

Menginstal Server Web Apache pada Ubuntu

1. sudo apt update, langkah instal yang pertama

```
ubuntu@primary: ~  
ubuntu@primary:~$ sudo apt update  
Get:1 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]  
Hit:2 http://archive.ubuntu.com/ubuntu jammy InRelease  
Get:3 http://archive.ubuntu.com/ubuntu jammy-updates InRelease [114 kB]  
Get:4 http://archive.ubuntu.com/ubuntu jammy-backports InRelease [99.8 kB]  
Get:5 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [480 kB]  
Get:6 http://archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB]  
Get:7 http://security.ubuntu.com/ubuntu jammy-security/main Translation-en [105 kB]  
Get:8 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [399 kB]  
Get:9 http://archive.ubuntu.com/ubuntu jammy/universe Translation-en [5652 kB]  
Get:10 http://archive.ubuntu.com/ubuntu jammy/universe amd64 c-n-f Metadata [286 kB]  
Get:11 http://archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [217 kB]  
Get:12 http://archive.ubuntu.com/ubuntu jammy/multiverse Translation-en [112 kB]  
Get:13 http://archive.ubuntu.com/ubuntu jammy/multiverse amd64 c-n-f Metadata [8372 B]  
Get:14 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [715 kB]  
Get:15 http://archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [162 kB]  
Get:16 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 c-n-f Metadata [10.9 kB]  
Get:17 http://archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [440 kB]  
Get:18 http://security.ubuntu.com/ubuntu jammy-security/restricted Translation-en [61.0 kB]  
Get:19 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [609 kB]  
Get:20 http://archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [67.5 kB]  
Get:21 http://archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 c-n-f Metadata [584 B]  
Get:22 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [752 kB]  
Get:23 http://security.ubuntu.com/ubuntu jammy-security/universe Translation-en [78.2 kB]  
Get:24 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 c-n-f Metadata [2408 B]  
Get:25 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [4192 B]  
Get:26 http://security.ubuntu.com/ubuntu jammy-security/multiverse Translation-en [900 B]  
Get:27 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 c-n-f Metadata [228 B]
```

2. sudo apt install apache2, untuk menginstal paket apache2, lalu ketik “y” untuk lanjut

```
ubuntu@primary: ~  
Get:23 http://security.ubuntu.com/ubuntu jammy-security/universe Translation-en [78.2 kB]  
Get:24 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 c-n-f Metadata [2408 B]  
Get:25 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [4192 B]  
Get:26 http://security.ubuntu.com/ubuntu jammy-security/multiverse Translation-en [900 B]  
Get:27 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 c-n-f Metadata [228 B]  
Get:28 http://archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [124 kB]  
Get:29 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [4404 B]  
Get:30 http://archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [7260 B]  
Get:31 http://archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [2360 B]  
Get:32 http://archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 c-n-f Metadata [420 B]  
Get:33 http://archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [3008 B]  
Get:34 http://archive.ubuntu.com/ubuntu jammy-backports/main Translation-en [1432 B]  
Get:35 http://archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [272 B]  
Get:36 http://archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B]  
Get:37 http://archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [6744 B]  
Get:38 http://archive.ubuntu.com/ubuntu jammy-backports/universe Translation-en [9360 B]  
Get:39 http://archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f Metadata [352 B]  
Get:40 http://archive.ubuntu.com/ubuntu jammy-backports/multiverse amd64 c-n-f Metadata [116 B]  
Fetched 24.7 MB in 1min 40s (247 kB/s)  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
17 packages can be upgraded. Run 'apt list --upgradable' to see them.  
ubuntu@primary:~$ sudo apt install apache2_
```

```
ubuntu@primary: ~  
[124 kB]  
Get:29 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Met  
adata [4404 B]  
Get:30 http://archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Package  
s [7260 B]  
Get:31 http://archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-e  
n [2360 B]  
Get:32 http://archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 c-n-f M  
etadata [420 B]  
Get:33 http://archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [3  
008 B]  
Get:34 http://archive.ubuntu.com/ubuntu jammy-backports/main Translation-en [1  
432 B]  
Get:35 http://archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metad  
ata [272 B]  
Get:36 http://archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f  
Metadata [116 B]  
Get:37 http://archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Package  
s [6744 B]  
Get:38 http://archive.ubuntu.com/ubuntu jammy-backports/universe Translation-e  
n [9360 B]  
Get:39 http://archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f M  
etadata [352 B]  
Get:40 http://archive.ubuntu.com/ubuntu jammy-backports/multiverse amd64 c-n-f  
Metadata [116 B]  
Fetched 24.7 MB in 1min 40s (247 kB/s)  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
17 packages can be upgraded. Run 'apt list --upgradable' to see them.  
ubuntu@primary:~$ sudo apt install apache2  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
The following additional packages will be installed:  
  apache2-bin apache2-data apache2-utils bzip2 libapr1 libaprutil1  
  libaprutil1-dbd-sqlite3 libaprutil1-ldap liblua5.3-0 mailcap mime-support  
  ssl-cert  
Suggested packages:  
  apache2-doc apache2-suexec-pristine | apache2-suexec-custom www-browser  
  bzip2-doc  
The following NEW packages will be installed:  
  apache2 apache2-bin apache2-data apache2-utils bzip2 libapr1 libaprutil1  
  libaprutil1-dbd-sqlite3 libaprutil1-ldap liblua5.3-0 mailcap mime-support  
  ssl-cert  
0 upgraded, 13 newly installed, 0 to remove and 17 not upgraded.  
Need to get 2136 kB of archives.  
After this operation, 8505 kB of additional disk space will be used.  
Do you want to continue? [Y/n]
```

