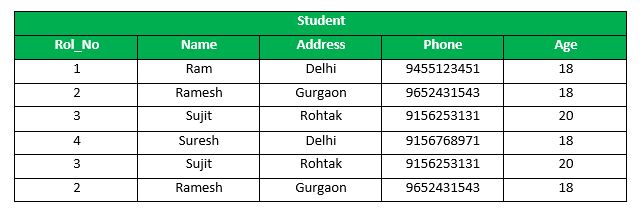
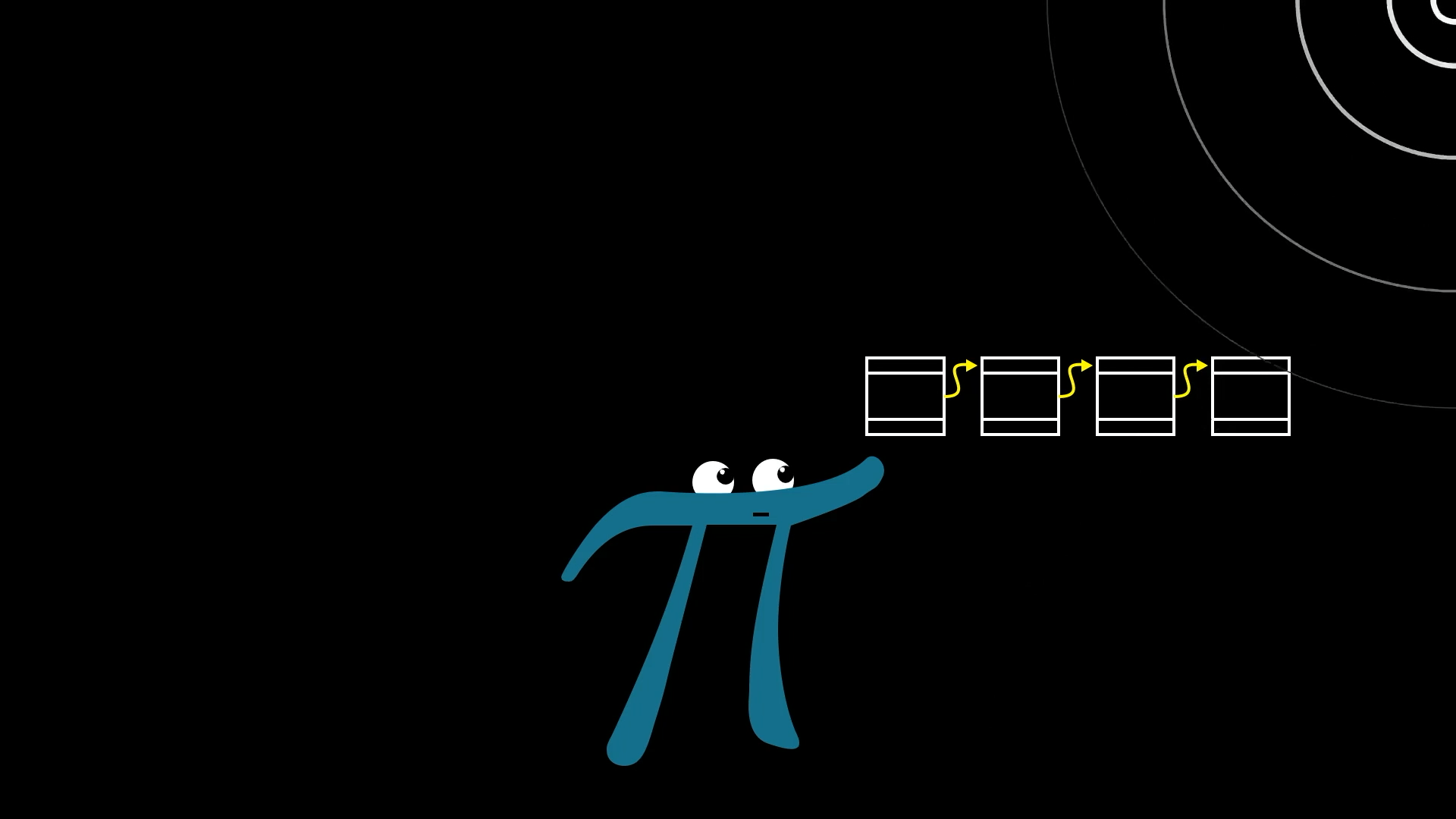
# What is Blockchain?

