

# LearnBay

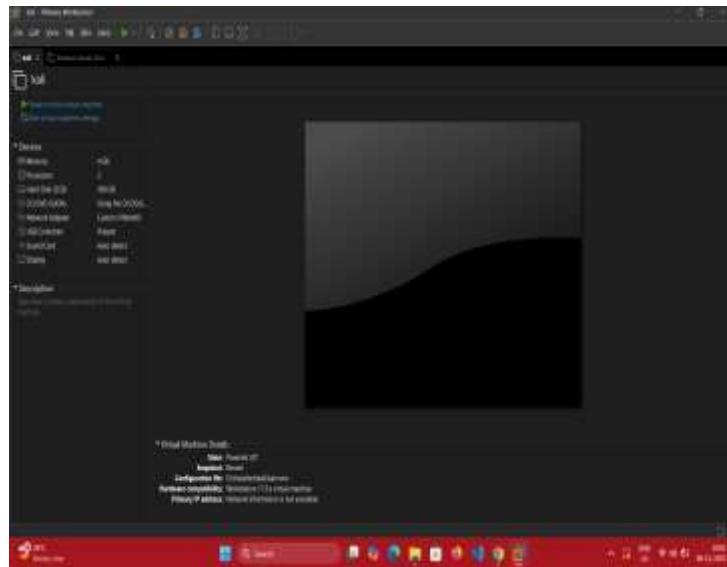
Secure Lab Lite

Report

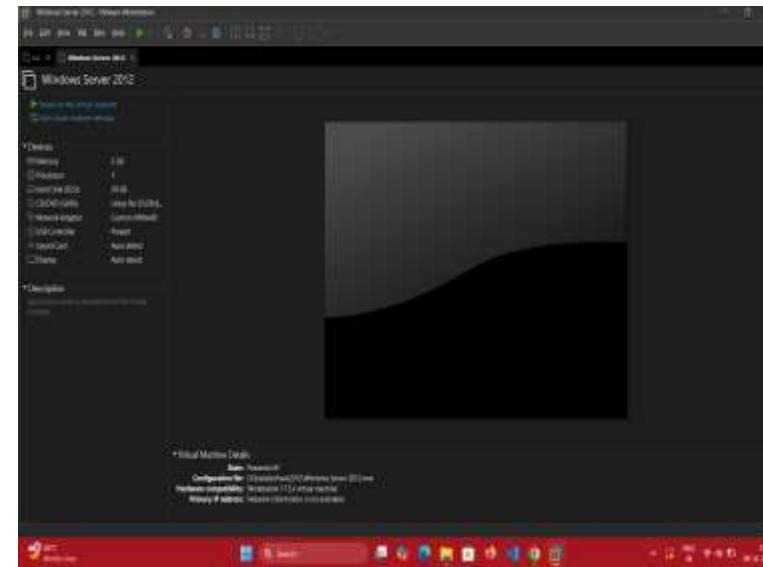
Souvik Mondal

# Objective

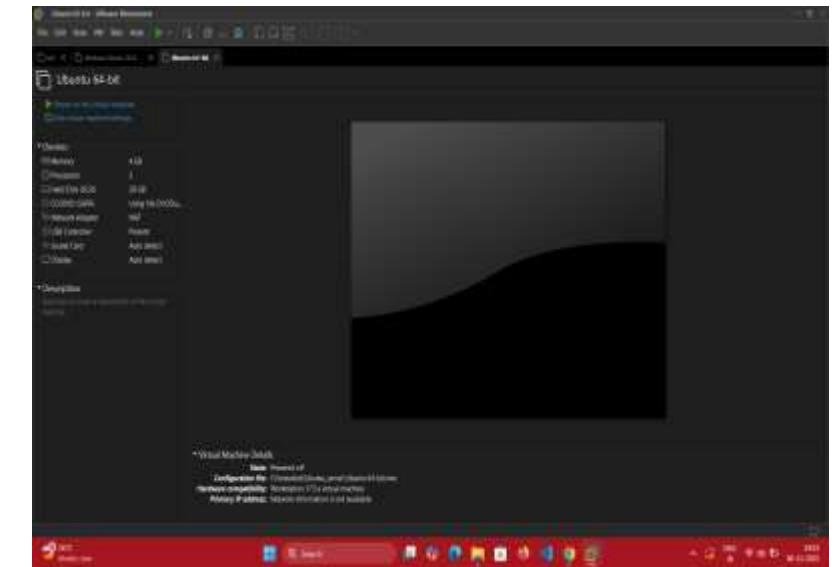
- Build a tiny lab (Ubuntu + Windows + Kali), run network discovery, find one vulnerability, fix it, and demonstrate results •



