Ex. No.: 1

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# **CAPTURE FLAGS-ENCRYPTION CRYPTO 101**

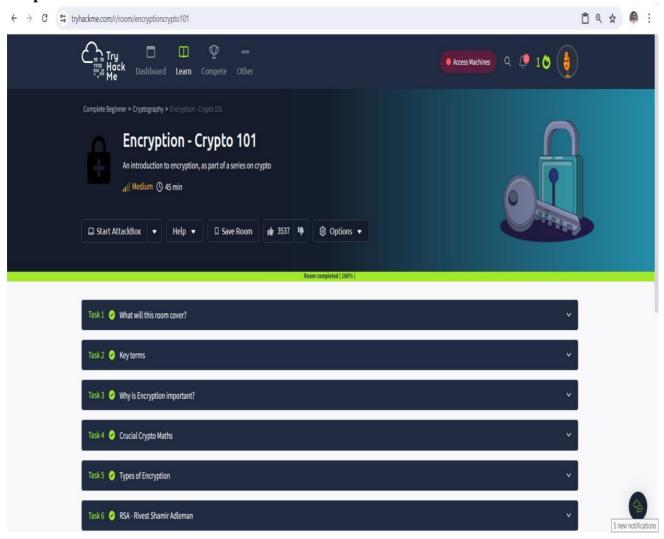
#### Aim:

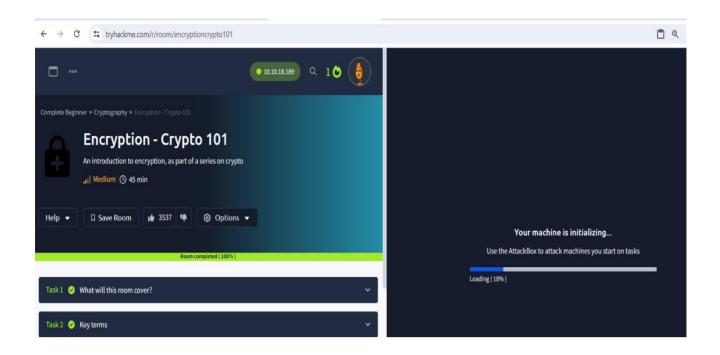
To capture the various flags in Encryption Crypto 101 in TryHackMe platform.

# Algorithm:

- 1. Access the Encryption Crypto 101 lab in TryHackMe platform using the link belowhttps://tryhackme.com/r/room/encryptioncrypto101
- 2. Click Start AttackBox to run the instance of Kali Linux distribution.
- 3. Solve the crypto math used in RSA.
- 4. Find out who issued the HTTPS Certificate to tryhackme.com
- 5. Perform SSH Authentication by generating public and private key pair using ssh-keygen
- 6. Perform decryption of the gpg encrypted file and find out the secret word.

# **Output:**





```
root@ip-10-10-18-189: ~
File Edit View Search Terminal Help
root@ip-10-10-18-189:~# ssh-keygen -t rsa
Generating public/private rsa key pair.
Enter file in which to save the key (/root/.ssh/id_rsa): myKey
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in myKey.
Your public key has been saved in myKey.pub.
The key fingerprint is:
SHA256:mYLMN1vmJnlZgFjuatvJ+maOmK9HcIARIe//jOdXt9s root@ip-10-18-189
The key's randomart image is:
+---[RSA 2048]----+
1==
0..
  ..0.0
   .0+ = 5 .
    ..000.
    +.0+=.
   ++*0X.
+----[SHA256]----+
root@ip-10-10-18-189:~# ls
burp.json Downloads
                         myKey.pub Rooms
                                                       Tools
CTFBuilder Instructions
                         Pictures
                                     Scripts
                                                       welcome.txt
                                     thinclient_drives welcome.txt.gpg
Desktop
           myKey
                          Postman
```

```
root@ip-10-10-18-189:~# gpg --import tryhackme.key
```

gpg: /root/.gnupg/trustdb.gpg: trustdb created

gpg: key FFA4B5252BAEB2E6: public key "TryHackMe (Example Key)" imported

gpg: key FFA4B5252BAEB2E6: secret key imported

gpg: Total number processed: 1

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```
gpg: imported: 1
gpg: secret keys read: 1
gpg: secret keys imported: 1
```

root@ip-10-10-18-189:~# gpg message.gpg

```
gpg: WARNING: no command supplied. Trying to guess what you mean ...gpg: encrypted with 1024-bit RSA key, ID 2A0A5FDC5081B1C5, created 2020-06-30"TryHackMe (Example Key)"
```

```
gpg: WARNING: no command supplied. Trying to guess what you mean ... gpg: encrypted with 1024-bit RSA key, ID 2A0A5FDC5081B1C5, created 2020-06-30 "TryHackMe (Example Key)"
```

### **Result:**

Thus, the various flags have been captured in Encryption Crypto 101 in TryHackMe platform.