# Property Blocks

TEAM FLEDGLINGS

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# Problem Statement

Currently, more than 2.2 crore property-related cases are pending before all courts in India. The average time
taken by the Honorable Supreme Court to resolve land acquisition disputes is
20 years. These delays in resolving disputes have far-reaching consequences.

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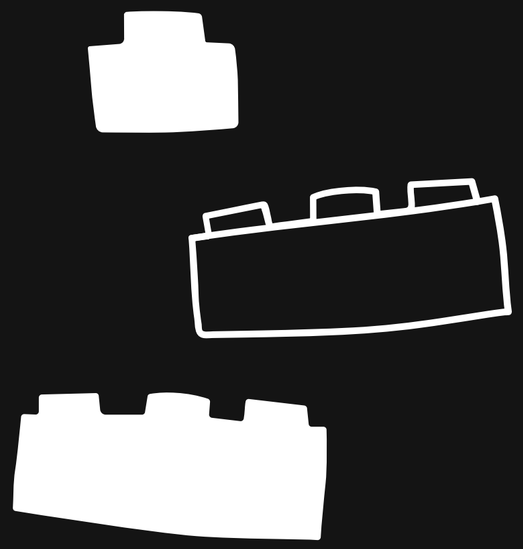
Government store documents related to ownership and real-estate in its database and also in physical formats but, the database are
venerable to hackers and can be hacked and a particular data can be changed
making it difficult to identify original or true ownership or facts.

# Solution - *BLOCKCHAIN*



Instead of using traditional way of storing data we can use *Blockchain*

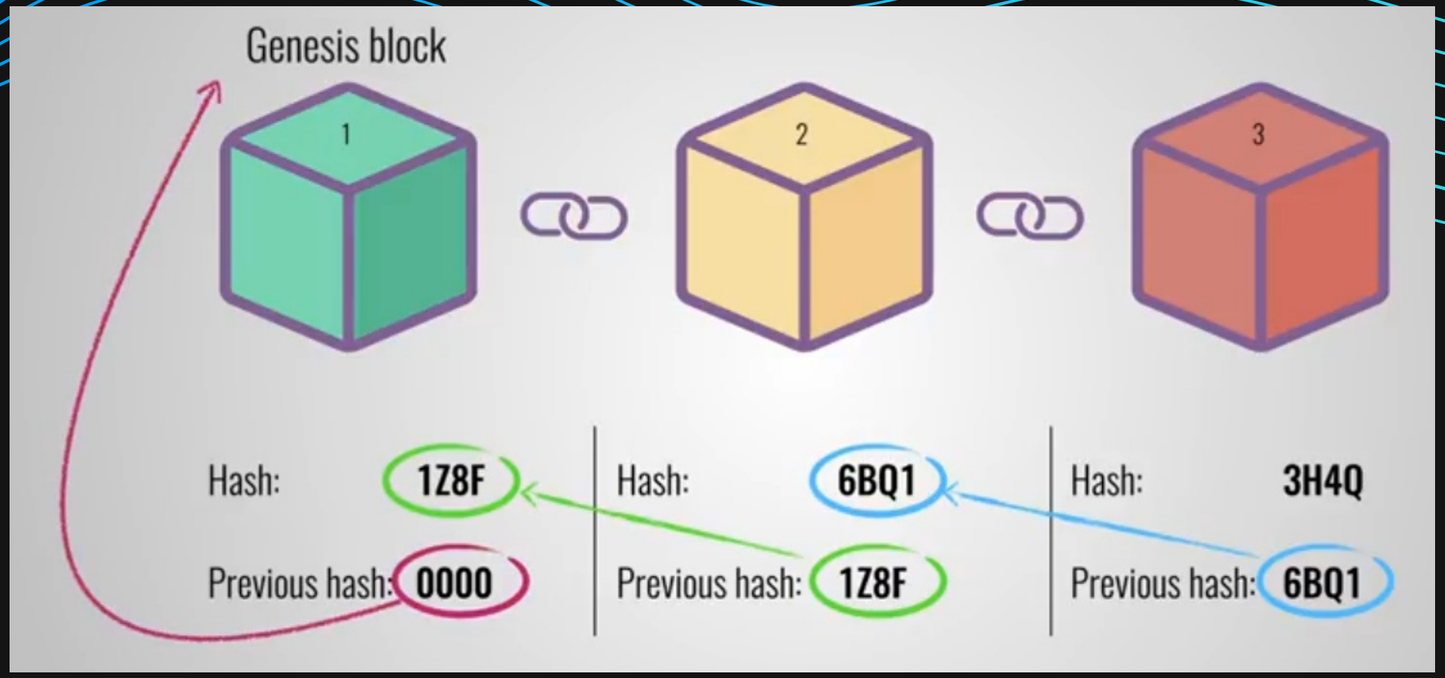
**BLOCKCHAIN IS A CHAIN OR NETWORK OF BOXES WHERE EACH BOX HAS 3 COMPONENTS -**

1. Cryptographic hash of it's own block.
2. Data or Transaction.
3. Cryptographic hash of previous block.

This is more secure as cryptographic hash of every block is unique and depends on data. If there is any change in data the cryptographic hash of the block will change hence breaking the chain.

