Blockchain Day 1 Assignments

1. What is your understanding of blockchain?

* A blockchain is a database that is shared across a network of computers.
* In 2008,an unknown person or group of people known as Satoshi Nakamoto.
* Blockchain is a distributed database existing on multiple computers at the same time.
* Each blocks contains the link of the previous block in the new block, so they actually form a chain.
* Once a figureprint has been create for a block then it is difficult to change.
* All blocks are encrypted in a special way (figure print), so that everyone can have access to all the information but only a user who owns a figure print key is able to add a new record to a particular.
* Person who knows the figure print key can access the transaction, others can’t manipulate the transaction.

1. What is the core problem blockchain trying to solve?
2. Blockchain addresses the problem of data loss due to hardware or connectivity issues.

### Blockchain addresses the problem of data corruption due to intermittent hardware or connectivity issues.

### Blockchain addresses the problem of data security and trust by making the ledger public.

1. What are the few features which blockchain will give you?

* Data stored in blockchain is immutable and cannot be changed easily. Also the data is added to the block after it is approved by everyone in the network and thus allowing secure transactions.
* Blockchain is decentralized as well as an open ledger. Ledger is the record of the transactions done and because it is visible to everyone, therefore is called an open ledger. Each and every connection in the blockchain network has a same copy of the ledger.
* Blockchain provide a peer to peer network. Blockchain allows the transactions to involve only two parties, the sender and the receiver. Thus it removes the requirement of ‘third party’ because everyone in the network is themselves able to authorize the transactions.

1. What all things does a blockchain contain?

* In 2008, Bitcoin was introduced as a type of digital currency created by Satoshi Nakamoto.
* Blockchain was the ledger solution used to securely record facilitating the use of this new currency since there was no bank or government involved to monitor or police the transactions.
* It contains two blockchain: Public blockchain and private blockchain.
* In a public blockchain, a user can become a member of the blockchain network. This means they can store, send and receive data after downloading the required software on their device. Allowing anyone to read and write the data stored on the blockchain as it is accessible to everyone in the world.
* A public blockchain, the permission to read ans write data onto the blockchain are shared equally by all connected users, who come to a consensus before any data is stored on the database.
* Example: The digital currency allows users to use a platform for making transactions directly between them.
* In a private blockchain, permission to write, send and receive data. Private blockchains are typically used within an organization with only a few specific users allowed to access it and carry out transactions.

1. How the verifiability of blockchain is has been attained?

* Whenever a sender has made a transaction, he sends Bitcoins to a receiver by submitting the transaction on a public Blockchain network of Bitcoin.
* The miners around the world do verifications to authenticate users. There are specific participants in the Bitcoin network who are identified as miners, and they verify the authenticity of the sender and the receiver.
* They also validate whether the sender has enough Bitcoins to send to the receiver and also ensure that the sanity of the underlying Blockchain network to the Bitcoin is not corrupt.
* Once the miner has authenticated the transaction and verified all the parameters, the transaction is added to a block, and then that block is made part of the main Blockchain.
* After this is done, transactions that were associated with the block are executed. Once the transaction is complete, the block is added, and the ledgers across all the nodes are updated, thereby allowing all to have the same copy of the information.