

## DAY - 4

Windows powershell

→ dir

→ ls

→ cd - change directory

Back ⇒ cd ..

Front ⇒ cd .\Desktop\

{ 73  
Commands

⇒ cmd : where jupyter (only on command prompt)

⇒ [cd + Tab]

cmd - Basic Commands

ps - windows Commands

⇒ ps : pwd - [Path]

- ⇒ echo "Hi" - output
- ⇒ echo "test" > file - create } Ps
- ⇒ Cat .\file → To print output
- ⇒ cmd : more file - To print.
- ⇒ mkdir mkce

Mode

d --- - directory  
-a -- - file

Move file to dir

mv .\filename .\mkce\

python -m http.server 80 [Webserver] http  
172.1.42.45: 9999

→ Default works on - 80 port  
 so make mark on port number

DNS server - port 53

→ sharing which directory files

SOC Analyst  
 Log

Remove

Ps : rm

cmd: dl

Phising - http server

- LS Issue
- (Wireshark) tool (X)

VM - NAT (X) (X)

## KALI

- ip a - IP address
- ip help

- ① ip address
- ② localhost

lo - Network Interface

eth 0 - Ethernet 0

- sharing windows <sup>network</sup> using NAT ~~any~~ for Kali OS

## VPN

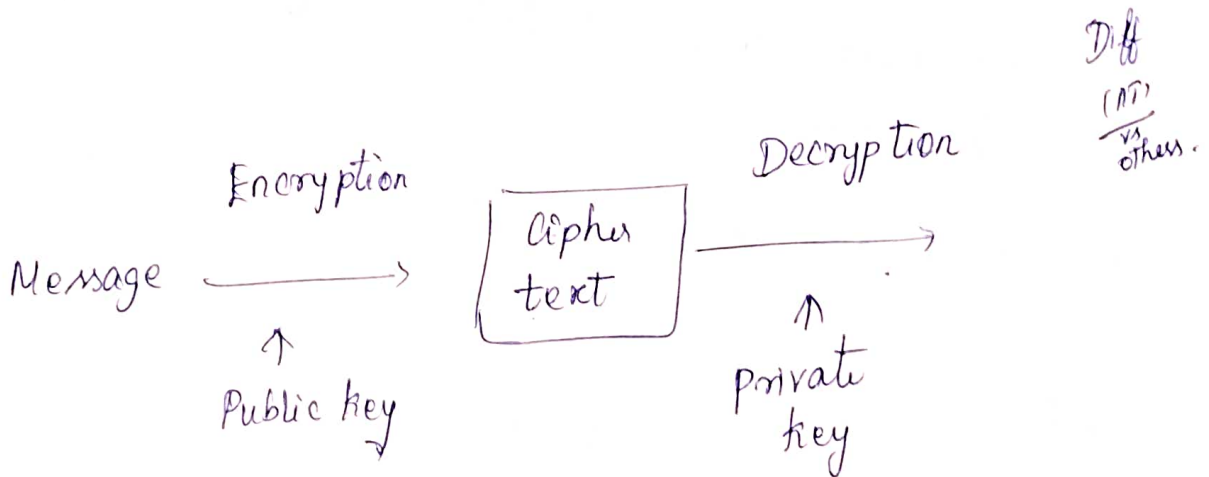
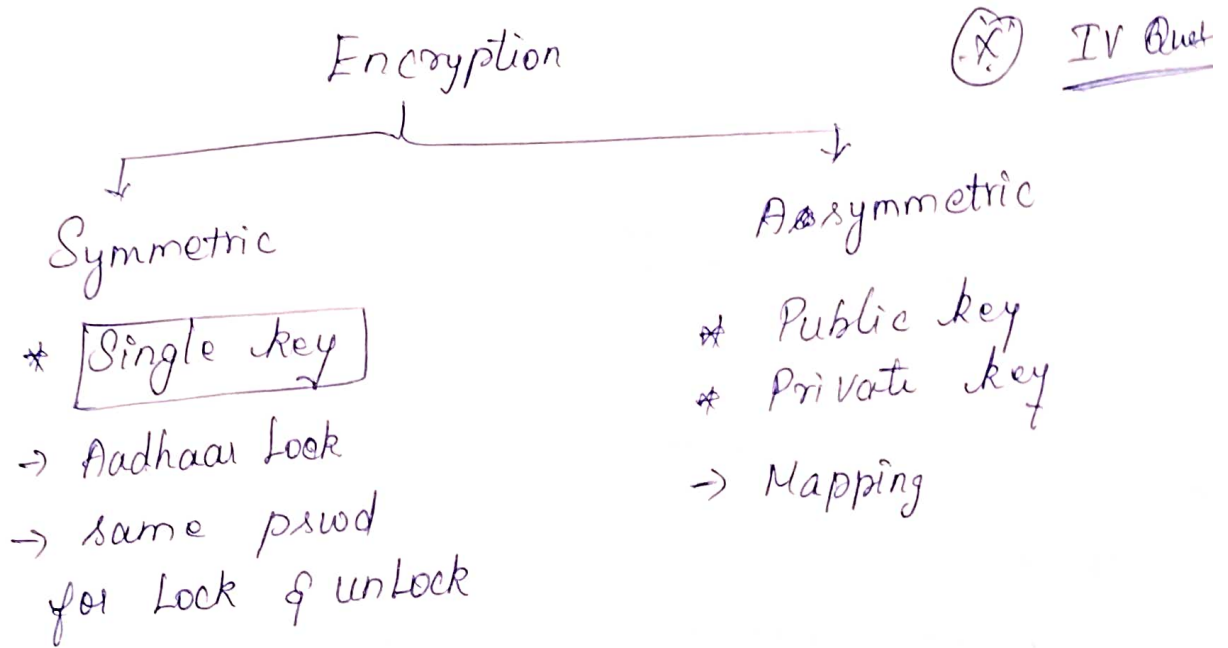
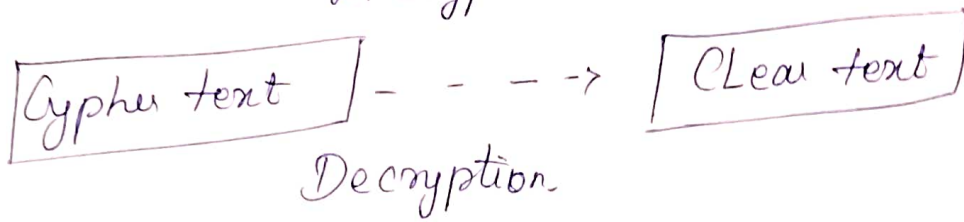
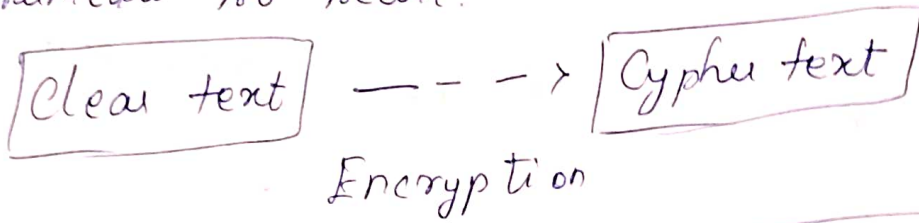
- Virtual Private Network

