Goal of cyber Security : The main goal of cyber Security is to protect computer systems, networks and data from unauthorized access.

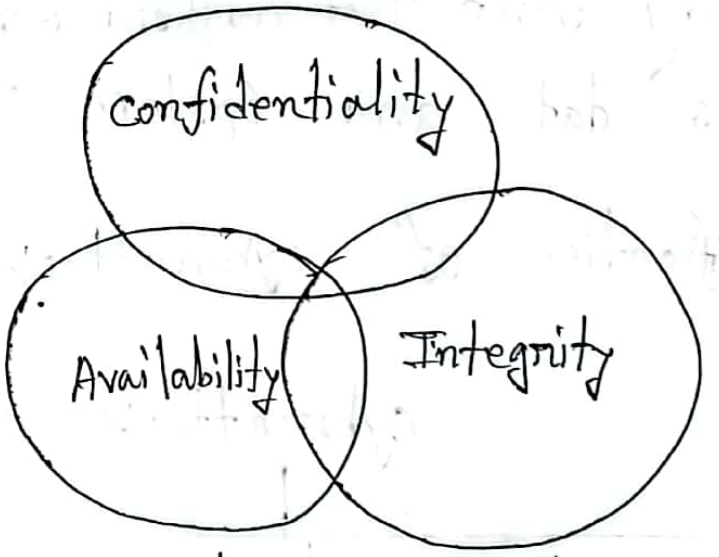


fig: cybar security goals

1. Confidentiality :
→ Ensuring that sensitive information is accessible only to authorized users.
→ Example: Strong passwords, encryption

2. Integrity :
→ Ensuring the accuracy and completeness of data.
→ preventing unauthorized modification or deletion of data.

Lutfor

→ Using measures like checksum to varify data integrity.

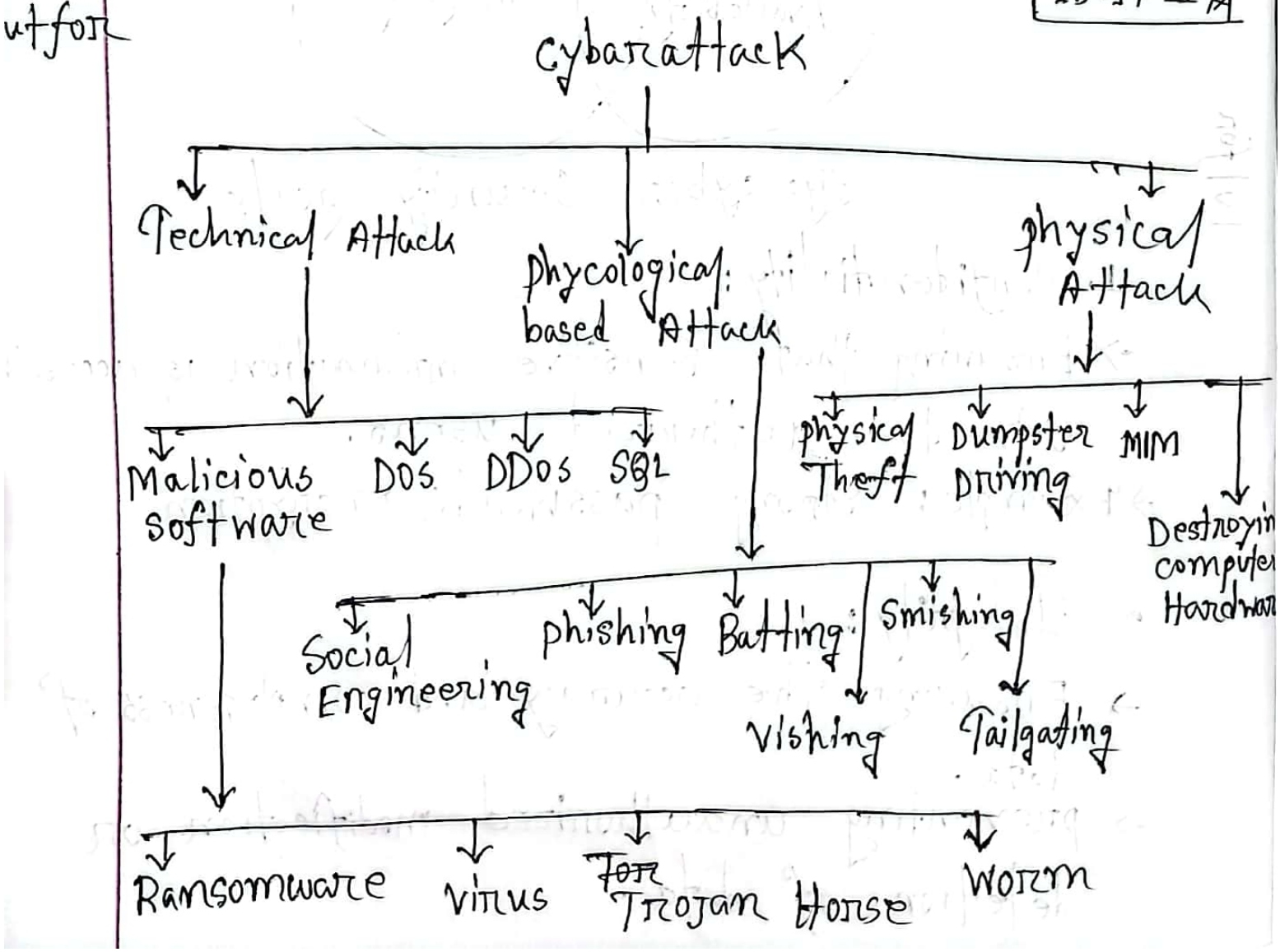
3. Availability:

→ Making sure that authorized users can access data and system when needed.

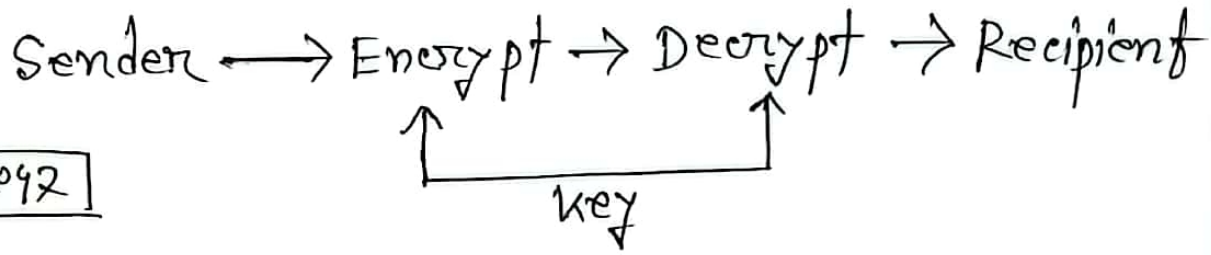
* classification of cybarattack

Lutfor
ID-IT-21°X

utfor



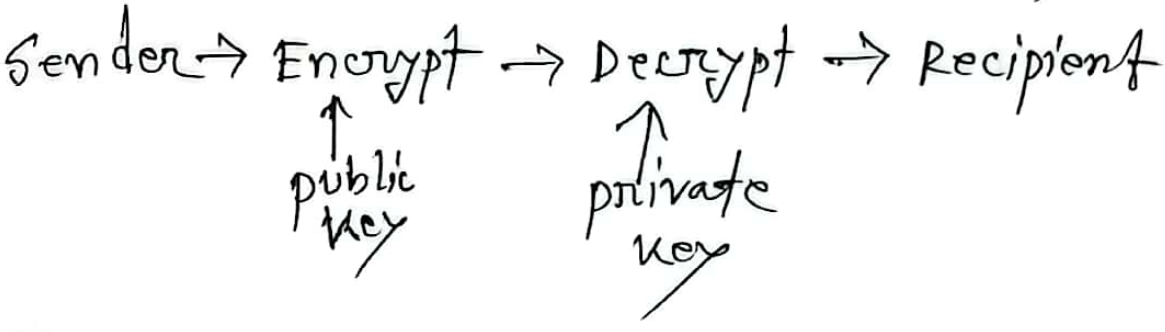
Symmetric key Encription:: In Symmetric key encription the message is encrypted by using a key and the same key is used to decrypt the message which makes it easy to use but less secure.



ID-IT-21042

Asymmetric key Encription: Asymmetric key encription is one of the most common cryptographic methods that involve using a single key and its pendent, where one key used to encrypt data and the second one is used to decrypt an encrypted text.

The second key is kept highly secret, while the first one which is called a public key.



Steganography: A steganography technique involves hiding sensitive information within an ordinary non-secret file or message, so that it will not be detected.