

# JOB SHEET PRACTICE

## LEARNING ACTIVITIES:1

### Software :

Virtual Machine: VMware Player/VMware Workstation/VirtualBox

OS : Linux Debian 10/9, KaliLinux, Windows XP

all applications can be downloaded at : <http://202.180.21.17/download/>

### Hardware Minimal :

Processor : Laptop i5

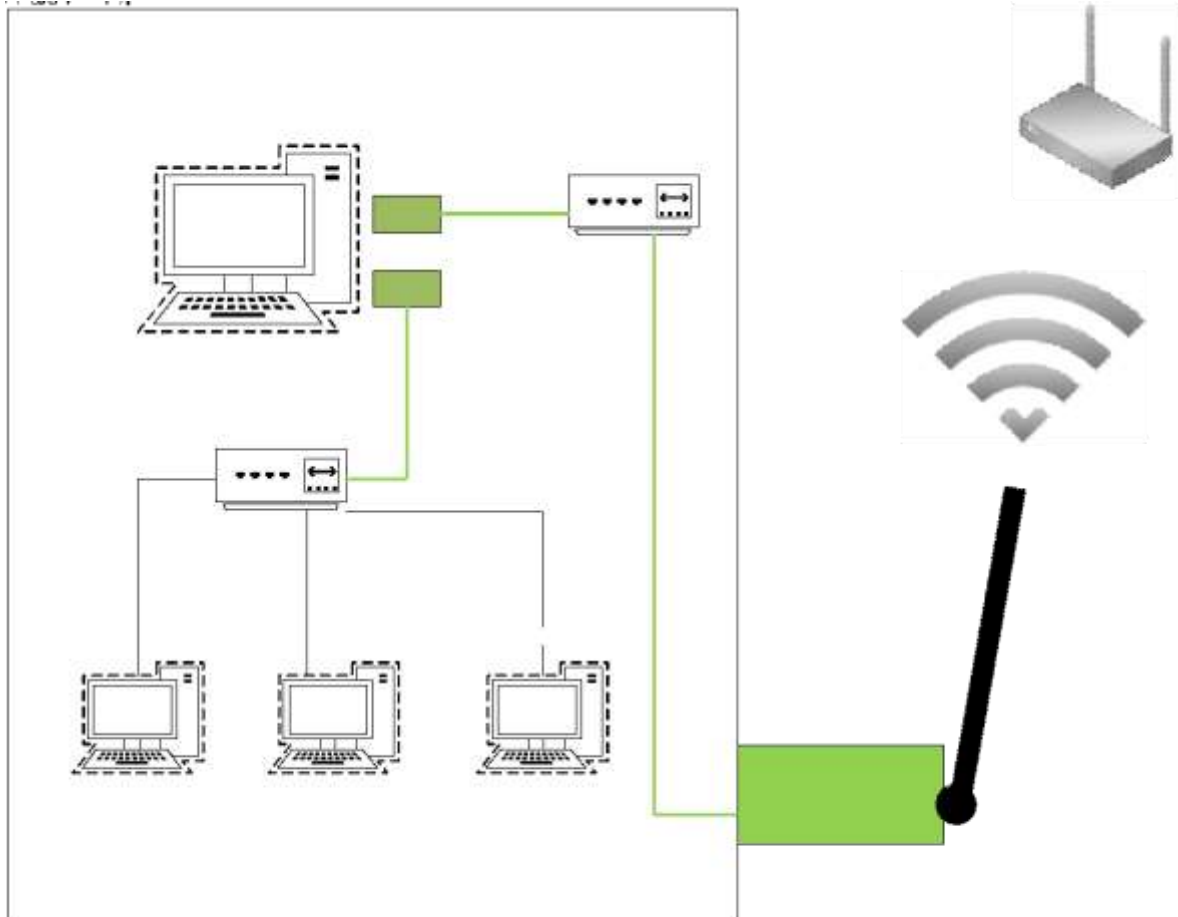
RAM : 4 GB

HOST OS : Windows 7

Internet

### Work Steps

1. Install Virtual Machine
2. Create PC host, scheme :



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Note :

IP Address PC Router :