Client <sup>VPN</sup> Server

- \* Encryption - Decryption the Connection.
- \* End to End Encryption
- \* Both Client & Server must have (software or tool).

- \* Creates own IP address and Communicates.

\* Local IP address are not used to communicate so secure.



→ public key is given to us when Website is used.

## Installation

- ① VmWare
  - ② Kali Linux
  - ③ Wireshark
  - ④ Packet Tracer
  - ⑤ BCtext Encoder - [getitw.com](http://getitw.com)
  - ⑥ Hashcalc -
  - ⑦ virustotal.com (X)
  - ⑧ Rockyou.txt wordlist
  - ⑨ Burp suite (web) (X)
  - ⑩ Foxy Proxy
- 

① Cookie Editor

② Zaproxy

③ DVWA - Act as Kali

## Wireshark

- Packet analyzer
- Advanced Level of Packet Tracer
- Real time.

Session Layer - maintains session time period

### TCP

- \* slow Connection
- \* Secure

### UDP

- \* Fast Connection
- \* Connectionless

Ex: Youtube

Zoom

- \* First time connection Youtube - TCP
- \* Transfers to (UDP)

⇒ ip.addr == 163.70.

### 3 way Handshaking

- ① SYN
  - ② SYN + ACK
  - ③ ACK
- } TCP Protocol

IV Ques  
\* 3 way handshake - 3

### ⊗ Transport Layer Security [TLS]

\* without

cmd: Get-FileHash .\BCTextencoder.exe

⊗ ⊗

→ Because the file is not no

\* windows download

⇒ How antivirus, anti malware work.

Download software - Hashvalue

Antivirus company database has Hashvalue

\* Even small changes differs Hashvalue

⊗ ⊗

### Encryption / Hashing

Encryption - 2 way } ⊗  
Hashing - 1 way



- \* Same length - Hashing algorithm
- \* Different length - Encryption algorithm
- single character / Hashvalue is generated
- \* Password attack

↳ Brut force attack

- \* Permutation
- \* Combination

PUA - Potentially unwanted application

Bc text Encoder

- \* Encrypt
  - \* Decrypt
- } the messages.

Symmetric Encryption } → we have to send both  
encrypted  
Hash values } + { Passwords

Algorithm is built with a  
combination of two Prime numbers

→ Creating public key