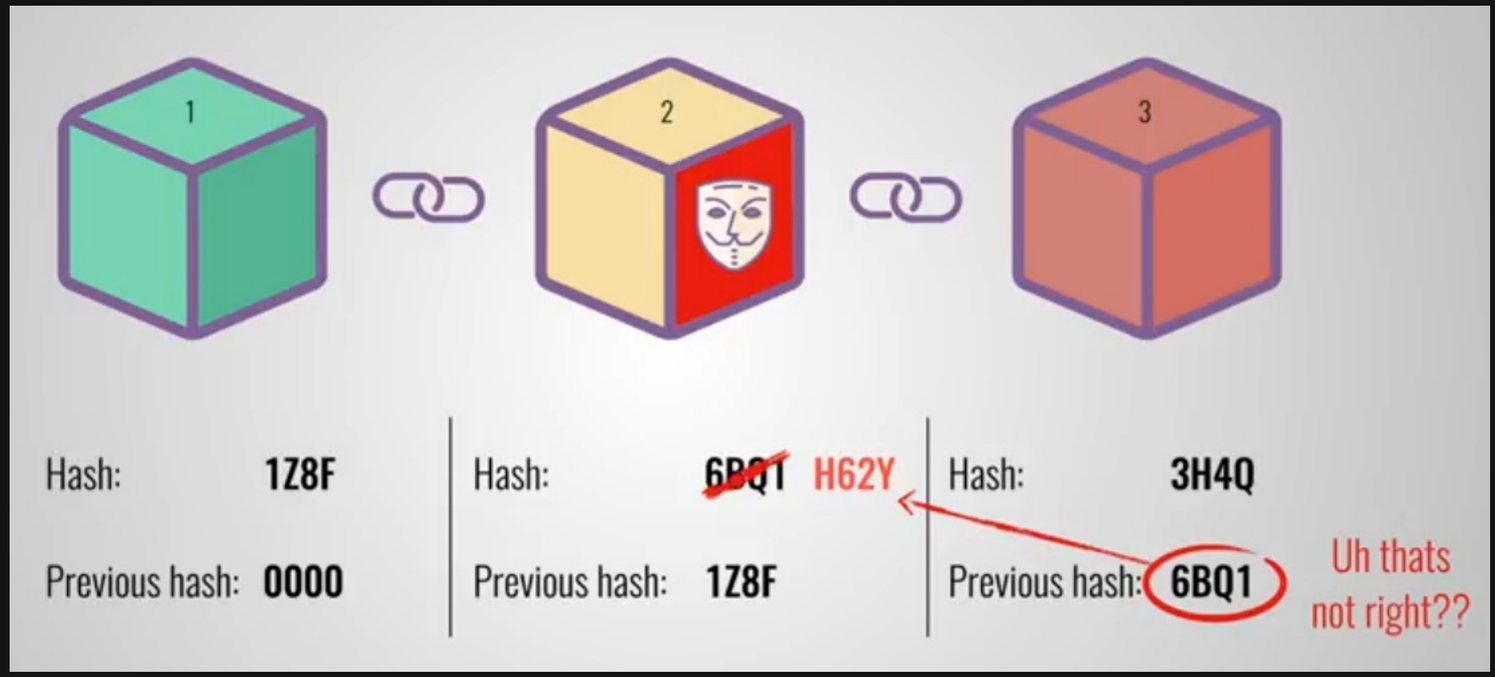
Thus because of this property of blockchain it makes it more secure, less venerable to hacking and immutable.

# Overview

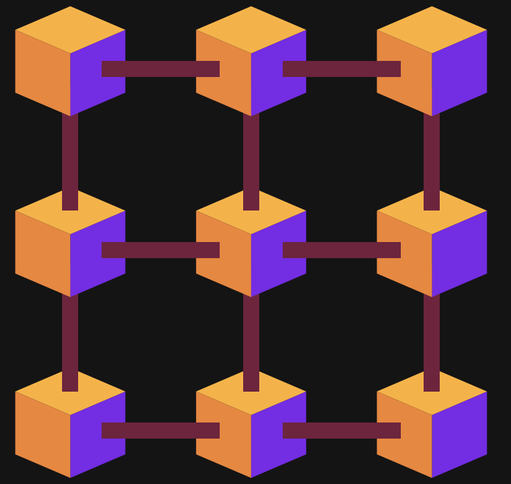



Here we have a chain of 3 blocks. As you can see,each block has a hash and hash of the previous block. So block 3 points to block 2 and number 2 points to 1.

