

Hadoop Framework:

- Hadoop is an open source framework used for storing and processing big data in a distributed manner.
- The core component is HDFS (Hadoop Distributed File system).

HDFS:

- Stores large files by splitting them into blocks
- Blocks are replicated across multiple machines for fault tolerance.

Key Components:

Name Node

Data Node

Secondary Name Node.

Database Security:

Database security refers to the protection of data from unauthorized access, misuse, or corruption using various techniques like encryption, access control, authentication.

Encryption:-

The process of converting plain data into an unreadable format using an algorithm and a key.

- used to protect sensitive data stored in the database or during transmission.

Decryption:-

- The process of converting the ciphertext back into readable plaintext using a decryption key.
- only authorized users with the correct key can decrypt and access the data.