## Definition – 1: A database





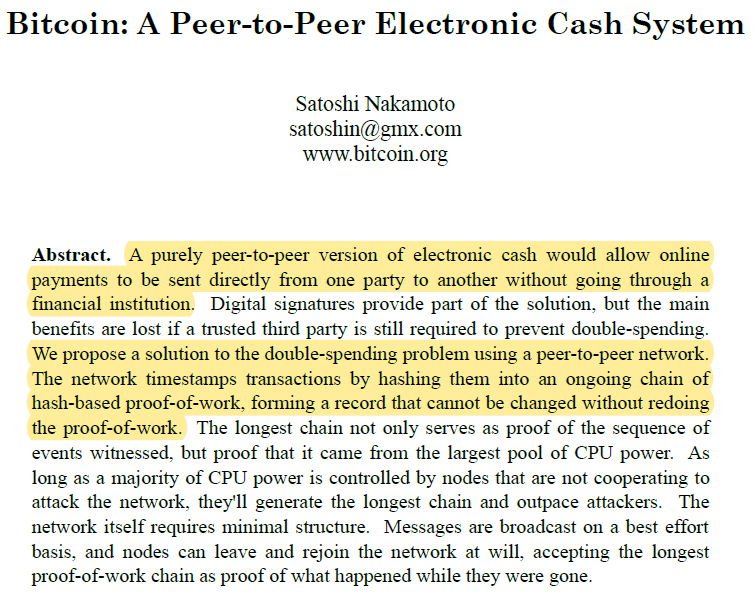
Entry – 4

Entry – 3

Entry – 2

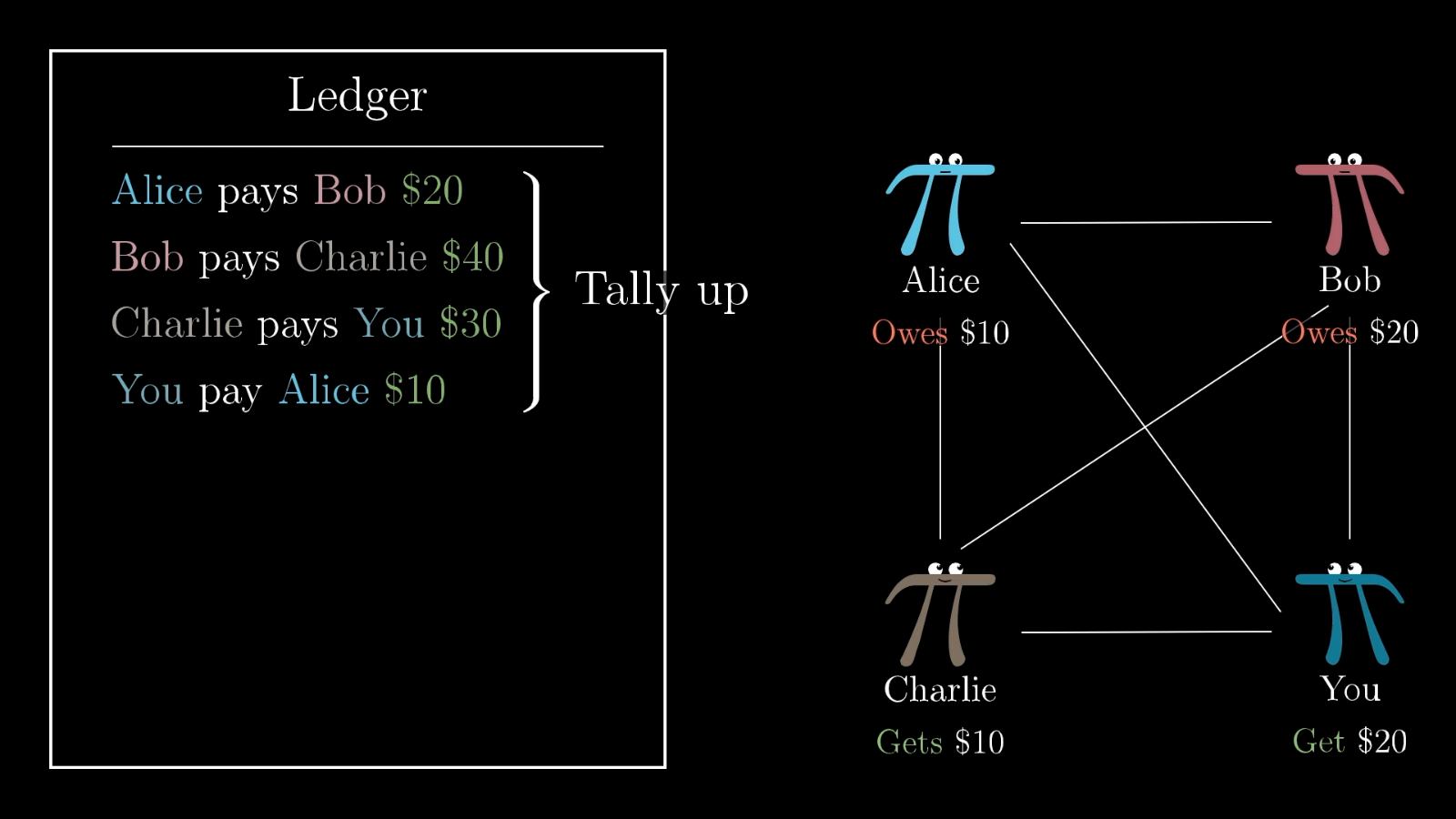
Entry – 1

## Definition – 2: Technology behind Bitcoin



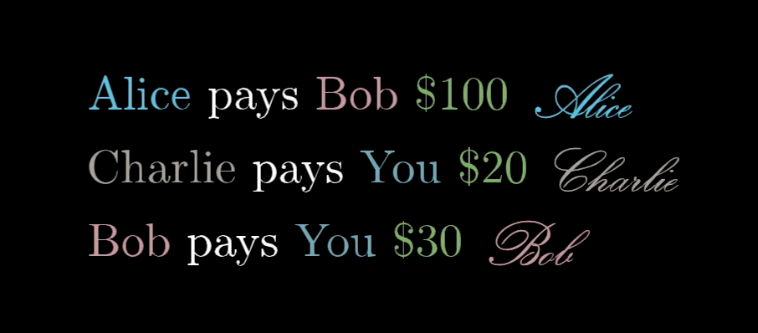
