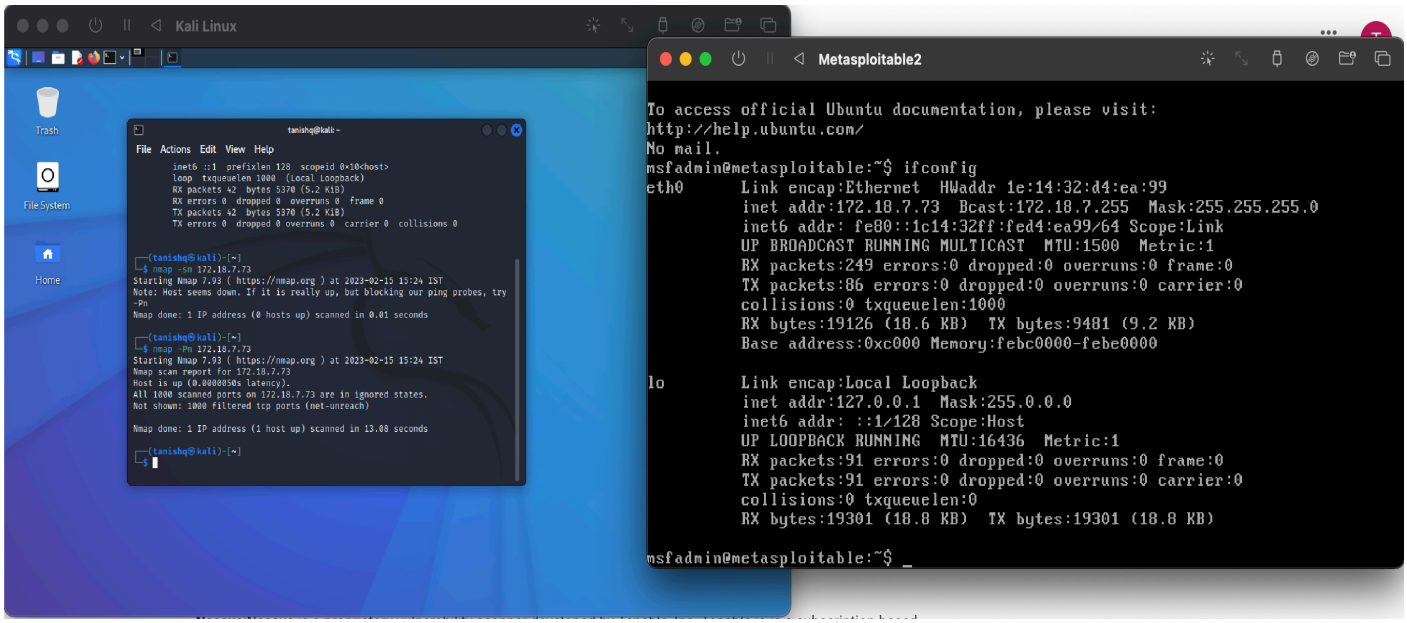
# Assignment-3

1. **What kind of information is shown when you run ping scan for Metasploitable2?**
1. $ Nmap -sn 172.18.7.73




2. **Which ports are open on the Metasploitable2 VM? Did you find any additional ports?**
2. $ nmap -sT 172.18.7.73 -p-

```
┌──(kali㉿kali)-[~]
└─$ nmap -sT 192.168.2.88 -p-
Starting Nmap 7.93 ( https://nmap.org ) at 2023-02-15 04:35 EST
Nmap scan report for 192.168.2.88
Host is up (0.0031s latency).
Not shown: 65505 closed tcp ports (conn-refused)
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh
23/tcp    open  telnet
25/tcp    open  smtp
53/tcp    open  domain
80/tcp    open  http
111/tcp   open  rpcbind
139/tcp   open  netbios-ssn
445/tcp   open  microsoft-ds
512/tcp   open  exec
513/tcp   open  login
514/tcp   open  shell
1099/tcp  open  rmiregistry
1524/tcp  open  ingreslock
2049/tcp  open  nfs
2121/tcp  open  ccproxy-ftp
3306/tcp  open  mysql
3632/tcp  open  distccd
5432/tcp  open  postgresql
5900/tcp  open  vnc
6000/tcp  open  X11
6667/tcp  open  irc
6697/tcp  open  ircs-u
8009/tcp  open  ajp13
8180/tcp  open  unknown
8787/tcp  open  msgsrvr
38014/tcp open  unknown
42888/tcp open  unknown
48861/tcp open  unknown
59825/tcp open  unknown

Nmap done: 1 IP address (1 host up) scanned in 7.57 seconds
```

