

**LAPORAN MEMBUAT WEB SERVER  
DI UBUNTU SERVER DENGAN  
VIRTUAL BOX**



**DISUSUN OLEH:**

**NAMA : NUR ALDILLAH CHUMAIROH**

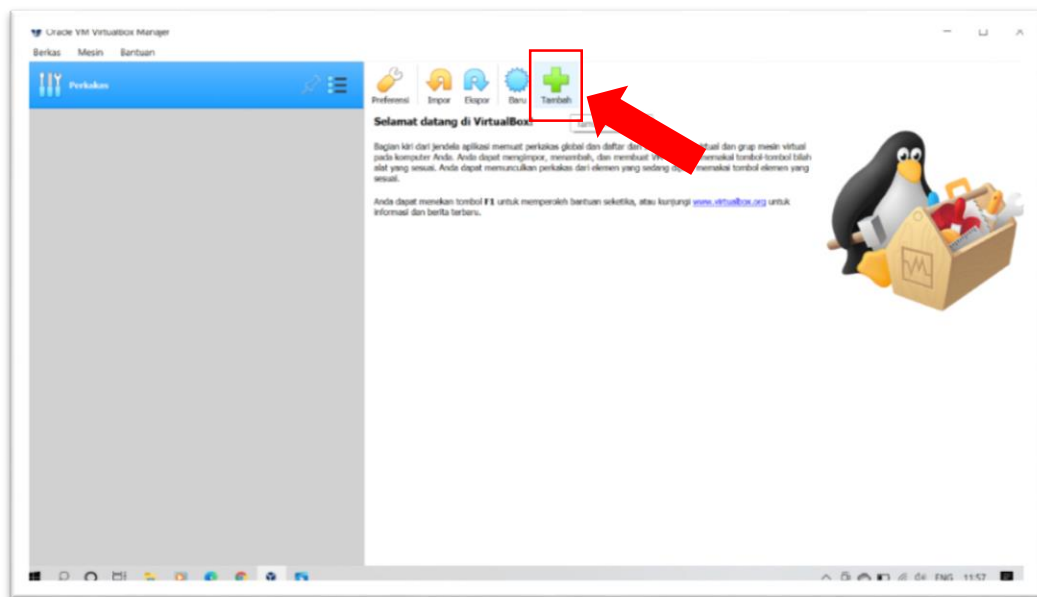
**NIM : 09011182025020**

**KELAS: SK1B INDRALAYA**

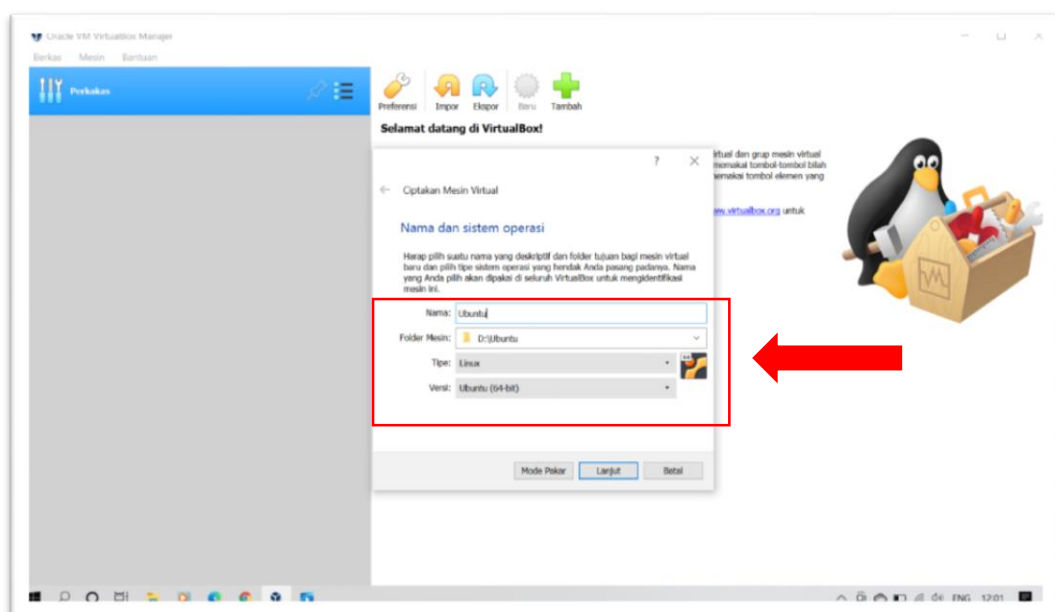
**JURUSAN SISTEM KOMPUTER  
FAKULTAS ILMU KOMPUTER  
UNIVERSITAS SRIWIJAYA**

## Cara membuat web server di Ubuntu 20.04 dengan VirtualBox

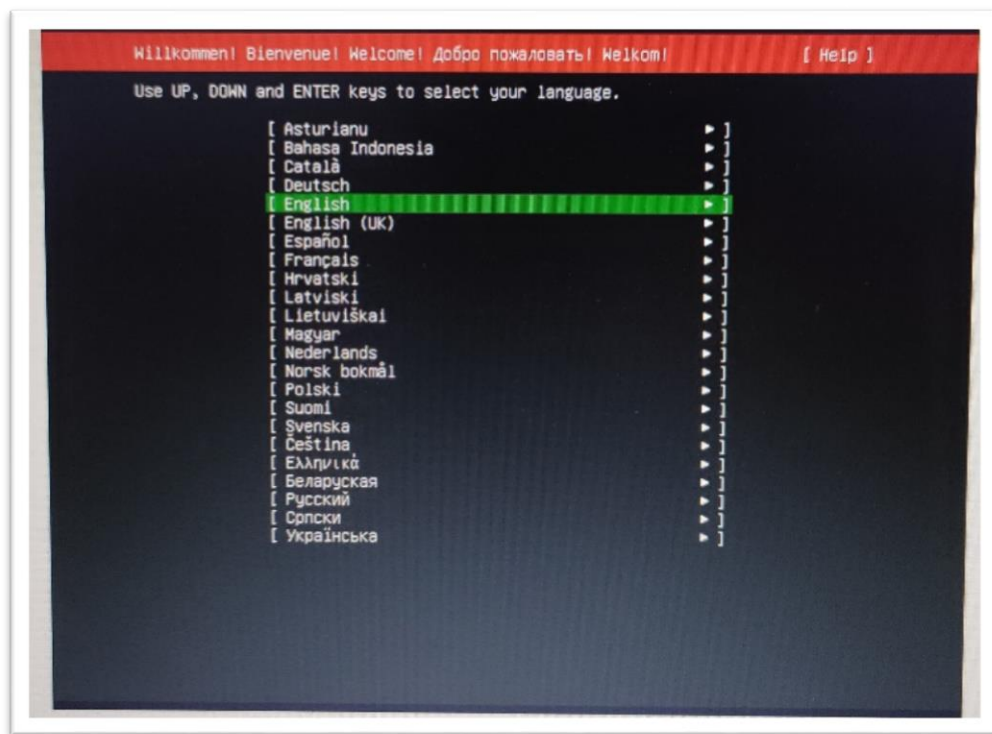
