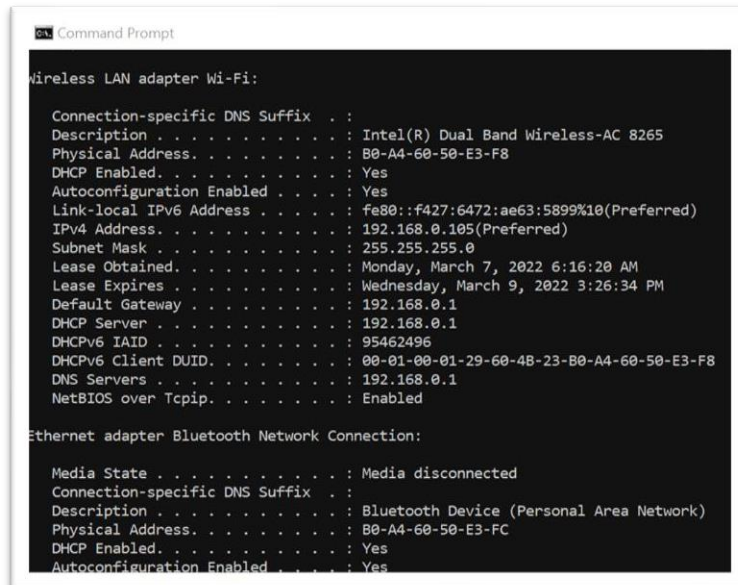


Laporan Hasil Tugas Praktikum :

1. Buka CMD pada windows kemudian ketik “ipconfig /all”



```
Command Prompt

Wireless LAN adapter Wi-Fi:

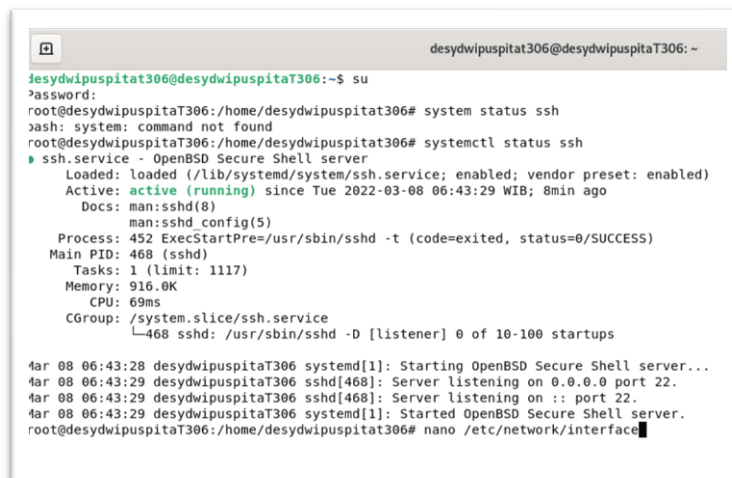
    Connection-specific DNS Suffix  . : 
    Description . . . . . : Intel(R) Dual Band Wireless-AC 8265
    Physical Address. . . . . : B0-A4-60-50-E3-F8
    DHCP Enabled. . . . . : Yes
    Autoconfiguration Enabled . . . . : Yes
    Link-local IPv6 Address . . . . . : fe80::f427:6472:ae63:5899%10(Preferred)
    IPv4 Address. . . . . : 192.168.0.105(Preferred)
    Subnet Mask . . . . . : 255.255.255.0
    Lease Obtained. . . . . : Monday, March 7, 2022 6:16:20 AM
    Lease Expires . . . . . : Wednesday, March 9, 2022 3:26:34 PM
    Default Gateway . . . . . : 192.168.0.1
    DHCP Server . . . . . : 192.168.0.1
    DHCPv6 IAID . . . . . : 95462496
    DHCPv6 Client DUID. . . . . : 00-01-00-01-29-60-4B-23-B0-A4-60-50-E3-F8
    DNS Servers . . . . . : 192.168.0.1
    NetBIOS over Tcpip. . . . . : Enabled

Ethernet adapter Bluetooth Network Connection:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : 
    Description . . . . . : Bluetooth Device (Personal Area Network)
    Physical Address. . . . . : B0-A4-60-50-E3-FC
    DHCP Enabled. . . . . : Yes
    Autoconfiguration Enabled . . . . : Yes
```

