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EXP NO 1: CAPTURE ALL THE FLAGS IN ENCRYPTION 101 IN TRYHACKME PLATFORM

AIM:

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

ALGORITHM:

1. Access the Encryption Crypto 101 lab in TryHackMe platform.
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:

Learn > Encryption - Crypto 101

Encryption - Crypto 101

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

45 min 132,019

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Room completed (100%)

- 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
- Task 7 ✓ Establishing Keys Using Asymmetric Cryptography
- Task 8 ✓ Digital signatures and Certificates
- Task 9 ✓ SSH Authentication
- Task 10 ✓ Explaining Diffie Hellman Key Exchange
- Task 11 ✓ PGP, GPG and AES
- Task 12 ✓ The Future - Quantum Computers and Encryption

```
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+ma0mK9HcIARie//j0dXt9s root@ip-10-10-18-189
The key's randomart image is:
+----[RSA 2048]-----+
|==      .          |
|o..  +  .          |
|   ... o .         |
| ..o.o  +         |
|.o+ = S .         |
|   ..o 0 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
```

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