1. Buat new folder dengan nama **Ubuntu**.
2. Pada panel sebelah kiri terdapat daftar Virtual Machine. Virtual Machine adalah mesin virtual yang telah diinstal OS, jika anda membuka virtualbox pertama kali, panel tersebut akan kosong. Klik tombol **New** (baru) untuk menambahkan Virtual Machine baru.



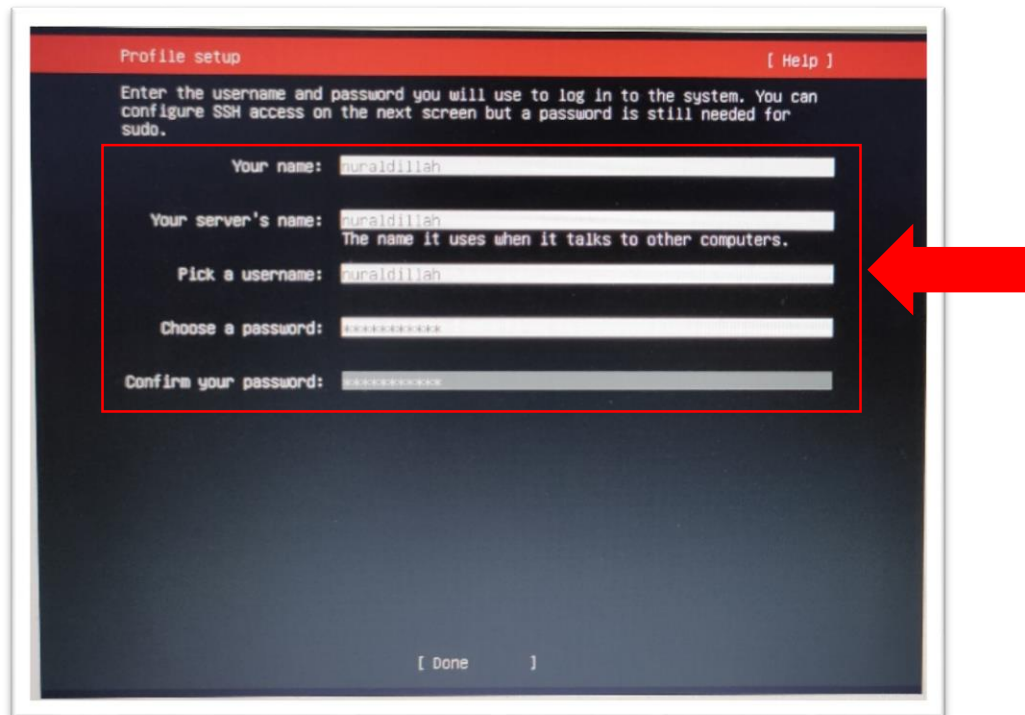
3. Isilah nama, folder name, type dan versi OS yang akan diinstall. Jika sudah tekan next (lanjut).