3. **What additional information about the open ports on Metasploitable2 were you able to obtain by using the -sV and -A flags?**

3. $ nmap -sT 192.168.2.88 -p- -sV -A

```
Starting Nmap 7.93 ( https://nmap.org ) at 2023-02-15 04:56 EST
Nmap scan report for 192.168.2.88
Host is up (0.0037s latency).
Not shown: 65505 closed tcp ports (conn-refused)
PORT     STATE SERVICE     VERSION
21/tcp   open  ftp         vsftpd 2.3.4
|_ftp-anon: Anonymous FTP login allowed (FTP code 230)
| ftp-syst:
|   STAT:
| FTP server status:
|      Connected to 192.168.2.87
|      Logged in as ftp
|      TYPE: ASCII
|      No session bandwidth limit
|      Session timeout in seconds is 300
|      Control connection is plain text
|      Data connections will be plain text
|      vsFTPd 2.3.4 - secure, fast, stable
|_End of status
22/tcp   open  ssh         OpenSSH 4.7p1 Debian 8ubuntu1 (protocol 2.0)
| ssh-hostkey:
|   1024 600fcfe1c05f6a74d69024fac4d56ccd (DSA)
|_  2048 5656240f211ddea72bae61b1243de8f3 (RSA)
23/tcp   open  telnet      Linux telnetd
25/tcp   open  smtp        Postfix smtpd
|_ssl-date: 2023-02-15T09:58:58+00:00; +11s from scanner time.
| ssl-cert: Subject: commonName=ubuntu804-base.localdomain/organizationName=OCOSA/
stateOrProvinceName=There is no such thing outside US/countryName=XX
| Not valid before: 2010-03-17T14:07:45
|_Not valid after:  2010-04-16T14:07:45
|_smtp-commands: metasploitable.localdomain, PIPELINING, SIZE 10240000, VRFY, ETRN, STARTTLS,
ENHANCEDSTATUSCODES, 8BITMIME, DSN
| sslv2:
|   SSLv2 supported
|   ciphers:
|     SSL2_RC4_128_WITH_MD5
|     SSL2_RC4_128_EXPORT40_WITH_MD5
|     SSL2_DES_64_CBC_WITH_MD5
|     SSL2_DES_192_EDE3_CBC_WITH_MD5
|     SSL2_RC2_128_CBC_EXPORT40_WITH_MD5
|_    SSL2_RC2_128_CBC_WITH_MD5
53/tcp   open  domain      ISC BIND 9.4.2
| dns-nsid:
|_  bind.version: 9.4.2
80/tcp   open  http        Apache httpd 2.2.8 ((Ubuntu) DAV/2)
|_http-server-header: Apache/2.2.8 (Ubuntu) DAV/2
|_http-title: Metasploitable2 - Linux
111/tcp  open  rpcbind     2 (RPC #100000)
| rpcinfo:
|   program version    port/proto  service
|   100000  2          111/tcp   rpcbind
|   100000  2          111/udp   rpcbind
|   100003  2,3,4      2049/tcp   nfs
```

```
|   100003  2,3,4      2049/udp   nfs
|   100005  1,2,3     41731/udp   mountd
|   100005  1,2,3     59825/tcp   mountd
|   100021  1,3,4     34904/udp   nlockmgr
|   100021  1,3,4     42888/tcp   nlockmgr
|   100024  1         38014/tcp   status
|_  100024  1         40304/udp   status
139/tcp   open  netbios-ssn Samba smbd 3.X - 4.X (workgroup: WORKGROUP)
445/tcp   open  netbios-ssn Samba smbd 3.0.20-Debian (workgroup: WORKGROUP)
512/tcp   open  exec        netkit-rsh rexecd
513/tcp   open  login       OpenBSD or Solaris rlogind
514/tcp   open  tcpwrapped
1099/tcp  open  java-rmi    GNU Classpath grmiregistry
1524/tcp  open  bindshell   Metasploitable root shell
2049/tcp  open  nfs         2-4 (RPC #100003)
2121/tcp  open  ftp         ProFTPD 1.3.1
3306/tcp  open  mysql       MySQL 5.0.51a-3ubuntu5
| mysql-info:
|   Protocol: 10
|   Version: 5.0.51a-3ubuntu5
|   Thread ID: 11
|   Capabilities flags: 43564
|   Some Capabilities: SupportsTransactions, Speaks41ProtocolNew, SwitchToSSLAfterHandshake,
ConnectWithDatabase, SupportsCompression, LongColumnFlag, Support41Auth
|   Status: Autocommit
|_  Salt: A,VM`|m.=&DeO=#6%Wh$
3632/tcp  open  distccd     distccd v1 ((GNU) 4.2.4 (Ubuntu 4.2.4-1ubuntu4))
5432/tcp  open  postgresql  PostgreSQL DB 8.3.0 - 8.3.7
|_ssl-date: 2023-02-15T09:58:58+00:00; +11s from scanner time.
| ssl-cert: Subject: commonName=ubuntu804-base.localdomain/organizationName=OCOSA/
stateOrProvinceName=There is no such thing outside US/countryName=XX
| Not valid before: 2010-03-17T14:07:45
|_Not valid after:  2010-04-16T14:07:45
5900/tcp  open  vnc         VNC (protocol 3.3)
| vnc-info:
|   Protocol version: 3.3
|   Security types:
|_    VNC Authentication (2)
 6000/tcp  open  X11         (access denied)
```

