

Experiment 8

Output:

```
student@ubuntu:~$ cd
student@ubuntu:~$ sudo apt update
[sudo] password for student:
Hit:1 http://security.ubuntu.com/ubuntu focal-security InRelease
Hit:2 http://us.archive.ubuntu.com/ubuntu focal InRelease
Err:1 http://security.ubuntu.com/ubuntu focal-security InRelease
  Splitting up /var/lib/apt/lists/security.ubuntu.com_ubuntu_dists_focal-security_InRelease into data and signature failed
Err:2 http://us.archive.ubuntu.com/ubuntu focal InRelease
  Splitting up /var/lib/apt/lists/us.archive.ubuntu.com_ubuntu_dists_focal_InRelease into data and signature failed
Hit:3 http://us.archive.ubuntu.com/ubuntu focal-updates InRelease
Err:3 http://us.archive.ubuntu.com/ubuntu focal-updates InRelease
  Splitting up /var/lib/apt/lists/us.archive.ubuntu.com_ubuntu_dists_focal-updates_InRelease into data and signature failed
Hit:4 http://us.archive.ubuntu.com/ubuntu focal-backports InRelease
Err:4 http://us.archive.ubuntu.com/ubuntu focal-backports InRelease
  Splitting up /var/lib/apt/lists/us.archive.ubuntu.com_ubuntu_dists_focal-backports_InRelease into data and signature failed
Hit:5 https://deb.nodesource.com/node_15.x focal InRelease
Err:5 https://deb.nodesource.com/node_15.x focal InRelease
  Splitting up /var/lib/apt/lists/deb.nodesource.com_node%5f15.x_dists_focal_InRelease into data and signature failed
Reading package lists... Done
Building dependency tree
Reading state information... Done
```

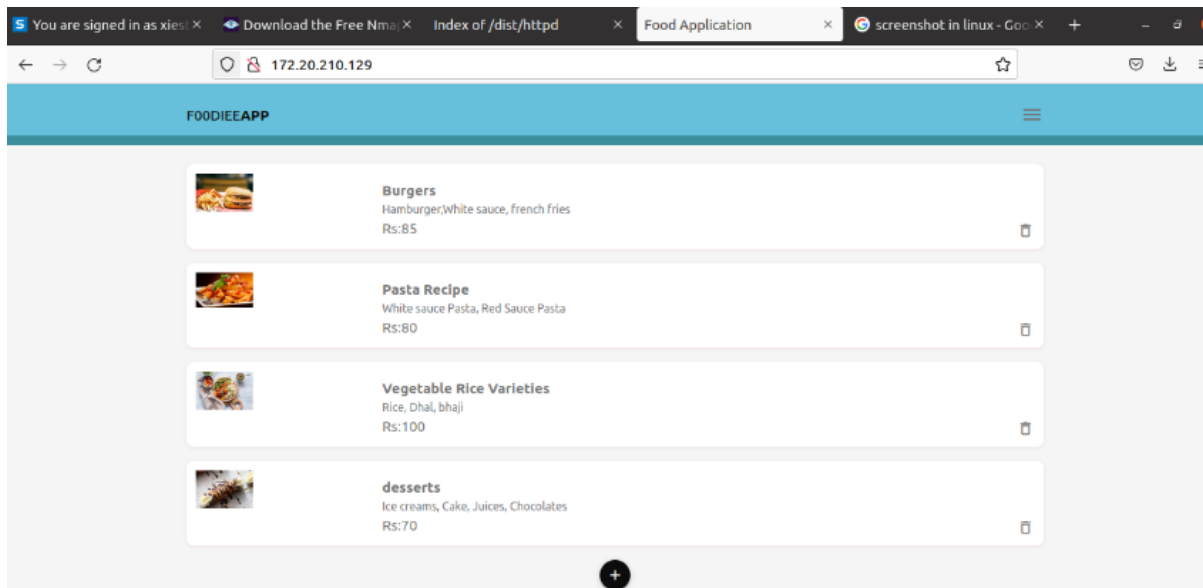
```
student@ubuntu:~$ sudo apt install apache2
Reading package lists... Done
Building dependency tree
Reading state information... Done
You might want to run 'apt --fix-broken install' to correct these.
The following packages have unmet dependencies:
 apache2 : Depends: apache2-bin (= 2.4.41-4ubuntu3.12) but 2.4.41-4ubuntu3.6 is to be installed
           Depends: apache2-data (= 2.4.41-4ubuntu3.12) but 2.4.41-4ubuntu3.6 is to be installed
           Depends: apache2-utils (= 2.4.41-4ubuntu3.12)
 linux-headers-5.11.0-37-generic : Depends: linux-hwe-5.11-headers-5.11.0-37 but it is not going to be installed
 linux-image-generic-hwe-20.04 : Depends: linux-modules-extra-5.11.0-37-generic but it is not going to be installed
```

```
student@ubuntu:~$ sudo apt --fix-broken install
Reading package lists... Done
Building dependency tree
Reading state information... Done
Correcting dependencies... Done
The following packages were automatically installed and are no longer required:
  linux-headers-5.11.0-37-generic linux-hwe-5.11-headers-5.11.0-37
  linux-image-5.11.0-37-generic linux-modules-5.11.0-37-generic
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  linux-generic-hwe-20.04 linux-headers-5.15.0-48-generic
  linux-headers-generic-hwe-20.04 linux-hwe-5.11-headers-5.11.0-37
  linux-hwe-5.15-headers-5.15.0-48 linux-image-5.15.0-48-generic
  linux-image-generic-hwe-20.04 linux-modules-5.15.0-48-generic
  linux-modules-extra-5.15.0-48-generic
Suggested packages:
  fdutils linux-doc | linux-hwe-5.15-source-5.15.0 linux-hwe-5.15-tools
The following NEW packages will be installed:
  linux-headers-5.15.0-48-generic linux-hwe-5.11-headers-5.11.0-37
```

```
student@ubuntu:~$ ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 172.20.210.129 netmask 255.255.255.0 broadcast 172.20.210.255
    inet6 fe80::9dc7:e077:bd55:16fb prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:ca:14:26 txqueuelen 1000 (Ethernet)
    RX packets 226752 bytes 333895115 (333.8 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 93340 bytes 6441745 (6.4 MB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 1543 bytes 166530 (166.5 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 1543 bytes 166530 (166.5 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

