

Instalasi Apache2 Dalam Ubuntu Server dan Kelola Server Menggunakan SSH dan Aplikasi Putty



Disusun Oleh :

Sanvic Dicaprio (09011282227081)

Dosen Pengampu :

Adi Hermansyah, S.Kom., M.T.

**Fakultas Ilmu Komputer
Jurusan Sistem Komputer
Universitas Sriwijaya Tahun 2023-2024**

A. Cara menginstall ubuntu server dan apache2

- Siapkan ISO dari ubuntu server dan aplikasi VM (Virtual Machine). Buat VM untuk ubuntu server. Atur sumber daya pada perangkat dan jalankan ubuntu server hingga muncul tampilan awal.



- Pilih Opsi “Try or Install Ubuntu Server.” Pilih bahasa, pengaturan keyboard, aplikasi, dan pengaturan pasca instalasi lainnya. Jika instalasi telah berhasil, restart VM dan tunggu hingga tampilan OS telah siap dipakai.



- Masukkan user dan password pada tampilan “<Nama perangkat> login :”. Tunggu hingga pesan sambutan dari distro muncul. Perbarui sistem dengan

“sudo get update” dan buatlah akun root. Setelah semua telah dilakukan. Lanjutkan instalasi apache2 dengan mengetik perintah “sudo apt install apache2”

```
ubuntu@ubuntu:~$ sudo apt install apache2
[Sun Oct 22 07:21:46.332226 2023] [core:warn] [pid 1308] AH00111: Config variable ${APACHE_RUN_DIR} is not defined
apache2: Syntax error on line 80 of /etc/apache2/apache2.conf: DefaultRuntimeDir must be a valid directory, absolute or relative to ServerRoot
ubuntu@ubuntu:~$ sudo apt install apache2
[sudo] password for ubuntu:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
apache2 is already the newest version (2.4.52-1ubuntu4.6).
0 upgraded, 0 newly installed, 0 to remove and 1 not upgraded.
ubuntu@ubuntu:~$ _
```

