June 8th

TASK - 1

1. WHAT IS A BLOCKCHAIN ?

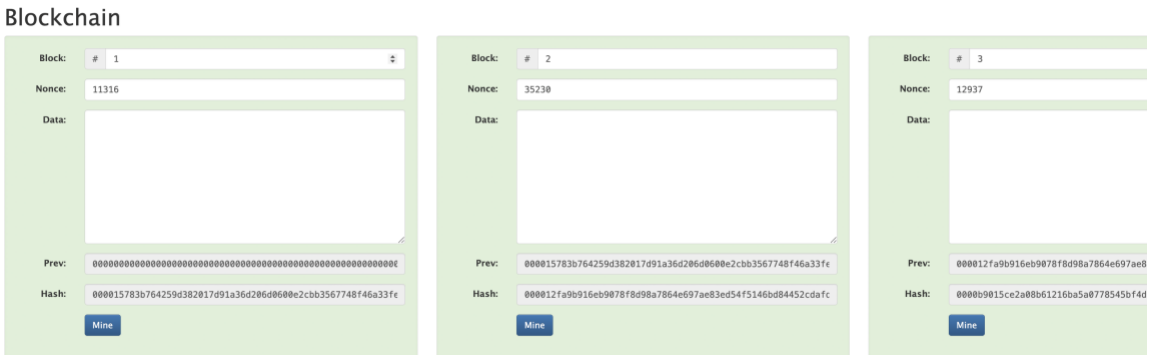
A blockchain is a decentralized, distributed, and oftentimes public, digital ledger consisting of records called blocks that is used to record transactions across many computers so that any involved block cannot be altered retroactively, without the alteration of all subsequent blocks.

A. Real life uses :

i. Medical Records: Some of the hospitals use Blockchain to store the medical records of the patient as it is private and safe

ii. Supply Chain Tracking : Tracking some of the products from customers to consumers

2. BLOCK CHAIN ANATOMY:



Merkle root is the final root / hash of a Merkle tree built from all transactions hashes in a block. It allows efficient and secure verification of contents.

3. EXPLAINING

A. **Proof of Work**: It is used to identify a new block and when miners solve a complex problem to add a new block is called a proof of work, it requires a lot of computational power

B. Proof of Stake : Validators are selected based on how many coins they give or “stake” as a collateral. It is energy saving and relies on ownership

C. Delegated Proof of Stake(DPoS) : It is a kind of Proof of Stake but only a few selected people can validate the transactions. The selected people represent the community and are more scalable.