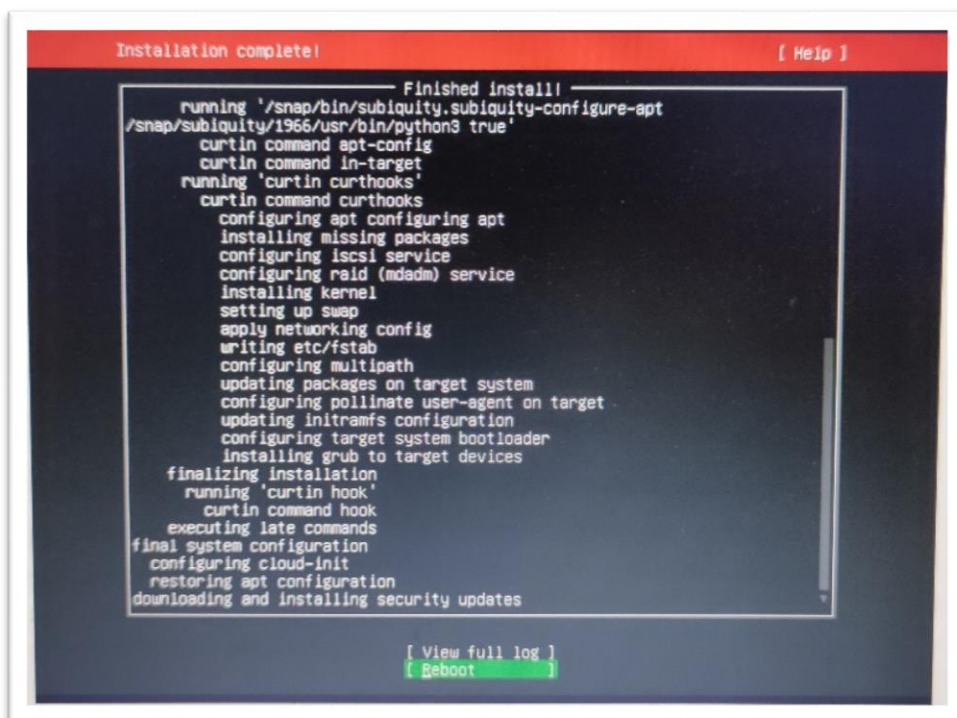
4. Kita dapat menentukan seberapa besar memory yang akan dipakai, lokasi dan ukuran berkas.
5. Pada hard disk pilih *create a virtual hard disk now* dan ketika di hard disk file type, pilih *VDI (virtualBox Disk Image)*.
6. Di Storage on physical hard disk pilih *Dynamcally allocated*. Lalu, klik Create.
7. Kemudian pada menu network (Jaringan) di setting. Pilih adapter 1 “**Bridge adapter**” dan pada adapter 2 “**NAT**”.
8. Klik **Start** untuk memulai Ubuntu servernya.
9. Lakukan instalasi seperti software pada umumnya. Kemudian, pilih bahasa yang akan digunakan.



10. Untuk dibagian proxy kosongkan saja lalu klik done.
11. Isilah dibagian your name, your server name, pick a username, choose a password, confirm your password. Kemudian, tekan Done jika sudah selesai.



12. Proses instalasi sedang berjalan, silahkan tunggu hingga proses selesai. Lalu, klik Reboot.



13. Setelah selesai, login menggunakan username dan password yang telah kita buat tadi.

```
70.113548] cloud-init[1164]: 2020-11-28 06:12:31,859 - cc_final_message.py(WARNING): Used fallback
ck datasource
[ OK ] Finished Execute cloud user/final scripts.
[ OK ] Reached target Cloud-init target.

nuraldillah login: nuraldillah
Password:
Welcome to Ubuntu 20.04.1 LTS (GNU/Linux 5.4.0-54-generic x86_64)

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

System information as of Sat 28 Nov 2020 06:19:10 AM UTC

System load:  0.0          Processes:      91
Usage of /:   52.5% of 6.01GB  Users logged in: 0
Memory usage: 9%          IPv4 address for enp0s3: 192.168.43.91
Swap usage:  0%           IPv4 address for enp0s8: 10.0.3.15

79 updates can be installed immediately.
0 of these updates are security updates.
To see these additional updates run: apt list --upgradable

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

nuraldillah@nuraldillah:~$
```

