**Day-1**

**Assignment**

1. Blockchain is basically combined technology of distributed database & Cryptography. In other words, its linked list concept added with security features. Basically, these blockchains are shared across a network of computers. The Blocks are linked by hash key which contains block no, Trans record, previous block key and mining key. Thus, a Blockchain is constantly growing ledger that keeps permanent record of database and has various features like data transparency, Huge security boost, hacking proof, Verifiable, decentralized. It allows digital information to be recorded but not edited i.e. Update and Delete operations are disabled.
2. The core problem which Blockchain tries to solve is data security & Trust by making ledger public. Basically, In 2008, The international banking crisis with the collapse of investment led to the rise of blockchain technology. The US Housing problem by Lehmann Bro’s sparked Satoshi Nakomoto to come up with his Blockchain idea in his paper. Thus, Blockchain tries to solve data security, Trust, Verifiability, etc.
3. Few features that blockchain will give us are jotted down below:
4. Data transparency
5. Huge security boost
6. No hacking
7. Verifiable
8. Decentralized
9. Immutable
10. Unchangeable
11. Tamper-proof
12. A Block contains:
13. Block No
14. Trans record (Any important data you want to store)
15. Previous block key
16. Mining Key
17. The verifiability of blockchain is attained by following a simple syntax i.e.

(Previous fingerprint + current data(new) + get one fingerprint). This fingerprint is passed to group(community) maybe via WhatsApp to see whether everyone getting same fingerprint i.e will verify whether everyone is getting same data or any discrepancies is there. When there is need to add new data, then the current fingerprint will become previous fingerprint for the same. If one getting different fingerprint, he/her need to change entire data from nearby friend or people. This is just an example to understand how verifiability concept works in Blockchain.