**DAY 1 ASSIGNMENT**

**BLOCKCHAIN ESSENATIALS**

**Q.1) What is your understanding of Blockchain?**  
**Ans.**

Blockchain is combination of distributed database and cryptography technology.

It uses the concept of SHA256 algorithm to generate the Hashing key.

Blockchain is independent, transparent, and secure.  
  
Following are some features of Blockchain:

* Verifiability
* Temper-proof
* Unchangeable
* Immutable

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

**Ans.**

Blockchain is a mixture of distributed database and cryptography.

Blockchain is trying to solve the following problems:

* Security
* Authenticity
* Reliability
* Trust
* Identity Theft

**Q.3) What are the few features which Blockchain will give you?  
Ans.**

* Verifiability
* Information cannot be corrupted
* Decentralized database
* Enhanced Data Security
* Verifiable
* Immutable
* Tamper-Proof
* Unchangeable
* Data transparency

**Q.4) What all things does a Block contain?**

**Ans.**

A block contains:

* Block number
* Transaction data
* Previous block signature
* Mining key

**Q.5) How is the verifiability of the Blockchain has been attained?**

**Ans.**

Blockchain uses the SHA256 algorithm to generate the hash keys.

Each block contains unique hash key which is used in the next block. Thus, any change in block data will result in changed hash key values.

Therefore, change in hash key value will detect any change in the existing data.

Hash is simply a fingerprint which is used to check whether everyone has the correct chronological order of the data.

Block 1: A + B = C  
Block 2: C + D = F  
Where,  
A is Genesis Block and  
B & D are data to be stored

C & F are hashing keys