

## Blockchain Essentials : assignment 1

1. What is your understanding of Blockchain ?

ans: Blockchain is a system for recording information in such a way that it is impossible to hack , change or delete the stored information. It is considered to be as a digital ledger of transactions which keeps growing and is decentralised , distributed and duplicated across entire network of computer systems on the blockchain.

Similar to linked lists, Blockchain consists of growing lists of records in the form of blocks which are linked cryptographically.

2. What is the core problem Blockchain trying to solve ?

ans: Blockchain is trying to overcome the currently existing problems in the Internet such as:

Authenticity - by the use of cryptographic hashing techniques which are used in storing the data in blocks and linking the blocks.

Security - is provided to the stored transactions by the use of cryptography where participants are provided with private key assigned to each transaction which acts as the digital signature.

centralised authority - it eradicates the need for centralised third party to control all the transactions.

3. What are the few features that Blockchain will give you ?

ans: following are the key features of Blockchain:

Immutability

Decentralised Technology

tamper-proof

Distributed ledgers

enhanced security

data transparency

4. What all things does a Block Contain?

ans: Block number : unique ID of each block

Transaction records: information

Previous Block signature: cryptographic hash of previous block.

Mining key

Time Stamp: details such as time and date as on when the block was created.

5. How is the verifiability of Blockchain is been attained ?

ans: The Blockchain ledger which is temper-proof is redistributed to validated and authorized nodes. Here a particular block can be verified as valid with the help of hash value which has to be identical for a particular block in all the systems in the network.