

Modul Network Management : Remote SSH Ke Virtual Machine menggunakan Putty

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Prasyarat

- Internet
- PC/Laptop Sudah Terinstall VirtualBox
- Sudah ada 2 VM , Monitor-VM dan Target-VM

Resource yang akan digunakan

1. **VirtualBox** - <https://www.virtualbox.org/wiki/Downloads>
2. **Ubuntu 20.04 LTS Server Image** - <https://releases.ubuntu.com/20.04/>
3. **Putty** - <https://the.earth.li/~sgtatham/putty/latest/w64/putty-64bit-0.76-installer.msi>

Buzz Words

1. **Putty** - adalah tools untuk melakukan remote access, disini kita akan menggunakan protokol SSH
2. **SSH Server** - adalah service yang wajib terinstall di Server. yang sering digunakan adalah openssh-server , jika ssh server belum terinstall , putty tidak bisa digunakan.

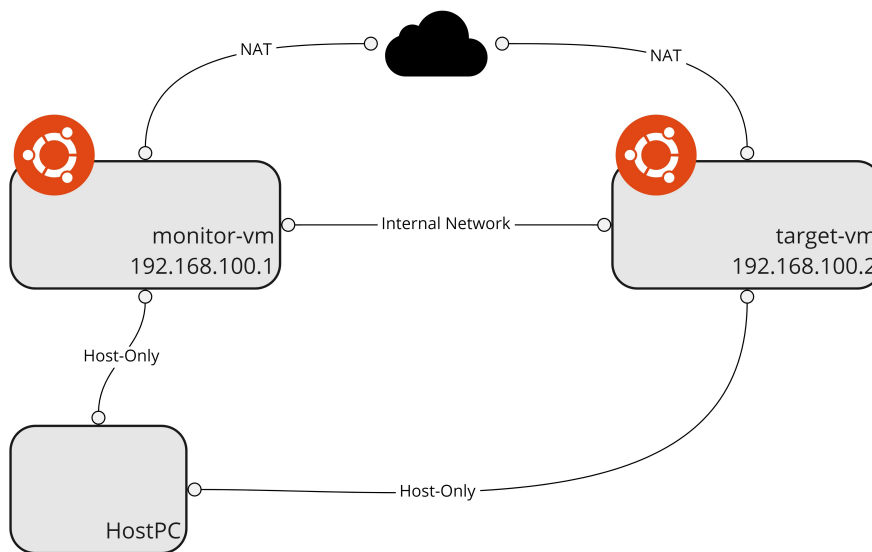
Topologi

1. Virtual Machine Monitor-VM
 - Network Adapter 1 - NAT - DHCP

- Network Adapter 2 - Internal Network - Static IP - 192.168.100.1/24
- Network Adapter 3 - Host-Only - DHCP Default