Kali



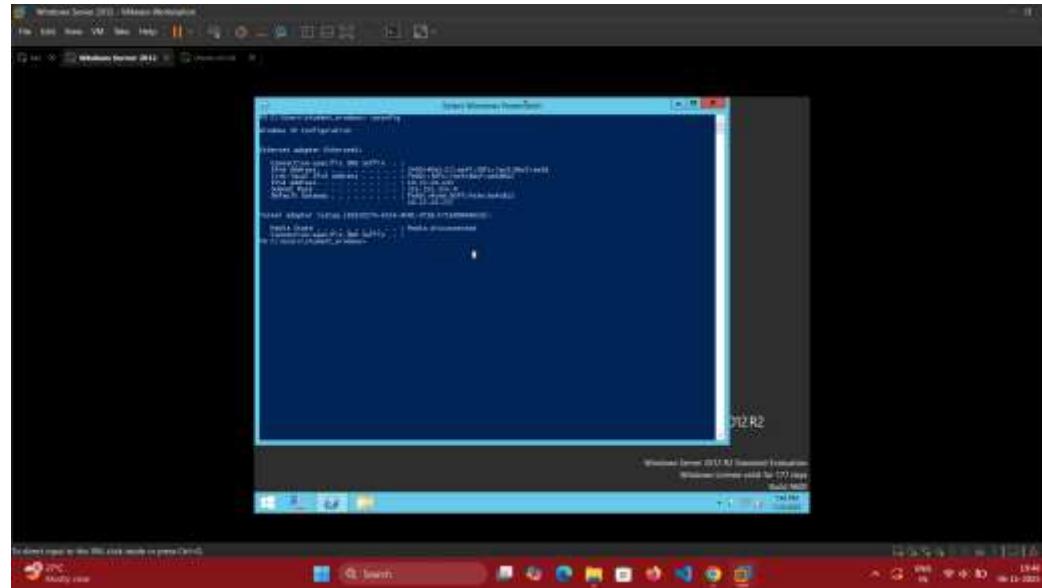
Windows Server



Ubuntu

# Setup

- Ubuntu Server 22.04 - 10.22.14.64 (before restart) | 10.116.247.64 (after restart)
- Windows Server - 10.22.14.143 (before restart) | 1.116.247.143 (after restart)
- Kali – 10.116.247.159
- Network: Custom: Specific Virtual Network (VMnet0)



