



PENGANTAR TELEKOMUNIKASI

UBUNTU SERVER WITH HTML

BY PUTTY (SSH)



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KELAS	: SK1A

- Langkah pertama siapkan 3 aplikasi :
 - VirtualBox (saya menggunakan VirtualBox 5.2)
 - Ubuntu Server (saya menggunakan ubuntu server 16.04)
 - PuTTY
- Install VirtualBox > buka app > Install Ubuntu Server melalui VirtualBox
 - Klik icon New > membuat Virtual Machine



- Atur nama file

Nama dan sistem operasi

Harap pilih suatu nama yang deskriptif bagi mesin virtual baru dan pilih tipe sistem operasi yang hendak Anda pasang padanya. Nama yang Anda pilih akan dipakai di seluruh VirtualBox untuk mengidentifikasi mesin ini.

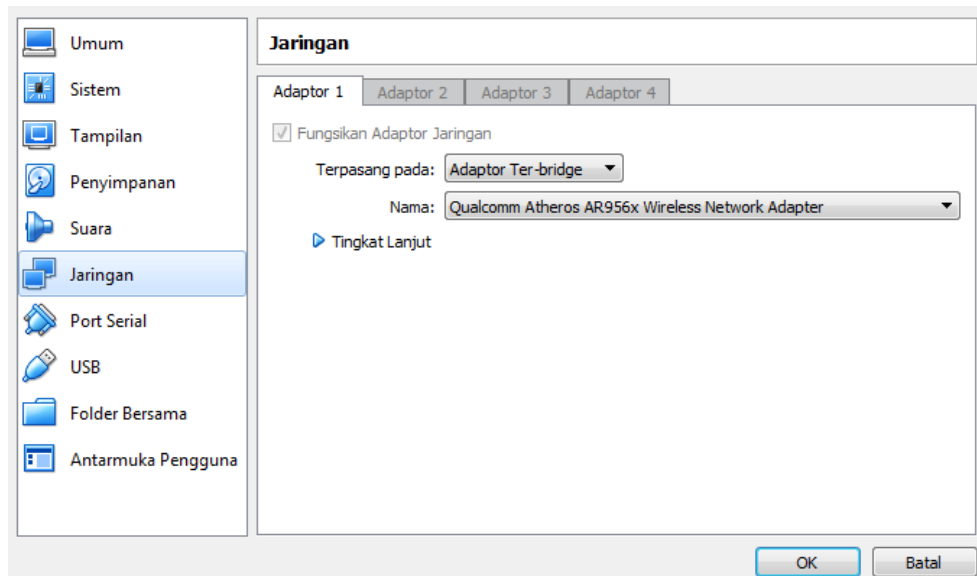
Nama:	<input type="text" value="ubuntu_server"/>
Tipe:	<input type="text" value="Linux"/>
Versi:	<input type="text" value="Ubuntu (64-bit)"/>