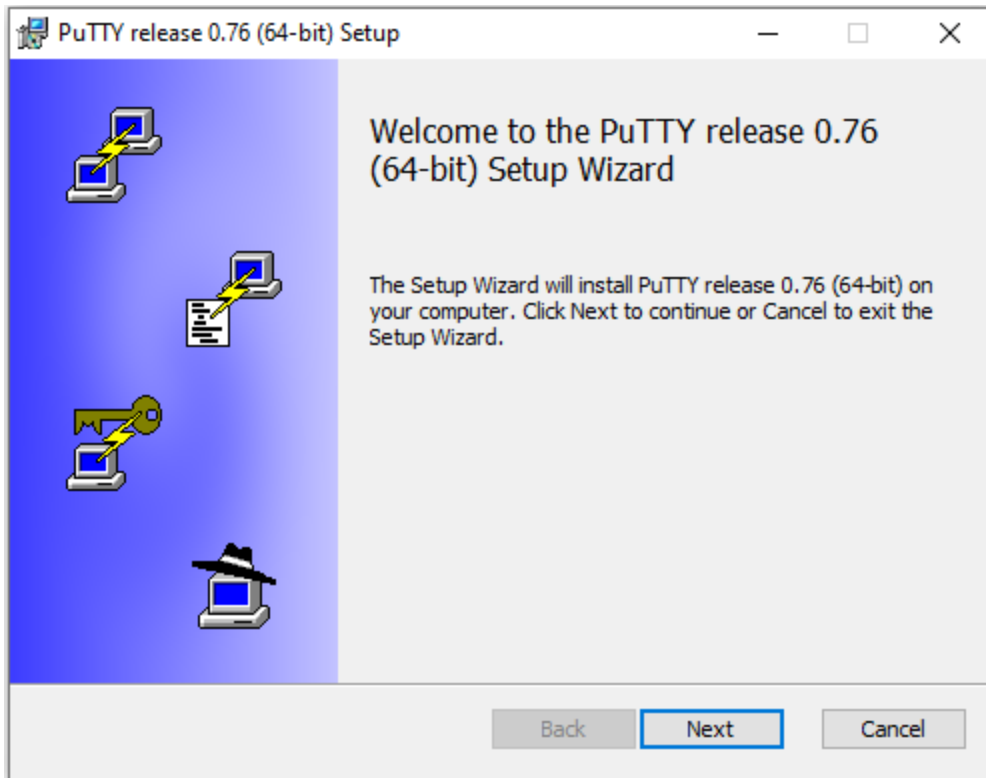
2. Virtual Machine Target-VM

- Network Adapter 1 - NAT - DHCP
- Network Adapter 2 - Internal Network - Static IP - 192.168.100.2/24
- Network Adapter 3 - Host-Only - DHCP