Penjelasan : tujuan kita membuka ini adalah untuk melihat ip pada laptop yang nantinya dibutuhkan untuk dimasukkan ke debian

2. Ketikkan “nano /etc/network/interfaces”



```
desydwipuspita306@desydwipuspitaT306: ~
desydwipuspita306@desydwipuspitaT306:~$ su
Password:
root@desydwipuspita306:/home/desydwipuspita306# system status ssh
bash: system: command not found
root@desydwipuspita306:/home/desydwipuspita306# systemctl status ssh
● ssh.service - OpenBSD Secure Shell server
   Loaded: loaded (/lib/systemd/system/ssh.service; enabled; vendor preset: enabled)
   Active: active (running) since Tue 2022-03-08 06:43:29 WIB; 8min ago
     Docs: man:sshd(8)
           man:sshd_config(5)
   Process: 452 ExecStartPre=/usr/sbin/sshd -t (code=exited, status=0/SUCCESS)
    Main PID: 468 (sshd)
       Tasks: 1 (limit: 1117)
      Memory: 916.0K
         CPU: 69ms
    CGroup: /system.slice/ssh.service
            └─468 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups

Mar 08 06:43:28 desydwipuspita306 systemd[1]: Starting OpenBSD Secure Shell server...
Mar 08 06:43:29 desydwipuspita306 sshd[468]: Server listening on 0.0.0.0 port 22.
Mar 08 06:43:29 desydwipuspita306 sshd[468]: Server listening on :: port 22.
Mar 08 06:43:29 desydwipuspita306 systemd[1]: Started OpenBSD Secure Shell server.
root@desydwipuspita306:/home/desydwipuspita306# nano /etc/network/interfaces
```

Penjelasan : Selanjutnya adalah memberikan IP pada Debian, caranya adalah masuk ke root kemudian ketikkan “nano /etc/network/interfaces”. Kemudian enter

Hasil setelah di enter :



```
GNU nano 5.4 /etc/network/interfaces
# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

source /etc/network/interfaces.d/*

# The loopback network interface
auto lo
iface lo inet loopback
```

3. Memasukan ip adres pada debian

```
desydwipuspat306@desydwipusitaT306: ~  
GNU nano 5.4 /etc/network/interfaces *  
# This file describes the network interfaces available on your system  
# and how to activate them. For more information, see interfaces(5).  
  
source /etc/network/interfaces.d/*  
  
# The loopback network interface  
auto lo  
iface lo inet loopback  
auto enp0s3  
iface enp0s3 inet static  
address 192.168.27.2  
subnetmask 255.255.255.0  
gateway 192.168.0.1
```

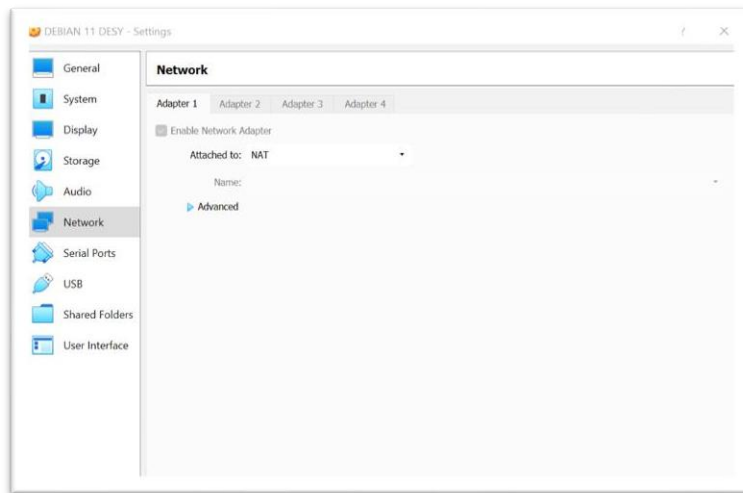
Penjelasan : Jika sudah di enter, lalu ketikkan auto enp0s3, iface enp0s3 inet static, address (seperti IP pada windows tetapi octet keempat diganti bebas), subnetmask, dan gateway seperti contoh gambar diatas. Kemudian ctrl+x setelah simpan.

