

Environment Setup & Intro to CTF

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Environment Setup



Live Boot

LINUX based OS can be directly run from Flash Drives (GUI)

Oracle Virtual Box can create an OS inside existing OS (GUI)

Virtual Box



Virtual Rooms/Labs

Cloud based solution (CLI)

Harder to implement (GUI)

Dual Boot

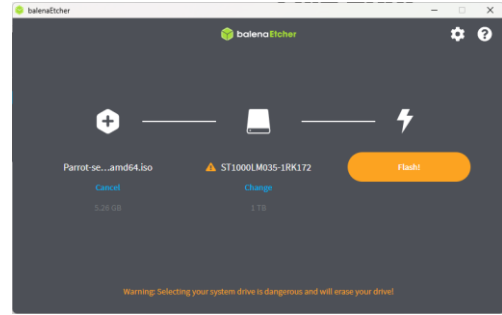
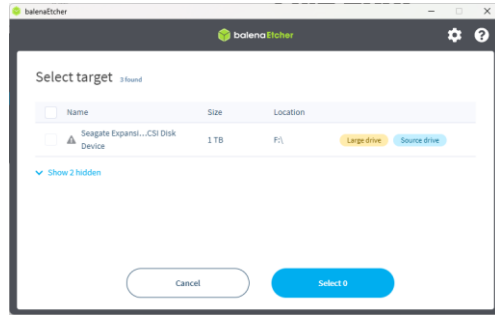
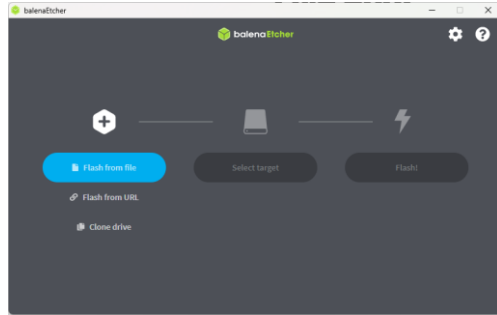


WSL

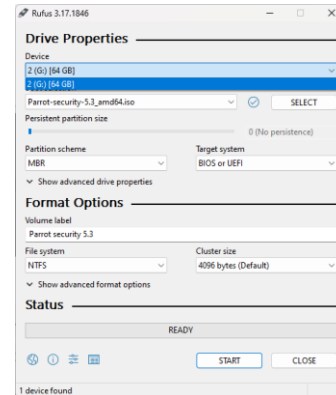
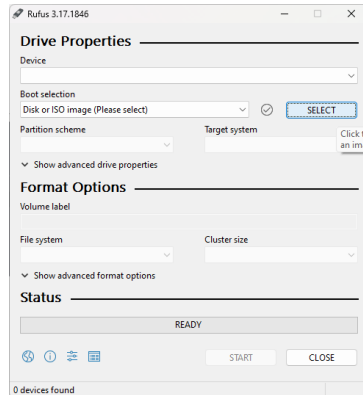
Easiest To Implement (CLI)

Live Boot & Boot Media Creation

(1) Balena Etcher : <https://etcher.balena.io/>



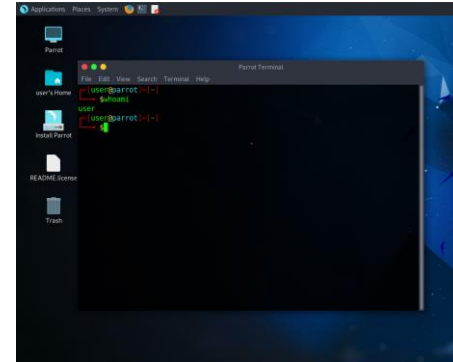
(2) Rufus : <https://rufus.ie/en/>





Live Boot Contd.