14. Ketik “**sudo apt install net-tools**” lalu enter. Kemudian, ketik “**sudo apt-get install ssh.**”

15. Jalankan perintah “**ifconfig**”. Catat IP address yang digunakan. Disini IP address yang didapatkan adalah **192.168.43.91**.

```
Created symlink /etc/systemd/system/multi-user.target.wants/ssh.service + /lib/systemd/system/ssh.s
vice.
rescue-ssh.target is a disabled or a static unit, not starting it.
Setting up ssh (1:8.2p1-4ubuntu0.1) ...
Processing triggers for ufw (0.36-6) ...
Processing triggers for systemd (245.4-4ubuntu3.2) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for libc-bin (2.31-0ubuntu9) ...
nuraldillah@nuraldillah:~$ ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.43.91 netmask 255.255.255.0 broadcast 192.168.43.255
    inet6 fe80::a00:27ff:fe26:b8a6 prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:26:b8:a6 txqueuelen 1000 (Ethernet)
    RX packets 875 bytes 1001169 (1.0 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 589 bytes 44362 (44.3 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

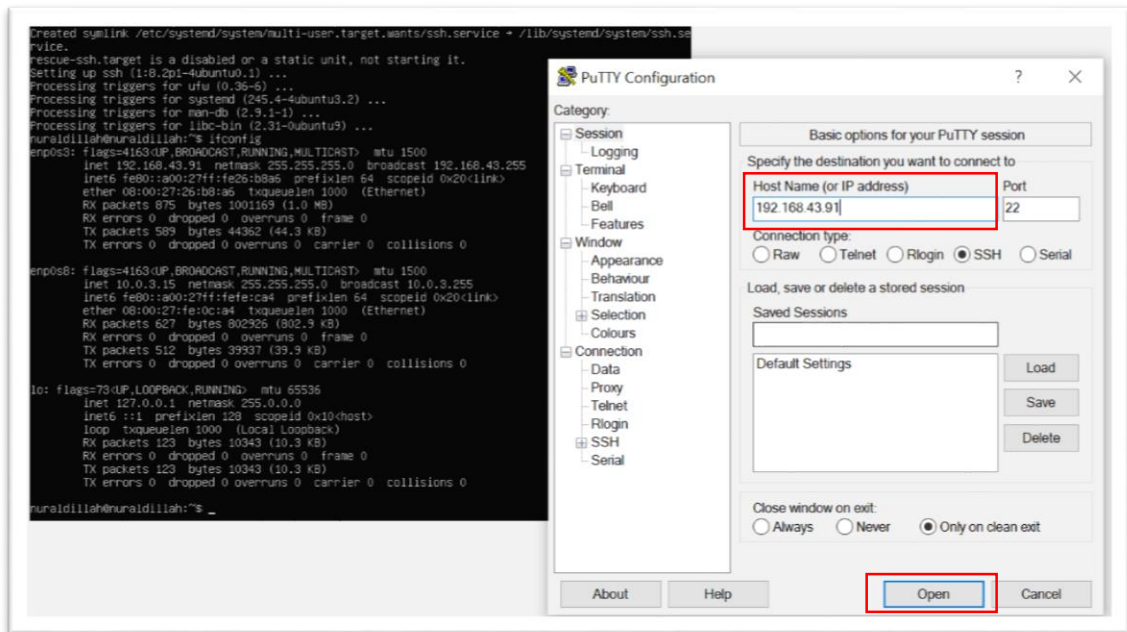
enp0s8: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.0.3.15 netmask 255.255.255.0 broadcast 10.0.3.255
    inet6 fe80::a00:27ff:fefe:ca4 prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:fe:0c:a4 txqueuelen 1000 (Ethernet)
    RX packets 627 bytes 802926 (802.9 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 512 bytes 39937 (39.9 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 123 bytes 10343 (10.3 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 123 bytes 10343 (10.3 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

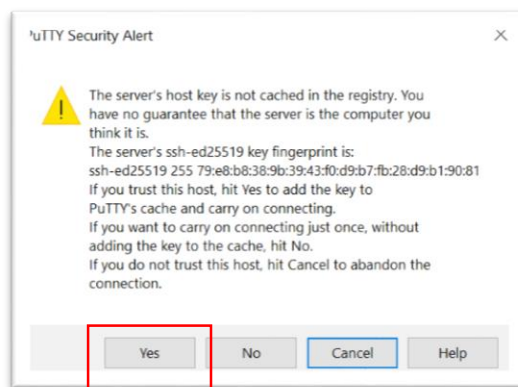
nuraldillah@nuraldillah:~$
```

