Lab06 **Vulnerability Analysis**

Objective

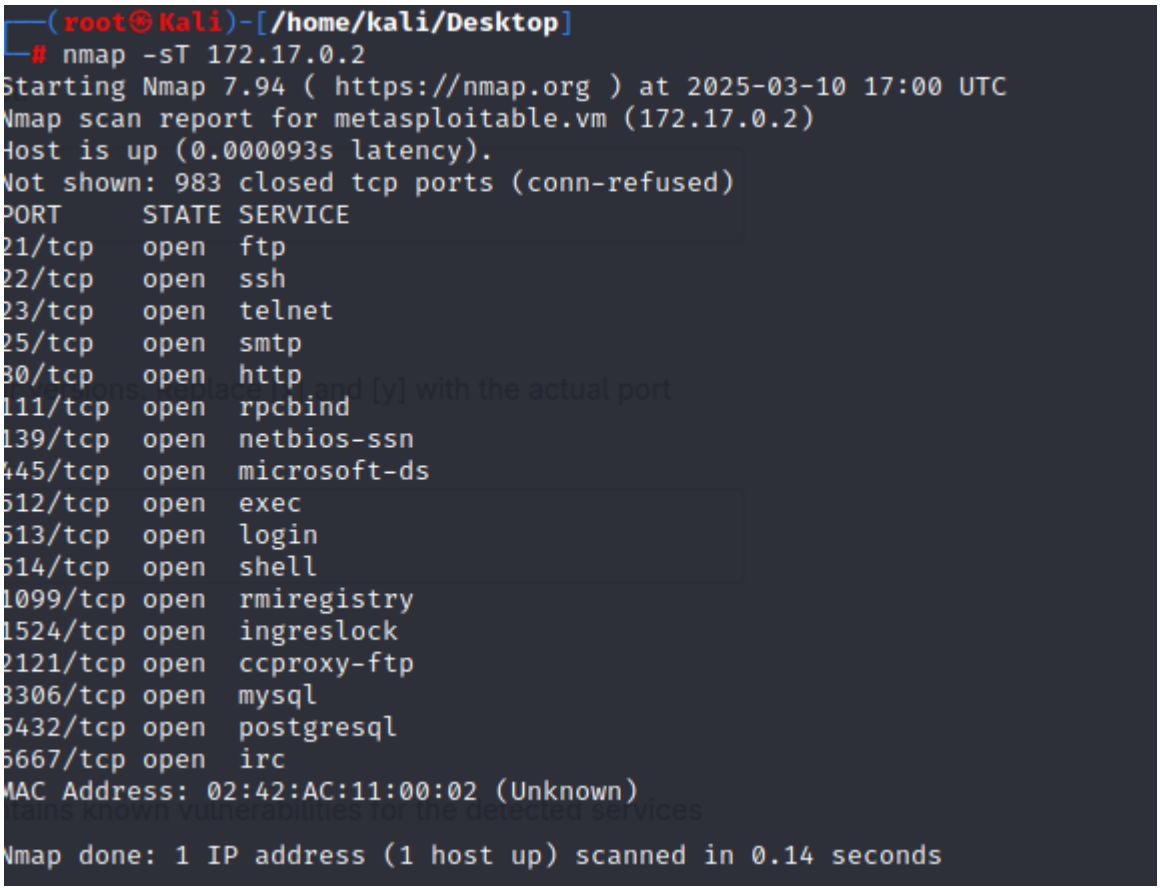
- In this lab, I will identify and analyze vulnerabilities using a scripting tool and a vulnerability scanner. This process helps assess system weaknesses and understand their severity.

Tools

- We were given the Cisco's Ethical Hacker VM
- Nmap + nmap scripts
- GVM Vulnerability Scanner

Step1 Target Fingerprinting

Scanned the target system using nmap to find two FTP services running on different ports. Once identified, i performed a version scan to determine the exact service versions for further analysis.



```
┌──(root㉿Kali)-[/home/kali/Desktop]
└─# nmap -sV -p 21,2121 172.17.0.2
Starting Nmap 7.94 ( https://nmap.org ) at 2025-03-10 17:02 UTC
Nmap scan report for metasploitable.vm (172.17.0.2)
Host is up (0.000034s latency).

PORT     STATE SERVICE VERSION
21/tcp   open  ftp     vsftpd 2.3.4
2121/tcp open  ftp     ProFTPD 1.3.1
MAC Address: 02:42:AC:11:00:02 (Unknown)
Service Info: OS: Unix

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 0.40 seconds
```