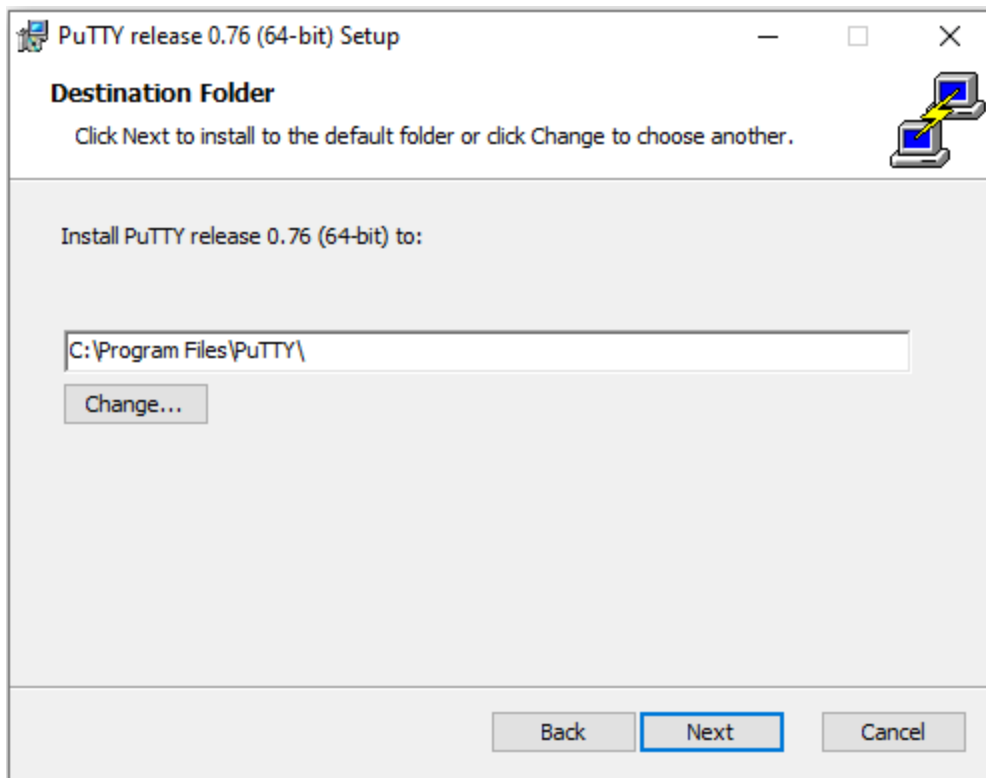


Install Putty

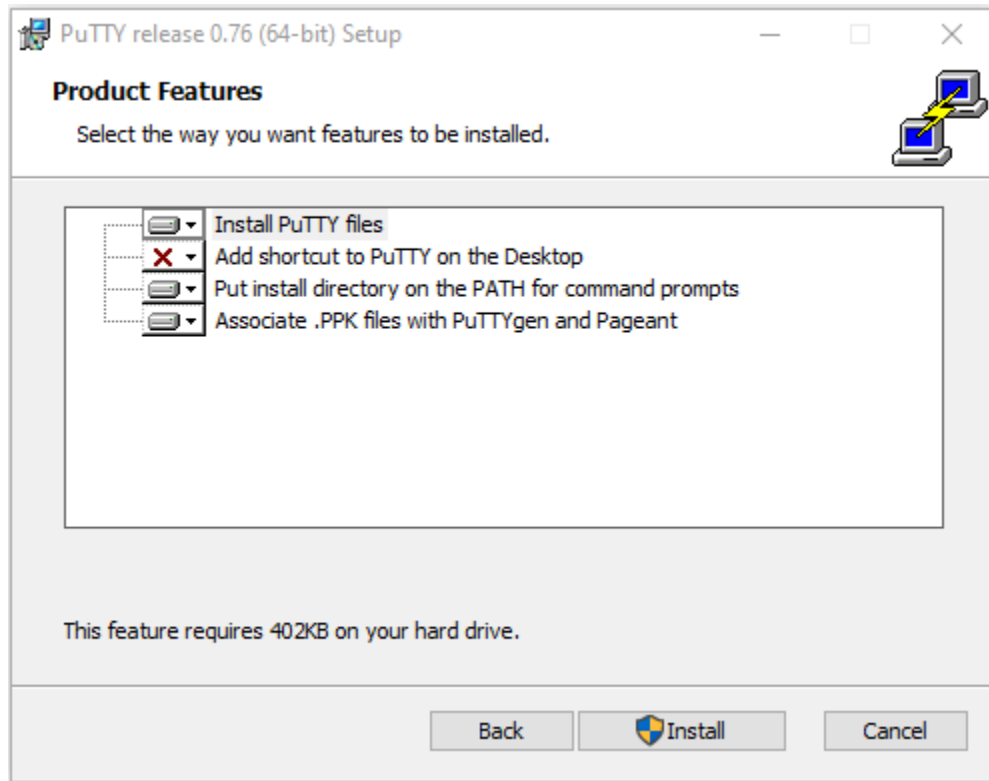
1. Download putty
2. Install putty ,next



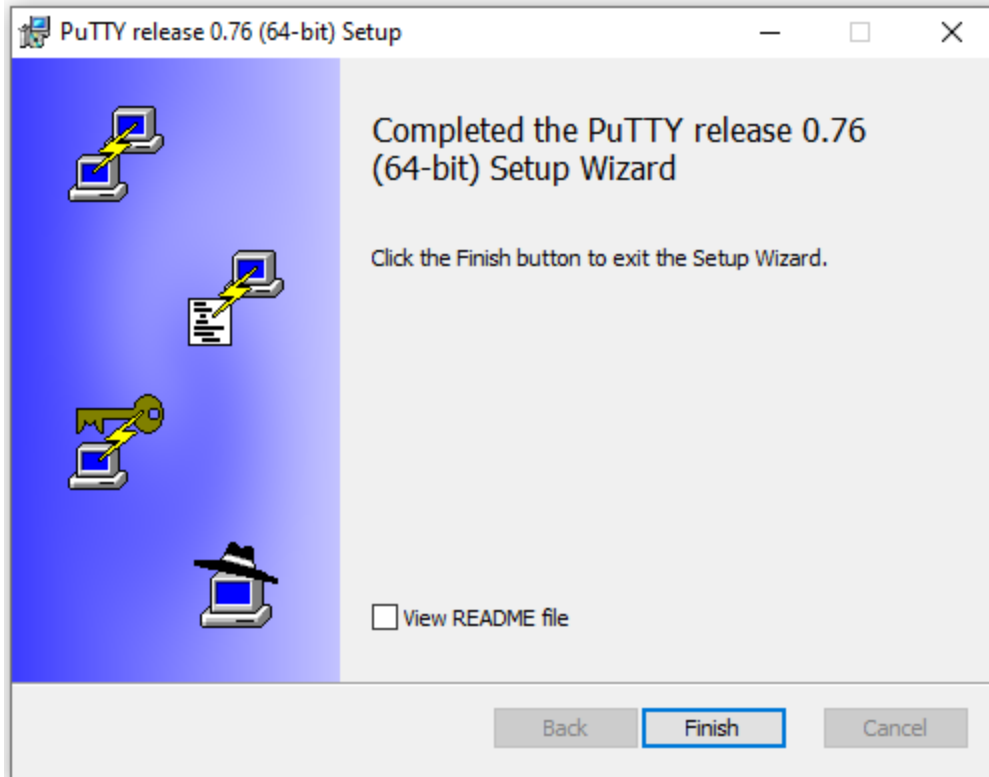
3. Next



4. Install



5. Finish



6. Nyalakan Monitor-VM
7. Login ke Monitor-VM
8. Pastikan SSH Server sudah terinstall, jika belum, install dengan cara

```
sudo apt install openssh-server -y
```

