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CLASS: AFTERNOON (2:00PM-5:00PM)

BLOCKCHAIN ASSIGNMENT I

“Summarize from the files”

Bitcoin emerged as a response to a fundamental problem in digital finance: the need for trust without intermediaries. Traditional financial systems rely on centralized authorities banks, governments, and payment processors to verify transactions and prevent fraud. This dependency creates vulnerabilities, including high fees, censorship, and the risk of corruption or failure. Bitcoin solves this by enabling peer to peer transactions without requiring trust in a central entity.

At the heart of Bitcoin is blockchain technology a decentralized, distributed ledger that records transactions across a network of computers. Each transaction is grouped into a “block,” which is cryptographically linked to the previous one, forming a secure and immutable chain. Once added, data cannot be altered without consensus from the majority of the network, making fraud nearly impossible. This system uses proof of work, where miners compete to solve complex mathematical problems to validate transactions and secure the network.

Blockchain matters because it redefines how trust is established in the digital world. It enables transparency, security, and decentralization, which can transform industries beyond finance. From supply chains to healthcare, voting systems to intellectual property, blockchain offers a way to verify data integrity and ownership without relying on intermediaries.

Bitcoin’s innovation lies not just in creating a new currency, but in pioneering a trustless system where code replaces institutions. It empowers individuals, reduces systemic risk, and opens possibilities for more inclusive and resilient digital infrastructure. As blockchain continues to evolve, its potential to reshape economies and governance structures makes it one of the most significant technological breakthroughs of the 21st century.