# Payments without Central Authority

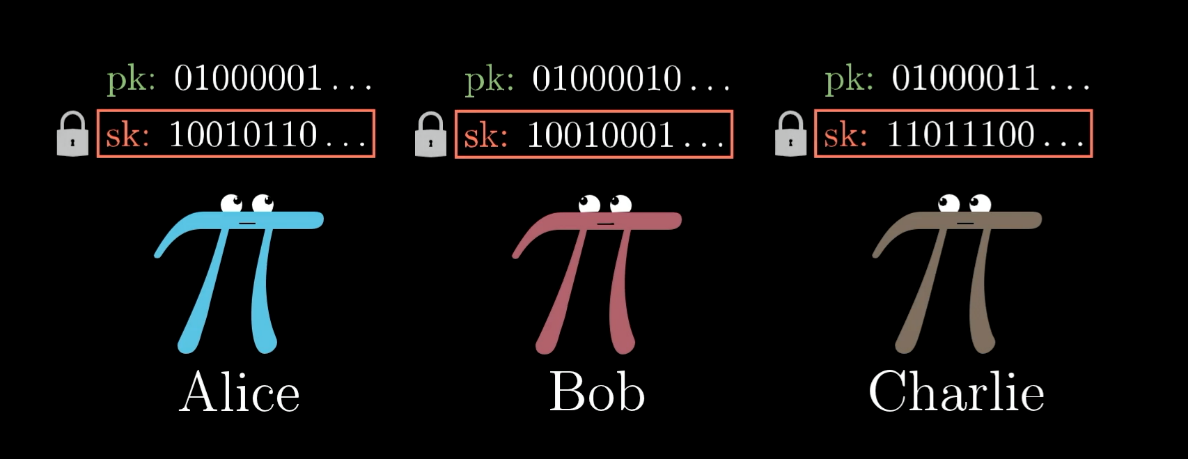
## A Public Ledger

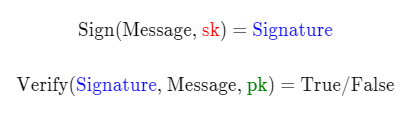


## Challenges & Corresponding Solutions –

**Unauthorized Transaction – Signature**

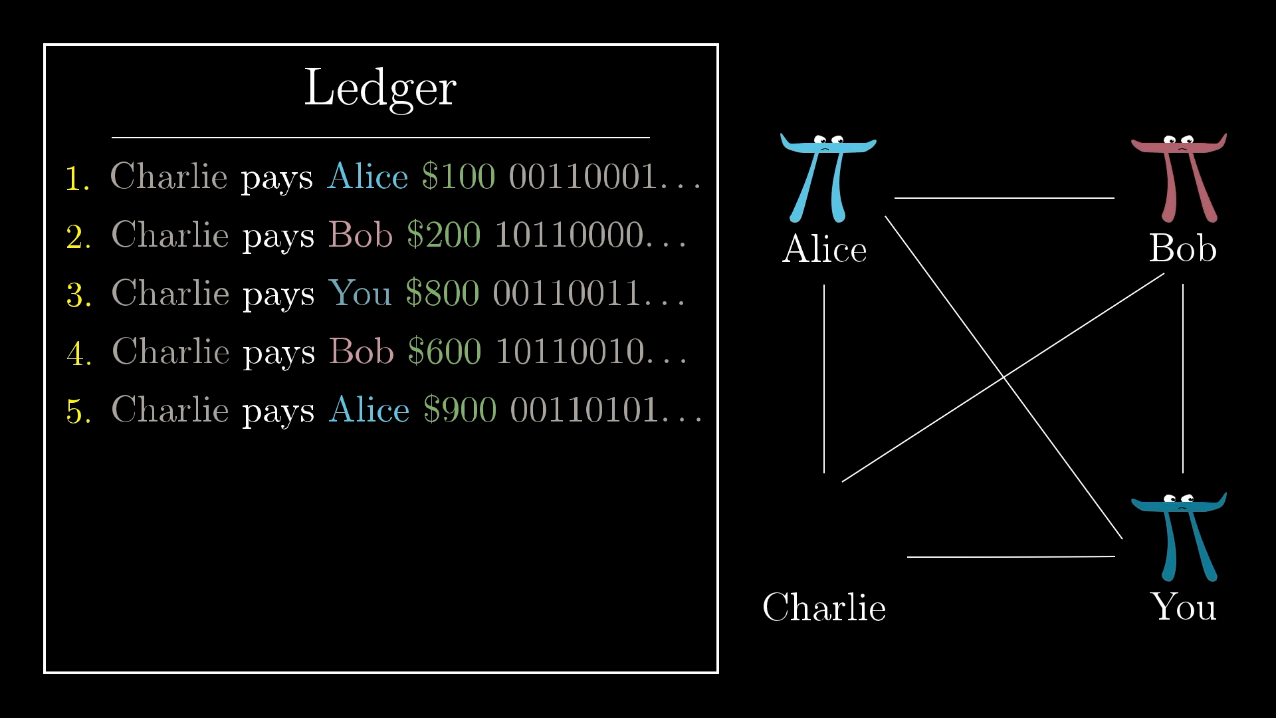


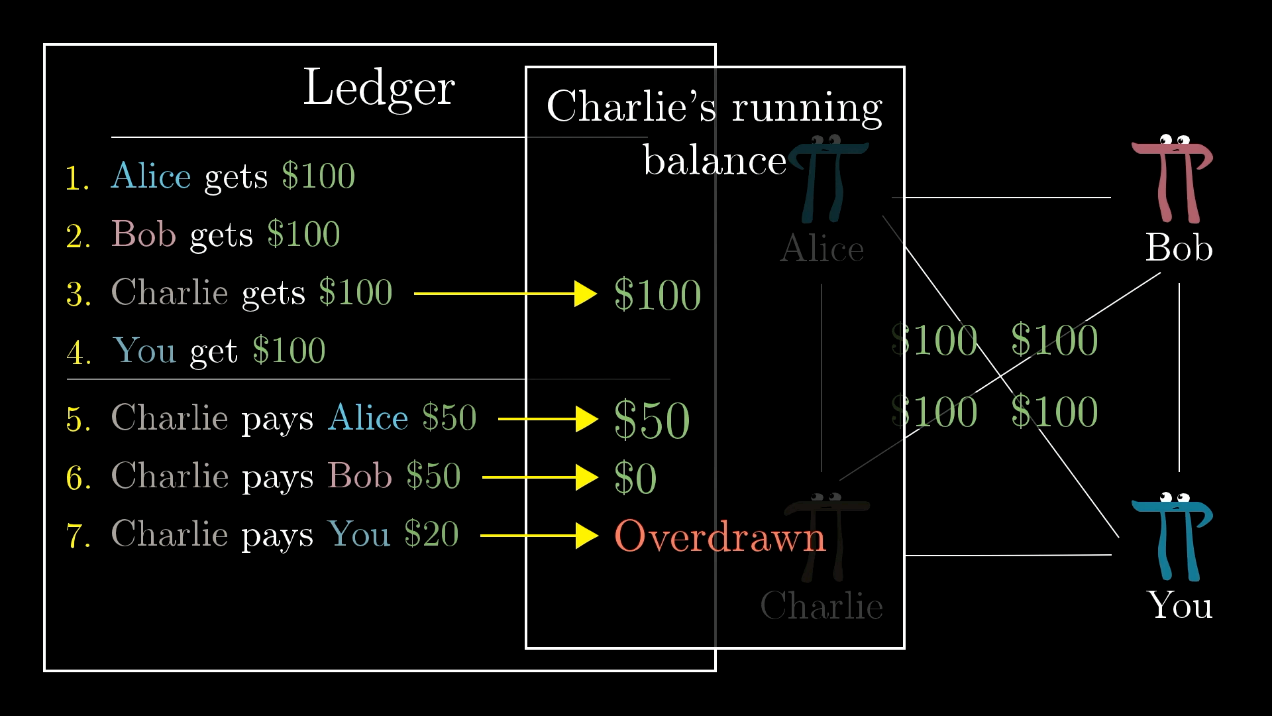


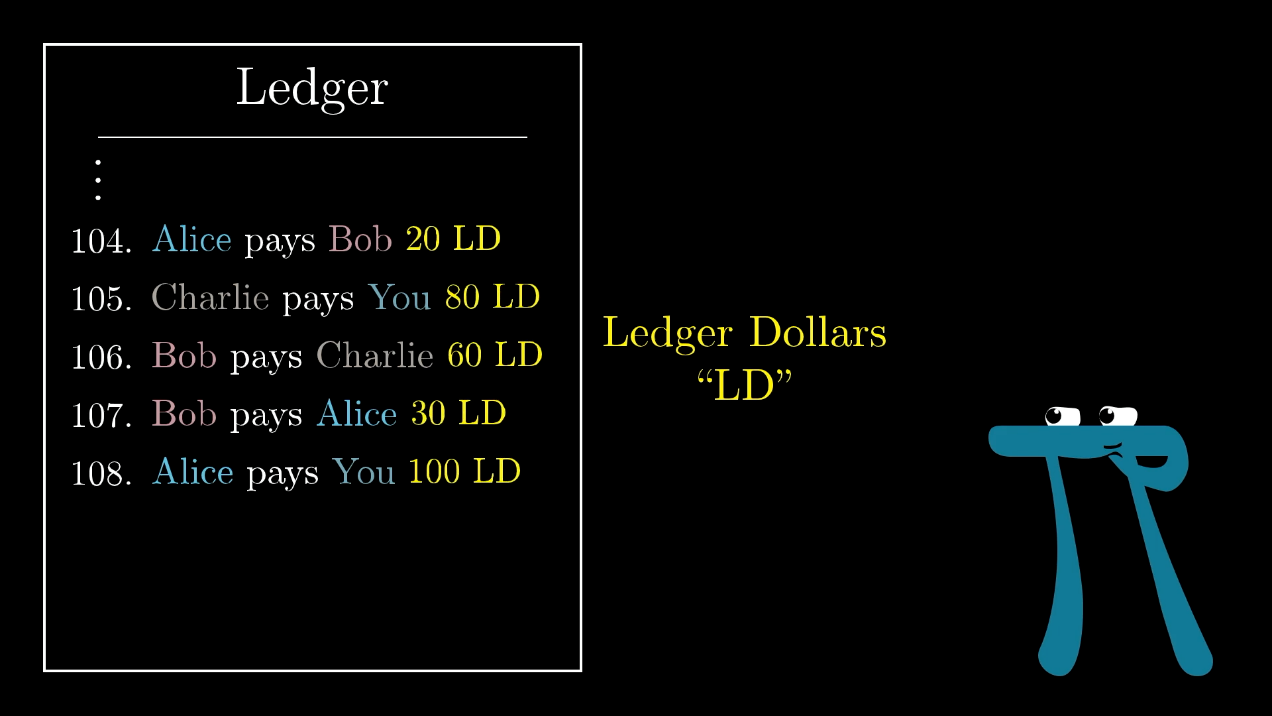




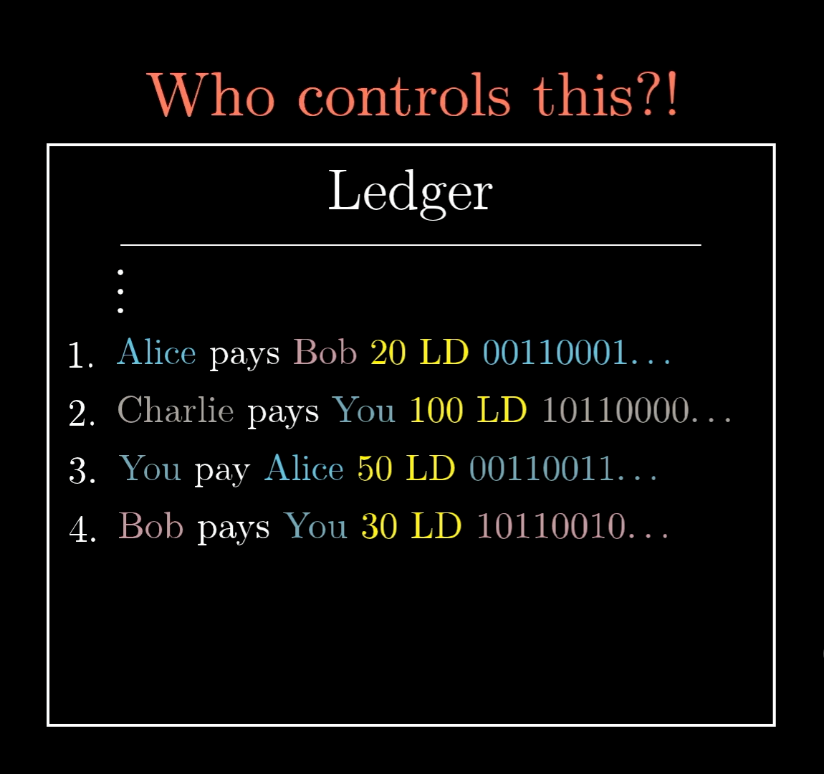
**Defaulting – No Overspending**