4. “systemctl restart networking”

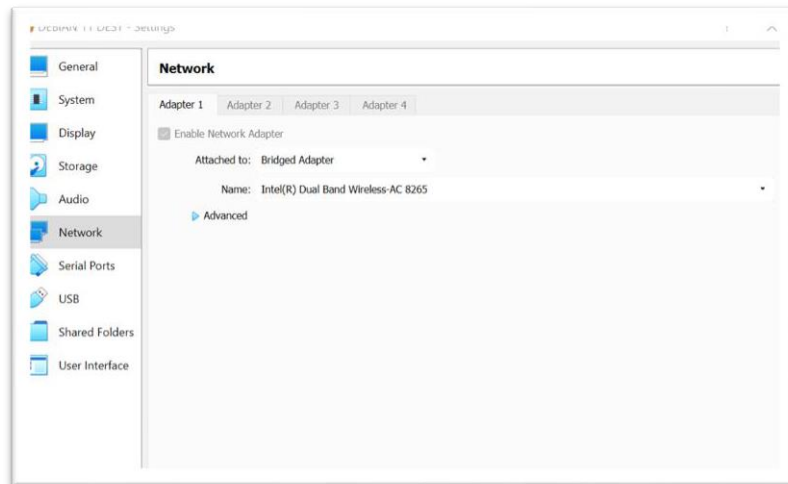
```
desydwipuspat306@desydwipusitaT306: ~  
CPU: 69ms  
CGroup: /system.slice/ssh.service  
└─468 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups  
  
Mar 08 06:43:28 desydwipusitaT306 systemd[1]: Starting OpenBSD Secure Shell serv  
Mar 08 06:43:29 desydwipusitaT306 sshd[468]: Server listening on 0.0.0.0 port 22  
Mar 08 06:43:29 desydwipusitaT306 sshd[468]: Server listening on :: port 22.  
Mar 08 06:43:29 desydwipusitaT306 systemd[1]: Started OpenBSD Secure Shell serve  
root@desydwipusitaT306:/home/desydwipusitaT306# nano /etc/network/interface  
root@desydwipusitaT306:/home/desydwipusitaT306# ip -c a  
l: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default  
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00  
    inet 127.0.0.1/8 scope host lo  
        valid_lft forever preferred_lft forever  
    inet6 ::1/128 scope host  
        valid_lft forever preferred_lft forever  
?: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP g  
l000  
    link/ether 08:00:27:57:c0:a3 brd ff:ff:ff:ff:ff:ff  
    inet 10.0.2.15/24 brd 10.0.2.255 scope global dynamic noprefixroute enp0s3  
        valid_lft 85517sec preferred_lft 85517sec  
    inet6 fe80::a00:27ff:fe57:c0a3/64 scope link noprefixroute  
        valid_lft forever preferred_lft forever  
root@desydwipusitaT306:/home/desydwipusitaT306# nano /etc/network/interfaces  
root@desydwipusitaT306:/home/desydwipusitaT306# systemctl restart networking  
root@desydwipusitaT306:/home/desydwipusitaT306#
```

Penjelasan : Ketikkan “systemctl restart networking” setelah memasukkan ip address pada Debian.