NIC0 : Bridge to NIC Host

NIC1 : 11.X.Y.254/24, X = Rombel, Y = No. Absen

No	Steps	Information
1.	Install Debian	Version: 10 Codename : Buster
	Boot :	<i>DVD/CD : ISO</i>
	Type installation	<i>Install text</i>
	Instalasi language	<i>English</i>
	your location	<i>Other &gt; Asia &gt; Indonesia</i>
	keyboard	<i>American English.</i>
	Network	<i>Do not configure thenetwork at this time</i>
	Hostname	<i>debian1</i>
	Root password	<i>root123           * case sensitive</i>
	Full name for new user	<i>guru tkj           * case sensitive</i>
	Username for your account	<i>guru               * case sensitive</i>
	Password new user	<i>guru123           * case sensitive</i>
	Time Zone	<i>based on your location exp : Jakarta</i>
	Partisi hardisk ( partisi hardisk)	<i>Guide Partition. Sparate /home partition (recommend new users)</i>
	Configuration Packet manager. Scan Another CD or DVD	<i>No Survey : no</i>
	Software Selection	<i>1. Standar System Utility 2. ssh</i>
	install GRUB boot loader on Hardisk :	<i>Yes /dev/sda</i>
<i>configuration</i>		
2.	Login	<i>Root , password: root</i>
3.	show interfaces	<i>ls /sys/class/net</i>

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4.	Configure network .	<pre>nano /etc/network/interfaces</pre> <pre>#allow-hotplug ens33 auto ens33 iface ens33 inet static     address 192.168.1.11     netmask 255.255.255.0     gateway 192.168.1.1     dns-nameservers 192.168.1.1 auto ens34 iface ens34 inet static     address 192.168.100.254     netmask 255.255.255.0</pre> <p>-----</p> <p><b>Note: all ip address adapted with your condition network.</b></p> <p><b>The configuration above is just an example</b></p> <pre>Resolv.conf nano /etc/resolv.conf nameserver 172.16.116.1 nameserver 1.1.1.1 nameserver 1.0.0.1 nameserver 114.129.23.33 (disesuaikan jaringan masing )</pre> <pre>Ctrl x Save : Y</pre>
5.	Check	<pre>Ip addr</pre>
6.	Repository file	<pre>nano /etc/apt/sources.list</pre> <p>Deactive all repository with #</p> <p>add configure below :</p> <pre>deb http://kartolo.sby.datautama.net.id/debian/ buster main contrib non-free</pre> <pre>deb http://kartolo.sby.datautama.net.id/debian/ buster-updates main contrib non-free</pre> <pre>deb http://kartolo.sby.datautama.net.id/debian- security/ buster/updates main contrib non-free</pre>
7.	Update debian	<pre>apt-get update</pre>
8.	Install ifconfig	<pre>apt-get install net-tools</pre>
9.	Install iptables	<pre>apt-get install iptables-persistent apt-get install netfilter-persistent</pre>

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10.	Router Configuration	<code>nano /etc/sysctl.conf</code>
11.		Change line : <code>net.ipv4.ip_forward=0</code> to <code>net.ipv4.ip_forward=1</code>
12.		<code>nano /proc/sys/net/ipv4/ip_forward</code>
13.		Change 0 To 1
14.	Iptables command	<code>iptables -t nat -A POSTROUTING -o ens33 -j MASQUERADE</code>
15.	Save iptable	<code>iptables-save</code> or <code>netfilter-persistent save</code>
16.	Show location iptables save	<code>nano /etc/iptables/rules.v4</code>
17.	Install Debian 10 Confifuration	PC Guest 2 : server, do as steps 1
18.	Login	Root , password: root
19.	show interfaces	<code>ls /sys/class/net</code>
20.	Configure network file	<code>nano /etc/network/interfaces</code> <code>#allow-hotplug ens33</code> <code>auto ens33</code> <code>iface ens33 inet static</code> <code>    address 192.168.100.1</code> <code>    netmask 255.255.255.0</code> <code>    gateway 192.168.100.254</code> <code>    dns-nameservers 192.168.1.1</code>  Ctr x Save : Y  ----- Note: all ip address adapted with your condition network. The configuration above is just an example
21.	Check	<code>ip addr</code>
22.	Repository file	<code>nano /etc/apt/sources.list</code> Deactive all repository with # add configure below : <code>deb http://kartolo.sby.datautama.net.id/debian/</code> <code>buster main contrib non-free</code>

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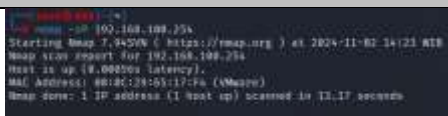