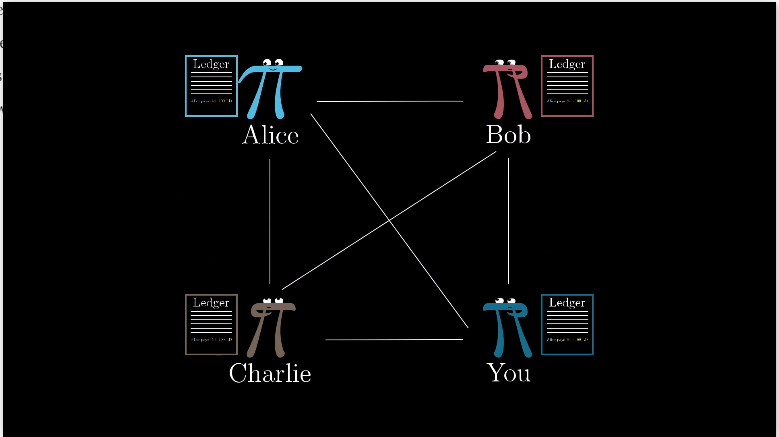




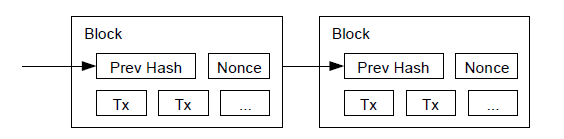


**Maintenance Authority – Everyone**





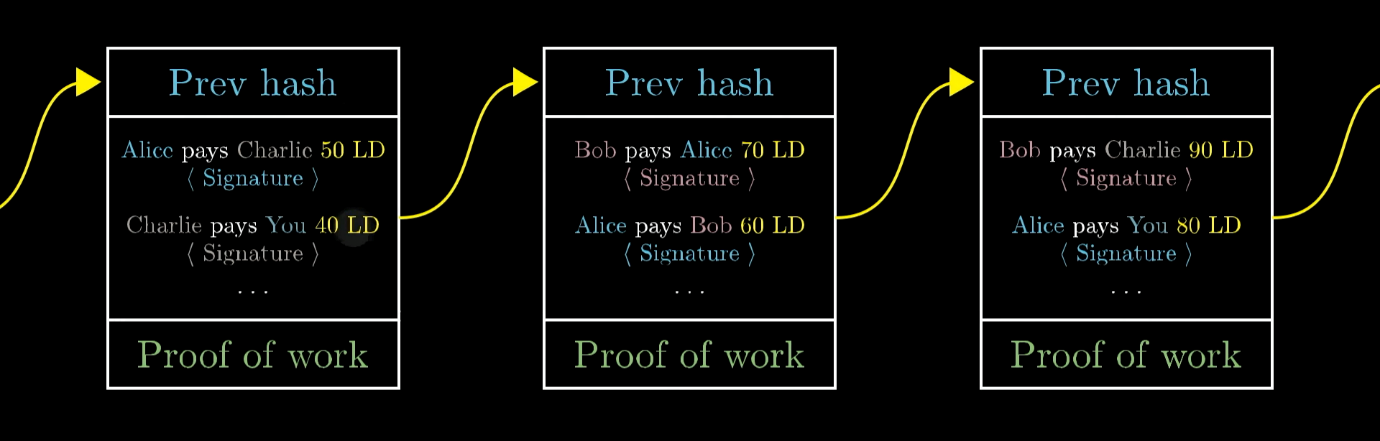
**Who do you Trust? – Blockchain & Proof of Work – Longest chain**