5. Klik Machine



Penjelasan : Klik machine pada bagian kiri atas kemudian pilih setting lalu pilih network, kemudian ganti NAT ke Bridged Adapter. Lalu klik ok



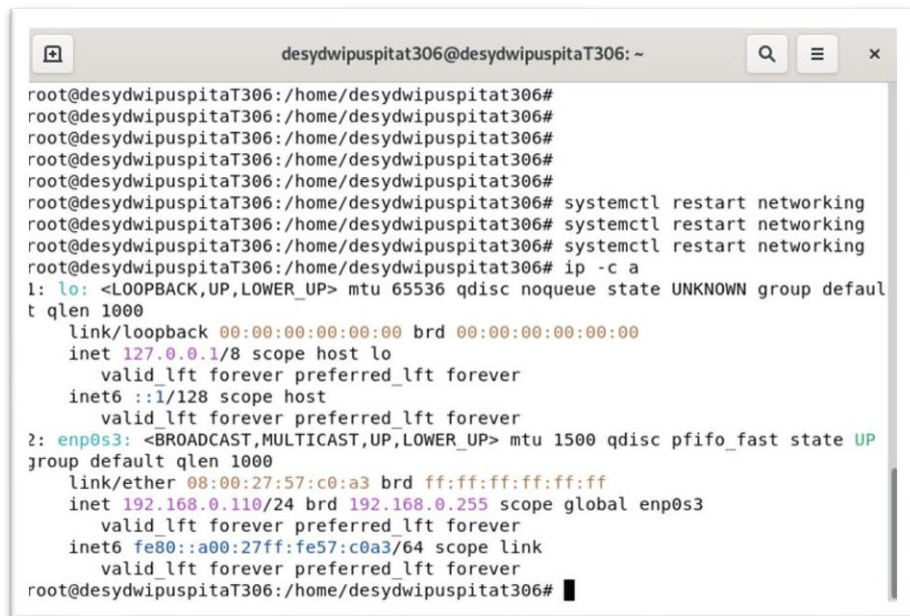
6. “systemctl restart networking”

```
desydwipuspat306@desydwipuspat306: ~
Active: active (running) since Tue 2022-03-08 06:43:29 WIB; 8min ago
Docs: man:sshd(8)
      man:sshd_config(5)
Process: 452 ExecStartPre=/usr/sbin/sshd -t (code=exited, status=0/SUCCESS)
Main PID: 468 (sshd)
Tasks: 1 (limit: 1117)
Memory: 916.0K
CPU: 69ms
CGroup: /system.slice/ssh.service
        └─468 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups

lar 08 06:43:28 desydwipuspat306 systemd[1]: Starting OpenBSD Secure Shell server...
lar 08 06:43:29 desydwipuspat306 sshd[468]: Server listening on 0.0.0.0 port 22.
lar 08 06:43:29 desydwipuspat306 sshd[468]: Server listening on :: port 22.
oot@desydwipuspat306:/home/desydwipuspat306# nano /etc/network/interfaces
oot@desydwipuspat306:/home/desydwipuspat306# ip -c a
: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen :
    link/ether 08:00:27:ff:c0:a3 brd ff:ff:ff:ff:ff:ff
    inet 10.0.2.15/24 brd 10.0.2.255 scope global dynamic noprefixroute enp0s3
        valid_lft 85517sec preferred_lft 85517sec
    inet6 fe80::a00:27ff:fe57:c0a3/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
oot@desydwipuspat306:/home/desydwipuspat306# nano /etc/network/interfaces
oot@desydwipuspat306:/home/desydwipuspat306# systemctl restart networking
oot@desydwipuspat306:/home/desydwipuspat306# systemctl restart networking
```

Penjelasan : jika sudah mengganti network dari NAT di machine kemudian restart lagi dengan mengetikkan “systemctl restart networking”