- Periksa apakah layanan service apache2 dalam keadaan aktif atau tidak dengan mengetik “service apache2 status”

```
ubuntu@ubuntu:~$ service apache2 status
• apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: active (running) since Wed 2023-10-25 10:49:10 UTC; 3min 34s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Process: 698 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
  Main PID: 775 (apache2)
    Tasks: 55 (limit: 1013)
   Memory: 7.9M
      CPU: 125ms
   CGroup: /system.slice/apache2.service
           └─775 /usr/sbin/apache2 -k start
             └─777 /usr/sbin/apache2 -k start
               └─778 /usr/sbin/apache2 -k start

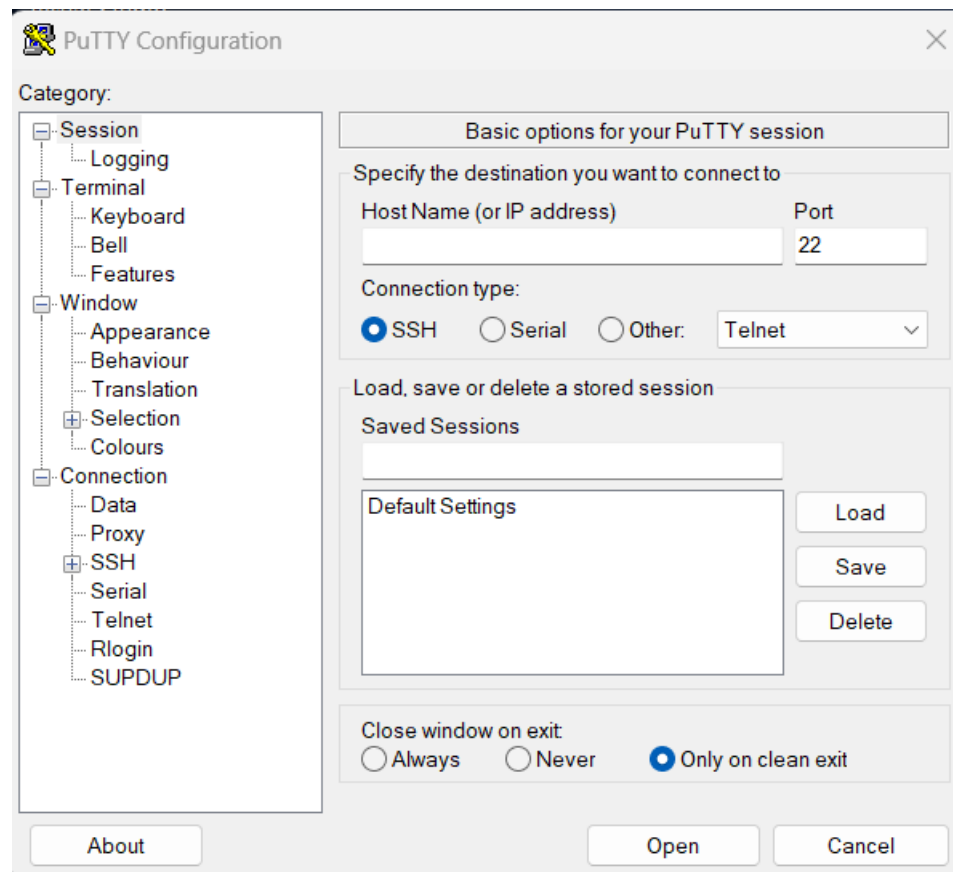
Oct 25 10:49:09 ubuntu systemd[1]: Starting The Apache HTTP Server...
Oct 25 10:49:10 ubuntu apachectl[768]: AH00558: apache2: Could not reliably determine the server's
Oct 25 10:49:10 ubuntu systemd[1]: Started The Apache HTTP Server.
lines 1-17/17 (END)
^C
ubuntu@ubuntu:~$
```

- Cek versi apache2 dengan “apache2 --version”. Untuk mengetahui apakah apache2 telah diinstal dengan benar, ketik “ip addr” pada terminal. Catat dan ketik ulang pada alamat browser. Jika berhasil, maka akan muncul pesan apache2 yang berhasil diinstalasi.