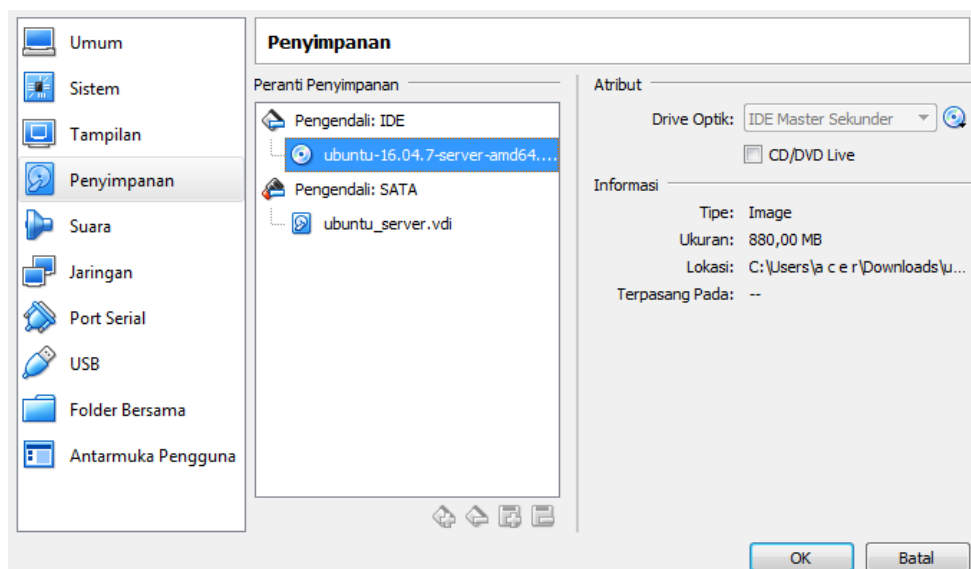
- Pilih icon settings



- Pilih menu Network dalam setting > adapter 1 > Bridged Adapter



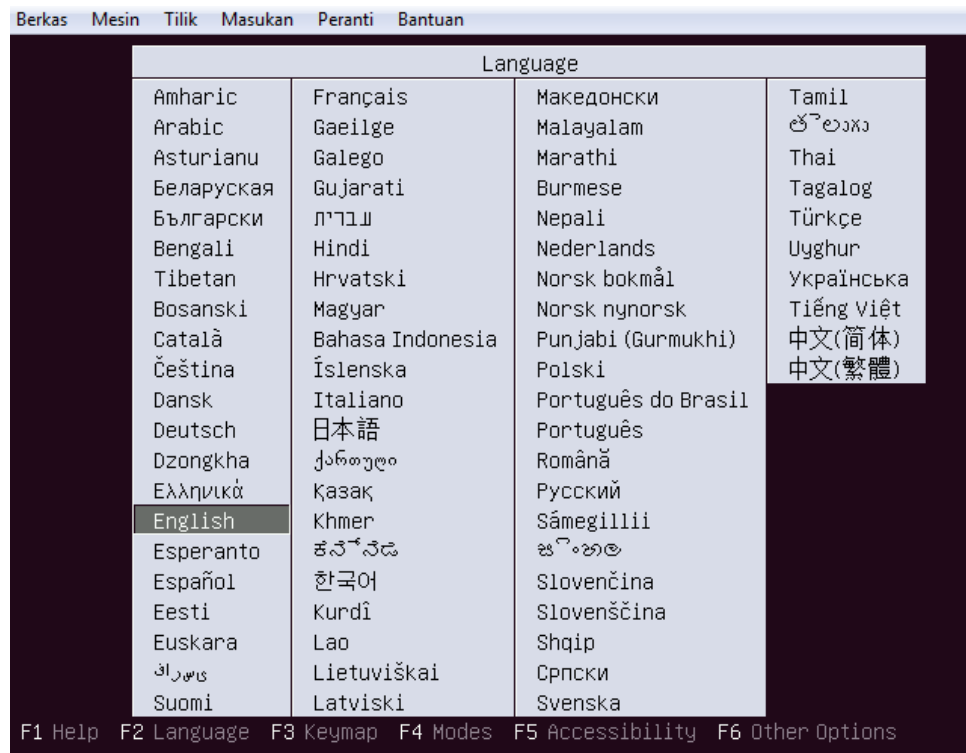
- Pada menu Storage dalam setting > empty > pilih file ubuntu server



- Klik menu start



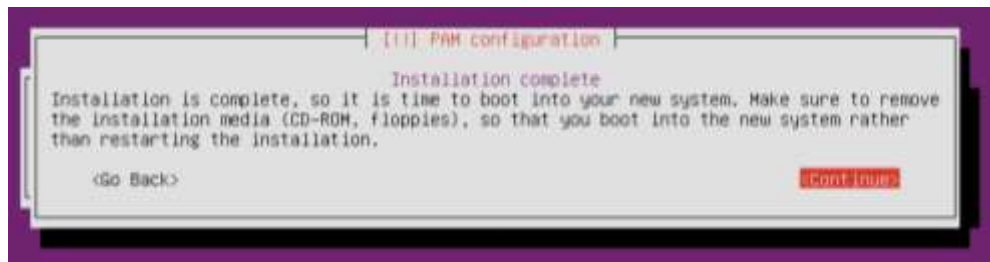
- Install ubuntu server > terdapat konfigurasi Bahasa > pilih English



