Try Hack Me Solutions

tryhackme.com is a website containing cyber security problems/questions.

Try Hack Me is organized into rooms that might have many problems relating to a central theme. To attempt the problems, one needs to open a connection to AttackBox, a web-based connection to a Kali machine. Alternatively you can use OpenVPN. For free users there exists a time limit on using the machine, but people with subscriptions, it is unlimited max machine open is 3.

Path

1. Start with the tutorial which will help you set up
2. Next do an easy challenges such as Vulnversity although this one is a bit long ans something like Web Fundamentals might be easier
3. Do some more easy/tutorial ones to get your feet wet

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Tutorial

1. Start a machine, this will take ~ 1-2 minutes for pro accounts
2. (Recommended) have two windows if 2+ monitors, 1 for Kali Linux window and another for the instructions
3. Follow instructions to get the flag and submit it

How to use TryHackMe

Similar to Tutorial (above), however you don't need to do `Start AttackBox`

Welcome

A nice intro to TryHackMe

OpenVPN

1. Download OpenVPN and install it
2. Download the configuration files from TryHackMe
3. Load the config file onto OpenVPN
4. Connect
5. ssh into server

Web Fundamentals

Good place to start out

Instead of using curl in the command line, using postman to send requests might be easier

Intro to Python

Trivial

Do for last step (* note txt is the text file containing the task file)

```
import base64

with open("txt", "r") as fp:
    flag = f.read()

for i in range(5):
    flag = base64.b16decode(flag)

for i in range(5):
    flag = base64.b32decode(flag)

for i in range(5):
    flag = base64.b64decode(flag)

print(flag)
```

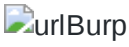
Then run with `python3 t.py` or whatever u named your python file

Burp Suite

Follow instructions, mostly straight forward

Task 6 (some step in the middle) the question that starts with "Return to your web browser and navigate to the web application hosted on the VM we deployed just a bit ago", this web application is deployed/started in Task 6 (show below)

The URL to enter is the one at the top of the page in a red box (see below)



Linux Series

1. Part 1

Simple and easy -> do it in any Linux distro except for **Task 9**, but that's just my friend *pinguftw* for the answer if you can't be bothered to run the binary :p

2. Part 2

* Remember to start the machine (which is different from the attack box)

This one has a lot of useful information and here are some that I did not know:

- `;` operator is the same as `&&` but does not need to execute successfully

3. **Part 3**

This part goes through some more tools and commands for us to go into.

Task 7 -> `find / -name shiba4 2>/dev/null` (idk what `2>/dev/null` does but it works)

Windows Intro

A simple intro to the Windows operating system. This barely counts as a room, but it is what it is.

Google Dorking

Google, SEO, and indexing!

Notice for me:

Term	Action
filetype:	Search for a file by its extension (e.g. PDF)
cache:	View Google's Cached version of a specified URL
intitle:	The specified phrase MUST appear in the title of the page

How Websites Work

Easy intro into web dev and how websites work

Introductory Networking

Networking stuff (Mostly IT/network stuff)

Hashing - Crypto 101

Intro cryptography

Task 4, Last question -> check length with Python

`len("HASH")`

For Task 5, to crack, use

`hashcat -m NUM hash rockyou.txt` where hash is the txt file containing the hash and change NUM to whatever the code for your hash type (found here: https://hashcat.net/wiki/doku.php?id=example_hashes). Also note that rockyou.txt was saved in the same directory level as the hash file

* Note this may take a while

Intro Shell

You can do the questions in order, but a better idea is to go to the bottom (task 14/15), start those machines and test the other tests with the open machine while AttackBox is open

Nmap

Task 3 -> recommended to redirect output to text file like this

`nmap -h > t.txt` then grep the output of the t.txt to find the answer like this

`cat t.txt | grep -in -e 'FIND TEXT'`

To get the answers most of the time and line number if you do not find it immediately

Hydra

Nice and simple intro to Hydra (you can use Burp for intercept)

* note the usual word list rock you and it is found in `/usr/share/wordlists/rockyou.txt` on the attack box by default

Active Directory Basics

Reading assignment :weary:

(Don't be afraid to use the hint for the second last part)

John The Ripper

Use rockyou.com for test: rockyou.txt wordlist

For cracking in task 4, use `john hashX.txt --wordlist=../rockyou.txt` if rockyou.txt is in the directory above yours

In Task 9-11, zip2john, rar2john, and ssh2john are not found so install it manually or just enter

`pass123` as the passcode zip and

`password` for the rar (you also need unrar)

`mango` for the ssh key

Common Linux Privesc

This video series covers this room in great detail: https://www.youtube.com/watch?v=PjjuZwVvCgc