9. Restart SSH Server

```
sudo systemctl restart ssh
```

10. Cek status SSH Server

```
sudo systemctl status ssh
```

jika hasilnya seperti berikut, maka ssh sudah berjalan di server

```

umam@monitor-vm:~$ sudo systemctl status ssh
● ssh.service - OpenBSD Secure Shell server
   Loaded: loaded (/lib/systemd/system/ssh.service; enabled; vendor preset: enabled)
   Active: active (running) since Wed 2021-08-11 12:53:57 UTC; 7min ago
     Docs: man:sshd(8)
           man:sshd_config(5)
   Main PID: 872 (sshd)
     Tasks: 1 (limit: 2279)
    Memory: 3.4M
   CGroup: /system.slice/ssh.service
           └─872 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups

Aug 11 12:53:56 monitor-vm systemd[1]: Starting OpenBSD Secure Shell server...
Aug 11 12:53:57 monitor-vm sshd[872]: Server listening on 0.0.0.0 port 22.
Aug 11 12:53:57 monitor-vm sshd[872]: Server listening on :: port 22.
Aug 11 12:53:57 monitor-vm systemd[1]: Started OpenBSD Secure Shell server.

```

11. Check di IP Address dengan cara

```
sudo ip addr show
```

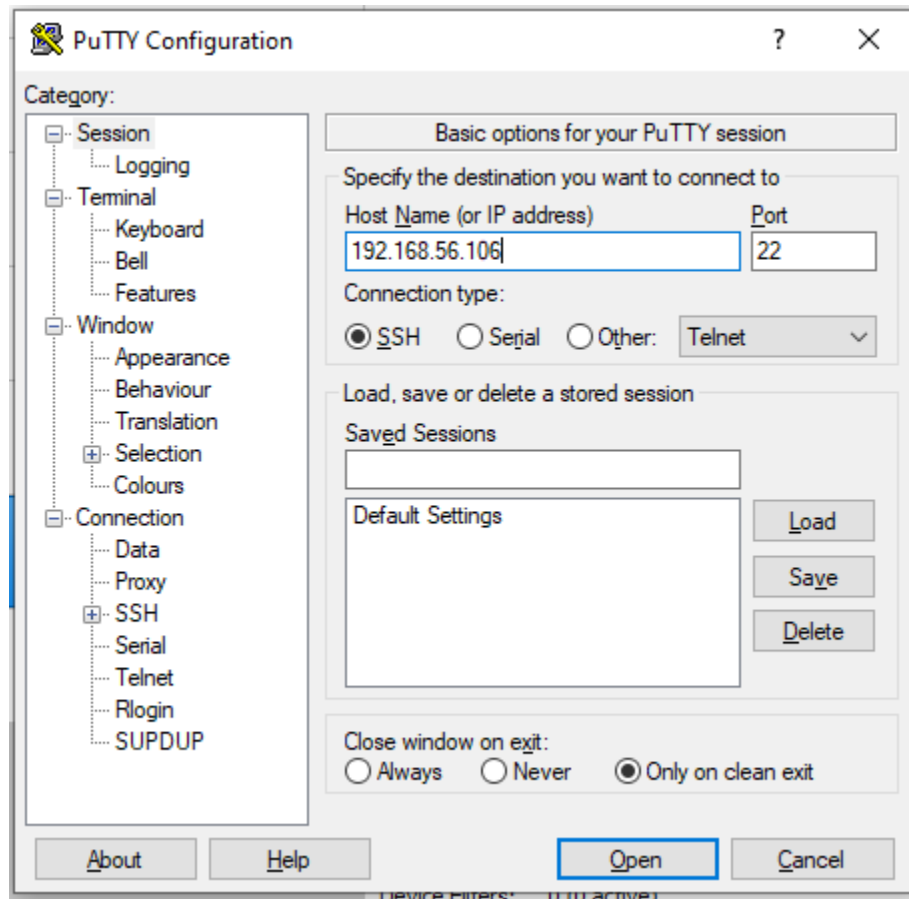
```

umam@monitor-vm:~$ sudo ip addr show
[sudo] password for umam:
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 fq_codel state UP group default qlen 1000