3. sudo ufw app list, untuk mengecek daftar profile yang tersedia

```
ubuntu@primary: ~  
Setting up libaprutil1-dbd-sqlite3:amd64 (1.6.1-5ubuntu4) ...  
Setting up apache2-utils (2.4.52-1ubuntu4.2) ...  
Setting up apache2-bin (2.4.52-1ubuntu4.2) ...  
Setting up apache2 (2.4.52-1ubuntu4.2) ...  
Enabling module mpm_event.  
Enabling module authz_core.  
Enabling module authz_host.  
Enabling module authn_core.  
Enabling module auth_basic.  
Enabling module access_compat.  
Enabling module authn_file.  
Enabling module authz_user.  
Enabling module alias.  
Enabling module dir.  
Enabling module autoindex.  
Enabling module env.  
Enabling module mime.  
Enabling module negotiation.  
Enabling module setenvif.  
Enabling module filter.  
Enabling module deflate.  
Enabling module status.  
Enabling module reqtimeout.  
Enabling conf charset.  
Enabling conf localized-error-pages.  
Enabling conf other-vhosts-access-log.  
Enabling conf security.  
Enabling conf serve-cgi-bin.  
Enabling site 000-default.  
Created symlink /etc/systemd/system/multi-user.target.wants/apache2.service →  
/lib/systemd/system/apache2.service.  
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.service →  
/lib/systemd/system/apache-htcacheclean.service.  
Processing triggers for ufw (0.36.1-4build1) ...  
Processing triggers for man-db (2.10.2-1) ...  
Processing triggers for libc-bin (2.35-0ubuntu3.1) ...  
Scanning processes...  
Scanning linux images...  
  
Running kernel seems to be up-to-date.  
  
No services need to be restarted.  
  
No containers need to be restarted.  
  
No user sessions are running outdated binaries.  
  
No VM guests are running outdated hypervisor (qemu) binaries on this host.  
ubuntu@primary:~$ sudo ufw app list_
```

4. sudo ufw allow 'Apache', untuk mengaktifkan profil apache

```
ubuntu@primary: ~  
Enabling module authz_host.  
Enabling module authn_core.  
Enabling module auth_basic.  
Enabling module access_compat.  
Enabling module authn_file.  
Enabling module authz_user.  
Enabling module alias.  
Enabling module dir.  
Enabling module autoindex.  
Enabling module env.  
Enabling module mime.  
Enabling module negotiation.  
Enabling module setenvif.  
Enabling module filter.  
Enabling module deflate.  
Enabling module status.  
Enabling module reqtimeout.  
Enabling conf charset.  
Enabling conf localized-error-pages.  
Enabling conf other-vhosts-access-log.  
Enabling conf security.  
Enabling conf serve-cgi-bin.  
Enabling site 000-default.  
Created symlink /etc/systemd/system/multi-user.target.wants/apache2.service →  
/lib/systemd/system/apache2.service.  
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.service →  
/lib/systemd/system/apache-htcacheclean.service.  
Processing triggers for ufw (0.36.1-4build1) ...  
Processing triggers for man-db (2.10.2-1) ...  
Processing triggers for libc-bin (2.35-0ubuntu3.1) ...  
Scanning processes...  
Scanning linux images...  
  
Running kernel seems to be up-to-date.  
  
No services need to be restarted.  
  
No containers need to be restarted.  
  
No user sessions are running outdated binaries.  
  
No VM guests are running outdated hypervisor (qemu) binaries on this host.  
ubuntu@primary:~$ sudo ufw app list  
Available applications:  
  Apache  
  Apache Full  
  Apache Secure  
  OpenSSH  
ubuntu@primary:~$ sudo ufw allow 'Apache'
```

