JOB SHEET PRACTICE
LEARNING ACTIVITIES:1

Software :

Virtual Machine : VMware Player/VMware Workstation/VirtualBox

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

Hardware Minimal :

Processor   : Laptop i5

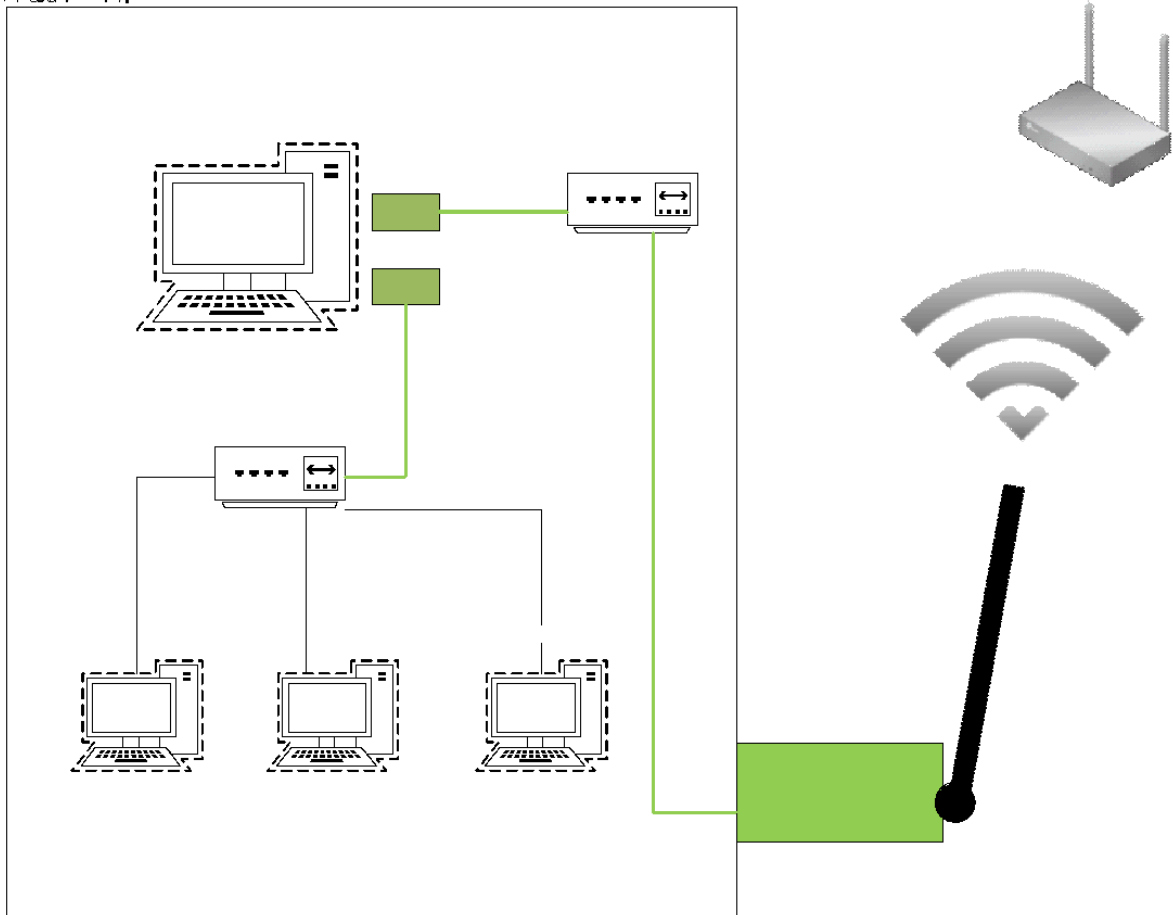RAM   : 4 GB

HOST OS   : Windows 7

Internet

Work Steps

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

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

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4.	Configure network .	*nano /etc/network/interfaces*

		#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
		-- 	
		==*Note: all ip address adapted with your condition network.*==
		==*The configuration above is just an example*==

		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)

		Ctr x *Save : Y*
5.	Check	*Ip addr*
6.	Repository file	*nano /etc/apt/sources.list*
		Deactive all repository with #
		add configure below : *deb http://kartolo.sby.datautama.net.id/debian/ buster main contrib non-free* *deb http://kartolo.sby.datautama.net.id/debian/ buster-updates main contrib non-free* *deb http://kartolo.sby.datautama.net.id/debian-security/ buster/updates main contrib non-free*
7.	Update debian	*apt-get update*
8.	Install ifconfig	*apt-get install net-tools*
9.	Install iptables	*apt-get install iptables-persistent* *apt-get install netfilter-persistent*

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

		deb http://kartolo.sby.datautama.net.id/debian/ buster-updates main contrib non-free *deb http://kartolo.sby.datautama.net.id/debian-security/ buster/updates main contrib non-free*
23.	Udate debian	*apt-get update*
24.	Install ifconfig	*ipip*
25.	Install http	*apt-get install apache2* ** configuration and testing later*
26.	Install FTP	*apt-get install proftpd* ** configuration and testing later*
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	*ls /sys/class/net*
	Configure network file	*nano /etc/network/interfaces*

	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**	***nmap –sP 192.168.100.1-254***

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	All testing *adapted with your ip address condition*	*nmap –sS –A -O 192.168.100.254* *nmap –sS –A -O 192.168.100.1* *nmap –sS –A -O 192.168.100.2*
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	*nmap –sP 192.168.100.1-254*		
2	*nmap –sS –A -O 192.168.100.254* *nmap –sS –A -O 192.168.100.1* *nmap –sS –A -O 192.168.100.2*		

**Note change with your ip address condition