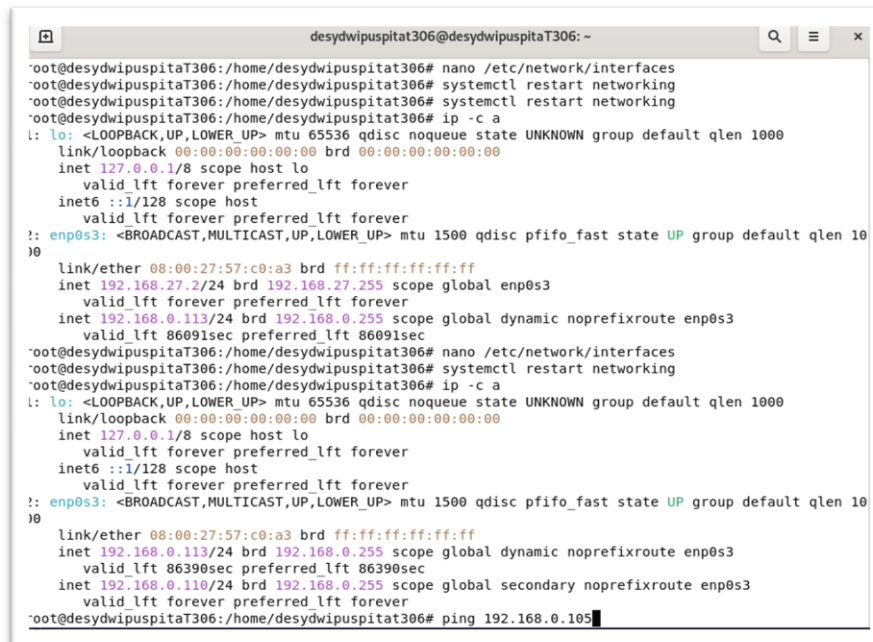
7. “ip -c a”



```
desydwipuspita306@desydwipuspitaT306: ~
root@desydwipuspitaT306:/home/desydwipuspita306#
root@desydwipuspitaT306:/home/desydwipuspita306#
root@desydwipuspitaT306:/home/desydwipuspita306#
root@desydwipuspitaT306:/home/desydwipuspita306#
root@desydwipuspitaT306:/home/desydwipuspita306# systemctl restart networking
root@desydwipuspitaT306:/home/desydwipuspita306# systemctl restart networking
root@desydwipuspitaT306:/home/desydwipuspita306# systemctl restart networking
root@desydwipuspitaT306:/home/desydwipuspita306# ip -c a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 08:00:27:57:c0:a3 brd ff:ff:ff:ff:ff:ff
    inet 192.168.0.110/24 brd 192.168.0.255 scope global enp0s3
        valid_lft forever preferred_lft forever
    inet6 fe80::a00:27ff:fe57:c0a3/64 scope link
        valid_lft forever preferred_lft forever
root@desydwipuspitaT306:/home/desydwipuspita306#
```

Penjelasan : jika sudah kembali ke root, kemudian ketikkan “ip -c a” untuk melihat apakah ip kita sudah berubah setelah kita restart tadi. Jika sudah berubah maka sudah berhasil, lalu sebaliknya apabila belum maka perlu mengecek ip kita lalu melakukan restart networking kembali.

8. Ping (ip windows)



```
desydwipuspita306@desydwipuspitaT306: ~
root@desydwipuspitaT306:/home/desydwipuspita306# nano /etc/network/interfaces
root@desydwipuspitaT306:/home/desydwipuspita306# systemctl restart networking
root@desydwipuspitaT306:/home/desydwipuspita306# systemctl restart networking
root@desydwipuspitaT306:/home/desydwipuspita306# ip -c a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 08:00:27:57:c0:a3 brd ff:ff:ff:ff:ff:ff
    inet 192.168.27.2/24 brd 192.168.27.255 scope global enp0s3
        valid_lft forever preferred_lft forever
    inet 192.168.0.113/24 brd 192.168.0.255 scope global dynamic noprefixroute enp0s3
        valid_lft 86091sec preferred_lft 86091sec
root@desydwipuspitaT306:/home/desydwipuspita306# nano /etc/network/interfaces
root@desydwipuspitaT306:/home/desydwipuspita306# systemctl restart networking
root@desydwipuspitaT306:/home/desydwipuspita306# ip -c a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 08:00:27:57:c0:a3 brd ff:ff:ff:ff:ff:ff
    inet 192.168.0.113/24 brd 192.168.0.255 scope global dynamic noprefixroute enp0s3
        valid_lft 86390sec preferred_lft 86390sec
    inet 192.168.0.110/24 brd 192.168.0.255 scope global secondary noprefixroute enp0s3
        valid_lft forever preferred_lft forever
root@desydwipuspitaT306:/home/desydwipuspita306# ping 192.168.0.105
```

