

Chapter 1 Blockchain

What is Blockchain (Simple language)

- A database storing payment transactions
 - Like you keep you money transfers in excel.
- But, there is not only just one database storing the transactions.
 - Many computer nodes store the same set of information.
 - This is so everyone can witness and keep the truth together.
 - It is called public ledger. It is people like you and I keep the truth together.
- Why this is powerful?
 - The general public (People like you and I) can form an entity like what the government can do
 - It is decentralized and not controlled by single party.
 - The database will be always there as there is always someone running the node (miner)
 - It has a consensus algorithm to ensure parties are all incentivized in a fair way.

Is Blockchain just used for storing transactions?

- Not really..
- For example, blockchain can also store code. E.g. Smart Contract
- So, the code will be stored in each node.
- the code will run in each node when a call is made.
- This means the code's logic is kept consistent and public on blockchain.
- This means we can see the logic of the code and feel safe the code does what it promised. (We will talk more about smart contract, later)
- E.g. Ethereum blockchain and smart contract

How many blockchains are there

- Quite a lot
 - You can start a blockchain
 - And blockchain code is all open-source e.g. <https://github.com/bitcoin/bitcoin>
- Most popular ones are
 - Bitcoin blockchain,
 - Ethereum Blockchain
 - XRO, EOS etc
- See the popular blockchains in the world
 - <https://coinmarketcap.com/>

Who are behind a Blockchain

- The developer or company
 - They write code and publish them to open source platform e.g. github.com
 - They market their vision concept by PR, events and conference.
- The community
 - People like you and I believe their story and vision.
 - They invest by purchasing their coins mined by the computer node.

What is cryptocurrency

- It is digital currency designed for exchanging value.
 - E.g. Bitcoin is cryptocurrency minted on Bitcoin blockchain
- E.g USD is fiat currency
 - Minted by the government
- Does it have value?
 - Let's ask yourself why you think USD has value
 - It is because people all believe it as it was backed by authorities.
 - Let's say Bitcoin or other cryptos
 - Bitcoin blockchain was formed by a lot of nodes, it is public and solid.
 - Bitcoin has a big community believing its future.
 - And a lot of people believe it as a vehicle to exchange value

How is Cryptocurrency produced

- Some cryptocurrencies are mined. E.g. Bitcoin
 - You need to run a node to be part of the Bitcoin blockchain
 - As a node, you contribute the computation power to support Bitcoin blockchain
 - As a node owner, you will be rewarded with bitcoin via a fair process.
- People run node with incentives.
 - Because they get rewards
 - Blockchain needs nodes to be more decentralized and powerful.
 - This creates a win-win.
- Some cryptocurrencies are issued, not mined.
 - It is like company issue their vouchers
 - And the vouchers can be used to buy goods or services

Summary

- Get some knowledge of what Blockchain is and why it is powerful.

Do you feel the future is here and a lot of industries can be disrupted with this model?

See you :-)