16. Buka Putty. Kemudian, masukkan **192.168.43.91** di host name (IP address). Lalu klik Open.



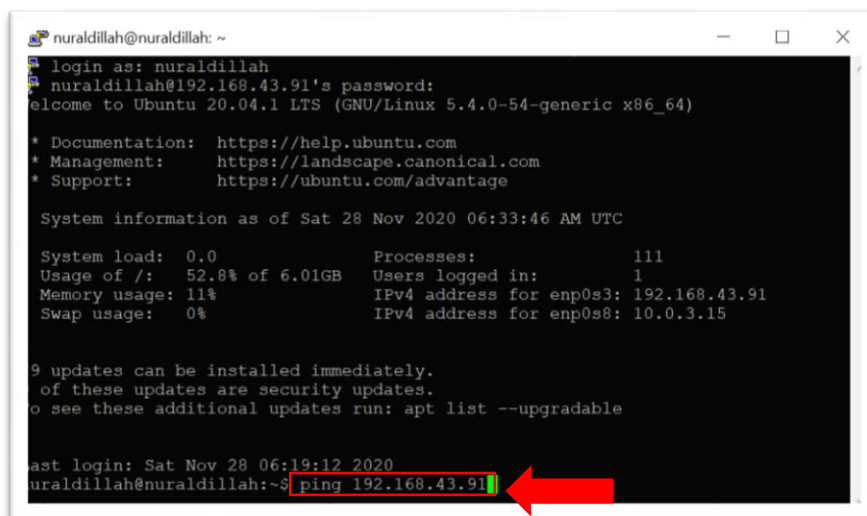


17. Jika muncul seperti gambar di bawah ini, tekan Yes.

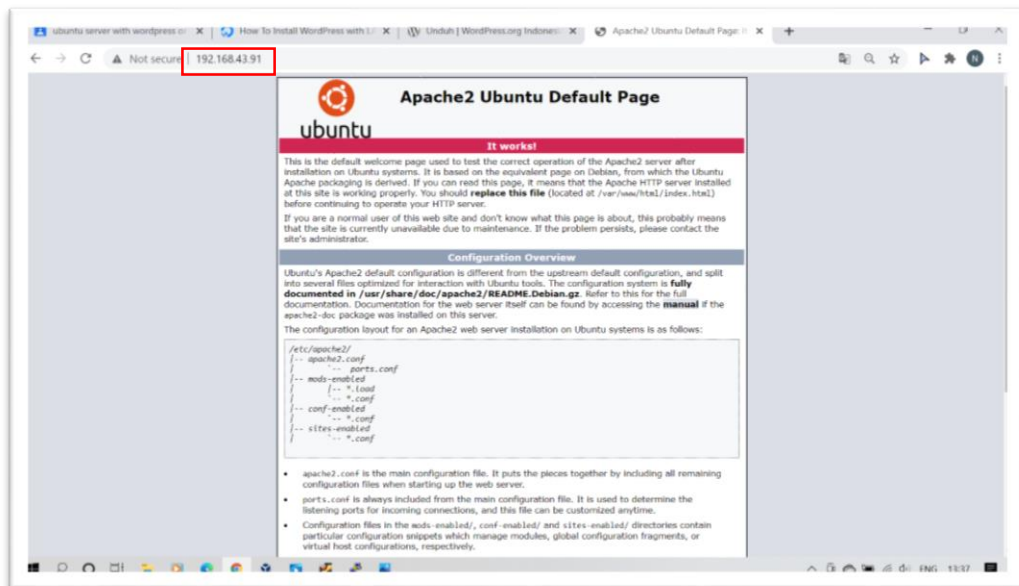


18. Login menggunakan nama user Ubuntu server dan password. Kemudian tekan Enter.

Ketik “**ping 192.168.43.91**.”



19. Selanjutnya, ketik “**sudo apt install apache2**” lalu cek di web browser (Chrome, Mozilla, Opera dll) menggunakan IP Address Server **192.168.43.91**. Kemudian akan muncul page default apache2 seperti ini.



20. Install mysql pada Ubuntu server untuk database server yang berguna untuk menyimpan dan mengolah data yang nantinya digunakan pada sebuah website.

- Ketik “**sudo apt install mysql-server**” lalu ketik “**Y**” untuk melanjutkan proses penginstalan.

```
nuraldillah@nuraldillah:~$ sudo apt install mysql-server
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
libbcgi-fast-perl libbcgi-pm-perl libencode-locale-perl libevent-core-2.1-7
libevent-pthreads-2.1-7 libfcgi-perl libhtml-parser-perl libhtml-tagset-perl
libhtml-template-perl libhttp-date-perl libhttp-message-perl libio-html-perl
liblwp-mediatypes-perl libmecab2 libtimedate-perl liburi-perl mecab-ipadic mecab-ipadic-utf8
mecab-utils mysql-client-8.0 mysql-client-core-8.0 mysql-common mysql-server-8.0
mysql-server-core-8.0
Suggested packages:
libdata-dump-perl libipc-sharedcache-perl libwww-perl mailx tinyca
The following NEW packages will be installed:
libbcgi-fast-perl libbcgi-pm-perl libencode-locale-perl libevent-core-2.1-7
libevent-pthreads-2.1-7 libfcgi-perl libhtml-parser-perl libhtml-tagset-perl
libhtml-template-perl libhttp-date-perl libhttp-message-perl libio-html-perl
liblwp-mediatypes-perl libmecab2 libtimedate-perl liburi-perl mecab-ipadic mecab-ipadic-utf8
mecab-utils mysql-client-8.0 mysql-client-core-8.0 mysql-common mysql-server mysql-server-8.0
mysql-server-core-8.0
0 upgraded, 25 newly installed, 0 to remove and 78 not upgraded.
Need to get 30.7 MB of archives.
After this operation, 249 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://id.archive.ubuntu.com/ubuntu focal/main amd64 mysql-common all 5.8+1.0.Subuntu2 [7,496
B]
Get:2 http://id.archive.ubuntu.com/ubuntu focal-updates/main amd64 mysql-client-core-8.0 amd64 8.0.2
2-0ubuntu0.20.04.2 [4,202 kB]
1% [2 mysql-client-core-8.0 1,015 B/4,202 kB 0%]
```

