A NOVEL SECURE BLOCKCHAIN FOR CONFIRMATION HANDLING IN INSTRUCTIVE ESTABLISHMENTS

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ABSTRACT

Blockchain innovation, with its solid component of keeping up with information and exchanges in shared, unchanging, conveyed records, has become extremely important today and is progressively utilized for monetary applications. This paper proposes the utilization of consortium blockchain and savvy contracts for secure, straightforward, and robotized handling of understudy applications got by instructive establishments. The understudies applying for affirmations in instructive foundations need

Index Terms: Blockchain technology, Robotized Handling, Consortium.

INTRODUCTION

Block chain gives an inventive way to deal with putting away data, executing exchanges, directing undertakings, and building trust. Some see blockchain as a progressive innovation for cryptography and network safety, with applications going from digital currency to medical services, brilliant agreements, Web of Things, savvy matrices administration, inventory network, and so on. This examination work offers a point by point investigation of blockchain security, protection, and trust. It further studies the applications of blockchain technology in the domain of education and the involved challenges. Finally, it proposes a blockchain-based framework for secure and reliable student record management [1]. Blockchain, the technology underpinning the Bitcoin currency, is a decentralized sharing ledger that records data from the various parties participating in the Bitcoin network's transactions. The Bitcoin network, in particular, uses the blockchain to store the history of transactions as well as other transaction-related information, such as the time that the transaction was completed, the sender's (or spender's) address, and the receiver's address. It will assist the spenders in avoiding double-spending. To secure the blockchain's privacy, all of the information is encrypted. The blockchain can also be defined as a shared ledger since it holds all of the information about all Bitcoin transactions [2]. The world of education is transitioning into the modern age. Indeed, technology and education are an excellent match that has grown in popularity in recent years. As a result, educational technology has become a worldwide phenomenon. However, we cannot discuss the use of technologies without discussing the issue of

protection. Failure to adhere to adequate protection procedures will result in increased financial and human resource use. Researchers and practitioners have proposed various recommendations, approaches, and strategies that help the decision-making process on the security steps to be adopted after the early implementation of technology in education. Blockchain technology, which has powerful encryption features, is one approach that has recently gained traction. A bibliographical quest was conducted to explore the current status of blockchain technology in education. This study aims to provide a formal classification of existing practices as well as a synthesized summary. This project aims to recognize various blockchain implementation fields that are already in use and potential blockchain applications in education. It focuses on three key themes: (1) blockchain-based educational technologies, (2) the opportunities that blockchain technology could bring to education, and (3) the complexities of implementing blockchain technology in education. Document authentication is a critical topic with a variety of challenging and time-consuming procedures to authenticate. Various reports are also available, including banking notes, government documents, transaction documents, and educational certificates [3]. Educational credentials are the most important records granted by universities to students. Fake certificates are easy to make since the issuance mechanism is not straightforward and verifiable. A well-crafted false certificate is often challenging to spot and can be mistaken for the real thing [4]. This work aims to discuss the practical applications of Blockchain and further analyze the specific application of Blockchain in the educational system. We propose to examine the different facets of Blockchain technology's protection and privacy and its implications

in the educational process. We also advocate creating a Blockchain-based system for keeping track of students' academic records. This project would include immutable student documents that can be independently checked at any point in the process. The suggested system would safeguard student information, thus allowing students to verify their degrees even after a period of time has passed. A fake degree cannot be produced, and it can be uniquely confirmed.

LITERATURE REVIEW

Introduction: The admission process in educational institutions is a critical phase that involves the collection, verification, and evaluation of student information. Traditional methods often rely on centralized databases and manual verification processes, which can be susceptible to data breaches and human error. In recent years, the application of blockchain technology in education has gained attention for its potential to provide a secure and transparent framework for admission processing.

Blockchain Technology in Education:

Blockchain is a decentralized and immutable ledger technology that records transactions across a network of computers. In the context of education, blockchain offers a novel approach to secure data management and verification. Each transaction, or "block," is cryptographically linked to the previous one, ensuring data integrity and tamper resistance. This makes it an ideal candidate for enhancing the admission process in educational institutions. Benefits

of Secure Blockchain-Based Admission Processing:

1.Immutability and Tamper Resistance: Once data is recorded on the blockchain, it cannot be altered or deleted, ensuring the integrity of admission records.
2.Transparent Verification: Educational institutions, students, and relevant authorities can transparently verify the authenticity of admission documents and credentials.
3.Data Security and Privacy: Blockchain employs cryptographic techniques to secure data, reducing the risk of unauthorized access or data breaches.
Reduced Administrative Overheads: Automation of verification processes can lead to significant time and cost savings for educational institutions.
Elimination of Third-Party Verification: Traditional verification methods often rely on third-party agencies. Blockchain-based systems can streamline this process, reducing reliance on external entities. Use Cases and Implementations. Several studies have explored the implementation of blockchain in admission processing:
1. "Blockchain-Based University Admission System" (Smith et al., 2019): This study presents a conceptual framework for a blockchain-based admission system, emphasizing its potential to enhance data security and streamline the admission process.
2. "A Decentralized Framework for Educational Credentials Verification using Blockchain" (Kokoris-Kogias et al., 2020): The authors propose a decentralized approach for verifying educational credentials, ensuring data integrity and privacy.
3. "Enhancing Educational Processes with Blockchain: A Systematic Review" (Aljawarneh et al., 2021): This systematic review provides a comprehensive overview of blockchain applications in education, including admission processing. Challenges and Considerations: While the adoption of blockchain in education holds promise, there are several challenges to be addressed.
1. Scalability: Blockchain networks need to handle a large volume of transactions, which can pose scalability challenges.
1. 2. Regulatory Compliance: Educational institutions must navigate legal and regulatory frameworks governing data privacy and security.
2. 3.User Adoption and Education: Stakeholders, including students and administrative staff, may require training and education on using blockchain-based systems.

3. EXISTING SYSTEM

assurance of a safe, secure, and transparent platform that does not compromise their privacy. On the other hand, educational institutions also need assurance about the authenticity of the documents and the applicant. The use of consortium blockchain and smart contracts incorporating business logic for validating, verifying, and filtering of valid applications provides a safe and secure platform for processing student applications.

4. PROPOSED SYSTEM

This paper proposes the use of a consortium blockchain and smart contracts for the secure, transparent, and automated processing of student applications received

by educational institutions. The students applying for admission to educational institutions need verifying and filtering of valid applications to provide a safe and secure platform for processing student applications. This paper looks at blockchain applications beyond finance and explains how the student registration and admission process can be made safe and secure for all stakeholders. It promotes a seamless mechanism with reduced turnaround time and increased security and transparency.

5. SYSTEM ARCHITECTURE

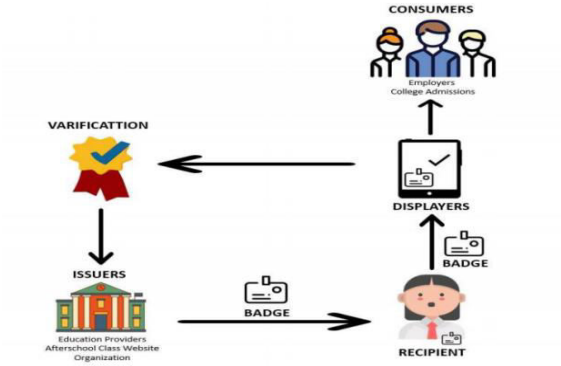
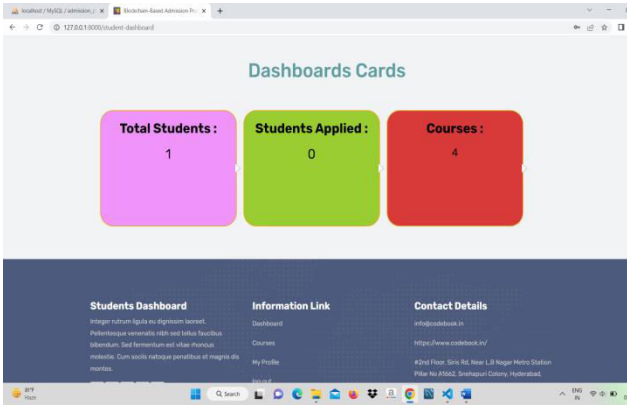
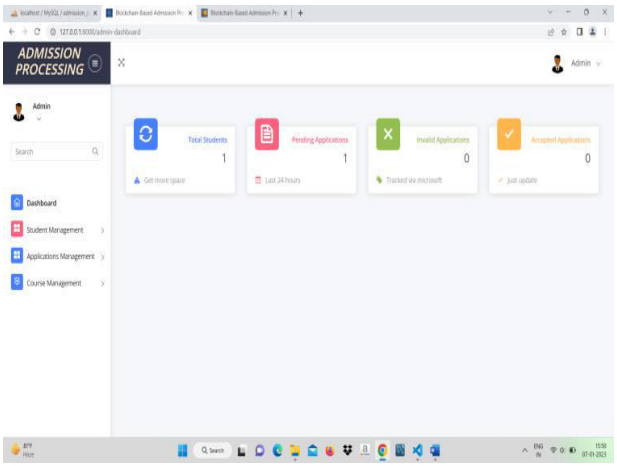