Windows Server

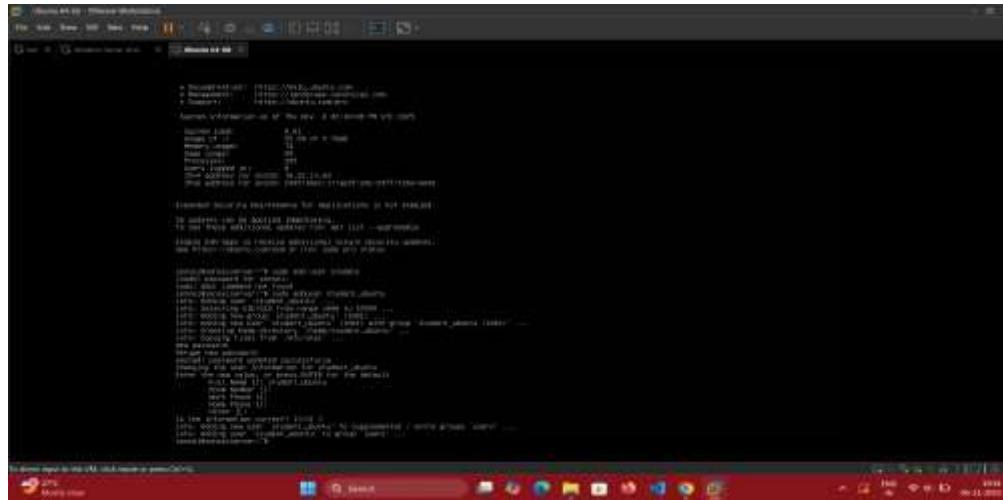
A screenshot of a terminal window on an Ubuntu Server 22.04 system. The command 'netstat -an' has been run, and the output shows various network connections. One connection is highlighted in yellow, showing the local address as 10.116.247.64 and the remote address as 10.22.14.200. The terminal window has tabs for 'Terminal' and 'File Manager'. The background shows a standard Ubuntu desktop environment.

```
netstat -an | grep 10.22.14.200
(Not all processes could be identified, non-owned process info
is not shown, you may need root permission to view complete
list.)
[...]
10.116.247.64:443
    0.0.0.0:0
        *:443
        10.116.247.64:443
            10.22.14.200:443
                ESTABLISHED
                10.116.247.64:443
                    10.22.14.200:443
                        ESTABLISHED
                        10.116.247.64:443
                            10.22.14.200:443
                                ESTABLISHED
```

Ubuntu

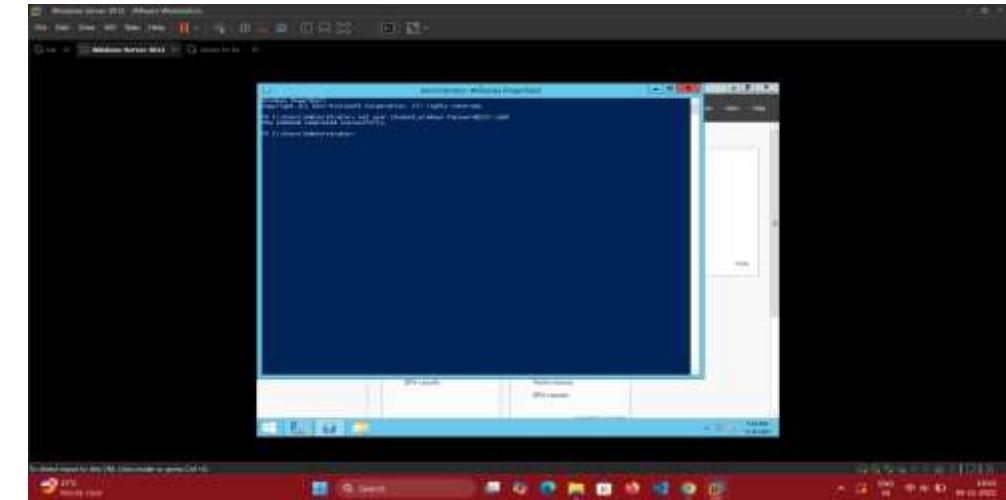
# Actions performed

- Basic OS setup:
- Ubuntu: created non-admin user `student\_windows`
- Windows: created non-admin user `student\_ubuntu`



```
root@ubuntuserver:~# useradd -m student_windows
root@ubuntuserver:~# id student_windows
uid=1000(student_windows) gid=1000(student_windows)
root@ubuntuserver:~#
```

