

ABSTRACT

The Question paper leakage has become a recurring problem in many educational institutions, leading to unfair examination practices, loss of credibility, and a negative impact on students' academic careers. Traditional methods of question paper distribution and storage are vulnerable to tampering, unauthorized access, and insider threats. This mini project proposes a blockchain-based solution to address these issues by providing a secure, decentralized, and tamper-resistant system for question paper management. Blockchain technology operates on a distributed ledger system, where data once recorded cannot be modified or deleted. By leveraging this feature, the proposed system stores encrypted question papers on a private blockchain. Access to these papers is controlled using smart contracts, which allow decryption only at a specified time and only by authorized users. This ensures that no single party has complete control over the data, minimizing the risk of leaks and unauthorized access. The project uses a simplified blockchain model, possibly based on Ethereum or Hyperledger, to simulate the upload, encryption, time-locking, and decryption processes. It demonstrates how the integration of cryptographic techniques and decentralized architecture can ensure the confidentiality, integrity, and availability of examination papers. In this system, question papers are encrypted and stored on a blockchain network, accessible only to authorized users through smart contracts at a predefined time. The decentralized nature of blockchain ensures that no single entity can alter or access the content without proper authorization. This project demonstrates how blockchain can enhance the security and trustworthiness of the examination process. This solution has the potential to revolutionize exam management systems by making them more secure, trustworthy, and efficient, and serves as a practical example of how blockchain can be applied to real-world problems beyond cryptocurrency.