Metasploit

Follow the steps and/or watch the video (which contain the answers)

Encryption - Crypto 101

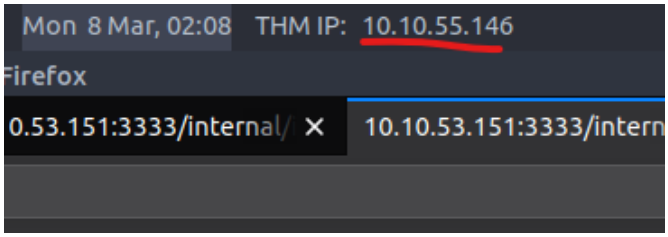
Task 4 -> use python interrater

Linux PrivEsc

Good resource for escalation later on (definitely a good bookmark)

VulnVersity

1. Run `nmap -A -sC -p- -oN vul.nmap 10.10.IP ADDRESS HERE*` on the instance of Kali
2. Wait >10 minutes for it to resolve
3. Scan for hidden files by doing `gobuster dir -u http://<ip>:3333 -w /usr/share/wordlists`
4. Go to the <ip>/internal/index.html on firefox (**Make sure u aren't using http or https before the url**)
5. Follow the rest of the steps till yo get to injecting the PHP code
6. Make sure download the PHP file from GitHub, rename it to be a .phtml and change the IP to the TMP IP address



7. Save, upload, listen, then submit file
8. Then the netcat should allow you in such that you can gain control and find out things about the machine
9. Follow https://n0w4n.nl/vulnversity/#crayon-60458bd07482b875406373 to gain admin privileges
10. Follow the rest of the instructions and you should be done!

Resources:

- https://n0w4n.nl/vulnversity/
- https://www.youtube.com/watch?v=hvYWCegfEZs&ab_channel=JohnHammond

Network Services

see YouTube 1, YouTube 2, or YouTube 3 for hints

Network Services 2

`/usr/sbin/showmount` is just `showmount` (Task 3)

Some parts maybe broken like the MySQL (also need to install MySQL)

A very good writeup: http://wuvel.net/network-services-2/#:~:text=What%20process%20allows%20an%20NFS,Mounting.

OhSINT

MSINT fun. Do some googling and don't be afraid of using the hint

For SSID of WAP, the website has changed the the answer is `UnileverWiFi`

Last question requires you to look in the source code (under the header)

OWASP Top 10

Follow the steps till task 7, where the arthur task might be broken. Therefore the password is `d9ac0f7b4fda460ac3edeb75d75e16e`

In severity 3, you go into SQL. Notes on SQLite3:

- find the structure of the table with `.schema TABLE_NAME` in sqlite3

SSH key is usually located at `/home/falcon/.ssh/id_ra`

In take 16, it can be annoying to get the first 18 characters so use python by specifying

```
a = "KEY"
print(a[:18])
```

Severity 6: MSINT

Severity 7: Note that the alert must be case sensitive (ie `Hello`)

Severity 8: Task 21 is a trick question since it's `the Apache Software Foundation`

also note the first flag (cookie) requires a decoder

OWASP Juice Shop

Note the best1050 wordlist from task 4 exists in `/usr/share/wordlists/SecLists/Passwords/Common-Credentials` (also that question takes a long time because burp wants you to buy premium)

Upload Vulnerabilities

Kenobi

Follow the steps are the rest is trivial

Basic Pentesting

Check The video (https://www.youtube.com/watch?v=xl2Xx5YOKcI)

This room should be done near the end because it requires a bunch of other tools and it requires you know how to pentest starting from nothing

Mr Robot CTF

This is similar to Blue, or at least the steps are the same, just some praxis

Blue

The behaviour of msfconsole may very on your machine and therefore you may have to background once you do `run`. Sometimes the run will fail and you may need to restart the machine

(This room is a bit finicky)

Ice

1561 is the one we want in task 3

Here I will break down the steps for general cracking:

1. Scan and recon
2. Hopefully find an exploit
3. Use metasploit (msfconsole)
    i. search for the exploit found
    ii. set to use the exploit (with `use NUMBER`)
    iii. set the host/port
    iv. run (the exploit at the host)
4. Pray that you are successful
5. Escalate

Steel Mountain

Yet another Mr. Robot room 😄

In task 2 the name of the webserver starts with the word `rejetto`

*note the flag is in Desktop

Nessus

Unless you have 30GB of space or don't want to waste 30GB, don't do this room!

If me want the badge (□□□), follow this tutorial: https://www.youtube.com/watch?v=JMyuEiz1dWQ

Pickle Rick

I turned myself into a CTF room Morty...

Follow the video but at this point, you should know your way around

CI for PDF

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