

Study of Distributed Ledger Technologies and Implementation of Block chain based Document Management System

Abstract

Abstract: The growing demand for secure, transparent, and efficient document management systems (DMS) has led to the adoption of Distributed Ledger Technologies (DLTs), such as blockchain and Hashgraph. These technologies offer the potential to transform how organizations manage, verify, and store sensitive documents. Traditional centralized systems face challenges in data security, privacy, and vulnerability to unauthorized changes, which can lead to fraud and disputes. Blockchain and Hashgraph, as decentralized and immutable ledger technologies, provide a solution to these challenges by ensuring data integrity, security, and transparency. This project explores these DLTs and investigates their application in developing a Blockchain-Based Document Management System (B-DMS). The system will leverage blockchain and Hashgraph's unique features to provide tamper-proof document storage, secure access control, traceable audit trails, and the automation of document workflows via smart contracts, improving operational efficiency and compliance. The study also evaluates the trade-offs between blockchain and Hashgraph in terms of scalability, speed, and suitability for specific document management use cases.

Academic Project Requirements:

1) Required No. of student(s) for academic project: 2

2) Name of course with branch/discipline: B.E./B.Tech. Computer Engineering/IT/MCA

3) Academic Project duration:

(a) Total academic project duration: 16 Weeks

(b) Student's presence at IPR for academic project work: 5 Full working Days per week

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