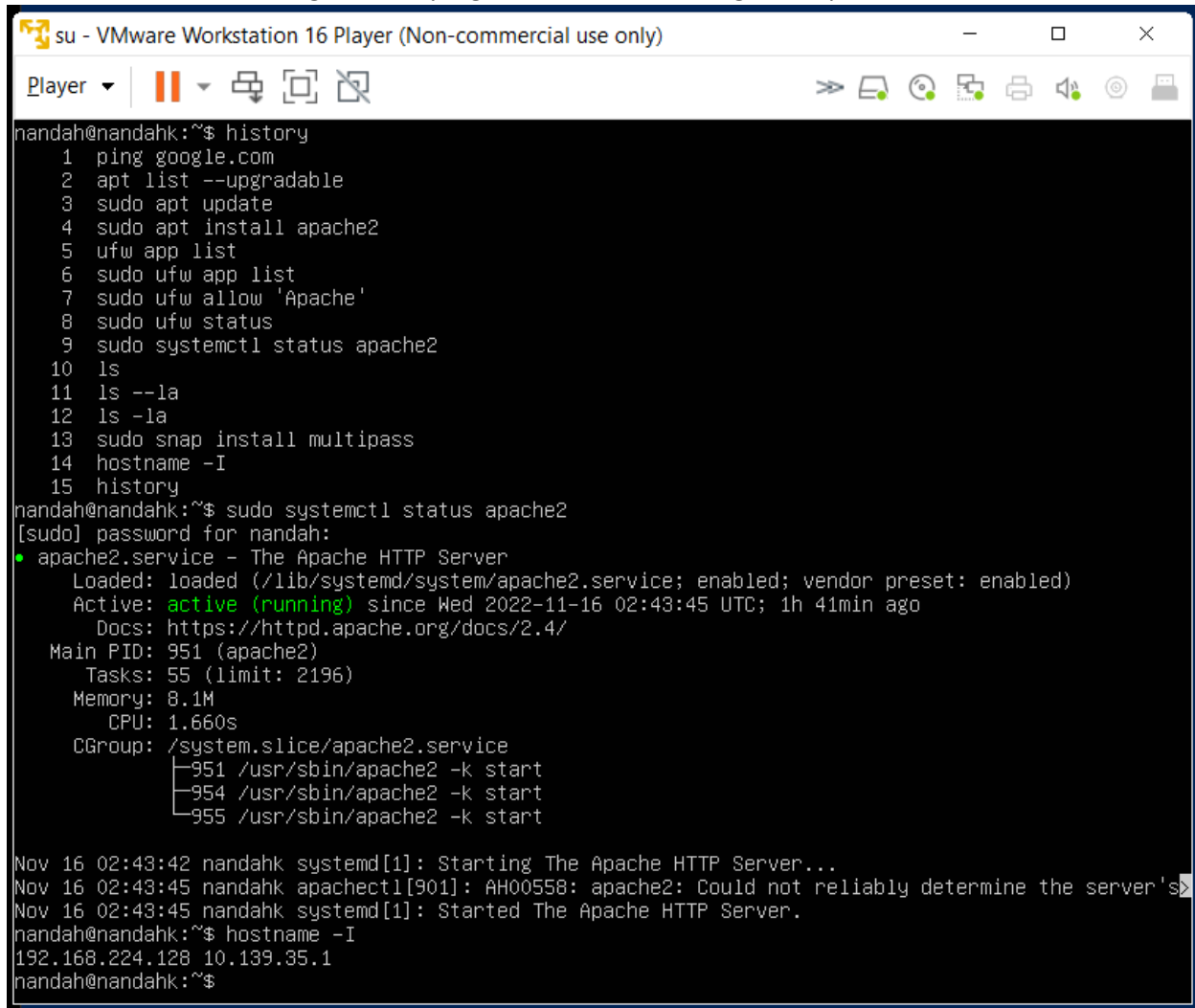
5. sudo ufw status, untuk daftar profile yang sudah di aktifkan dan mengijinkan akses ke web apache

```
ubuntu@primary: ~  
Enabling module access_compat.  
Enabling module authn_file.  
Enabling module authz_user.  
Enabling module alias.  
Enabling module dir.  
Enabling module autoindex.  
Enabling module env.  
Enabling module mime.  
Enabling module negotiation.  
Enabling module setenvif.  
Enabling module filter.  
Enabling module deflate.  
Enabling module status.  
Enabling module reqtimeout.  
Enabling conf charset.  
Enabling conf localized-error-pages.  
Enabling conf other-vhosts-access-log.  
Enabling conf security.  
Enabling conf serve-cgi-bin.  
Enabling site 000-default.  
Created symlink /etc/systemd/system/multi-user.target.wants/apache2.service →  
/lib/systemd/system/apache2.service.  
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.service →  
/lib/systemd/system/apache-htcacheclean.service.  
Processing triggers for ufw (0.36.1-4build1) ...  
Processing triggers for man-db (2.10.2-1) ...  
Processing triggers for libc-bin (2.35-0ubuntu3.1) ...  
Scanning processes...  
Scanning linux images...  
  
Running kernel seems to be up-to-date.  
  
No services need to be restarted.  
  
No containers need to be restarted.  
  
No user sessions are running outdated binaries.  
  
No VM guests are running outdated hypervisor (qemu) binaries on this host.  
ubuntu@primary:~$ sudo ufw app list  
Available applications:  
  Apache  
  Apache Full  
  Apache Secure  
  OpenSSH  
ubuntu@primary:~$ sudo ufw allow 'Apache'  
Rules updated  
Rules updated (v6)  
ubuntu@primary:~$ sudo ufw status
```