```
student@ubuntu:~$ ^C
student@ubuntu:~$ sudo passwd root
New password:
Retype new password:
passwd: password updated successfully
student@ubuntu:~$ nano /etc/ssh/sshd_config
student@ubuntu:~$ sudo service sshd restart
```



```
#ListenAddress 0.0.0.0
#ListenAddress ::

#HostKey /etc/ssh/ssh_host_rsa_key
#HostKey /etc/ssh/ssh_host_ecdsa_key
#HostKey /etc/ssh/ssh_host_ed25519_key

# Ciphers and keying
#RekeyLimit default none

# Logging
#SyslogFacility AUTH
#LogLevel INFO

# Authentication:

#LoginGraceTime 2m
PermitRootLogin yes
#StrictModes yes
#MaxAuthTries 6
#MaxSessions 10

#PubkeyAuthentication yes

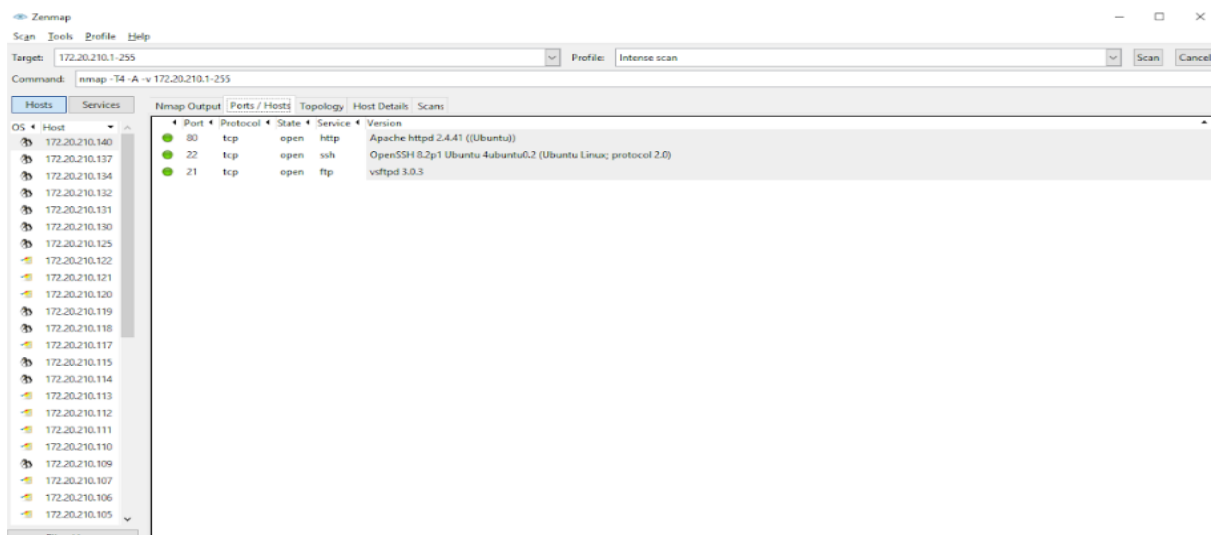
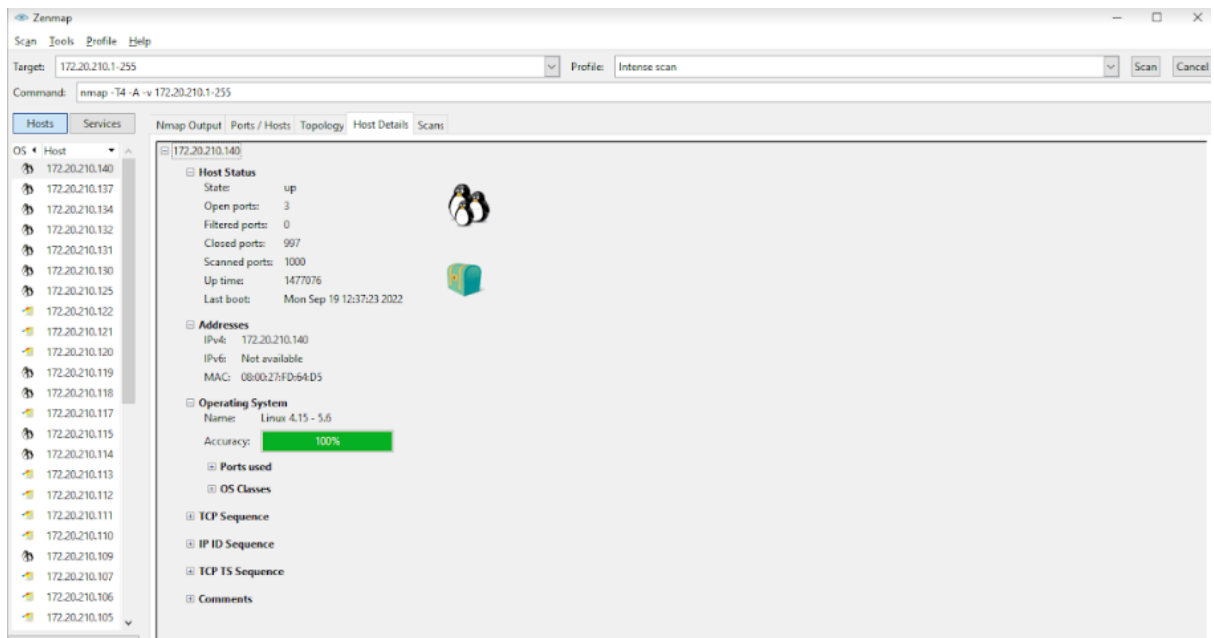
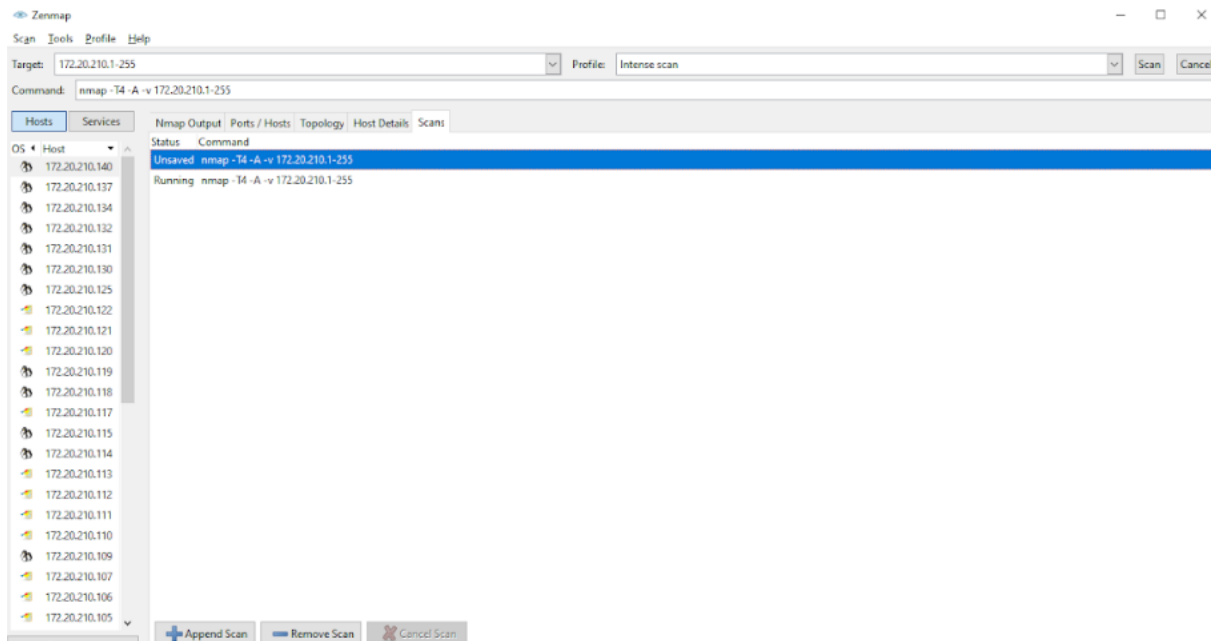
# Expect .ssh/authorized_keys2 to be disregarded by default in future.
#AuthorizedKeysFile .ssh/authorized_keys .ssh/authorized_keys2