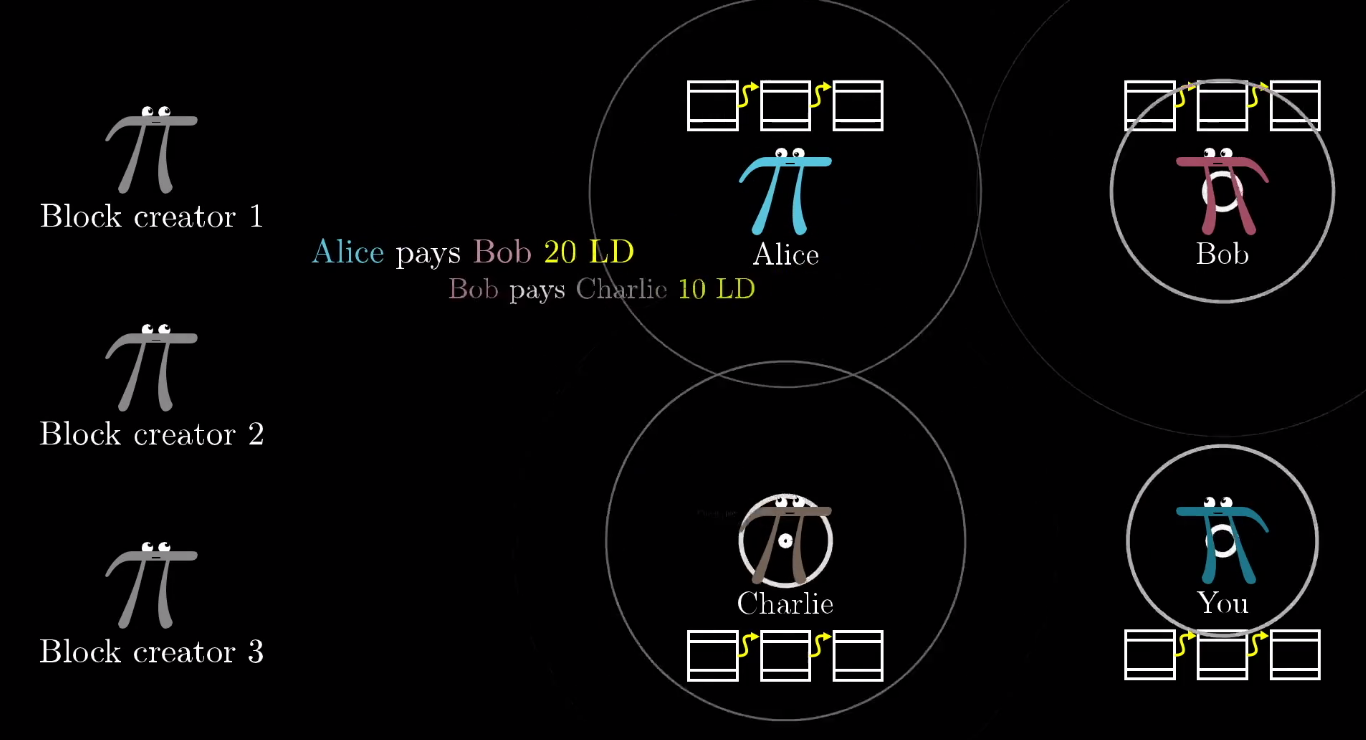
Sequential & Complex Mathematical Operations

