

**Ex. No.: 1**

**Date:30/7/2024**

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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 below-  
<https://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:

The screenshot displays the TryHackMe interface for the 'Encryption - Crypto 101' room. The browser address bar shows the URL `tryhackme.com/r/room/encryptioncrypto101`. The TryHackMe logo and navigation links (Dashboard, Learn, Compete, Other) are at the top. The room title 'Encryption - Crypto 101' is prominently displayed, along with the subtitle 'An introduction to encryption, as part of a series on crypto'. The difficulty is 'Medium' and the estimated time is '45 min'. A large padlock icon is featured on the right. Below the room details, a list of six tasks is shown, all marked as completed with green checkmarks:

- Task 1: What will this room cover?
- Task 2: Key terms
- Task 3: Why is Encryption important?
- Task 4: Crucial Crypto Maths
- Task 5: Types of Encryption
- Task 6: RSA - Rivest Shamir Adleman

A green bar at the bottom of the room header indicates 'Room completed (100%)'. In the bottom right corner, there is a notification for '5 new notifications'.

tryhackme.com/r/room/encryptioncrypto101

10.10.18.189

Complete Beginner > Cryptography > Encryption - Crypto 101

## Encryption - Crypto 101

An introduction to encryption, as part of a series on crypto

Medium 45 min

Help Save Room 3537 Options

Room completed (100%)

Task 1 What will this room cover?

Task 2 Key terms

Your machine is initializing...

Use the AttackBox to attack machines you start on tasks

Loading (18%)

```

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//j0dXt9s root@ip-10-10-18-189
The key's randomart image is:
+---[RSA 2048]---+
|  ==      .                |
| o..  + .                 |
| ... o .                  |
| ..o.o  +                 |
| .o+ = S .                |
| ..o O o. .               |
| .+ + =. . .              |
| +.O+=. . .               |
| ++*OX. . .E             |
+---[SHA256]-----+
root@ip-10-10-18-189:~# ls
burp.json    Downloads    myKey.pub    Rooms        Tools
CTFBuilder   Instructions  Pictures      Scripts       welcome.txt
Desktop      myKey        Postman      thinclient_drives  welcome.txt.gpg

```

```

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 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.

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