



Types of Blockchain

Public Blockchain



A public blockchain is permissionless. In a public blockchain, anybody can access the network and read, write or participate without an explicit authorization and permission.

A public blockchain is decentralized and has no single network-controlled entity.

Data on a public blockchain is protected because data cannot be changed or manipulated until it has been checked on the blockchain.

Public blockchain has more complex rules and consensus algorithm for better security. It is computationally expensive to mine and add a Block. Here, the computational power is also distributed globally.

Well-known examples of a public blockchain are **Bitcoin** and **Ethereum**.

Federated/Consortium Blockchain



A Consortium or Federated Blockchain is a private, permissioned blockchain - as opposed to public blockchain - where entities can only become members of the network by prior approval or voting.

This kind of blockchain is group-owned system where sole autonomy is removed. Permissions are vested in a group of companies or individuals.

Here, more than one central node is in-charge, that provide access to pre-selected nodes to read, write, and audit the blockchain. Only consortium members can make, validate, and review transactions.

This sort of blockchain is suitable for use between companies that often have dealings with each other. While these are more secure, they come at the cost of decentralization. However, this suits enterprise use cases and business processes.

Example: **R3's Corda Blockchain**

Public Vs Private Vs Federated/Consortium

| | Public Blockchain | Private Blockchain | Federated/Consortium |
|-------------------|--|---|---|
| Access | Anyone | Single Organization | Multiple Selected Organizations |
| Participants | Permissionless and Anonymous | Permissioned and Known Identities | Permissioned and Known Identities |
| Security | <ul style="list-style-type: none"> • Consensus mechanism • Proof-of-Work • Proof-of-Stake | <ul style="list-style-type: none"> • Pre-approved Participants • Voting-based Consensus | <ul style="list-style-type: none"> • Pre-approved Participants • Voting-based Consensus |
| Transaction Speed | Slow | Lighter and faster | Lighter and faster |

Benefits of taking this Course

Prove your Blockchain skills & understanding.

Grasp a deeper understanding of NFTs & how it works.

Build your own NFTs for different business use-cases, with acquired knowledge.