Socialize vocabulary about

Cryptography

Cryptography:

Cryptography is the art of securing information by transforming it into ciphertext, making it unintelligible to unintended recipients. The process involves using algorithms or mathematical operations to change plaintext into a disguised form.

Symmetric Cryptography:

A type of cryptography where the same key is used for both encryption and decryption. It ensures data confidentiality and is useful for local storage or secure communication over the internet.

Asymmetric Cryptography:

Also known as public-key cryptography, it involves using a pair of keys (public and private). The public key encrypts messages, and the private key decrypts them. It plays a vital role in establishing secure communication channels over insecure networks.

Hash Functions:

Hash functions are one-way encryption algorithms that transform plaintext into ciphertext, known as a hash. They ensure data integrity by generating unique hashes for different plaintexts. Hash functions are also used for password security.

Public Key Infrastructure (PKI):

PKI is a set of functions related to public keys in asymmetric cryptography. It provides a framework to ensure that a public key is associated with a specific entity, confirming the identity of the sender in encrypted communication. PKI supports authentication and non-repudiation.