Penjelasan : jika langkah sebelumnya sudah berhasil, sekarang ping ke windows dengan cara mengetikkan “ping (ip windows)”, lalu enter

Hasil setelah dienter :

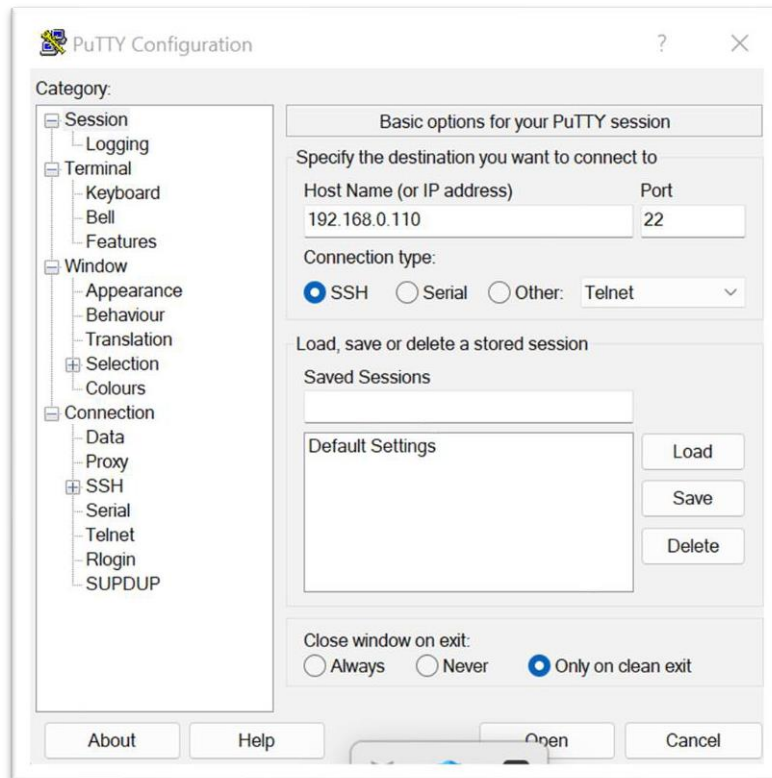
```
desydwipuspatat306@desydwipuspatat306: ~  
root@desydwipuspatat306:/home/desydwipuspatat306# systemctl restart networking  
root@desydwipuspatat306:/home/desydwipuspatat306# ip -c a  
.: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000  
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00  
    inet 127.0.0.1/8 scope host lo  
        valid_lft forever preferred_lft forever  
    inet6 ::1/128 scope host  
        valid_lft forever preferred_lft forever  
.: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 10  
    link/ether 08:00:27:57:c0:a3 brd ff:ff:ff:ff:ff:ff  
    inet 192.168.27.2/24 brd 192.168.27.255 scope global enp0s3  
        valid_lft forever preferred_lft forever  
    inet 192.168.0.113/24 brd 192.168.0.255 scope global dynamic noprefixroute enp0s3  
        valid_lft 86091sec preferred_lft 86091sec  
root@desydwipuspatat306:/home/desydwipuspatat306# nano /etc/network/interfaces  
root@desydwipuspatat306:/home/desydwipuspatat306# systemctl restart networking  
root@desydwipuspatat306:/home/desydwipuspatat306# ip -c a  
.: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000  
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00  
    inet 127.0.0.1/8 scope host lo  
        valid_lft forever preferred_lft forever  
    inet6 ::1/128 scope host  
        valid_lft forever preferred_lft forever  
.: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 10  
    link/ether 08:00:27:57:c0:a3 brd ff:ff:ff:ff:ff:ff  
    inet 192.168.0.113/24 brd 192.168.0.255 scope global dynamic noprefixroute enp0s3  
        valid_lft 86390sec preferred_lft 86390sec  
    inet 192.168.0.110/24 brd 192.168.0.255 scope global secondary noprefixroute enp0s3  
        valid_lft forever preferred_lft forever  
root@desydwipuspatat306:/home/desydwipuspatat306# ping 192.168.0.105  
PING 192.168.0.105 (192.168.0.105) 56(84) bytes of data.
```

