TASK 2

1. **Create a comparison table or markdown sheet** with the following columns for each platform:
SOLUTION:

Blockchain Name	Type	Consensus Mechanism Used	Permission Model	Speed / Throughput	Smart Contract Support	Token Support	Typical Use Case	Notable Technical
Ethereum	Public	Proof of Stake (Ethereum 2.0)	Open	~15–30 TPS (Layer 1)	Yes (Solidity, Vyper)	Native (ETH)	Decentralized apps	EVMcomptibility
Hyperledger Fabric	Private	Pluggable (e.g., Raft, Kafka)	Permissioned	~1,000+ TPS	Yes (Go, Java, JavaScript)	No native token	healthcare	private channels
R3 Corda	Consortium	Notary-based (pluggable)	Permissioned	~170 TPS	Yes (JVM languages like Kotlin)	No native token	Interbank transactions,	Privacy-first

2. **Write a Short Report (150–200 words):**

SOLUTION: Ethereum, Hyperledger Fabric, and R3 Corda each serve distinct needs in the blockchain ecosystem. **Ethereum**, a public blockchain, excels in supporting decentralized applications (dApps) due to its open access, native token (ETH), and robust smart contract support through Solidity. However, its base-layer throughput is relatively low (~15–30 TPS), making it less suitable for high-speed enterprise applications without Layer 2 solutions.

Hyperledger Fabric, a private blockchain, offers modular architecture, pluggable consensus (e.g., Raft), and high throughput (1,000+ TPS). It supports smart contracts (called "chaincode") in mainstream languages like Go and Java, making it ideal for enterprise use cases like supply chain management where participants are known and require permissioned access.

R3 Corda, a consortium blockchain, is optimized for financial applications. It features a notary-based consensus, high privacy via point-to-point communication, and smart contract support in Kotlin/Java. It avoids global broadcasting of data, which is critical in banking environment.