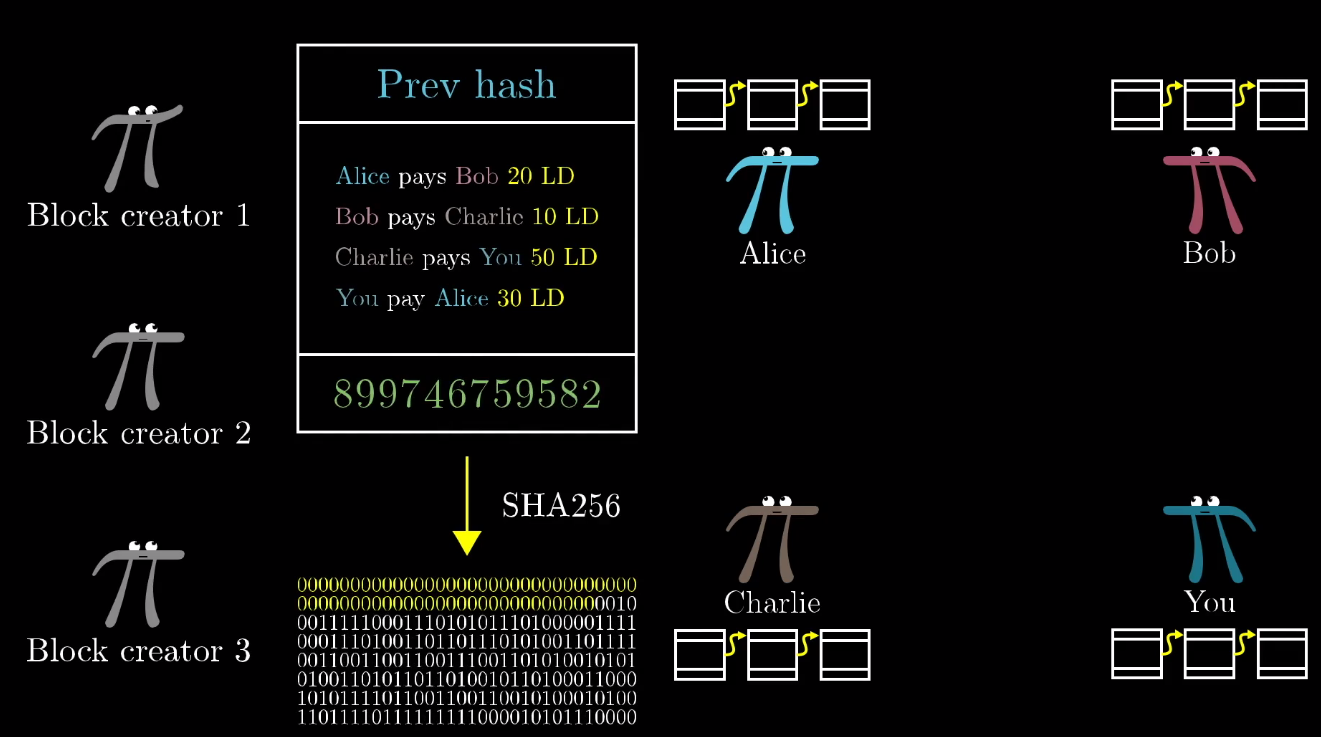


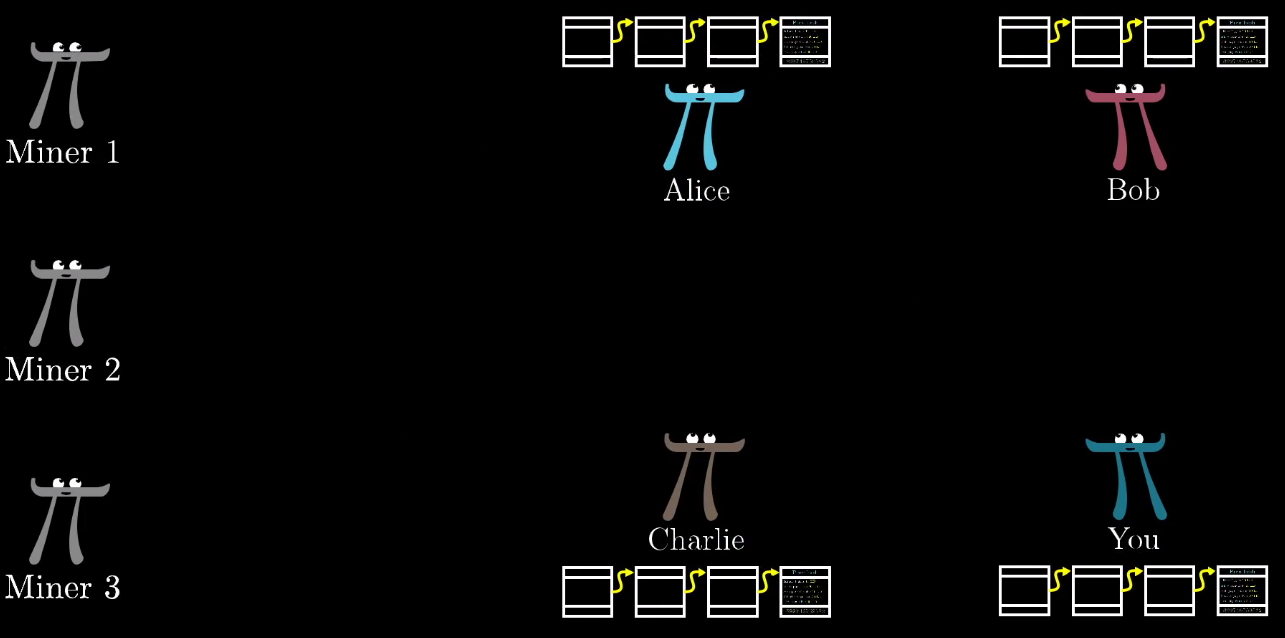
For a random message, the probability that the hash happens to start with 30 successive zeros is 1 in 230 , which is about 1 in a billion.