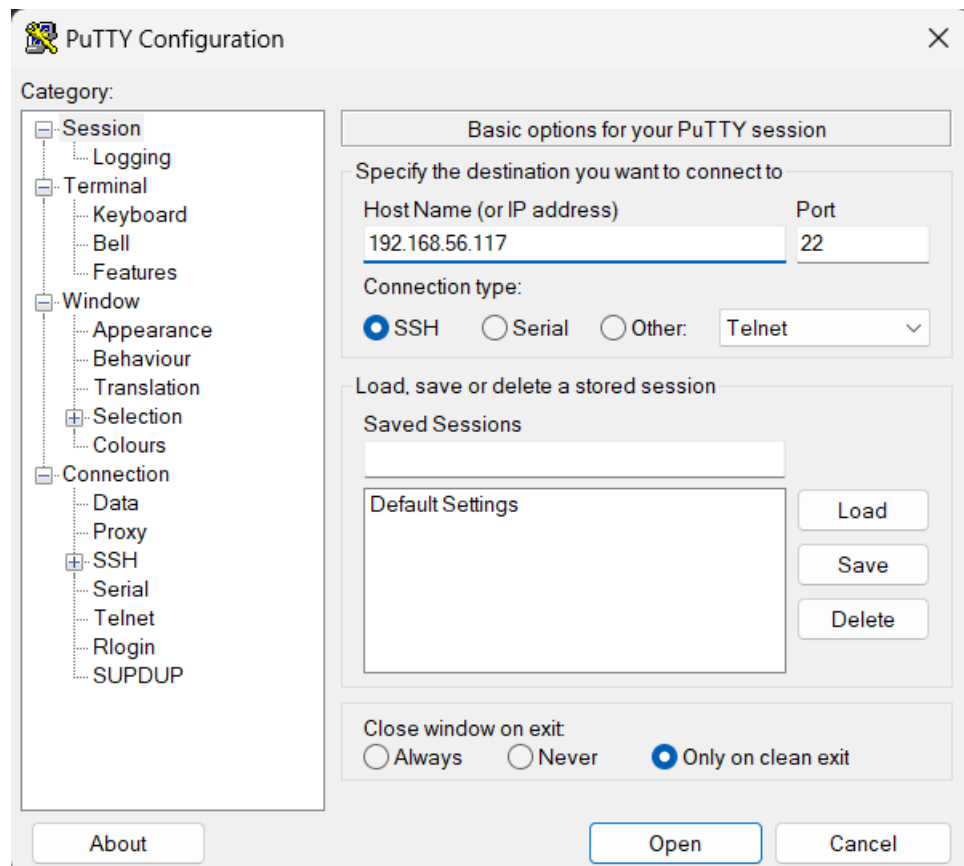


B. Cara menghubungkan server ke putty melalui alamat IP

- Pastikan ubuntu server dalam keadaan “online”. Install putty dari internet dan lanjutkan hingga tampilan awal putty.



- Ketik pada terminal ubuntu server “ip addr” untuk mengetahui IP dari ubuntu server. IP tadi ketik kembali dalam tabel “Host Name (or IP address)”.



- Klik “Open” dan masukkan username beserta password dari ubuntu servernya sendiri.

```
login as: ubuntu
ubuntu@192.168.56.117's password:
```

- Jika berhasil, akan tampil pesan yang sama saat login ke ubuntu server.

```

login as: ubuntu
ubuntu@192.168.56.117's password:
Welcome to Ubuntu 22.04.3 LTS (GNU/Linux 5.15.0-87-generic x86_64)

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

System information as of Wed Oct 25 11:10:50 AM UTC 2023

System load:  0.0087890625      Processes:            119
Usage of /:   55.2% of 9.75GB   Users logged in:     1
Memory usage: 24%              IPv4 address for enp0s3: 192.168.56.117
Swap usage:   0%

* Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
  just raised the bar for easy, resilient and secure K8s cluster deployment.

  https://ubuntu.com/engage/secure-kubernetes-at-the-edge

Expanded Security Maintenance for Applications is not enabled.

32 updates can be applied immediately.
2 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

Failed to connect to https://changelogs.ubuntu.com/meta-release-lts. Check your
Internet connection or proxy settings

Last login: Wed Oct 25 10:50:13 2023
ubuntu@ubuntu:~$

```

- Untuk membuktikan apakah putty dapat mengontrol ubuntu server itu sendiri, saya akan membuat file di direktori yang sama.

```

ubuntu@ubuntu:~$ mkdir dicaprio
ubuntu@ubuntu:~$

```

- Kembali ke ubuntu server, periksa apakah ada direktori “dicaprio” yang telah dibuat pada putty. Jika ya, artinya putty mampu mengontrol ubuntu server yang sedang online diwaktu yang sama.

```

ubuntu@ubuntu:~$ ls -l
total 4
drwxrwxr-x 2 ubuntu ubuntu 4096 Oct 25 11:16 dicaprio
ubuntu@ubuntu:~$ _

```

C. Cara menghubungkan server ke CMD dan Distro Linux menggunakan SSH

- Disini saya akan menggunakan 2 distro linux yaitu ubuntu desktop dan zorinOS yang merupakan turunan dari ubuntu. Pertama siapkan VM dan ISO dari 2 distro tersebut. ubuntu desktop. Kemudian buat dan jalankan VM hingga muncul tampilan awal distro.



