TYPES OF BLOCK CHAIN TECHNOLOGY

Block chain 1.0, Block chain 2.0, Block chain 3.0, Types of Block chain: Public Block chain, Private Block chain, Semi-Private Block chain, Side chains.

Blockchain technology is based on Distributed Ledger Technology(DLT). Ledge ris the record of transactions. These transactions may be financial deals, supply chain management, and copyright ownership. In a distributed ledger, records of transactions are available on a blockchain network. A blockchain network is apeer-to-peer network. A peer or node in a peer-to-peer network is a computer that has software installed in it. Being a peer-to-peer network, it does not require a central authority or trusted intermediaries to authenticate or settle the transactions. This feature brings transparency to transactions. Whereas in the centralized system,the records of transactions are available in a central server, and these records are managed by intermediaries, a role played by institutions like banks. Blockchain technology completely removes the role of intermediary or the third party. Transactions in Blockchain technology is immutable, i.e. once a transaction is made, it is permanent and can't be altered.

EVOLUTION OF BLOCKCHAIN

The first generation of Blockchain, i.e. Blockchain 1.0, originated from the concept of Distributed Ledger Technology and was meant for cryptocurrency only. Blockchain 2.0, i.e. the second generation of Blockchain, is based on the smart contract concept and the Proof of Work consensus mechanism. The smart contract is a programming code embedded in a distributed ledger. The smart contract gets executed when predefined conditions are satisfied. The second-generation blockchain network was introduced in 2013. Blockchain 3.0 overcomes the setbacks of Blockchain 1.0 and Blockchain2.0. What are the setbacks of Blockchain 1.0 and Blockchain 2.0? Blockchain1.0and Blockchain 2.0 are not scalable at all. Apart from that, these are mainly base don Proof of Work. Apart from smart contracts, Blockchain 3.0 mainl y involves Decentralized Apps (dApps). A dApp can be thought of as decentralized software code that gets executed across all the nodes in given blockchain architecture. Ad App is very similar to the applications already in use today on smartphones, tablets, or Desktops. Blockchain 3.0 also utilizes the Proof of Stake andProofofAuthority consensus mechanism.

1. **BlockChain 1.0 (Cryptocurrency) –**
   BlockChain Version 1.0 was introduced in 2005 by Hall Finley, who implements DLT (Distributed Ledger Technology) represents its first application based on Crypto currency. This allows Financial Transaction based on BlockChain technology or DTL which is executed with the help of BitCoin. This type of Version is permissionless as any participant will perform valid transaction of Bitcoin. This type is mainly used in Currency and Payments. Blockchain 1.0 or Blockchain Version 1.0 aimed to introduce a transparent, publicly accessible, completely decentralised, immutable ledger and distributed system of transactions in the global financial market. Blockchain 1.0 is developed over the idea and structure of Bitcoin. It primarily focused on the development and creation of new cryptocurrencies. Blockchain 1.0 is often termed a digital, decentralised, distributed ledger that records transactions in a database shared by all nodes, updated by blockchain miners and maintained and monitored by everyone with no individual ownership.