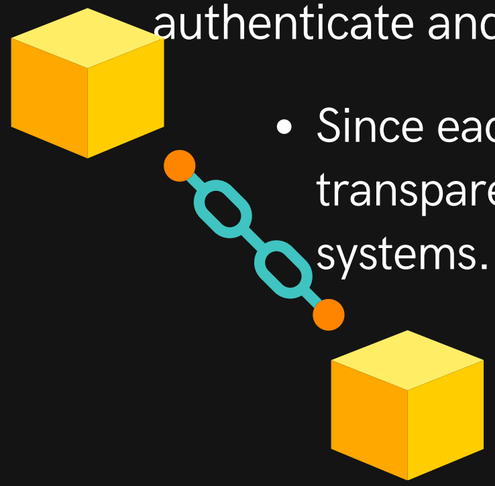
Now let's say that you tamper with the second block. This causes the hash of the block to change as well. In turn that will make block 3 and all following blocks invalid because they no longer store a valid hash of the previous block.



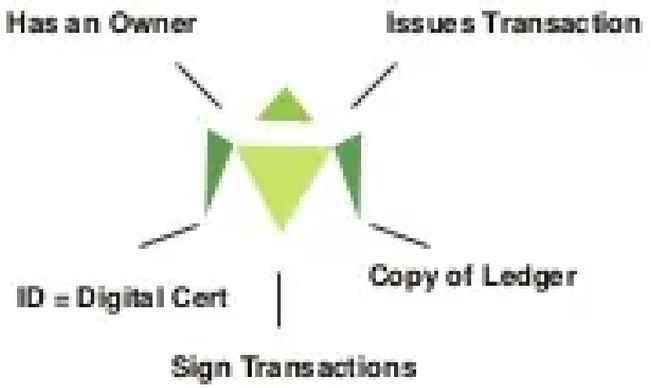
# Unique Selling Point



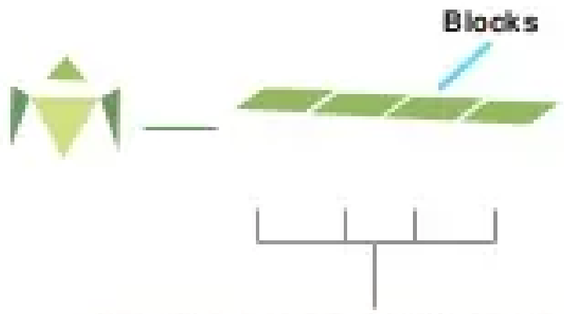
- A digital ledger entirely composed of blocks would be created. Every time anyone wants to undertake some form of transaction, and so add information to the blockchain, they need to add an entirely new block.
- Unlike the way most data is written then overwritten by conventional digital ledgers, the advantage of such a system is that a complete record of transactions is there for all to see.
- Rather it operates as a peer-to-peer network that is not controlled by any one party. Each participant in the network is known as a node, and each node has equal control over the ledger.
    - Whenever a transaction is made on the blockchain, all the participating nodes are required to authenticate and approve the transaction.
    - Since each node has a record of the blockchain, features such as security and transparency are in many ways improved when compared to conventional systems.
    - The advantages of not relying on a single controlling entity, as well as having multiple nodes maintaining the database is extremely useful.



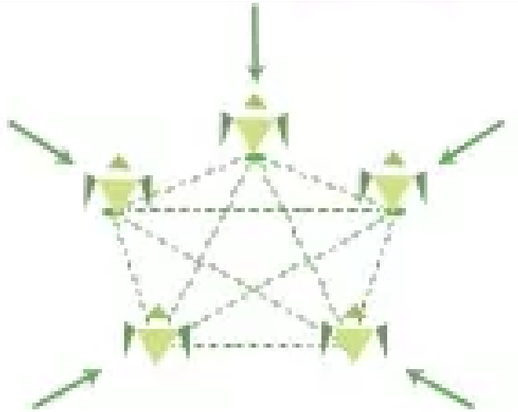
# Architecture



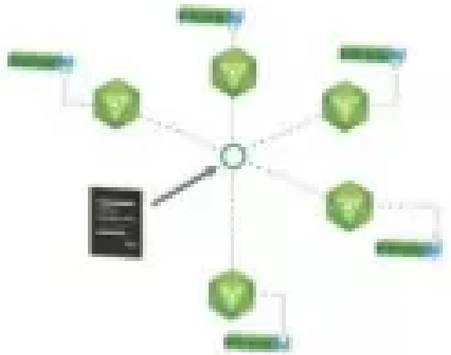

1. It all starts with one node




2. Each node has the shared ledger



3. Nodes form a peer network



4. Users submit transactions

5. Consensus and leader election


6. Execution & Recovery

# Technical Stack


Django


Blockchain


CSS


Javascript


HTML

# Future Scope

Our idea aims on providing a better, efficient as well as a more secure way of storing the ledger of properties. Our idea makes use of blockchain which is both easily traceable and secured way of registering new properties and it will ward off the chances of the data being tampered and easily tackle the problem of a single property being registered to multiple accounts. Not only it will maintain transparency but also help in settling the property disputes.