



Mo Tu We Th Fr Sa Su

Date: / /

BLOCKCHAIN :-

↳ Decentralized

↳ Authority नहीं पाता
↳ share to all

1990s → Blockchain ↳

2009 → Satoshi Nakamoto

↳ BITCOIN → Cryptocurrency

BLOCKCHAIN → BLOCKS --- or chains
↳ Record Type

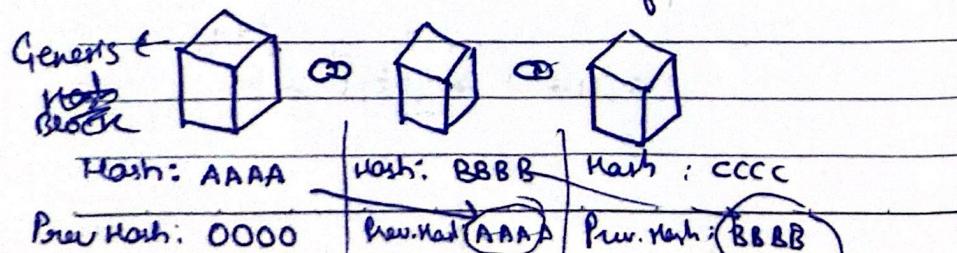
1 BLOCK → store data (informative)

① Data for BITCOIN

→ TRANSACTIONS → from whom to whom

② HASH → unique fingerprint
↳ unique barcode for Data

③ Prev. Hash → code of Prev. Hash.

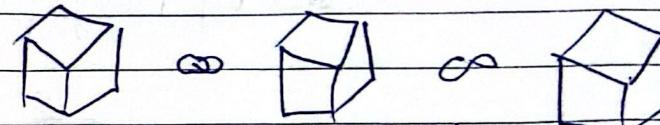


Mo Tu We Th Fr Sa Su

Date: / /

→ which help to record history of blocks.
Because of this we track information
easily → we make unique info,
easily, all of us can make
interfere interfere is in this, secure
tight,

Security layers of Blockchain :-



Hash: AAAA | Hash: BBBB | Hash: CCCC

Prev. Hash: 0000 | Prev. Hash: AAAA | Prev. Hash: BBBB

① If we change the Data of Blockchain
then what happen ??→ time of data change immediately
hash changes→ following next block Prev. Hash changes
Invalid info → following block
by block all Blockchain failed



Mo	Tu	We	Th	Fr	Sa	Su
----	----	----	----	----	----	----

Date: / /

→ If we change all hash then it takes lot of time

ex → Bitcoin.

• 1 hash change needs 10 min.

If 1000 Blocks is in Bitcoin then
200 yrs → 😒!!



Mo Tu We Th Fr Sa Su

Date: / /

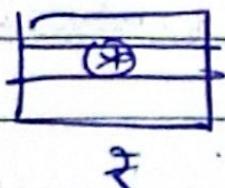
BLOCKCHAIN & DOMAINS :-

- MOST USING DOMAIN IS "CRIPTO CURRENCY"

Ex → BITCOIN :-

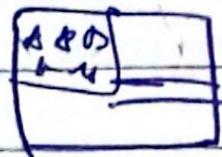
① we can change money with less
tax to bank, it have little tax.

like



India

₹



America

\$

If we want to change ₹ → \$ first
we give to bank then bank transfer it in
\$. so Bank take some tax for this
But BITCOIN have fix value it eliminated
the bank system. (BITCOIN → BITCON)
Transform

② Real estate Domain : —

① notary works done with
help of Block chain.

Like → Buying & selling records kept
in Blockchain. So we can also
see the history.



Mo Tu We Th Fr Sa Su

Date: / /

③ Hospital Management System:-

- In which patients' Records kept in Blockchain.
- so Doc. do regular work easily & Data of Patients to be secured.

we can use blockchain by

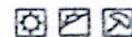
- ① Projects
 - ② Startups
 - ③ business
- ① By scratch implement Blockchain by using any lang.

- ② Some blockchain exists by writing of code we can use these.

④ Smart contract (In Blockchain)

- code lang. of real contracts
- any code which defines the buying - selling of Data will occurs.

By use of code we can proceed this.



Mo Tu We Th Fr Sa Su

Date: / /

Ethereum Blockchain :-

- popular
- use for social contracts.
- SOLIDITY lang. must for the smart lang.
- we can use this.

Ethereum

BLOCKCHAIN

- It is an digital ledger (Bahi-chaata) which store all transactions secure, public & permanent.

Ex → Bitcoin blockchain me likha gya:
 "Amit ne raju ko 1 BTC diya"-
 ye record delete ni hoga.

- **BLOCK** :- A page of blockchain in which multiple transaction can be done.

Ex → 1 Block me to sakte hai:

- A ne B ko 2 tokens Diya
- C ne NFT mint Kiya
- D ne smart contract deploy Kia
- **NODE** :- computer which run Blockchain nodes verify all blocks our transactions

Ex : of 1000 computers Ethereum Blockchain pe kaise hain, to woh sab nodes hain.

- **WALLET** : Digital Account where coins, NFTs & tokens are stored.
- Ex : Metamask, Trust wallet, Phantom

Wallet = Username + Password + locker.

- Public Key (username jaisa)
- Private Key (pass - jaisa - Kisi Ko nadne)

• Public Key / Address :-

→ Blockchain address - on this people send you tokens.

Ex - 0xA3b9...4eF7 → 9th type
on ETC Public wallet address.

- Private Key / Seed phrase
- Aapka secret key → By which you can access your wallet.

Ex :-

12 word seed phrase:

"apple tiger rod jump dish cricket
zebra"

→ Not share to anyone.

TXN (Transaction) :-

→ when we send token coin, mint NFT, or smart contract call → all are transactions.

Ex :-

A → B : 1 MATIC

Ye ek Blockchain mein hai.

(8)

GAS FEE :-

→ when we do txns, then network charge little fee (for computer's co-payment).

- Ex :-

- ⇒ Ethereum → gas ↑
- ⇒ polygon → gas fee ↓

(9)

SMART CONTRACT CONTRACT :-

→ Self-executing program / program which run on blockchain

Ex :-

when we mint NFT, through a smart contract NFT mints.

Socho :-

Bank Manager ki jagah ek code →
→ automatically check & transfer without person.

(10)

TOKEN

→ Digital asset made on blockchain.

Types :- FUNDIBLE (replaceable)

↳ e.g. USDT, MATIC, ETH

• Non-Fungible Token (NFT)

↳ e.g. Art etc.

11. NFT (Non-Fungible Token) :-

→ A token which is unique. no duplicate is of that token is available.

Ex :-

- A Digital art

- A certificate

- A farmland carbon capture proof.

computer program run on blockchain

(Smart Contract Standards (ERCs) :-
Do work manually.)

ERC

Use

Example

MATIC

USDC, DAI,

Art NFTs,

20

Fungible tokens

721

NFTs

1155

Hybrid tokens

Gaming
(coins +
weapons)

(12) minting :

→ Process of making of new Token / NFT.

(13) Staking :

→ At By locking tokens / NFTs under any smart contract to get rewards.

(15) DAO (Decentralized Autonomous Organization) :-

→ It is a digital organization whose all decisions based on VOTING SYSTEM, no boss policy.

Ex :-

Art DAO - jahan NFT banta buyer decide mit kisko fund kar

(16)

Mainnet Mainnet

v/s

Testnet

- Mainnet → Real blockchain (live, real money).

- Testnet → Demo version for testing (fake coins, no risk).

TIP:

for Development, use Polygon Mumbai Testnet.