

## **DCN LCL WRITE-UP MATURITY TEST**

**Elaborate the LCL research performed in the write-up briefly. Present your findings.**

The study on the architecture of Blockchain technology is done. The hashing algorithm which is used in the networking via Blockchain has also been studied and the pseudocode for encryption and decryption of the transmitted data between two end-users is also established and analyzed. The time complexity of the operation of hashing algorithm in Blockchain is determined and presented in the write-up. An *Open Addressing* method is taken into consideration in order to find the optimal method of mapping encrypted values in the hash table.

**Identify the layer of concern of your research. Relevant to which protocol layer?**

The *Application*, *Transport*, *Session* and *Network* layers are the primary protocol layers that are applicable in P2P communication via Blockchain technology. The *Session* layer establishes a communication between two end users (i.e. source and destination) and as the sender transmits data from one end, it is executed via *Application* layer and the *Transport* and *Network* layers contributes in packetizing and transmission of data from source to destination end.

**How does your findings qualify as a value addition & contribution towards the state of the art research?**

The conclusion drawn from the write-up have the potential to be used in incremental research in order to enhance the time complexity of the hashing algorithm. Might as well, a unique algorithm can be formulated that would help in mapping the encrypted values in the hashing table without screening through the whole table that would eventually improve the time complexity. As the potential threats of *51 percent attack* has also been highlighted in the write-up, a concise algorithm based on the incremental research taking leads from this write-up would help making P2P communication even more securer.