Ubuntu

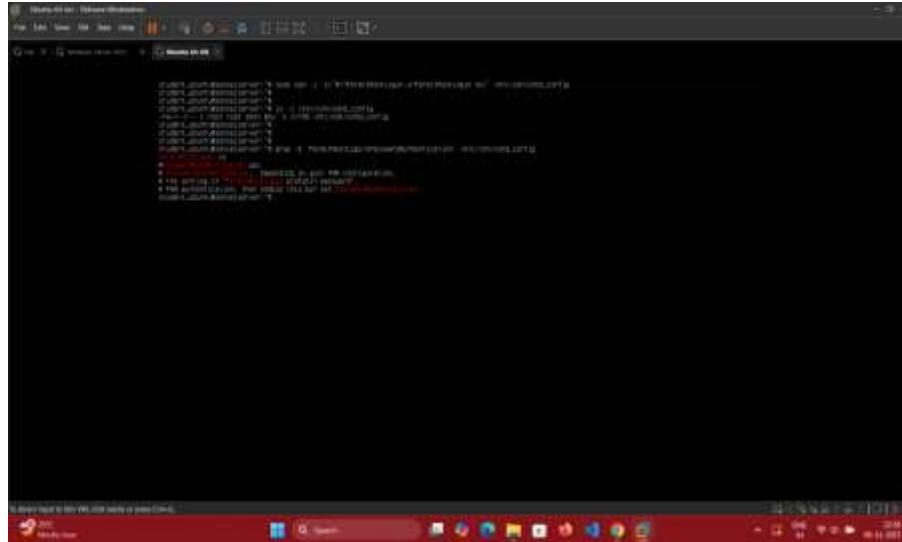


```
C:\Windows\system32\cmd.exe - Microsoft Windows Server 2012 Standard Edition
Administrator:~> net user student_ubuntu /add
The command completed successfully.
Administrator:~>
```

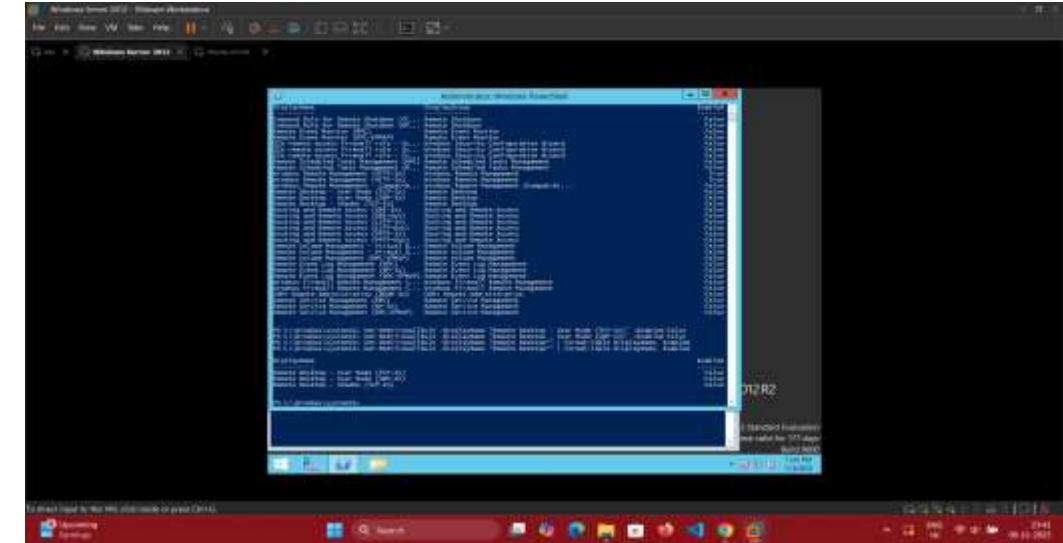
Windows Server

# Hardening

- Disabled SSH root login on Ubuntu ('PermitRootLogin no')
  - Disabled Remote Desktop on Windows via registry and firewall



# Ubuntu



## Windows Server

# Discovery

- Nmap quick scan: `nmap -Pn -O -p- -sV –min-rate=100 10.116.247.64 10.116.247.143`
- - Output confirmed SSH open on Ubuntu and RDP open on Windows (before fixes)

# Fix applied

- Ubuntu: `PermitRootLogin no` then `systemctl restart sshd`.
- Windows: Disabled RDP and disabled Remote Desktop firewall rules.

# Result

Re-scanned with Nmap:

1. RDP port no longer reachable
2. SSH root login disabled.