9. Ping ip (Debian) pada cmd

```
Command Prompt  
C:\Users\Dany>ping 192.168.0.110  
  
Pinging 192.168.0.110 with 32 bytes of data:  
Reply from 192.168.0.110: bytes=32 time<1ms TTL=64  
Reply from 192.168.0.110: bytes=32 time<1ms TTL=64  
Reply from 192.168.0.110: bytes=32 time<1ms TTL=64  
Reply from 192.168.0.110: bytes=32 time<1ms TTL=64  
  
Ping statistics for 192.168.0.110:  
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),  
Approximate round trip times in milli-seconds:  
    Minimum = 0ms, Maximum = 0ms, Average = 0ms  
  
C:\Users\Dany>
```

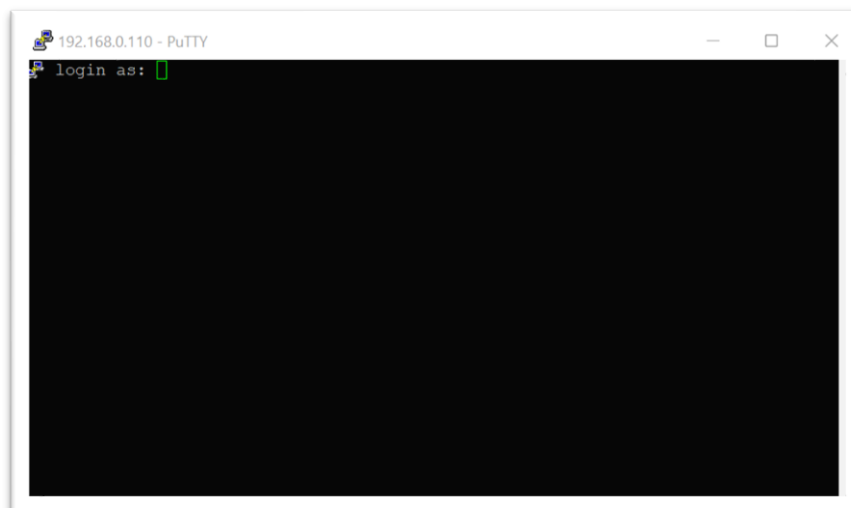
Penjelasan : jika sudah ping pada Debian selanjutnya lakukan ping ip Debian pada cmd dengan cara mengetikkan “ping (ip Debian)”, lalu enter kemudian akan muncul hasil seperti gambar diatas.

10. Memasukkan ip Debian pada aplikasi Putty



Penjelasan : Download dan install aplikasi putty kemudian buka. Lalu isi host name dengan masukkan ip Debian pada seperti gambar diatas, ingat masukkan ip Debian bukan ip windows. Klik open

11. Masukkan username dan password debian



Penjelasan : Jika sudah memasukkan ip Debian pada putty kemudian muncul tampilan seperti gambar diatas, lalu ketikkan username kemudian password Debian. Jika sudah ketikkan “su” kemudian masukkan password root debian

Tampilan selanjutnya :

```
desydwipuspita306@desydwipuspitaT306: ~  
login as: desydwipuspita306  
desydwipuspita306@192.168.0.110's password:  
Linux desydwipuspitaT306 5.10.0-11-amd64 #1 SMP Debian 5.10.92-1 (2022-01-18) x86_64  
  
The programs included with the Debian GNU/Linux system are free software;  
the exact distribution terms for each program are described in the  
individual files in /usr/share/doc/*/copyright.  
  
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent  
permitted by applicable law.  
desydwipuspita306@desydwipuspitaT306:~$ su  
password:  
root@desydwipuspitaT306:/home/desydwipuspita306#
```

