## Day 2

## Advance Blockchain

## Blockchain understanding using Andersbrownworth.com

### HASH:

SHA-256 stands for Secure Hash Algorithm 256-bit and it's used for cryptographic security. Cryptographic hash algorithms produce irreversible and unique hashes. The larger the number of possible hashes, the smaller the chance that two values will create the same hash.

# SHA256 Hash

Data:	blockchain is awesome
Hash:	ef0b30af05194578ef9452d82d8ecd9d37d660989a284ef7312f3308c52c9062

## SHA256 Hash

Data:	blockchain is COOL
Hash:	277ea66fd0d91f33e3aa65aaf7f2f8977e0f68aa0216de376d1a7b0f826be4c6

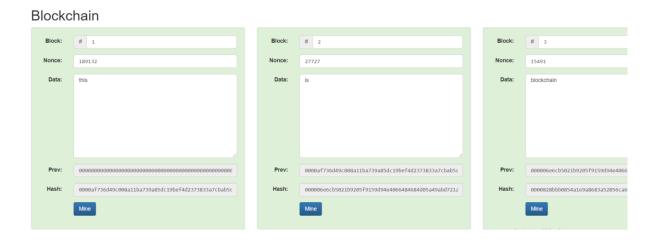
#### **BLOCK:**

It used to contain block number, Nonce, Data and hash. The hash is obtained by considering the data given and to valid a block then the block has to be mined by changing the value of nonce in it. If the block appeared to be in green color then the block is considered as a valid block and if a block appeared to be red color then the block is not a valid block.



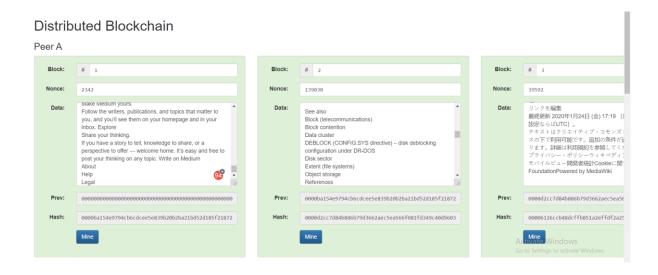
### **BLOCKCHAIN:**

It contains "n" number of blocks which is link with each and other by using the previous hash value. If a data is entered the each and every block in a blockchain has to be mined to make the blockchain as a valid blockchain.



### DISTRIBUTED BLOCKCHAIN:

In distributed blockchain the blockchain has been distributed to "n" number of peers in the blockchain network. Since data plays a major role it is noted that increase in data density will take quite much time for mining the blockchain.



I am not able to conclude does data density affect mining time or not...