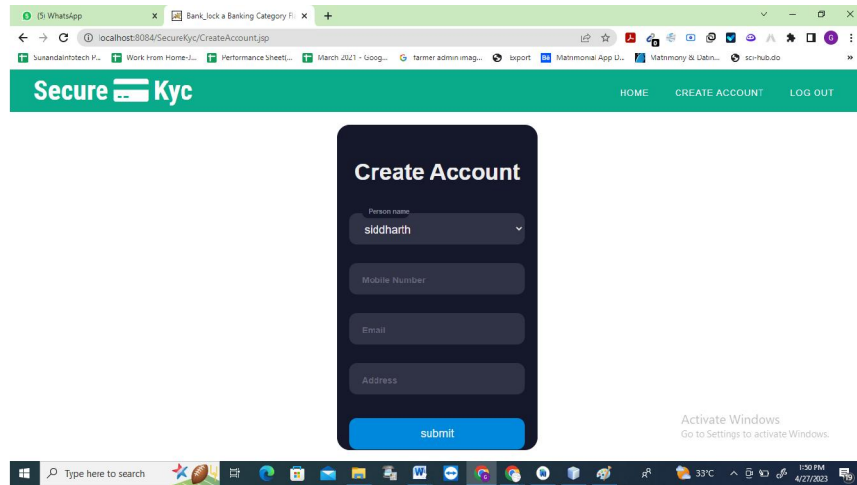**Bank Login:** Here bank can login to create user account

Fund Transfer: Here user can send amount to other account

Upload KYC: Here user can upload kyc data.

Create Account: Here bank can create user account

VI. CONCLUSION

We investigate the impact of Blockchain technology on varied areas of applications. Studying the current KYC procedures adopted by Global Banks, it is clear that these come with a lot of financial and procedural overhead. This overhead not only impacts the bottomline of the firm but also has a detrimental impact on the turnaround time to open new accounts and the overall customer experience associated with it, especially in cases of international customers.The future of any industry hinges on embracing comprehensive digital transformation, a goal achievable only through fundamental infrastructure changes. To enhance operational efficiency, it is imperative to restructure core processes, necessitating an openness to novel and disruptive technologies. The primary objective of our proposed solution was to revolutionize the conventional Know Your Customer (KYC) process.This paper outlines a remedy for the prevalent issues of redundancy and inefficiency in the current KYC procedure, resulting in a significant reduction in operational costs. Our approach also eradicates the vulnerability associated with a single point of failure by leveraging a blockchain-based solution. Blockchain stands out as a revolutionary technology with continuously expanding applications. Introducing a blockchain application for KYC document verification offers a concrete proof of a customer's identity to the bank, ensuring transparent access across all connected banks within the blockchain network. This not only expedites access to KYC documents but also fortifies security measures. Through this innovative approach, we aim to diminish the expenses associated with maintaining documents, which were traditionally centralized.

VII. ACKNOWLEDGMENT

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