What is Blockchain?

The key features of Blockchain technology

WE'LL COVER THE FOLLOWING

Blockchain is a term used to describe **DLT**, or **Distributed Ledger Technology**. Blockchain is used to create a storage system for data in a distributed and immutable manner.

These are the key features from a technological standpoint.

Immutability

This means that once data is written to a blockchain data store or **ledger**, it cannot be changed – its there forever. In contrast, in a standard Relational Database, no matter how much security you implement, the data can be accessed and modified on the file system on which the data is persisted. This could be done by corrupt admin or a hacker.

A blockchain system ensures that even if a bit of data is changed at any level on the ledger, the entire system will report an `invalid` state. And since the data is `distributed` on multiple systems, the actual data with a valid state can be recovered from one of the systems.

Distribution

As long as you see data on a blockchain and its in a `valid` state on a majority `distributed` nodes, you can trust that data to be accurate. This *trust* is key. This trust is achieved in a blockchain system by replicating the datastore on a number of peers(hosts) on the internet. If one of the misbehaving peers goes in an `invalid` state, the other peers can filter it out. As long as there is a

majority of peers agreeing to a common `valid` state, you can completely trust the data that is stored on that system. This replication also guarantees high availability.

This trust is vital! No other system in the past has been able to develop this by design. In this course we will see how blockchain provides this trust *by design*.

Test Yourself

1 Which best describes an immutable record?

COMPLETED 0%

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First, lets examine how current systems struggle with trustworthiness and the costs incurred as a result. In the next lesson we will look at an example from the automobile industry.