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A Block Chain-Based System for Confidential And Secure Bank Record Management

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Abstract: *This research puts forth a system that utilizes the integration of block chain, a database for storage, and cryptography to preserve the confidentiality and security of bank records. The block chain ensures the protection and dependability of data storage through its use, while smart contracts regulate the way the data is stored and shared. The original bank records are kept in a secured, encrypted format on a separate database, with only their hash values recorded on the block chain. To further secure the data, the off-chain records are frequently connected with the hash information on the blockchain. The utilization of cryptography aids in the encryption of documents and the digital signing of messages. The system has a WebApp interface that enables parties involved in the transaction to communicate in a decentralized manner.*

Keywords: Block chain, Cryptography, Smart Contracts, Data Security, Confidentiality, Bank Records, Hash Values, Off-Chain Storage, Encryption, Digital Signatures, Decentralized System, Data Integrity, Secure

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