

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:	<input type="text" value="blockchain is awesome"/>
Hash:	<input type="text" value="ef0b30af05194578ef9452d82d8ecd9d37d660989a284ef7312f3308c52c9062"/>

SHA256 Hash

Data:	<input type="text" value="blockchain is COOL"/>
Hash:	<input type="text" value="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.

Block

Block:

1

Nonce:

5320

Data:

After entering the data then I've to mine the block.

Hash:

0000129e8adb486af1cd65f7161c6e6f3a33caad43fde639526684330c3a0088

Mine

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.

Blockchain

Block:

1

Nonce:

189132

Data:

this

Prev:

00

Hash:

0000af736d49c008a11ba739a85dc19bef4d2373833a7cbab5c

Mine

Block:

2

Nonce:

27727

Data:

is

Prev:

0000af736d49c008a11ba739a85dc19bef4d2373833a7cbab5c

Hash:

000006e6cb5021b9205f9159d94e4066484684d05a49abd721e

Mine

Block:

3

Nonce:

15491

Data:

blockchain

Prev:

000006e6cb5021b9205f9159d94e4066

Hash:

0000828bbb0854a1e9a8683a52856ca6

Mine

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.

Distributed Blockchain

Peer A

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