- Lanjutkan penginstalan seperti instalasi ubuntu server sebelumnya. Sambil menunggu proses instalasi, saya akan menghubungkan ubuntu server dengan CMD menggunakan ssh. Buka CMD di windows, kemudian ketikkan “ssh <nama_user@IP_user>”.

```
Microsoft Windows [Version 10.0.22621.2283]
(c) Microsoft Corporation. All rights reserved.

C:\Users\dicap>ssh ubuntu@192.168.56.117
ubuntu@192.168.56.117's password:
```

- Masukkan password ubuntu. Jika muncul pesan selamat datang pada CMD, maka CMD siap digunakan untuk mengontrol ubuntu server.


```
ubuntu@ubuntu: ~  
(c) Microsoft Corporation. All rights reserved.  
  
C:\Users\dicap>ssh ubuntu@192.168.56.117  
ubuntu@192.168.56.117's password:  
Welcome to Ubuntu 22.04.3 LTS (GNU/Linux 5.15.0-87-generic x86_64)  
  
* Documentation:  https://help.ubuntu.com  
* Management:    https://landscape.canonical.com  
* Support:       https://ubuntu.com/advantage  
  
System information as of Wed Oct 25 11:48:58 AM UTC 2023  
  
System load:  0.0      Processes:            119  
Usage of /:   55.2% of 9.75GB   Users logged in:     1  
Memory usage: 25%      IPv4 address for enp0s3: 192.168.56.117  
Swap usage:   0%  
  
* Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8  
s just raised the bar for easy, resilient and secure K8s cluster deployment  
.  
  
https://ubuntu.com/engage/secure-kubernetes-at-the-edge  
  
Expanded Security Maintenance for Applications is not enabled.  
  
32 updates can be applied immediately.  
2 of these updates are standard security updates.  
To see these additional updates run: apt list --upgradable  
  
Enable ESM Apps to receive additional future security updates.  
See https://ubuntu.com/esm or run: sudo pro status  
  
Failed to connect to https://changelogs.ubuntu.com/meta-release-lts. Check y  
our Internet connection or proxy settings  
  
Last login: Wed Oct 25 11:10:50 2023 from 192.168.56.1  
ubuntu@ubuntu:~$ |
```