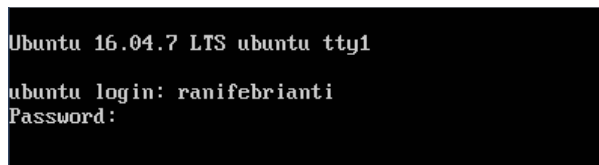
- Untuk menginstall > pilih Install Ubuntu Server



- Tunggu proses Instalasi Ubuntu Server sampai selesai (proses memerlukan akses internet)

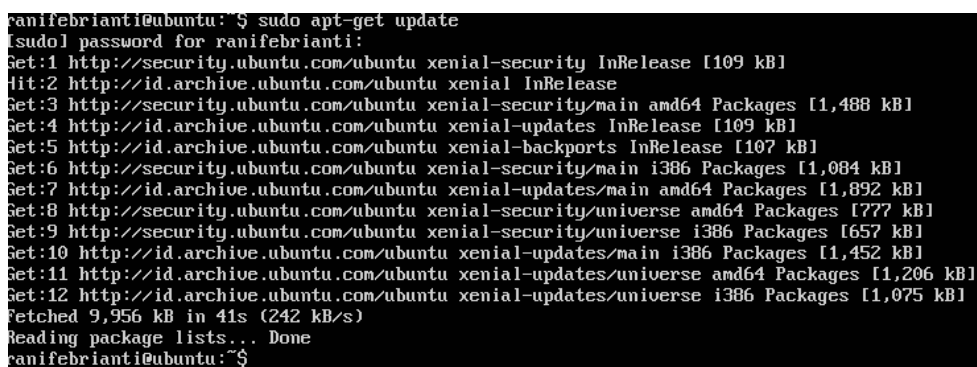


- Login ubuntu server > masukkan username dan password



3. Install ssh server > remote dan konfigurasi ssh server > di PuTTY atau terminal ubuntu server

- Update repository > `sudo apt-get update` > untuk mengupdate repository pada data linux > berguna untuk memperbarui data sebelum menginstall, agar tidak error atau cloning files



- Ketik `ifconfig` > untuk menampilkan ip yang kita gunakan untuk membuat server > ip yang digunakan berbasis bridge adaptor > 192.168.43.xxx



- Install ssh server > untuk mengkonfigurasi web server dalam ssh server > sudo apt install openssh-server

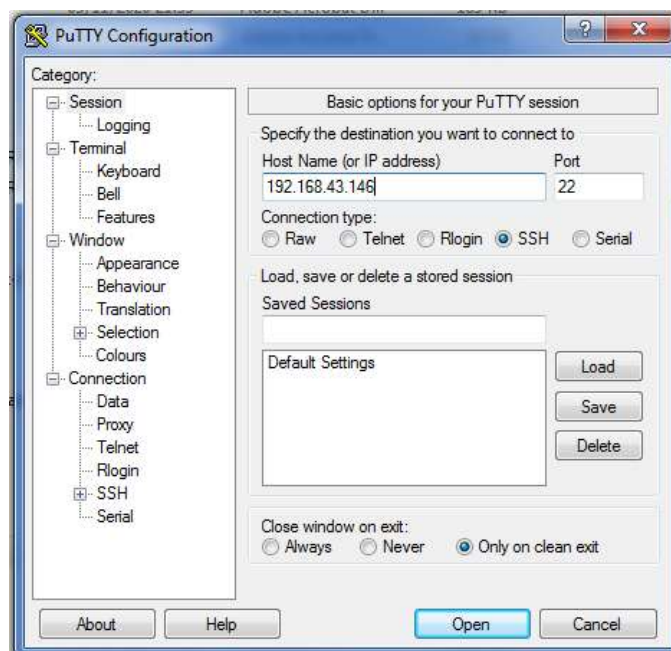
```
ranifebrianti@ubuntu:~$ sudo apt install openssh-server
[sudo] password for ranifebrianti:
```