		<code>deb http://kartolo.sby.datautama.net.id/debian/ buster-updates main contrib non-free</code>  <code>deb http://kartolo.sby.datautama.net.id/debian- security/ buster/updates main contrib non-free</code>
23.	Udate debian	<code>apt-get update</code>
24.	Install ifconfig	<code>ipip</code>
25.	Install http	<code>apt-get install apache2</code> <i>* configuration and testing later</i>
26.	Install FTP	<code>apt-get install proftpd</code> <i>* configuration and testing later</i>
27.	Install Windows XP/windows 7	PC Guest 3 : client,
28.	Boot	DVD/CD : ISO
	Computer Name	Client XP
	Partition	NTFS single partition, drive C:
	Username	Client
	Password	Admin
	Ip address	192.168.100.2 netmask 255.255.255.0 Gateway : 192.168.100.254 Dns : 192.168.1.1 (sesuaikan dengan internet dns , bisa dengan 8.8.8.8) ----- Note: all ip address adapted with your condition network. The configuration above is just an example
29.	Install 10 Kalilinux	PC Guest 3 : testing NMAP, do as steps 1
	Confifuration	
30.	Login	Root , password: root
	show interfaces	<code>ls /sys/class/net</code>
	Configure network file	<code>nano /etc/network/interfaces</code>
	Note: all ip address adapted with your condition network. The configuration above is just an example	#allow-hotplug ens33 auto ens33 iface ens33 inet static address 192.168.100.3 netmask 255.255.255.0 gateway 192.168.100.254 dns-nameservers 192.168.1.1
31.	Testing NMAP and capture screen your results	<b><code>nmap -sP 192.168.100.1-254</code></b> <b><code>nmap -sS -A -O 192.168.100.254</code></b> <b><code>nmap -sS -A -O 192.168.100.1</code></b> <b><code>nmap -sS -A -O 192.168.100.2</code></b>
	All testing adapted with your ip address condition	

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32.	Paste capture screen in tables belows	Table 2
33.	Upload this file	LMS your account