- Insert the bootable media that you've created and press DEL/F2/F10 during boot to access BIOS.
- Navigate and Select your boot drive as the flash drive you just inserted, then follow the steps below :



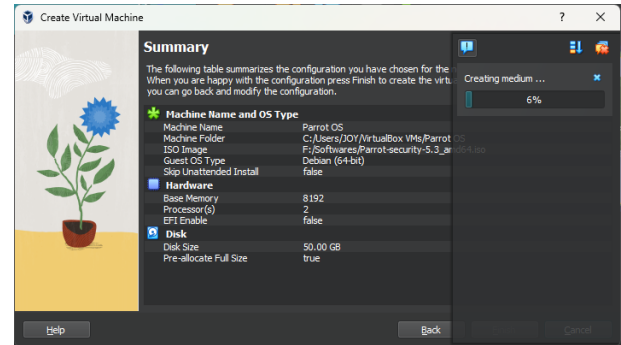
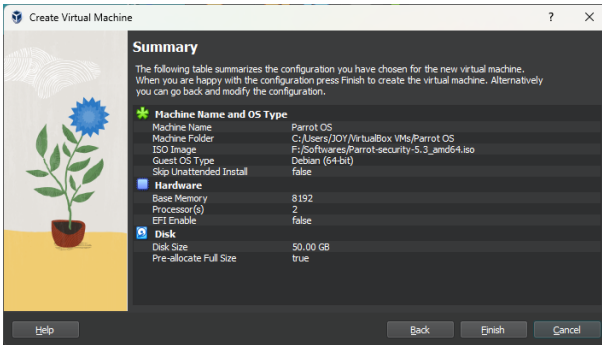
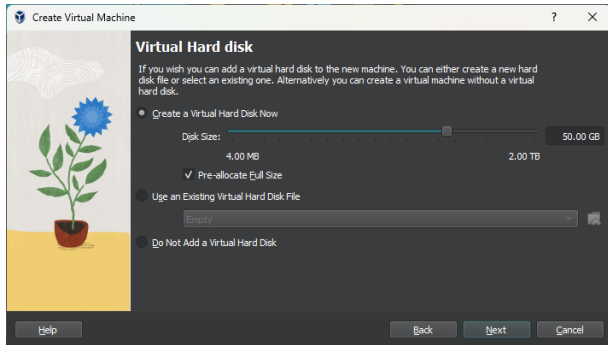
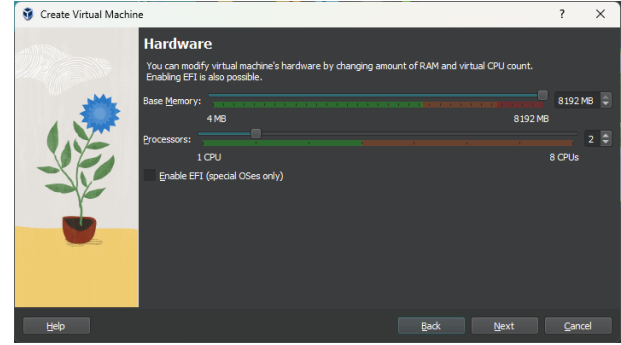
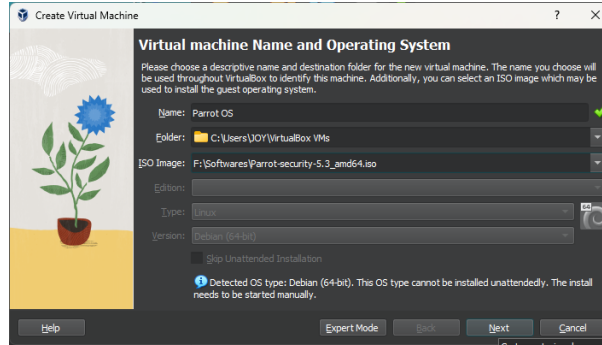
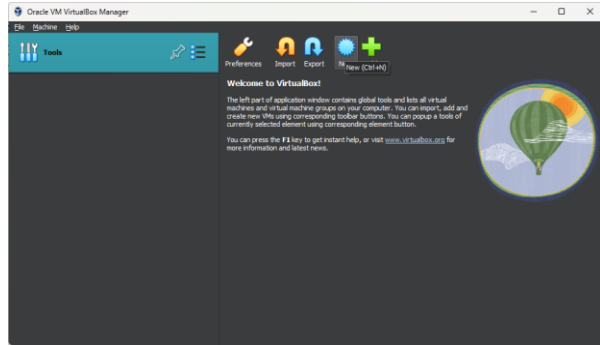


Virtual Box – Easier To Implement

Installation Guide : PART-1

Virtual Box: <https://www.virtualbox.org/wiki/Downloads>

Youtube Tutorial: <https://www.youtube.com/watch?v=nvdnQX9UkMY>





Virtual Lab / Room

Tutorial:

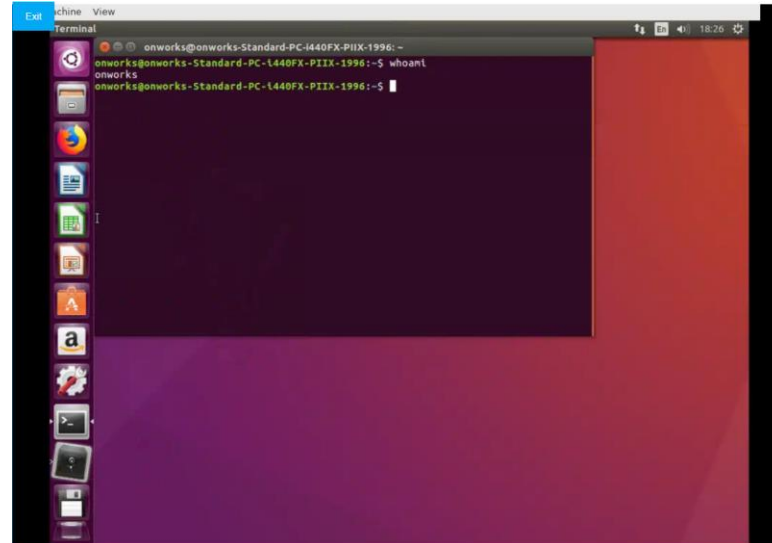
Youtube Tutorial: https://www.youtube.com/watch?v=_YAwf47R1o4

Jslinux: <https://bellard.org/jslinux/>

Copy: <https://copy.sh/>

Onworks: <https://www.onworks.net/>

aws: <https://aws.amazon.com/>



Dual Boot – Hard & Risky Implementation

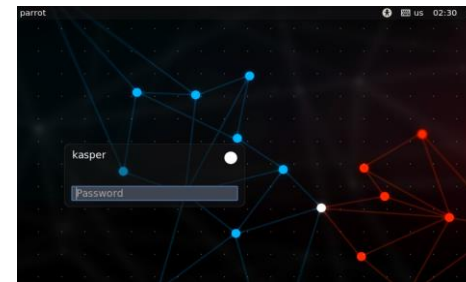
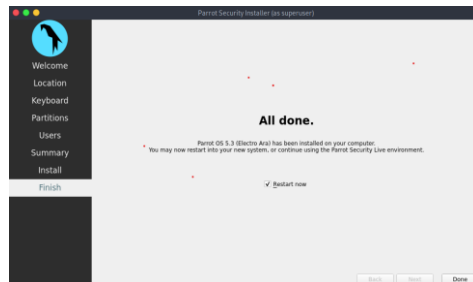
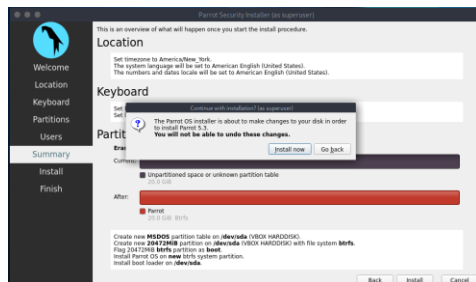
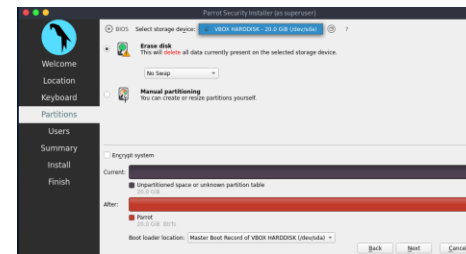


Installation Guide/ Virtual Box Installation PART-2 :

We have already seen how to create the bootable drive in Live Boot & Media Creation

Now we can easily do it following the tutorial below :

<https://www.youtube.com/watch?v=2vTVA-Nq0bw>



Incase of Virtual Box make sure to remove installation ISO from settings > storage > controller : IDE

Disclaimer: *Be careful with dual booting, make sure that you aren't wiping out the main system drive. None but you will be accountable if that happens.*

