**Hyper Ledger**

1: What is Hyper Ledger?

Hyper ledger is an open-source collaborative project hosted by the Linux Foundation. It aims to advance cross-industry blockchain technologies by creating enterprise-grade, distributed ledger frameworks and code bases. Hyper ledger is not a blockchain itself but a hub for multiple projects.

2: Key Hyper Ledger Projects

* Hyper ledger Fabric: A modular framework for permissioned networks.
* Hyper ledger Sawtooth: Designed for scalability and modularity.
* Hyper ledger Indy: Specializes in decentralized identity.
* Hyper ledger Besu: An Ethereum-compatible client for enterprise use.
* Hyper ledger Iroha: Simple blockchain implementation for infrastructure projects.

3: Why Use Hyper Ledger?

* Designed for enterprises.
* Permissioned networks: Better control and privacy.
* Modular architecture: Customizable to needs.
* No native cryptocurrency: Reduces volatility and simplifies regulation.

4: Hyper Ledger Fabric Architecture

Hyperledger Fabric includes components such as peers, orderers, and chaincode (smart contracts). It separates transaction execution from transaction ordering to enhance scalability and confidentiality.

5: How to Use Hyper Ledger Fabric

1. Install prerequisites (Docker, Go, Node.js).
2. Download Fabric samples and binaries.
3. Use the test network to deploy your first chaincode.
4. Develop chaincode (smart contracts) using Go, Java, or JavaScript.
5. Interact with the blockchain using CLI or SDKs.

6: Applications of Hyper Ledger

1. Supply chain management
2. Digital identity verification.
3. Trade finance and asset tokenization
4. Healthcare record management.
5. Government and public services