Fig 1: System Architecture

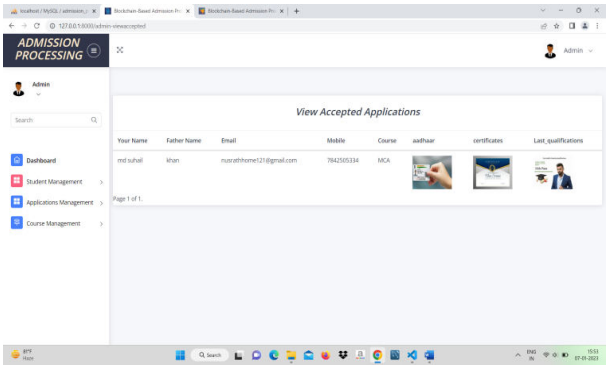
6. RESULTS:



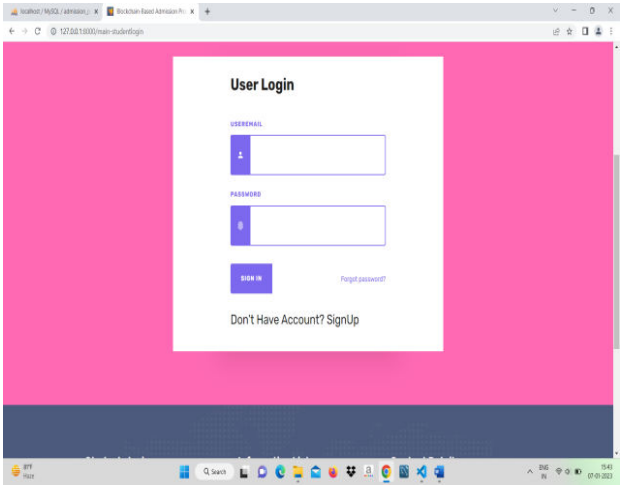
Here, after logging in, students' dashboard is displayed like this Application.



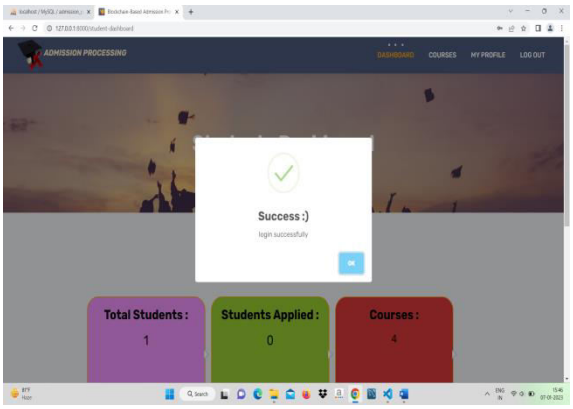
Here, Admin have to verify all files for acceptance.



Here, blockchain provides information about accepted data



Here, the student is taking access purpose using this login page.



Here we have to view that register successfully application.

7. CONCLUSION:

Blockchain is a groundbreaking system that enables people to record transactions on a decentralized, public ledger without the need for a central authority. The educational system will benefit from Blockchain in a variety of ways. The technology is ideal for storing, exchanging, and networking sensitive data in a safe manner. Many systems can be made quicker, simpler, and better with the aid of this advanced device. It bridges the gap between credentialing, copyright rights, and speedy connectivity. These traditional systems would almost certainly benefit from Blockchain in the near future. New innovations are introduced into our lives, and we must use them responsibly for change to go in the right direction. Current students will be living in a brand-new world! We should encourage them, accept the reforms, and learn how to improve things. Blockchain is a rapidly spreading technology, and it will be a pillar for many applications in the next few years. A suggestion for future work is to continue this work by conducting more interviews to identify additional characteristics for the current application areas of Blockchain. In particular, the field of education. Make educational courses that explain blockchain technology at a reasonable cost so many people can join and review the smart contracts in more detail and study the potential risks within this area.

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