- Cek servis mysql dengan mengetik “**sudo systemctl status mysql.**”

```

mitting bubble-array: 100% [#####]
Reading /usr/share/mecab/dic/ipadic/matrix.def ... 1316x1316
mitting matrix : 100% [#####]

done!
update-alternatives: using /var/lib/mecab/dic/ipadic-utf8 to provide /var/lib/mecab/dic/debian (mecab-
-dictionary) in auto mode
Setting up libhtml-parser-perl (3.72-5) ...
Setting up libhttp-message-perl (6.22-1) ...
Setting up mysql-server-8.0 (8.0.22-0ubuntu0.20.04.2) ...
update-alternatives: using /etc/mysql/mysql.cnf to provide /etc/mysql/my.cnf (my.cnf) in auto mode
Renaming removed key_buffer and myisam-recover options (if present)
mysqld will log errors to /var/log/mysql/error.log
mysqld is running as pid 4779
Created symlink /etc/systemd/system/multi-user.target.wants/mysql.service + /lib/systemd/system/mysql
.service.
Setting up libcgil-pm-perl (4.46-1) ...
Setting up libhtml-template-perl (2.97-1) ...
Setting up mysql-server (8.0.22-0ubuntu0.20.04.2) ...
Setting up libcgil-fast-perl (1:2.15-1) ...
Processing triggers for systemd (245.4-4ubuntu3.2) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for libc-bin (2.31-0ubuntu9) ...
nuraldillah@nuraldillah:~$ sudo systemctl status mysql
mysql.service - MySQL Community Server
Loaded: loaded (/lib/systemd/system/mysql.service; enabled; vendor preset: enabled)
Active: active (running) since Sat 2020-11-28 07:08:45 UTC; 1min 37s ago
Main PID: 5027 (mysqld)
Status: "Server is operational"
Tasks: 37 (limit: 2274)
Memory: 329.3M
CGroup: /system.slice/mysql.service
└─5027 /usr/sbin/mysqld

Nov 28 07:08:44 nuraldillah systemd[1]: Starting MySQL Community Server...
Nov 28 07:08:45 nuraldillah systemd[1]: Started MySQL Community Server.
nuraldillah@nuraldillah:~$

```

21. Install php pada Ubuntu Server yang digunakan untuk membangun aplikasi berbasis web.

- 1) Ketik “**apt-get install php**”.
- 2) Ketik “**cd /var/www/html**”.
- 3) Ketik “**nano phpinfo.php**”.

```

Upgraded, 0 newly installed, 0 to remove and 78 not upgraded.
root@nuraldillah:/home/nuraldillah# ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.43.91 netmask 255.255.255.0 broadcast 192.168.43.255
    inet6 fe80::a00:27ff:fe26:b8a6 prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:26:b8:a6 txqueuelen 1000 (Ethernet)
    RX packets 4963 bytes 5438033 (5.4 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 2591 bytes 257664 (257.6 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

enp0s8: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.0.3.15 netmask 255.255.255.0 broadcast 10.0.3.255
    inet6 fe80::a00:27ff:fe0c:a4 prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:fe:0c:a4 txqueuelen 1000 (Ethernet)
    RX packets 25780 bytes 34753489 (34.7 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 12634 bytes 774908 (774.9 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 169 bytes 14693 (14.6 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 169 bytes 14693 (14.6 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

root@nuraldillah:/home/nuraldillah# apt-get install php
Reading package lists... Done
Building dependency tree
Reading state information... Done
php is already the newest version (2:7.4+75).
0 upgraded, 0 newly installed, 0 to remove and 78 not upgraded.
root@nuraldillah:/home/nuraldillah# cd /var/www/html
root@nuraldillah:/var/www/html# nano phpinfo.php

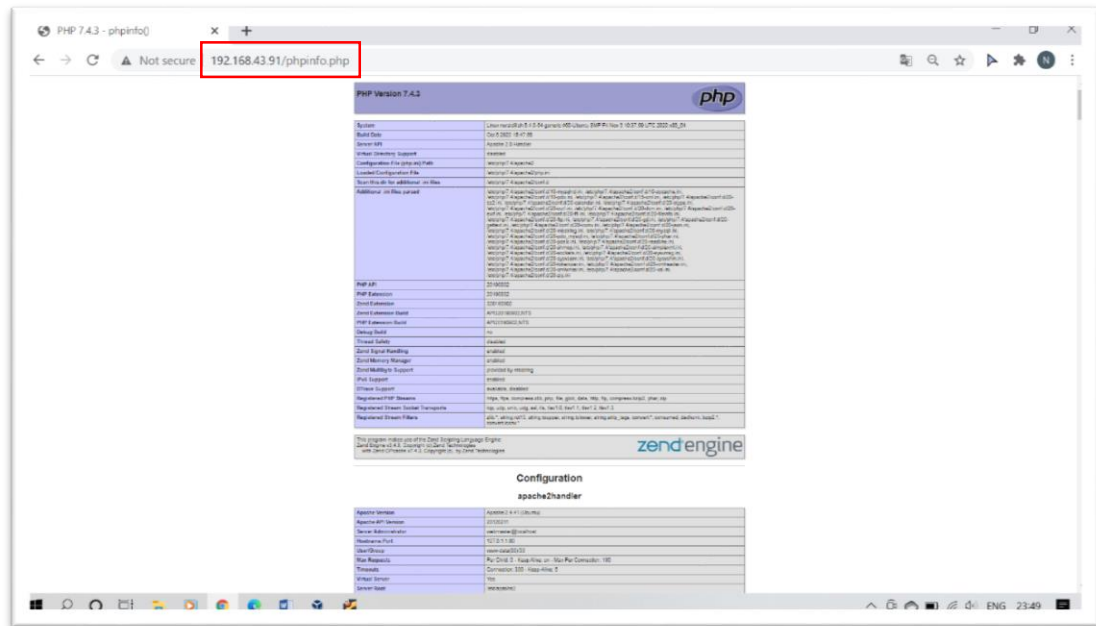
```