- App sudah terinstal > cek status (aktif/belum) > sudo systemctl status ssh

```
ranifebrianti@ubuntu:~$ sudo systemctl status ssh
[sudo] password for ranifebrianti:
■ ssh.service - OpenBSD Secure Shell server
   Loaded: loaded (/lib/systemd/system/ssh.service; enabled; vendor preset: enabled)
   Active: active (running) since Tue 2020-12-01 14:34:11 WIB; 2min 16s ago
   Process: 999 ExecStartPre=/usr/sbin/sshd -t (code=exited, status=0/SUCCESS)
  Main PID: 1152 (sshd)
    Tasks: 1
   Memory: 5.0M
      CPU: 51ms
   CGroup: /system.slice/ssh.service
           └─1152 /usr/sbin/sshd -D

Dec 01 14:34:08 ubuntu systemd[1]: Starting OpenBSD Secure Shell server...
Dec 01 14:34:11 ubuntu sshd[1152]: Server listening on 0.0.0.0 port 22.
Dec 01 14:34:11 ubuntu sshd[1152]: Server listening on :: port 22.
Dec 01 14:34:11 ubuntu systemd[1]: Started OpenBSD Secure Shell server.
ranifebrianti@ubuntu:~$ _
```

- Masuk ke app PuTTY
 - Masukkan ip > 192.168.43.xxx



- Masukkan username & password

```
login as: ranifebrianti
ranifebrianti@192.168.43.146's password: █
```

- Atau langsung ke terminal Ubuntu Server > ssh username@ip > yes

```
ranifebrianti@ubuntu:~$ ssh ranifebrianti@192.168.43.146
Welcome to Ubuntu 16.04.7 LTS (GNU/Linux 4.4.0-186-generic x86_64)

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

 * Introducing self-healing high availability clusters in MicroK8s.
   Simple, hardened, Kubernetes for production, from RaspberryPi to DC.

   https://microk8s.io/high-availability

78 packages can be updated.
55 updates are security updates.

New release '18.04.5 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Mon Nov 30 23:12:44 2020 from 192.168.43.3
ranifebrianti@ubuntu:~$
```

- Masuk ke id keygen ssh > ssh-keygen -t rsa > enter > Y

```
ranifebrianti@ubuntu:~$ ssh-keygen -t rsa
Generating public/private rsa key pair.
Enter file in which to save the key (/home/ranifebrianti/.ssh/id_rsa):
/home/ranifebrianti/.ssh/id_rsa already exists.
Overwrite (y/n)? y
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/ranifebrianti/.ssh/id_rsa.
Your public key has been saved in /home/ranifebrianti/.ssh/id_rsa.pub.
The key fingerprint is:
SHA256:0kixNEXY7b6RG01JD3Z+mWFWPTHSRwd/mDH+a6JOoPs ranifebrianti@ubuntu
The key's randomart image is:
+---[RSA 2048]---+
|      =*      . =*+ |
|    ...+      .o0= |
|     oo       .+ = |
|    ..O* . + .. |
|   oBSO o + . |
|    ..B + + . |
|     . o o . o |
|      o . . o |
|     ..E.o |
+-----[SHA256]-----+
```

- Copy ssh ke directory /lib/ssh/ > menyimpan akun ssh > ssh-copy-id username@ip > enter

```
ranifebrianti@ubuntu:~$ ssh-copy-id ranifebrianti@192.168.43.146
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/home/ranifebrianti/.ssh/id_rsa.pub"
/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filter out any that are already installed
/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are prompted now it is to install the new keys
ranifebrianti@192.168.43.146's password:

Number of key(s) added: 1

Now try logging into the machine, with: "ssh 'ranifebrianti@192.168.43.146'"
and check to make sure that only the key(s) you wanted were added.
```

4. Install apache > membuat HTML sederhana

- Install web server apache > digunakan sebagai wadah untuk wordpress > sudo apt install apache2 > Y > enter

