Survey Report on Types of Blockchains and its Real-Time Use Cases

Aim: Write a survey report on types of Blockchains and its real-time use cases.

Objectives:

1. Concept of types of Blockchains
2. Survey report on types of Blockchains and its real-time use cases

Theory:

Blockchain technology is being used to carry and transfer transactions or exchange of information through a secure network. It works on distributed ledger technology and is closely associated with cryptocurrencies. Primarily, there are four types of Blockchains: Public, Private, Hybrid, and Consortium. Each type has its own features, use cases, advantages, and limitations. All blockchains function on peer-to-peer networks where each node has a copy of the ledger.

Types of Blockchains:

1. **Public Blockchain:** Open and decentralized, accessible to anyone for transactions. Examples: Bitcoin, Ethereum, Litecoin. Features include transparency, security, and anonymity. Disadvantages include low transaction speed, scalability issues, and high energy consumption.

2. **Private Blockchain:** Restricted and permission-based, used by organizations for privacy, efficiency, and scalability. Examples: Hyperledger, Multichain, Corda.

3. **Hybrid Blockchain:** A combination of public and private blockchains, allowing both transparency and controlled access. Used in scenarios requiring flexibility, integrity, and security.

4. **Consortium Blockchain:** A semi-decentralized blockchain managed by multiple organizations. Common in banking, supply chains, and government use cases. Examples: R3, Energy Web Foundation.

Real-Time Use Cases of Blockchain:

1. Smart Contracts – Automating contracts using blockchain. 2. Cybersecurity – Enhanced data security due to decentralization. 3. IoT – Tracking assets and supply chain data. 4. Cryptocurrencies – Managing and recording digital currency transactions. 5. NFTs – Unique digital assets for art, gaming, and collectibles.

Conclusion:

We have studied the survey report on types of Blockchains and their real-time use cases. Public, Private, Hybrid, and Consortium blockchains each serve specific purposes in different industries. The applications span across finance, healthcare, supply chain, and digital assets, showcasing blockchain as a revolutionary technology with vast potential.