22. Kemudian isi script seperti di bawah ini. Lalu, save dengan menekan ctrl + x.

23. Restart apache dengan mengetik “systemctl restart apache2.service”

24. Test php di google dengan [alamat IP/phpinfo.php].



25. Kemudian, Install phpmyadmin dengan mengetik “**apt-get install phpmyadmin**”.
- Lalu enter.

```
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
inet 127.0.0.1 netmask 255.0.0.0
inet6 ::1 prefixlen 128 scopeid 0x10<host>
loop txqueuelen 1000 (Local Loopback)
RX packets 175 bytes 15359 (15.3 KB)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 175 bytes 15359 (15.3 KB)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

root@nuraldillah:/var/www/html# apt-get install phpmyadmin
Reading package lists... Done
Building dependency tree
Reading state information... Done
phpmyadmin is already the newest version (4:4.9.5+dfsg1-2).
0 upgraded, 0 newly installed, 0 to remove and 78 not upgraded.
root@nuraldillah:/var/www/html# sudo ln -s /etc/phpmyadmin/apache.conf /etc/apache2/conf-available/p
phpmyadmin.conf
ln: failed to create symbolic link '/etc/apache2/conf-available/phpmyadmin.conf': File exists
root@nuraldillah:/var/www/html# sudo ln -s /etc/phpmyadmin/apache.conf /etc/apache2/conf-available/p
phpmyadmin.conf
ln: failed to create symbolic link '/etc/apache2/conf-available/phpmyadmin.conf': File exists
root@nuraldillah:/var/www/html# sudo cu
root@nuraldillah:/var/www/html# apt-get install phpmyadmin
Reading package lists... Done
Building dependency tree
Reading state information... Done
phpmyadmin is already the newest version (4:4.9.5+dfsg1-2).
0 upgraded, 0 newly installed, 0 to remove and 78 not upgraded.
root@nuraldillah:/var/www/html# sudo ln -s /etc/phpmyadmin/apache.conf /etc/apache2/conf-available/p
phpmyadmin.conf
root@nuraldillah:/var/www/html# sudo a2enconf phpmyadmin
Enabling conf phpmyadmin.
To activate the new configuration, you need to run:
    systemctl reload apache2
root@nuraldillah:/var/www/html# sudo service apache2 reload
root@nuraldillah:/var/www/html#
```

Jika sudah install tapi eror untuk versi Ubuntu 20.04, maka harus di aktifkan terlebih dahulu dengan cara mengetik:

- **sudo ln -s /etc/phpmyadmin/apache.conf /etc/apache2/conf-available/phpmyadmin.conf**
- **sudo a2enconf phpmyadmin**
- **sudo service apache2 reload**

```

o: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 175 bytes 15359 (15.3 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 175 bytes 15359 (15.3 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

root@nuraldillah:/var/www/html# apt-get install phpmyadmin
Reading package lists... Done
Building dependency tree
Reading state information... Done
phpmyadmin is already the newest version (4:4.9.5+dfsg1-2).
0 upgraded, 0 newly installed, 0 to remove and 78 not upgraded.
root@nuraldillah:/var/www/html# sudo ln -s /etc/phpmyadmin/apache.conf /etc/apache2/conf-available/p
phpmyadmin.conf
ln: failed to create symbolic link '/etc/apache2/conf-available/phpmyadmin.conf': File exists
root@nuraldillah:/var/www/html# sudo ln -s /etc/phpmyadmin/apache.conf /etc/apache2/conf-available/p
phpmyadmin.conf
ln: failed to create symbolic link '/etc/apache2/conf-available/phpmyadmin.conf': File exists
root@nuraldillah:/var/www/html# sudo su
root@nuraldillah:/var/www/html# apt-get install phpmyadmin
Reading package lists... Done
Building dependency tree
Reading state information... Done
phpmyadmin is already the newest version (4:4.9.5+dfsg1-2).
0 upgraded, 0 newly installed, 0 to remove and 78 not upgraded.
root@nuraldillah:/var/www/html# sudo ln -s /etc/phpmyadmin/apache.conf /etc/apache2/conf-available/p
phpmyadmin.conf
root@nuraldillah:/var/www/html# sudo a2enconf phpmyadmin
Enabling conf phpmyadmin.
To activate the new configuration, you need to run:
    systemctl reload apache2
root@nuraldillah:/var/www/html# sudo service apache2 reload
root@nuraldillah:/var/www/html#