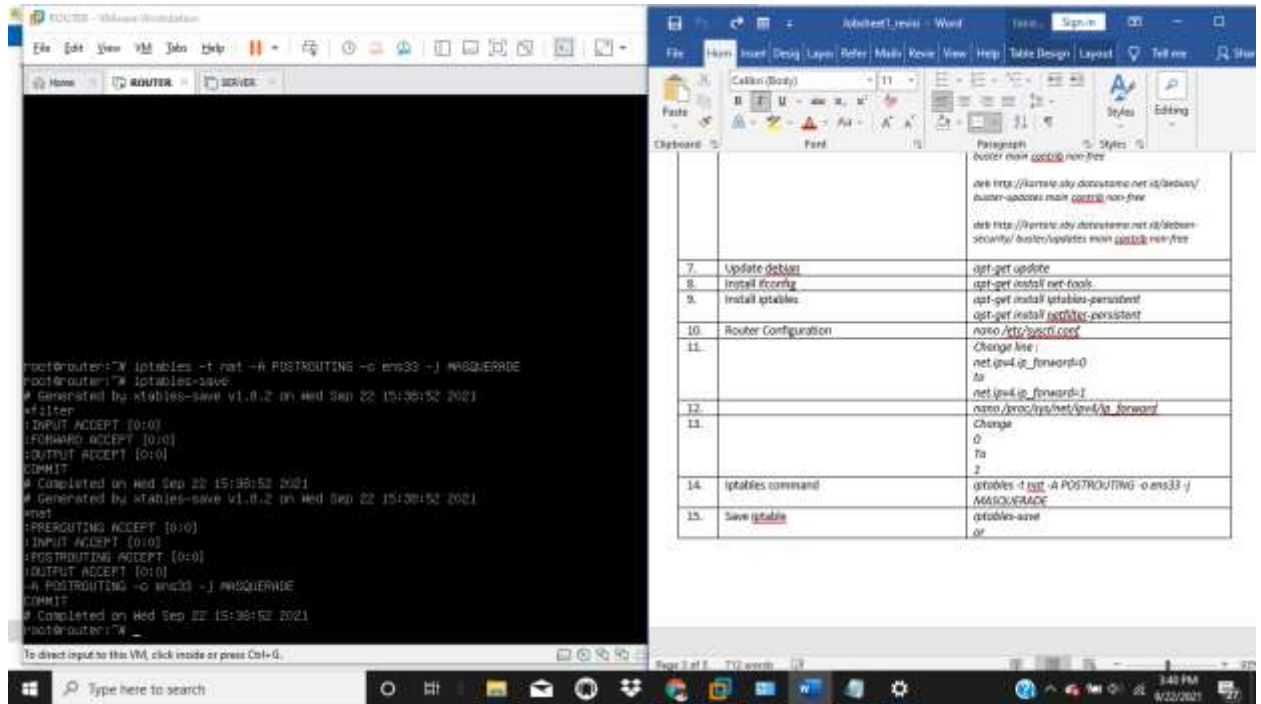
Tabel 2 your result

No	Nmap	explanation	capture screen
1	<b><i>nmap -sP 192.168.100.1-254</i></b>	Disini saya mencoba nmap tanpa scan port, hasilnya menunjukkan bahwa kali linux dan target dapat terhubung dan berhasil ter scan	
2	<b><i>nmap -sS -A -O 192.168.100.254</i> <i>nmap -sS -A -O 192.168.100.1</i> <i>nmap -sS -A -O 192.168.100.2</i></b>	<p>Disini saya mencoba menggunakan flag -A untuk menscan semua hal yang akan di tampilkan nanti.</p> <p>Pada server 254 terdapat port 22 (ssh), versi service, dan hostkey ssh yang terlihat.</p> <p>Pada server 1 terdapat tiga port yang terbuka, yaitu 80, 22, dan 21. Hasil nmap juga menampilkan hostkey ssh, TCP/IP fingerprint, dan versi service.</p> <p>Apa fungsi version service Ketika ingin melakukan hacking? Mengecek version service berguna untuk mencari kelemahan/bug pada version tersebut.</p>	  

**\*\*Note change with your ip address condition**

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The screenshot shows a Windows desktop with two main applications open: a terminal window and a Microsoft Word document.

**Terminal Window (Left):** The terminal displays the output of several commands in a router environment. The commands and their outputs are as follows:

```

root@router:~# iptables -t nat -A POSTROUTING -o ens33 -j MASQUERADE
root@router:~# iptables-save
# Generated by iptables-save v1.6.2 on Wed Sep 22 15:36:52 2021
*filter
:INPUT ACCEPT [0:0]
:FORWARD ACCEPT [0:0]
:OUTPUT ACCEPT [0:0]
COMMIT
# Completed on Wed Sep 22 15:36:52 2021
# Generated by iptables-save v1.6.2 on Wed Sep 22 15:36:52 2021
*nat
:PREROUTING ACCEPT [0:0]
:INPUT ACCEPT [0:0]
:POSTROUTING ACCEPT [0:0]
:OUTPUT ACCEPT [0:0]
-A POSTROUTING -o ens33 -j MASQUERADE
COMMIT
# Completed on Wed Sep 22 15:36:52 2021
root@router:~#
  
```

**Word Document (Right):** The document is titled "JobSheet1.docx" and contains a table with 15 rows. The table has two columns: a description of the task and the corresponding command or action.

	<pre> deb http://kernels.ubuntu.net/ubuntu/ buster-updates main <a href="http://kernels.ubuntu.net/ubuntu/updates/main">http://kernels.ubuntu.net/ubuntu/updates/main</a> <a href="http://kernels.ubuntu.net/ubuntu/updates/main">http://kernels.ubuntu.net/ubuntu/updates/main</a> <a href="http://kernels.ubuntu.net/ubuntu/updates/main">http://kernels.ubuntu.net/ubuntu/updates/main</a>   </pre>
7. Update debian	<code>apt-get update</code>
8. Install ifconfig	<code>apt-get install net-tools</code>
9. Install iptables	<code>apt-get install iptables-persistent</code>
10. Router Configuration	<code>netops /etc/sysctl.conf</code>
11.	<pre> Change line: net.ipv4.ip_forward=0 to net.ipv4.ip_forward=1   </pre>
12.	<code>netops /etc/sysctl.conf</code>
13.	<pre> Change 0 to 1   </pre>
14. iptables command	<code>iptables -t nat -A POSTROUTING -o ens33 -j MASQUERADE</code>
15. Save iptables	<code>iptables-save</code>