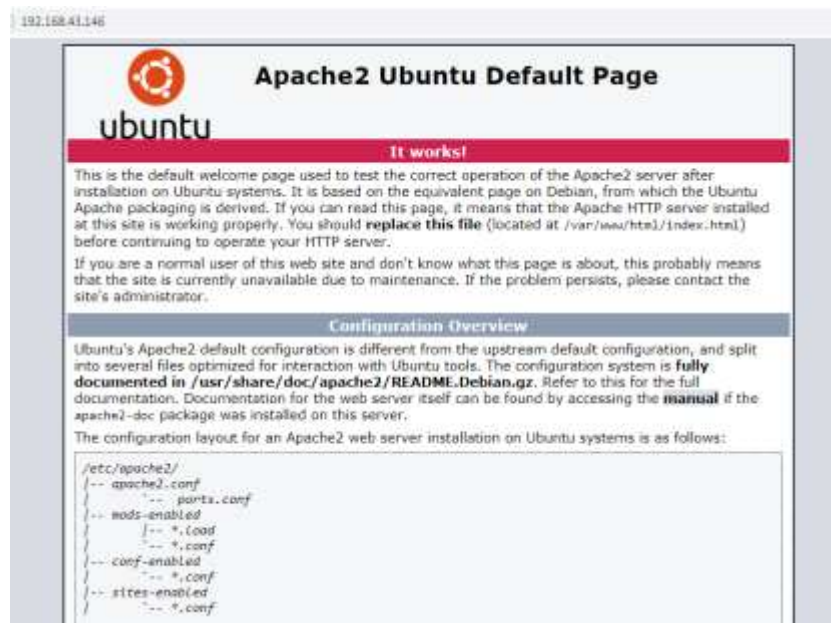
```
ranifebrianti@ubuntu:~$ sudo apt install apache2_
```

- App sudah terinstall > cek status (aktif/belum) > sudo systemctl status apache2

```
ranifebrianti@ubuntu:~$ sudo systemctl status apache2
[sudo] password for ranifebrianti:
● apache2.service - LSB: Apache2 web server
   Loaded: loaded (/etc/init.d/apache2; bad; vendor preset: enabled)
   Drop-In: /lib/systemd/system/apache2.service.d
            └─apache2-systemd.conf
   Active: active (running) since Mon 2020-11-30 22:54:19 WIB; 12h ago
     Docs: man:systemd-sysv-generator(8)
   Process: 1067 ExecStart=/etc/init.d/apache2 start (code=exited, status=0/SUCCESS)
    Tasks: 55
   Memory: 4.5M
      CPU: 6.946s
   CGroup: /system.slice/apache2.service
           └─1174 /usr/sbin/apache2 -k start
             1179 /usr/sbin/apache2 -k start
             1180 /usr/sbin/apache2 -k start

Nov 30 22:54:14 ubuntu systemd[1]: Starting LSB: Apache2 web server...
Nov 30 22:54:15 ubuntu apache2[1067]: * Starting Apache httpd web server apache2
Nov 30 22:54:18 ubuntu apache2[1067]: AH00558: apache2: Could not reliably determine the server's fu
Nov 30 22:54:19 ubuntu apache2[1067]: *
Nov 30 22:54:19 ubuntu systemd[1]: Started LSB: Apache2 web server.
lines 1-20/20 (END)
```

- Buka browser > search ip > 192.168.43.xxx



- Kembali ke terminal ubuntu > cd /var/www/html > enter > sudo nano namafilebaru.html > enter

```
ranifebrianti@ubuntu:~$ cd /var/www/html
ranifebrianti@ubuntu:/var/www/html$ sudo nano rani.html_
```

- Ketik

```
<html>
```

```
<center><h1>TUGAS PENGANTAR TELEKOMUNIKASI</h1></center>
```

```
<center><h2>SK1A INDRALAYA</h2></center>
```

```
<center><h1>ADI HERMANSYAH, S.KOM., M.T.</h1></center>
```

```
</html>
```

```
<html>
<center><h1>TUGAS PENGANTAR TELEKOMUNIKASI</h1></center>
<center><h1>RANI FEBRIANTI</h1></center>
<center><h2>SK1A INDRALAYA</h2></center>
<center><h1>ADI HERMANSYAH, S.KOM., M.T.</h1></center>
</html>
```

- Buka browser > search ip/username.html > 192.168.43.xxx/namafilebaru.html