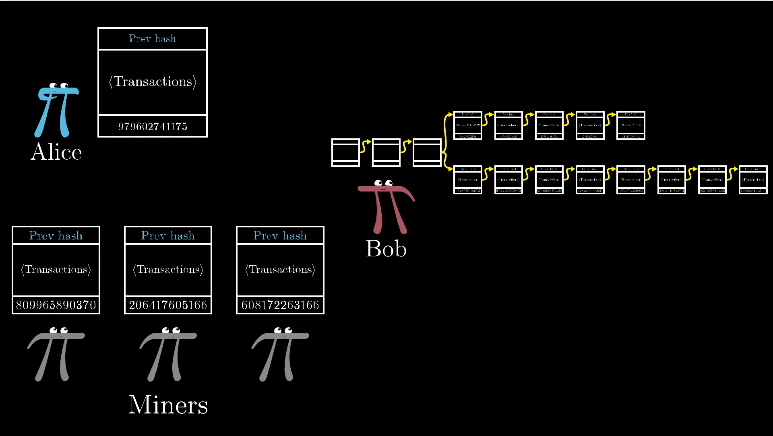
Who calculates the nonce? – Miners



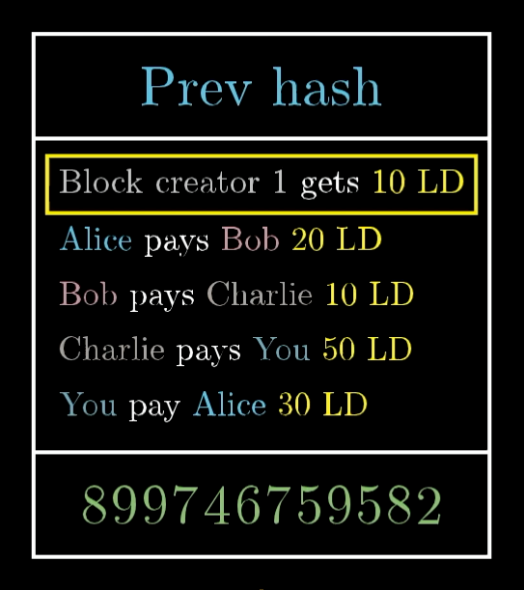


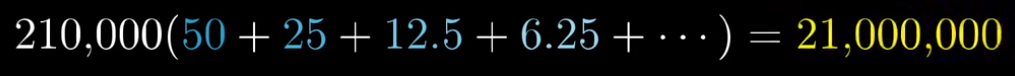


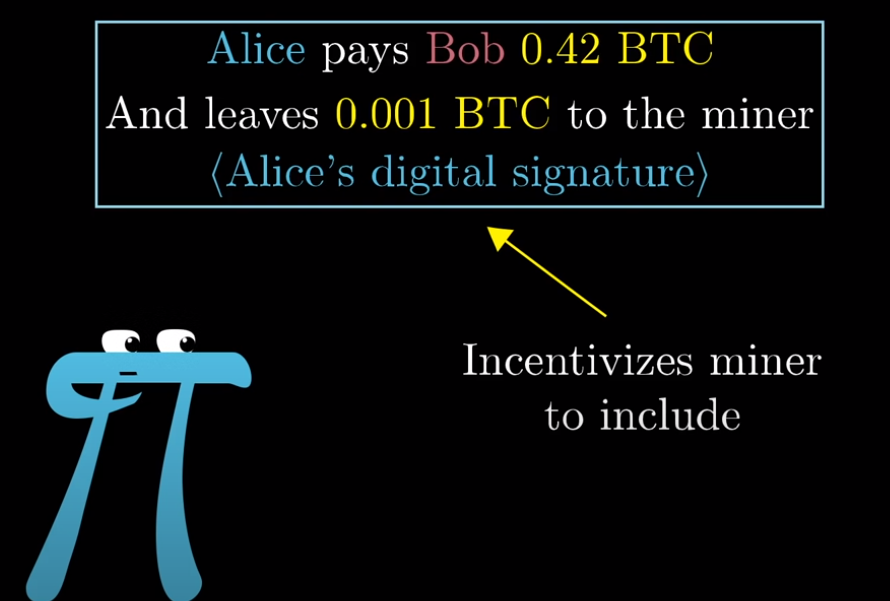
Handling Conflicts –



What’s in there for Miners?

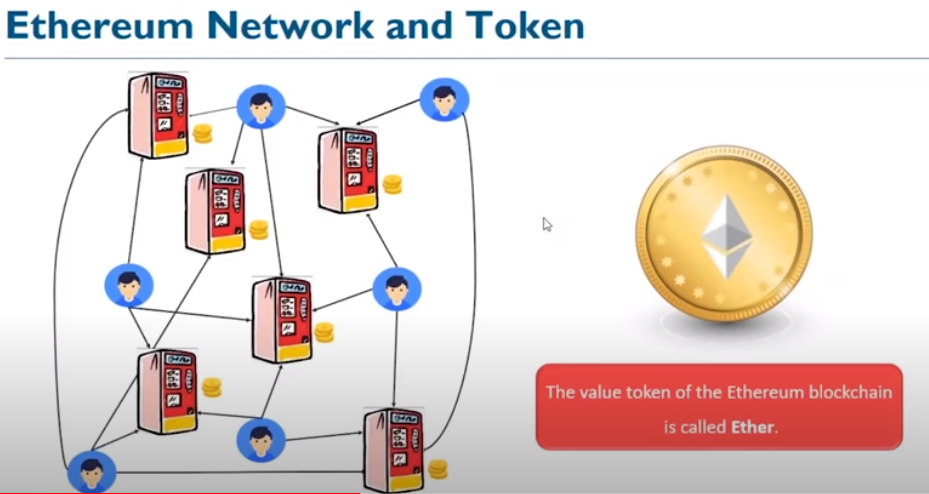




Examples – …

# Blockchain Application - Beyond Transactions

## Ethereum



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