

## Completed: Cryptography Concepts – TryHackMe

I'm excited to share that I've successfully completed the Cryptography Concepts room on TryHackMe!

This room strengthened my understanding of fundamental cryptographic principles used in cybersecurity.

### Key Concepts Covered:-

#### 1) Encryption vs Decryption:-

Understanding how plaintext is converted into ciphertext and securely reversed.

#### 2) Symmetric Encryption:-

Explored algorithms like Advanced Encryption Standard (AES) and Data Encryption Standard (DES) — learning how a single key is used for both encryption and decryption.

#### 3) Asymmetric Encryption:-

Studied public/private key cryptography including RSA, which is widely used in secure communications.

#### 4) Hashing Algorithms:-

Understood how hashing ensures integrity using algorithms like SHA-256 and MD5.

#### 5) Digital Signatures & Certificates:-

Learned how digital signatures verify authenticity and how certificates support secure connections.

### What I Gained:-

Strong foundation in cryptographic principles

Understanding of how encryption secures data in transit and at rest

Practical exposure to real-world security implementations

Cryptography is the backbone of secure communication, and mastering these fundamentals is essential for a cybersecurity professional.