6. sudo systemctl status apache2, untuk memeriksa sistem apache yang sedang berjalan

```
ubuntu@primary: ~  
• No user sessions are running outdated binaries.  
No VM guests are running outdated hypervisor (qemu) binaries on this host.  
ubuntu@primary:~$ sudo ufw app list  
Available applications:  
  Apache  
  Apache Full  
  Apache Secure  
  OpenSSH  
ubuntu@primary:~$ sudo ufw allow 'Apache'  
Rules updated  
Rules updated (v6)  
ubuntu@primary:~$ sudo ufw status  
Status: inactive  
ubuntu@primary:~$ sudo systemctl status apache2  
● apache2.service - The Apache HTTP Server  
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor pre  
   Active: active (running) since Wed 2022-11-16 10:30:21 +07; 5min ago  
     Docs: https://httpd.apache.org/docs/2.4/  
   Main PID: 3026 (apache2)  
     Tasks: 55 (limit: 1116)  
    Memory: 5.0M  
       CPU: 115ms  
    CGroup: /system.slice/apache2.service  
            └─3026 /usr/sbin/apache2 -k start  
              └─3028 /usr/sbin/apache2 -k start  
                └─3029 /usr/sbin/apache2 -k start  
  
Nov 16 10:30:21 primary systemd[1]: Starting The Apache HTTP Server...  
Nov 16 10:30:21 primary apachectl[3025]: AH00558: apache2: Could not reliably  
Nov 16 10:30:21 primary systemd[1]: Started The Apache HTTP Server.  
lines 1-16/16 (END)
```

7. hostname -I, untuk mengetahui IP yang di berikan untuk mengakses apache



```
su - VMware Workstation 16 Player (Non-commercial use only)
Player
nandah@nandahk:~$ history
1  ping google.com
2  apt list --upgradable
3  sudo apt update
4  sudo apt install apache2
5  ufw app list
6  sudo ufw app list
7  sudo ufw allow 'Apache'
8  sudo ufw status
9  sudo systemctl status apache2
10 ls
11 ls --la
12 ls -la
13 sudo snap install multipass
14 hostname -I
15 history
nandah@nandahk:~$ sudo systemctl status apache2
[sudo] password for nandah:
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: active (running) since Wed 2022-11-16 02:43:45 UTC; 1h 41min ago
     Docs: https://httpd.apache.org/docs/2.4/
   Main PID: 951 (apache2)
     Tasks: 55 (limit: 2196)
    Memory: 8.1M
         CPU: 1.660s
    CGroup: /system.slice/apache2.service
            └─951 /usr/sbin/apache2 -k start
              └─954 /usr/sbin/apache2 -k start
                └─955 /usr/sbin/apache2 -k start

Nov 16 02:43:42 nandahk systemd[1]: Starting The Apache HTTP Server...
Nov 16 02:43:45 nandahk apachectl[901]: AH00558: apache2: Could not reliably determine the server's
Nov 16 02:43:45 nandahk systemd[1]: Started The Apache HTTP Server.
nandah@nandahk:~$ hostname -I
192.168.224.128 10.139.35.1
nandah@nandahk:~$
```

IP : 192.168.224.128

8. <http://192.168.224.128>, ketik di browser untuk memastikan bahwa apache berfungsi dengan baik

