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Class: Afternoon

## Assignment

### “Why Digital Identity on Blockchain”

Digital identity on blockchain is becoming an important solution for the modern digital world, where issues of security, authenticity, and forgery remain serious concerns. Traditional identity systems rely on centralized authorities such as governments, schools, or companies to issue and verify identity documents. While functional, these systems can be vulnerable to hacking, forgery, and misuse of personal data. Blockchain offers a more secure and transparent alternative by using cryptography and decentralization to protect identities.

One of the key advantages of blockchain-based digital identity is security. Since data is stored across a distributed network of nodes, it is extremely difficult for hackers to alter or steal information. Unlike centralized databases that can be single points of failure, blockchain provides resilience and tamper resistance. Another strength is authenticity. Every transaction or record added to the blockchain is verified and time-stamped, creating a permanent and auditable trail. This ensures that documents like passports, academic certificates, or professional licenses can be easily validated and trusted without depending on a single authority.

Blockchain also helps in reducing forgery. Fake identities or counterfeit documents are a common problem in areas like travel, education, and healthcare. By anchoring identity credentials on a blockchain, it becomes nearly impossible to duplicate or manipulate them. For example, a university degree recorded on the blockchain could be instantly verified by employers, preventing the use of fraudulent certificates. Similarly, healthcare records secured on the blockchain would ensure that patient data is accurate, authentic, and accessible only to authorized parties.

In real-world use cases, blockchain digital identity can transform how we manage critical documents. From e-passports and driver's licenses to vaccination records and professional certifications, the technology ensures trust, security, and efficiency. Ultimately, blockchain gives individuals more control over their identity while reducing risks for organizations that need to verify them.