The Bitcoin Blockchain History

In this lesson, we will check out the bitcoin history and how transactions work in bitcoins.

The Bitcoin blockchain was born in 2009, by a pseudonym Satoshi Nakomoto.

Take a look here at the first block(block 0) or the "genesis block" of Bitcoin blockchain.

There is one transaction in this block to Satoshi Nakomoto's address. Interestingly Satoshi's account address has never been used to transfer out money so we don't know if it's intentional, or if the private key lost?

Now look at another block, this one has 1660 transactions.

> A transaction is a record of transfer of bitcoins from one address to another.

Membership/Transaction Signing:

A transaction is always digitally signed by the 'from' an account holder to ensure that only the owner of account can perform a transaction using their balance.

In Bitcoin, anyone can generate an asymmetric keypair and start transacting on the Bitcoin blockchain.

```
{
  to:   ... ,
  from: ... ,
  amount: ...
}
```
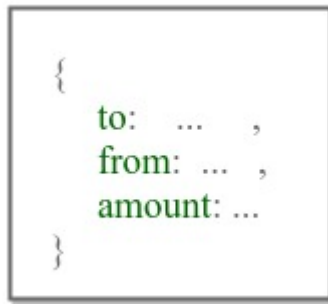
Calculating Account Totals:

Consider three blocks with multiple transactions in each block. The timestamp has been omitted here to give a simplified view:

Block No: 1	Block No: 2	Block No: 3
Prev Hash: 0	Prev Hash: xxxxxxxxxxxxx	Prev Hash: xxxxxxxxxxxxx
Data:	Data:	Data:
- To: A, Frm: Sys, Amount: 100	- To: D, Frm: Sys, Amount: 100	- To: C, Frm: Sys, Amount: 100
- To: B, Frm: A, Amount: 50	- To: B, Frm: A, Amount: 20	- To: D, Frm: C, Amount: 50
- To: C, Frm: A, Amount: 10		

This would mean the accounts totals for each accounts are as follows, after executing all transactions:

- A: 20
- B: 70
- C: 60
- D: 150

Coin Generation:

In our example, each block has a transaction from "Sys" which awards some balance to an account. In Bitcoin, this is labelled as "newly generated coins" and these are the new coins the system awards to the miner of the block.

Now lets see what *mining* is...

Test Yourself

1 Each block in Bitcoin has a fixed number of transactions.

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