- Saat instalasi telah berhasil, langkah-langkah menghubungkannya dalam terminal distro linux tak jauh berbeda dengan CMD yaitu melalui ssh. Tampilkan terminal pada kedua distro tersebut. Kemudian ketik “ssh <nama_user@IP_user>” dan input kembali password ubuntu server. Maka hasilnya akan sama dengan CMD dimana akan ada pesan selamat datang pada ubuntu server itu sendiri.

```

zorin@master:~/Desktop$ ssh ubuntu@192.168.56.117
ubuntu@192.168.56.117's password:
Welcome to Ubuntu 22.04.3 LTS (GNU/Linux 5.15.0-87-generic x86_64)

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

System information as of Wed Oct 25 11:58:29 AM UTC 2023

System load:  0.08642578125   Processes:           119
Usage of /:   55.2% of 9.756B   Users logged in:     1
Memory usage: 25%             IPv4 address for enp0s3: 192.168.56.117
Swap usage:   0%

* Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
  just raised the bar for easy, resilient and secure K8s cluster deployment.

https://ubuntu.com/engage/secure-kubernetes-at-the-edge

Expanded Security Maintenance for Applications is not enabled.

32 updates can be applied immediately.
2 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

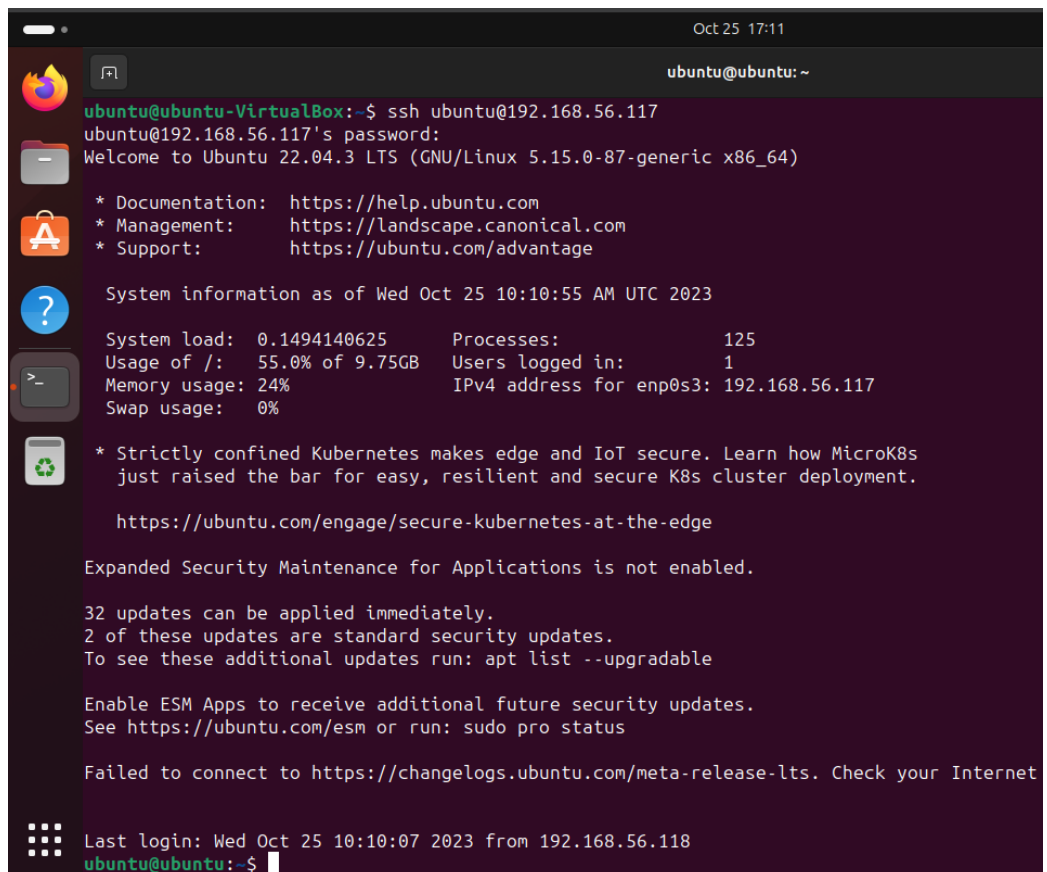
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

Failed to connect to https://changelogs.ubuntu.com/meta-release-lts. Check your Internet connection or proxy settings

Last login: Wed Oct 25 11:53:37 2023 from 192.168.56.104
ubuntu@ubuntu:~$

```

Tampilan pada terminal ZorinOS



```

Oct 25 17:11
ubuntu@ubuntu: ~
ubuntu@ubuntu-VirtualBox:~$ ssh ubuntu@192.168.56.117
ubuntu@192.168.56.117's password:
Welcome to Ubuntu 22.04.3 LTS (GNU/Linux 5.15.0-87-generic x86_64)

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

System information as of Wed Oct 25 10:10:55 AM UTC 2023

System load:  0.1494140625   Processes:           125
Usage of /:   55.0% of 9.75GB   Users logged in:     1
Memory usage: 24%             IPv4 address for enp0s3: 192.168.56.117
Swap usage:   0%

* Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
  just raised the bar for easy, resilient and secure K8s cluster deployment.

https://ubuntu.com/engage/secure-kubernetes-at-the-edge

Expanded Security Maintenance for Applications is not enabled.

32 updates can be applied immediately.
2 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

Failed to connect to https://changelogs.ubuntu.com/meta-release-lts. Check your Internet

Last login: Wed Oct 25 10:10:07 2023 from 192.168.56.118
ubuntu@ubuntu:~$

```

Tampilan pada terminal Ubuntu Desktop