   link/ether 08:00:27:d5:11:bd brd ff:ff:ff:ff:ff:ff
   inet 10.0.2.15/24 brd 10.0.2.255 scope global dynamic enp0s3
       valid_lft 86381sec preferred_lft 86381sec
   inet6 fe80::a00:27ff:fed5:11bd/64 scope link
       valid_lft forever preferred_lft forever
3: enp0s8: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
   link/ether 08:00:27:2e:98:9d brd ff:ff:ff:ff:ff:ff
   inet 192.168.100.1/24 brd 192.168.100.255 scope global enp0s8
       valid_lft forever preferred_lft forever
   inet6 fe80::a00:27ff:fe2e:989d/64 scope link
       valid_lft forever preferred_lft forever
4: enp0s9: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
   link/ether 08:00:27:b0:88:60 brd ff:ff:ff:ff:ff:ff
   inet 192.168.56.106/24 brd 192.168.56.255 scope global dynamic enp0s9
       valid_lft 581sec preferred_lft 581sec
   inet6 fe80::a00:27ff:feb0:8860/64 scope link
       valid_lft forever preferred_lft forever
umam@monitor-vm:~$ _

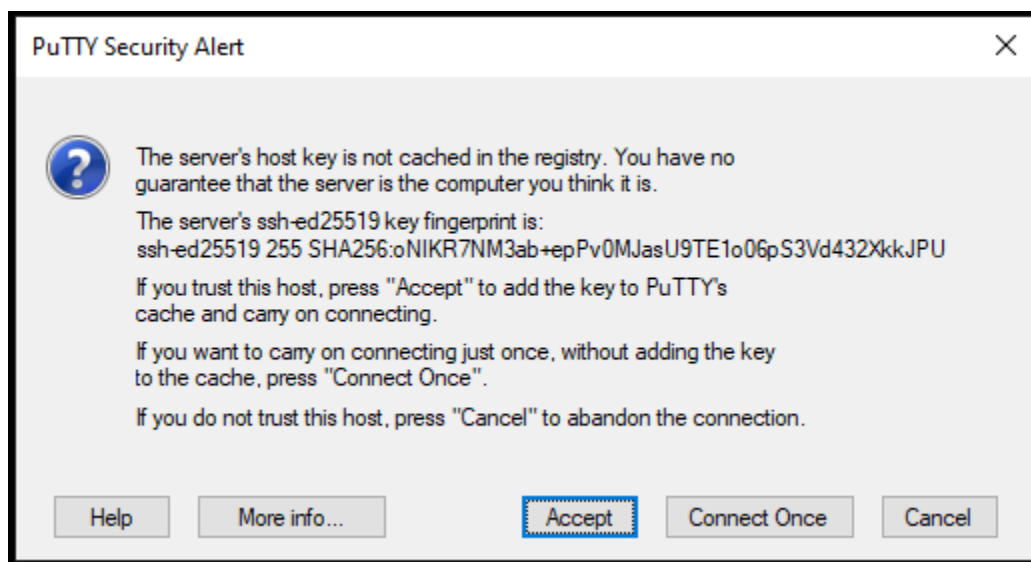
```

perhatikan pada adapter 4 (Host-Only Network) = **enp0s9** , catat IPnya, disini milik saya **192.168.56.106** . Milik anda mungkin bisa saja berbeda.

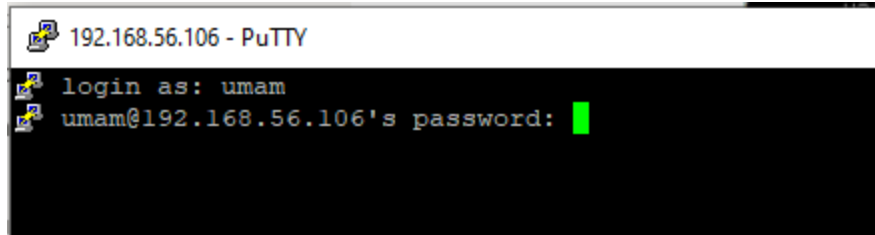
8. Sekarang buka putty, masukkan Ip address host-only adapter seperti berikut, klik Open