```

26. Kemudian kita bisa tes masuk ke mysql dengan mengetik “**mysql -u root -p**” kemudian exit jika sudah selesai.

```

phpmyadmin.conf
ln: failed to create symbolic link '/etc/apache2/conf-available/phpmyadmin.conf': File exists
root@nuraldillah:/var/www/html# sudo ln -s /etc/phpmyadmin/apache.conf /etc/apache2/conf-available/p
phpmyadmin.conf
ln: failed to create symbolic link '/etc/apache2/conf-available/phpmyadmin.conf': File exists
root@nuraldillah:/var/www/html# sudo su
root@nuraldillah:/var/www/html# apt-get install phpmyadmin
Reading package lists... Done
Building dependency tree
Reading state information... Done
phpmyadmin is already the newest version (4:4.9.5+dfsg1-2).
0 upgraded, 0 newly installed, 0 to remove and 78 not upgraded.
root@nuraldillah:/var/www/html# sudo ln -s /etc/phpmyadmin/apache.conf /etc/apache2/conf-available/p
phpmyadmin.conf
root@nuraldillah:/var/www/html# sudo a2enconf phpmyadmin
Enabling conf phpmyadmin.
To activate the new configuration, you need to run:
    systemctl reload apache2
root@nuraldillah:/var/www/html# sudo service apache2 reload
root@nuraldillah:/var/www/html# exit
exit
root@nuraldillah:/var/www/html# sudo su
root@nuraldillah:/var/www/html# mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 20
Server version: 8.0.22-0ubuntu0.20.04.2 (Ubuntu)

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affiliates. Other names may be trademarks of their respective
owners.

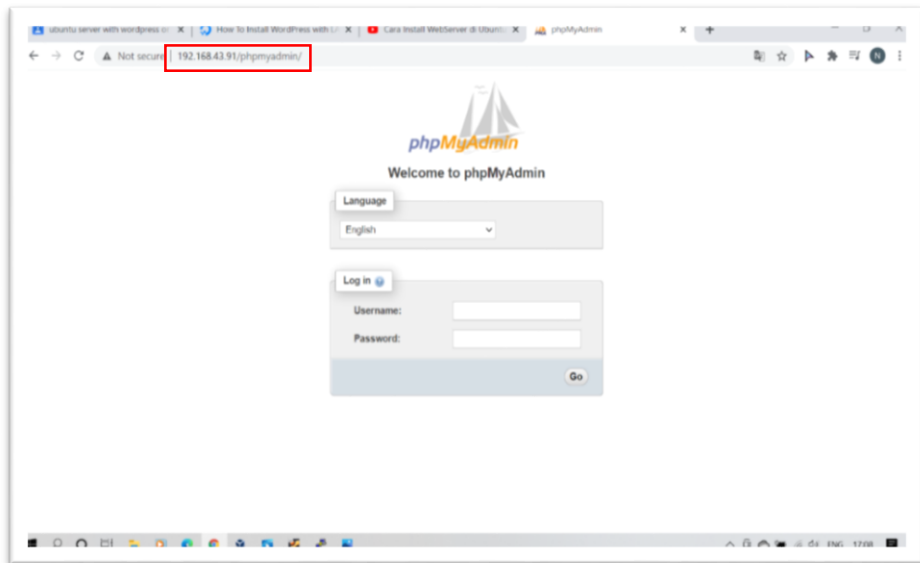
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> _

```

27. Test di browser host dengan mengetik [alamat IP/phpmyadmin] dan akan muncul seperti gambar di bawah.





28. Selanjutnya, kita akan membuat web sederhana.

1) Buka direktori dengan mengetik “**cd /var/www/html/**” lalu tekan enter.

2) Ketik:

- **# mkdir (nama web)**
- **# cd (nama web)**
- **# touch index.html**

29. Kemudian, ketik “**nano index.html**”. Kita akan di arahkan untuk membuat file HTML. Jika sudah selesai, save menggunakan **ctrl + x**.

```

html>
head>
<title>Pengantar Telekomunikasi</title>
</head>

body>
<center><h1 style="color:orange">PENGANTAR TELEKOMUNIKASI</h1></center>
<center><h2 style="color:orange">UNIVERSITAS SRIWIJAYA</h2></center>
<hr />

<p>
<style="left"><b>Nama : Nur Aldillah Chumairoh</b><br>
<b>Nim : 09011182025020</b><br>
<b>Kelas : SK1B</b><br>
</p>

<h2 style="text-transform: capitalize;"><align="left">TUGAS: Ubuntu Server with Wordpress or HTML b
</h2>
<ol>
<li>Bikin Ubuntu server di Virtual Box</li>
<li>Konfigurasi ssh</li>
<li>Install Putty</li>
<li>Remote by Putty or remote ssh terminal</li>
<li>Buat aplikasi wordpress di Ubuntu server or HTML</li>
</ol>

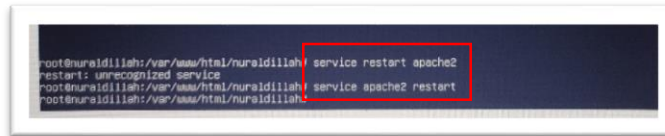
</body>
</html>

root@nuraldillah:/var/www/html/nuraldillah# service restart apache2
restart: unrecognized service
root@nuraldillah:/var/www/html/nuraldillah# service apache2 restart
root@nuraldillah:/var/www/html/nuraldillah#

```



30. Kita perlu merestart apache2 dengan mengetik “**# service restart apache2**” dan “**# service apache2 restart**”.



```
root@nuraldillah:/var/www/html/nuraldillah# service restart apache2
Restarting nginx: [ OK ]
root@nuraldillah:/var/www/html/nuraldillah# service apache2 restart
Restarting Apache2: [ OK ]
```

31. Selanjutnya, kita bisa cek di browser dengan mengetik [**IP/(nama web yang sudah dibuat tadi)**] dan hasilnya akan seperti di bawah ini.