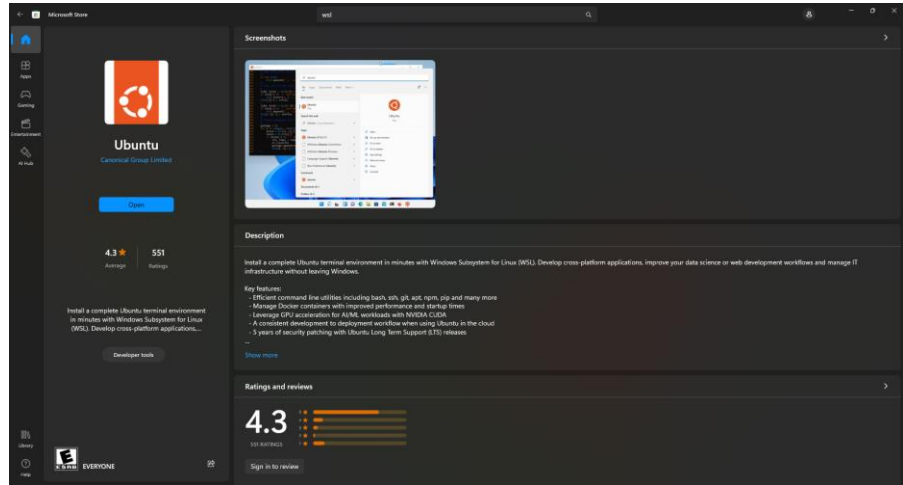
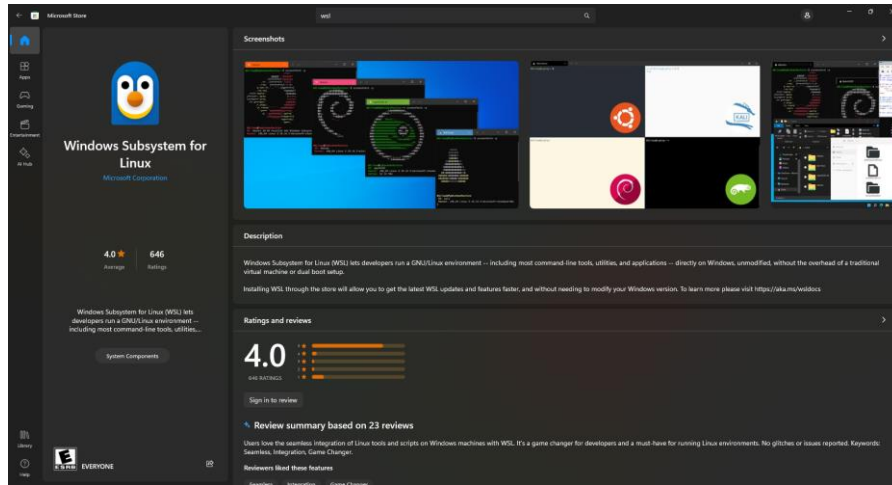


WSL – Windows Subsystem For Linux

Easiest To Implement

Installation Guide :

(1) Microsoft Store :



WSL – Windows Subsystem For Linux Contd.

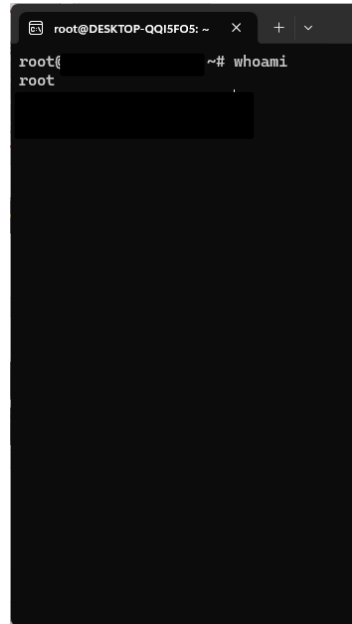
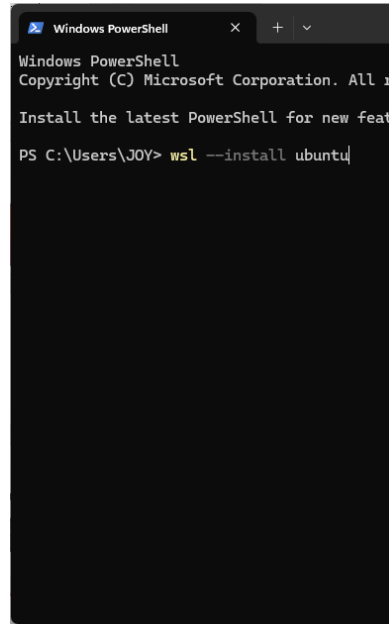
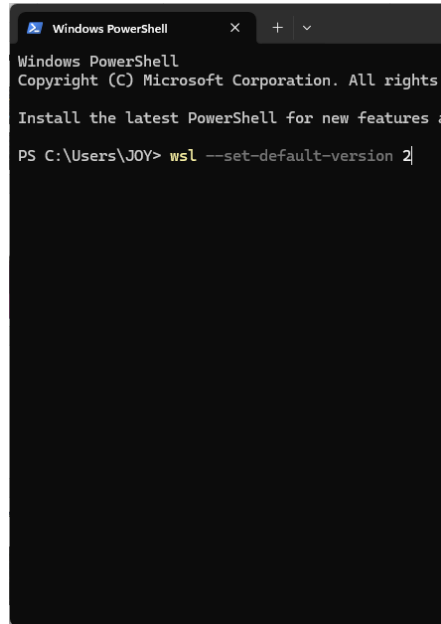
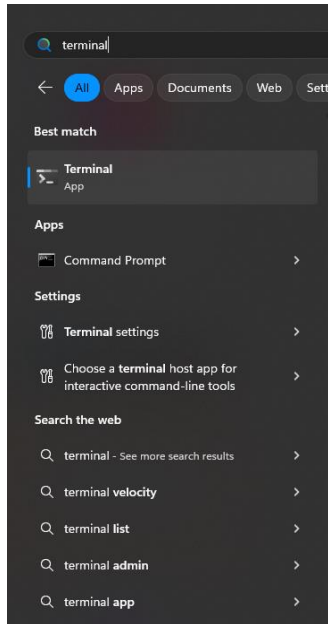