#AuthorizedPrincipalsFile none

#AuthorizedKeysCommand none
#AuthorizedKeysCommandUser nobody

# For this to work you will also need host keys in /etc/ssh/ssh_known_hosts

^G Get Help      ^O Write Out    ^W Where Is     ^K Cut Text      ^J Justify      ^C Cur Pos      ^U Undo         ^_ Mark Text    ^] To Bracket
^X Exit          ^R Read File    ^M Replace      ^U Paste Text   ^T To Spell     ^_ Go To Line   ^E Redo         ^G Copy Text    ^_ Where Was
```



Zenmap

Scan Tools Profile Help

Target: 172.20.210.1-255 Profile: Intense scan [Scan] [Cancel]

Command: nmap -T4 -A -v 172.20.210.1-255

Hosts Services Nmap Output Ports / Hosts Topology Host Details Scans

OS Host

172.20.210.140
172.20.210.137
172.20.210.134
172.20.210.132
172.20.210.131
172.20.210.130
172.20.210.125
172.20.210.122
172.20.210.121
172.20.210.120
172.20.210.119
172.20.210.118
172.20.210.117
172.20.210.115
172.20.210.114
172.20.210.113
172.20.210.112
172.20.210.111
172.20.210.110
172.20.210.109
172.20.210.107
172.20.210.106
172.20.210.105

Filter Hosts

Nmap -T4 -A -v 172.20.210.1-255

Starting Nmap 7.93 (<https://nmap.org>) at 2022-10-06 14:54 India Standard Time
NSOCK ERROR [0.2828s] ssl_init_helper(): OpenSSL legacy provider failed to load.

NSE: Loaded 155 scripts for scanning.
NSE: Script Pre-scanning.
Initiating NSE at 14:54
Completed NSE at 14:54, 0.00s elapsed
Initiating NSE at 14:54
Completed NSE at 14:54, 0.00s elapsed
Initiating NSE at 14:54
Completed NSE at 14:54, 0.00s elapsed
Initiating ARP Ping Scan at 14:54
Scanning 254 hosts [1 port/host]
Completed ARP Ping Scan at 14:54, 1.65s elapsed (254 total hosts)
Initiating Parallel DNS resolution of 42 hosts. at 14:54
Completed Parallel DNS resolution of 42 hosts. at 14:54, 3.83s elapsed

Nmap scan report for 172.20.210.2 [host down]
Nmap scan report for 172.20.210.3 [host down]
Nmap scan report for 172.20.210.4 [host down]
Nmap scan report for 172.20.210.5 [host down]
Nmap scan report for 172.20.210.6 [host down]
Nmap scan report for 172.20.210.7 [host down]
Nmap scan report for 172.20.210.8 [host down]
Nmap scan report for 172.20.210.9 [host down]
Nmap scan report for 172.20.210.10 [host down]
Nmap scan report for 172.20.210.15 [host down]
Nmap scan report for 172.20.210.19 [host down]
Nmap scan report for 172.20.210.22 [host down]
Nmap scan report for 172.20.210.23 [host down]
Nmap scan report for 172.20.210.24 [host down]
Nmap scan report for 172.20.210.25 [host down]
Nmap scan report for 172.20.210.26 [host down]
Nmap scan report for 172.20.210.27 [host down]
Nmap scan report for 172.20.210.28 [host down]
Nmap scan report for 172.20.210.29 [host down]
Nmap scan report for 172.20.210.30 [host down]
Nmap scan report for 172.20.210.31 [host down]
Nmap scan report for 172.20.210.32 [host down]
Nmap scan report for 172.20.210.34 [host down]

Zenmap

Scan Tools Profile Help

Target: 172.20.210.1-255 Profile: Intense scan [Scan] [Cancel]

Command: nmap -T4 -A -v 172.20.210.1-255

Hosts Services Nmap Output Ports / Hosts Topology Host Details Scans

Hosts Viewer Fisheye Controls

Legend Save Graphic

Fisheye on ring 1.00 2.00 with interest factor 2.00 and spread factor 0.50