12. “apt install apache2”

```
desydwipuspita306@desydwipuspitaT306: ~  
valid lft forever preferred lft forever  
root@desydwipuspitaT306:/home/desydwipuspita306# ping 192.168.0.105  
PING 192.168.0.105 (192.168.0.105) 56(84) bytes of data:  
^C  
--- 192.168.0.105 ping statistics ---  
12 packets transmitted, 0 received, 100% packet loss, time 11248ms  
  
root@desydwipuspitaT306:/home/desydwipuspita306#  
root@desydwipuspitaT306:/home/desydwipuspita306#  
root@desydwipuspitaT306:/home/desydwipuspita306#  
root@desydwipuspitaT306:/home/desydwipuspita306#  
root@desydwipuspitaT306:/home/desydwipuspita306#  
root@desydwipuspitaT306:/home/desydwipuspita306#  
root@desydwipuspitaT306:/home/desydwipuspita306#  
root@desydwipuspitaT306:/home/desydwipuspita306#  
root@desydwipuspitaT306:/home/desydwipuspita306#  
root@desydwipuspitaT306:/home/desydwipuspita306#  
root@desydwipuspitaT306:/home/desydwipuspita306#  
root@desydwipuspitaT306:/home/desydwipuspita306# apt install apache2  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
apache2 is already the newest version (2.4.52-1-deb11u2).  
0 upgraded, 0 newly installed, 0 to remove and 6 not upgraded.  
root@desydwipuspitaT306:/home/desydwipuspita306#
```

Penjelasan : kembali ke root Debian kemudian ketikkan “apt install apache2” untuk menginstal apache, lalu enter maka akan muncul tampilan seperti diatas.

13. “systemctl status apache2”

```
desydwipuspita306@desydwipuspita306: ~
Processing triggers for man-db (2.9.4-2) ...
root@desydwipuspita306:/home/desydwipuspita306# systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: active (running) since Tue 2022-03-08 08:23:10 WIB; 2min 22s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Main PID: 3566 (apache2)
    Tasks: 55 (limit: 1117)
   Memory: 10.0M
      CPU: 50ms
   CGroup: /system.slice/apache2.service
           └─3566 /usr/sbin/apache2 -k start
             └─3570 /usr/sbin/apache2 -k start
               └─3571 /usr/sbin/apache2 -k start

Mar 08 08:23:10 desydwipuspita306 systemd[1]: Starting The Apache HTTP Server...
Mar 08 08:23:10 desydwipuspita306 systemd[1]: Started The Apache HTTP Server.
root@desydwipuspita306:/home/desydwipuspita306# systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: active (running) since Tue 2022-03-08 08:23:10 WIB; 3min 6s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Main PID: 3566 (apache2)
    Tasks: 55 (limit: 1117)
   Memory: 10.0M
      CPU: 53ms
   CGroup: /system.slice/apache2.service
           └─3566 /usr/sbin/apache2 -k start
             └─3570 /usr/sbin/apache2 -k start
               └─3571 /usr/sbin/apache2 -k start

Mar 08 08:23:10 desydwipuspita306 systemd[1]: Starting The Apache HTTP Server...
Mar 08 08:23:10 desydwipuspita306 systemd[1]: Started The Apache HTTP Server.
root@desydwipuspita306:/home/desydwipuspita306#
```

Penjelasan: setelah menginstal apache, Langkah selanjutnya yaitu mengecek status apache dengan mengetikkan “systemctl status apache2” kemudian enter, jika berhasil maka akan muncul tampilan active (running) berwarna hijau seperti di atas

14. Mengetikkan ip address pada mozilla firefox Debian



Penjelasan : jika tadi sudah mengaktifkan apache2 sekarang buka mozilla firefox lalu ketikkan ip Debian. Kemudian enter, maka tampilan akan berubah seperti gambar di atas.