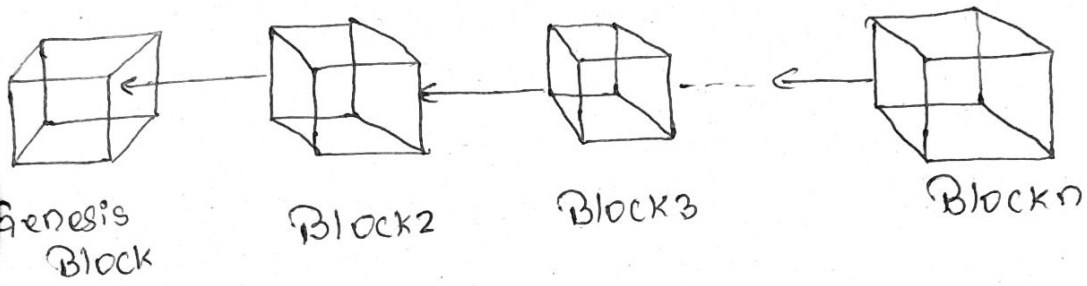
2. Genesis Block and sharing Blocks:-

Each Blockchain application needs a genesis block, which is the very first block of the blockchain.

→ The Genesis block is the first block in any block-chain based Protocol. It is the basis on which additional blocks are added to form a chain of blocks, hence the term blockchain.



→ Genesis Block is sometimes refers as Block 0.

→ Every block in a blockchain stores a reference to the Previous block.

→ In the Case of Genesis block, there is no Previous block for reference.

→ In terminal terms, it means that the Genesis block has it's "Previous hash" value set to 0. This means that no data was Processed before the Genesis block. All other blocks will have sequential numbers staring by 1, and will have a "Previous hash" set to the hash of the Previous block.

→ The hash of genesis block is added to all new transactions in a new block. This combination is used to create its unique hash.

Bitcoin Genesis Block

→ The most famous Genesis block was "Bitcoin chain"

→ A coinbase transaction is the first transaction a miner places in a block constructed by them; it is a transaction rewarding the miner in Bitcoins for successfully creating a block to be relayed to network

Genesis Block Node:-

Without Genesis Block, it would be really difficult for the miners to trust a blockchain and to know when and how it started.

→ In theory, there is no real need for a Genesis Block. However, it is necessary to have a starting point that everyone can trust.

Genesis Block - Block data

The example taken here is the Bit coin block chain of the genesis block:

→ Number of transactions: 1

→ Transaction fee: $0.00

→ Block height: 0

→ Time stamp: 03/04/2023; 11:35

→ Nonce: 208393

→ Block diffculty: 1

Block height:-

Block height of a block is the no. of blocks in the chain before that given blocks. Therefore the height of the Genesis block is 0 because no block was placed before it.

Timestamps

Time stamps generally used to store the data and time of a given event. However, it is important to note that block timestamps are not exactly accurate, and they do not need to be. Block their times are accurate only to within an hour (or) two.

Nonce:-

nonce is a random 32-bit number that miners use as a base for their hash calculations.

The term stands for nonce is number used once is commonly referred to as a cryptographic nonce.

Transaction fee:-

The blockchain fee is a cryptocurrency transaction fee that is charged to users when performing crypto transactions.

Block difficulty:-

The difficulty is a measure of how difficult it is to mine a bitcoin block.

The maximum block difficulty is 1