9. Akan muncul security alert, klik Accept

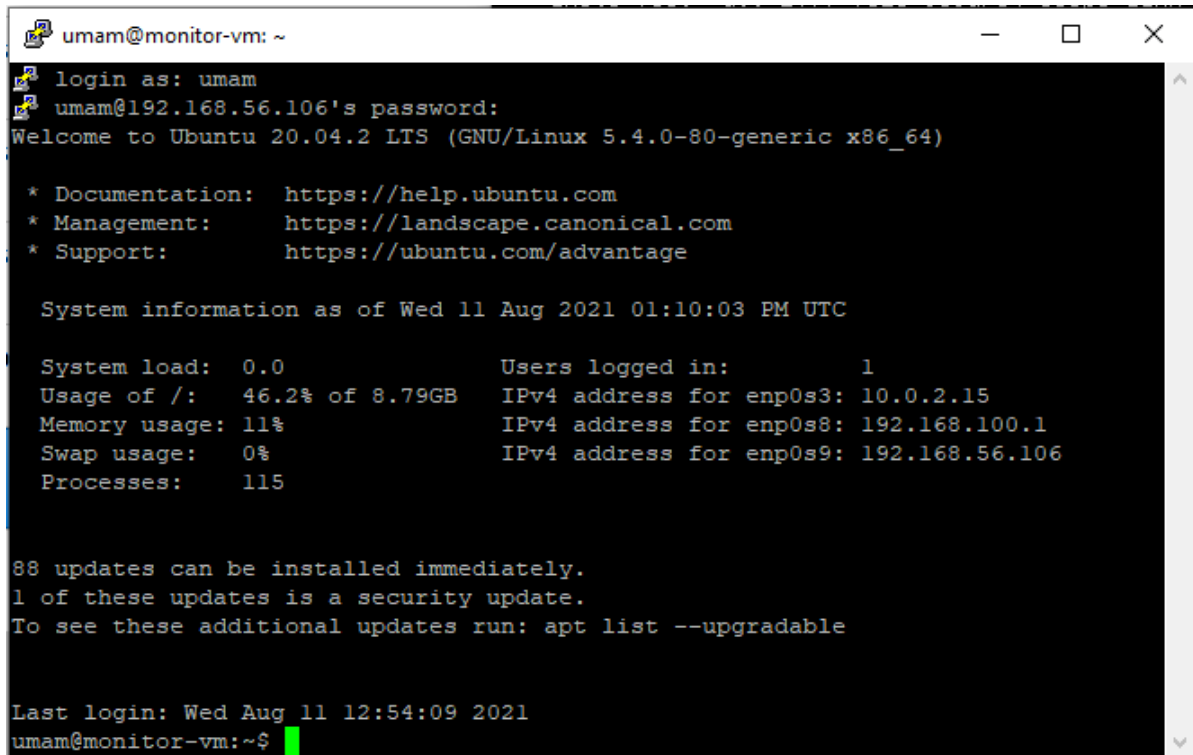


10. masukkan user dan password server



```
192.168.56.106 - PuTTY
login as: umam
umam@192.168.56.106's password: [REDACTED]
```

11. Jika sudah berhasil masuk maka akan tampil seperti ini.



```
umam@monitor-vm: ~
login as: umam
umam@192.168.56.106's password:
Welcome to Ubuntu 20.04.2 LTS (GNU/Linux 5.4.0-80-generic x86_64)

* Documentation:  https://help.ubuntu.com
* Management:    https://landscape.canonical.com
* Support:       https://ubuntu.com/advantage

System information as of Wed 11 Aug 2021 01:10:03 PM UTC

System load:  0.0           Users logged in:      1
Usage of /:   46.2% of 8.79GB IPv4 address for enp0s3: 10.0.2.15
Memory usage: 11%          IPv4 address for enp0s8: 192.168.100.1
Swap usage:  0%            IPv4 address for enp0s9: 192.168.56.106
Processes:   115

88 updates can be installed immediately.
1 of these updates is a security update.
To see these additional updates run: apt list --upgradable

Last login: Wed Aug 11 12:54:09 2021
umam@monitor-vm:~$
```

- 12. Dengan putty , akan akan lebih mudah mengeksekusi baris-baris perintah di server. misalkan mau mengkopi paste baris perintah yang panjang juga bisa.
- 13. Ulangi langkah-langkah diatas untuk melakukan remote ssh ke Target-VM menggunakan Putty