Step2. Known Vulnerabilities

For this step, i used again nmap and vulners script to check whether the vulners.com database contains know vulnerabilities for the founded FTP services. As i found some information from the database, i compared the CVE details with Packetstrom records.

```
┌──(root㉿Kali)-[/home/kali/Desktop]
└─# nmap -sV -p 21,2121 172.17.0.2 --script vulners --script-args mincvss=8.0
Starting Nmap 7.94 ( https://nmap.org ) at 2025-03-10 17:05 UTC
Nmap scan report for metasploitable.vm (172.17.0.2)
Host is up (0.000029s latency).

PORT     STATE SERVICE VERSION
21/tcp   open  ftp     vsftpd 2.3.4
| vulners:
|   vsftpd 2.3.4:
|       PACKETSTORM:162145      10.0    https://vulners.com/packetstorm/PACKETSTORM:162145      *EXPLO
IT*
|       EDB-ID:49757    9.8     https://vulners.com/exploitdb/EDB-ID:49757      *EXPLOIT*
|       CVE-2011-2523   9.8     https://vulners.com/cve/CVE-2011-2523
|_      1337DAY-ID-36095        9.8     https://vulners.com/zdt/1337DAY-ID-36095        *EXPLOIT*
2121/tcp open  ftp     ProFTPD 1.3.1
| vulners:
|   cpe:/a:proftpd:proftpd:1.3.1:
|       SAINT:FD1752E124A72FD3A26EEB9B315E8382  10.0    https://vulners.com/saint/SAINT:FD1752E124A72F
D3A26EEB9B315E8382      *EXPLOIT*
|       SAINT:ECC52DD75C7865AF72D358DC03E39270  10.0    https://vulners.com/saint/SAINT:ECC52DD75C7865
AF72D358DC03E39270      *EXPLOIT*
|       SAINT:C38482A29286C4F6E5C4BD19DFFEC245  10.0    https://vulners.com/saint/SAINT:C38482A29286C4
F6E5C4BD19DFFEC245      *EXPLOIT*
```

Step3. Verify the Vulnerability

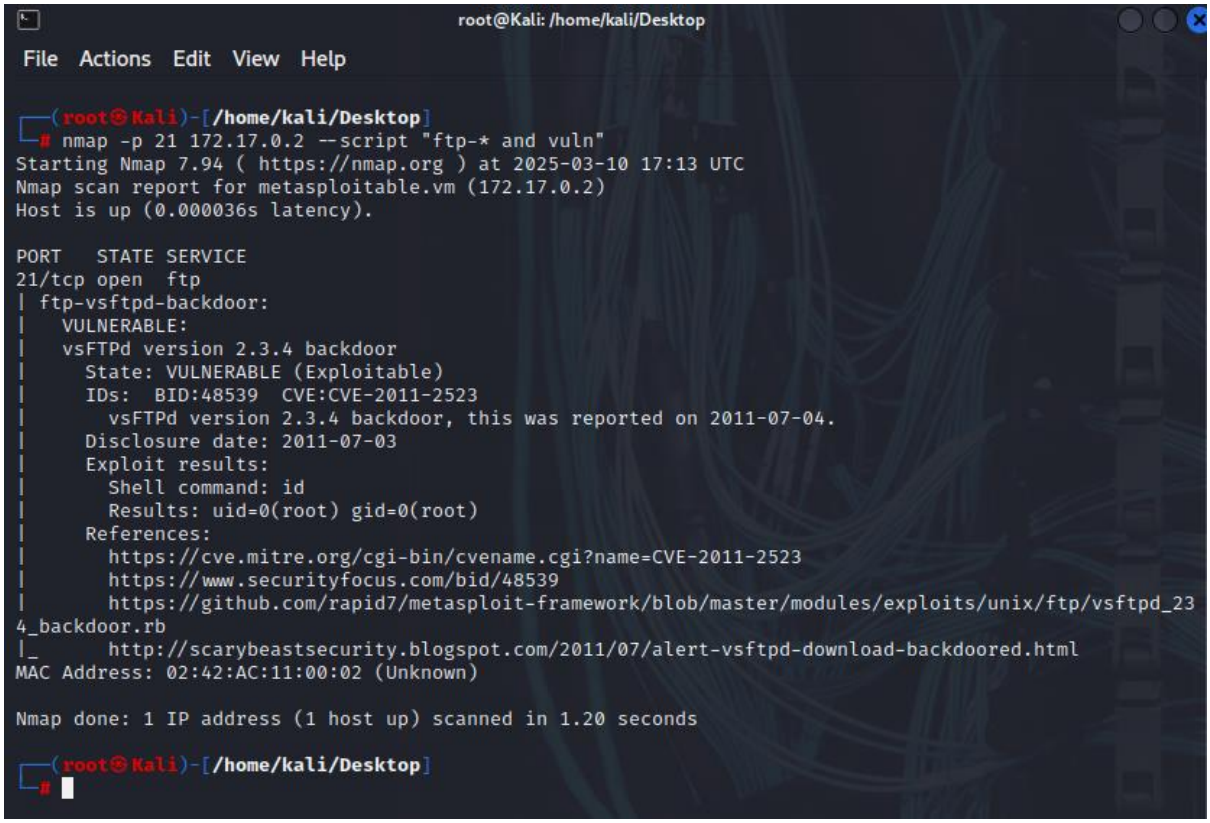
This step was used nmap to check whether the service allows anonymous FTP logins. I you can see from picture, the port 21 allows Anonymous FTP logins.

```
┌──(root㉿Kali)-[/home/kali/Desktop]
└─# nmap -p 21 172.17.0.2 --script ftp-anon
Starting Nmap 7.94 ( https://nmap.org ) at 2025-03-10 17:10 UTC
Nmap scan report for metasploitable.vm (172.17.0.2)
Host is up (0.000038s latency).

PORT   STATE SERVICE
21/tcp open  ftp
|_ftp-anon: Anonymous FTP login allowed (FTP code 230)
MAC Address: 02:42:AC:11:00:02 (Unknown)

Nmap done: 1 IP address (1 host up) scanned in 0.19 seconds
```

After this i verified the vulnerability even further.



Step4. Vulnerability Scanner

This was the final step of the lab. I used the GVM scanner to analyze the previous target, including the host and FTP services. The main goal of this step was to familiarize myself with a vulnerability scanner and automate the scanning process.