4. **What operating system does nmap report Metasploitable2 to be?**

4. $ sudo nmap -o 172.18.7.73
   Starting Nmap 7.93 ( https://nmap.org ) at 2023-02-15 15:49 IST
   Nmap scan report for 172.18.7.73
   Host is up (0.0024s latency).
   Not shown: 977 closed tcp ports (reset)
   PORT     STATE SERVICE
   21/tcp   open  ftp
   22/tcp   open  ssh
   23/tcp   open  telnet
   25/tcp   open  smtp
   53/tcp   open  domain
   80/tcp   open  http
   111/tcp  open  rpcbind

```
139/tcp  open  netbios-ssn
445/tcp  open  microsoft-ds
512/tcp  open  exec
513/tcp  open  login
514/tcp  open  shell
1099/tcp open  rmiregistry
1524/tcp open  ingreslock
2049/tcp open  nfs
2121/tcp open  ccproxy-ftp
3306/tcp open  mysql
5432/tcp open  postgresql
5900/tcp open  vnc
6000/tcp open  X11
6667/tcp open  irc
8009/tcp open  ajp13
8180/tcp open  unknown
No exact OS matches for host (If you know what OS is running on it,
see https://nmap.org/submit/ ).
TCP/IP fingerprint:
OS:SCAN(V=7.93%E=4%D=2/15%OT=21%CT=1%CU=36294%PV=Y%DS=2%DC=I%G=Y%
TM=63ECB1D
OS:4%P=aarch64-unknown-linux-
gnu)SEQ(SP=C4%GCD=2%ISR=C9%TI=Z%CI=Z%II=I%TS=7
OS:)SEQ(SP=C7%GCD=1%ISR=CE%TI=Z%II=I%TS=7)OPS(O1=M5B4ST11NW6%O2=M5B
4ST11NW6
OS:
%O3=M5B4NNT11NW6%O4=M5B4ST11NW6%O5=M5B4ST11NW6%O6=M5B4ST11)WIN(W
1=16A0%W
OS:2=16A0%W3=16A0%W4=16A0%W5=16A0%W6=16A0)ECN(R=Y%DF=N%T=40%W=16
D0%O=M5B4NN
OS:SNW6%CC=N%Q=)T1(R=Y%DF=N%T=40%S=O%A=S+
%F=AS%RD=0%Q=)T2(R=N)T3(R=N)T4(R=Y
OS:
%DF=N%T=40%W=0%S=A%A=Z%F=R%O=%RD=0%Q=)T4(R=N)T5(R=Y%DF=N%T=40%
W=0%S=Z%A=
OS:S+
%F=AR%O=%RD=0%Q=)T6(R=Y%DF=N%T=40%W=0%S=A%A=Z%F=R%O=%RD=0%Q=)
T6(R=N)T7
OS:
(R=N)U1(R=Y%DF=N%T=40%IPL=164%UN=0%RIPL=G%RID=G%RIPCK=G%RUCK=DDA3
%RUD=G)
OS:IE(R=Y%DFI=N%T=40%CD=S)

Network Distance: 2 hops

OS detection performed. Please report any incorrect results at
https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 12.59 seconds
```

5. **What web applications are available on Metasploitable2?**

5. TWiki, phpMyAdmin, Multillidae, DVWA, WebDAV

6. **Which vulnerabilities are critical? Of these, which appear to be most serious? Double-click a vulnerability in the report and read the description**

6.