Installation Guide :

(2) Manual Commands :

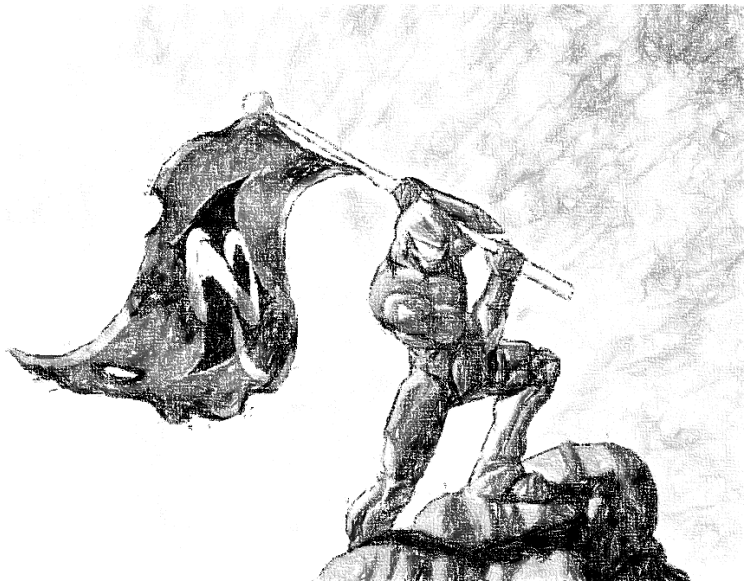
> wsl --set-default-version 2

> wsl --install ubuntu





CTF



- Capture the Flag is a type of exercise that makes us find clues to solve a problem, like a puzzle

General Types of CTF

Jeopardy

Problem Solving
Type



Attack & Defense

Red Team vs Blue
Team



Mixed

Previous Two
mixed





Jeopardy Style - Types




G.K.
Basic Web
Search Skills



Cryptography
Crack the hash




Pwn
Server Side
Exploitation



Steganography
Plaintext
hidden inside
images



**Web
Exploitation**
Exploit to find
flag inside a
website



**Reverse
Engineering**
Exploit Binary
File



Jeopardy Contd. – Where to start?



Blogs

- Hacker101
- CTFtime.org



Practice

- PicoCTF
- CyberTalents
- TryHackMe
- HackTheBox
- CTFtime.org



Youtube

- HackerSploit
 - NullByte
- Network Chuck
 - Overflow
- John Hammond
 - Edureka
 - InfoSec



Contest

- CTFtime
- Cybertalents

Jeopardy Contd. – General Information Gathering



Reconnaissance is the key to solving this type of problems

1

Linux Fundamentals:

<https://tryhackme.com/room/linuxfundamentalspart1>

2

Let's try some examples :

<https://play.picoctf.org/practice/challenge/22?category=5&page=1>

3

More , More :

<https://cybertalents.com/>



Any Questions?



Thank you

