



Decentralized Blockchain for Remote Code Execution

A Distributed Systems Project Case Study

1 Overview



Decentralized blockchain for remote code

execution, uses IPFS and Proof of Work to support remote execution of code by storing hash references to code and data files-
aiming to ensure, secure, reliable task execution in distributed networks.

3 Methodology



Client sends hashes of code and data on IPFS



Nodes download from IPFS based on received hashes

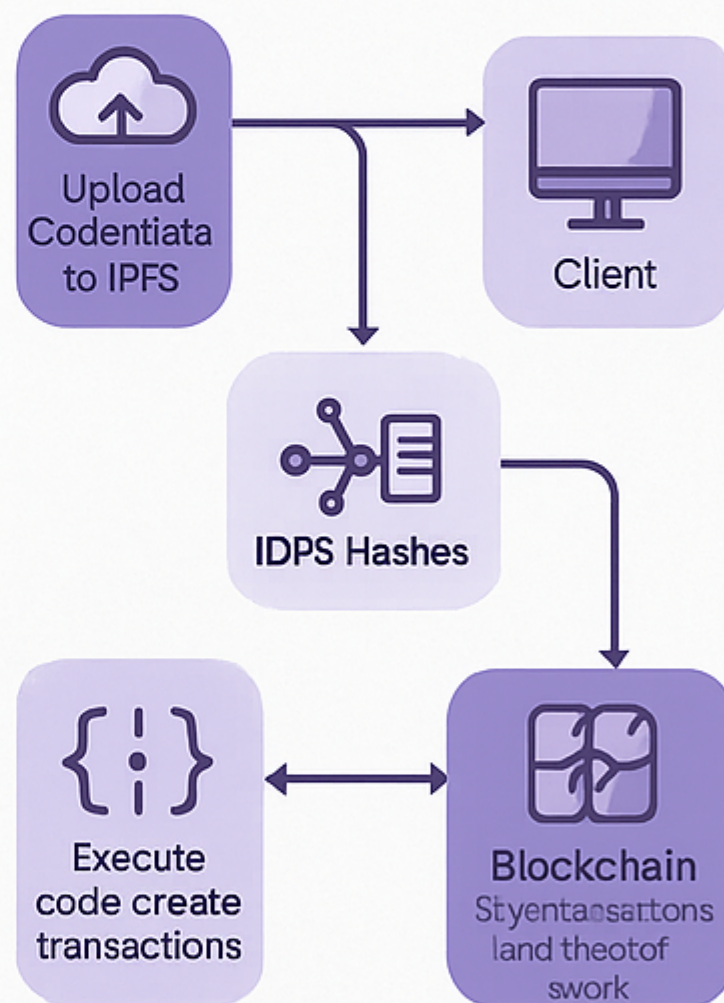


Execute code and create transactions



Store transactions in blockchain using Proof of Work

2 Architecture



4 Learnings



IPFS provides an effective distributed storage solution



Integration with blockchain ensures tamper-proof



Understood challenges in decentralized system design