1. What is your understanding of BlockChain?

"A Blockchain is a constantly growing ledger that keeps a permanent record of all the transactions that have taken place, in a secure, chronological and immutable way in decentralized distributed network"

Blockchain was invented by a person (or group of people) using the Satoshi Nakamoto in 2008, is the author of the white paper "Bitcoin: A peer to peer Electronic cash system"(31st Oct 2008).But the reality is that, the identity of Satoshi Nakamoto remains unknown to the date.

Block chain was totally mixed of two technologies as Distributed Database and Cryptography. This huge invention arrived because of the problem, International banking crisis with the collapse of the investment in 2008 and the problem with the internet. Thus as a mixture of two technologies they achieved verifiable, unchangeable, Tamper proof and Immutable data storage and processing, that led to **Intenet2.0**.

2. What is the core problem Block chain trying to solve?

Actually, the actual problem due to which the Block chain appeared was an International banking crisis with the collapse of the investment in 2008.Excessive risk taking by banks in the subprime lending market in the United States culminated with the bankruptcy of Lehman Brothers on September 15,2008 and an international banking crisis. Thus the main reason behind this invention is that to solve this problem globally.

3. What are the few features which block chain will give you?

Blockchain give us some features like the following using the mix of two technologies called Distributed Database and Cryptography.

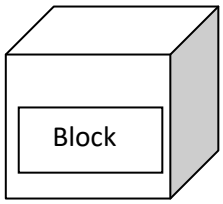
- Verifiable
- Unchangeable
- Tamper proof
- Immutable

These are the main features of Block chain that will lead our whole Internet things to stand upon trusting each other in the community. There were no Hacking, fully secured in a decentralized network.

"A Block chain is a constantly growing ledger that keeps a permanent record of all the transactions that have taken place, in a secure, chronological and immutable way in decentralized distributed network"

4. What all things does a block contain?

Block chain is nothing but linked chain of millions of blocks. Each block contains Data inside it. In every 10 seconds 10 other records are storing or creating here.



- Block number
- Transaction records
- Previous Block signature
- Mining Key

This block contains its block number and some data records. This will produce some unique digital signature called **hash** that allows us to tell it apart from every other block. Each time a block is 'completed', it gives way to the next block in the Blockchain.Thus a Block is a permanent store if records which, once written, cannot be altered or removed.

5. How is the verifiability of Block chain is been attained?

Every Block in the blockchain having its own unique digital fingerprint. Which internally recognize the block, stored records and all.

Block chain is a chain of blocks. It follows Distributed database and cryptography to enable verifiability, unchangeable, Tamper proof and Immutable properties.

As we know database means collection of stored records. And the Distributed Database refers to the data stored in the one computer is distributed to millions of other computers. So, if computer1 loss the data, able to get back the whole as previous from any of other computers.

As we mentioned, every data stored in block has its own unique key (hash) , so while distributing the contents to the whole community or millions of computers they all should have the same key. Also when we have to add something to the data of blocks they also should provide same unique key in the community. The **verifiability** tells us that we can verify that whether data get corrupted or not. That is , if the key of anyone's(computer)block of modified data in the community of millions of computers doesn't match with the other members of the community ,then the whole community can suggest to that computer 'your data has been corrupted and check it'. And the nearest other computer can share his content to that computer to get back his record.