

Nama : A. Haikal Dipotara

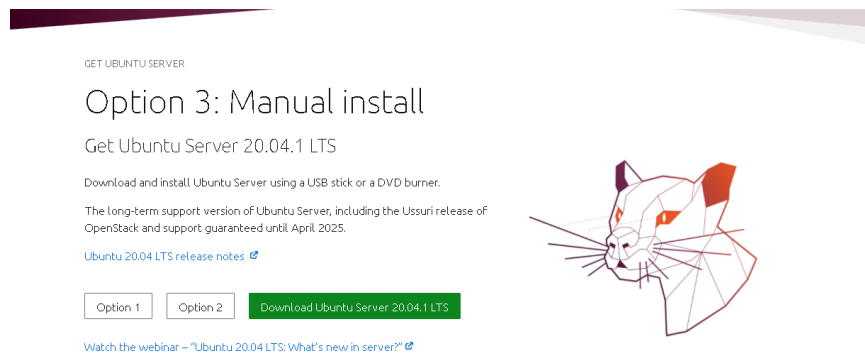
NIM : 09011282025044

Kelas : SK1B

1. Bikin ubuntu server di VirtualBox

a. download ubuntu server

pertama yaitu download ubuntu server di <https://ubuntu.com/download/server>. buka Option 3. lalu klik download



b. Download VirtualBox

kedua yaitu download virtualbox di <https://www.virtualbox.org/wiki/Downloads>.

VirtualBox binaries

By downloading, you agree to the terms and conditions of the respective license.

If you're looking for the latest VirtualBox 6.0 packages, see [VirtualBox 6.0 builds](#). Please also use version 6.0 if you need to run VMs with software virtualization, as this has been discontinued in 6.1. Version 6.0 will remain supported until July 2020.

If you're looking for the latest VirtualBox 5.2 packages, see [VirtualBox 5.2 builds](#). Please also use version 5.2 if you still need support for 32-bit hosts, as this has been discontinued in 6.0. Version 5.2 will remain supported until July 2020.

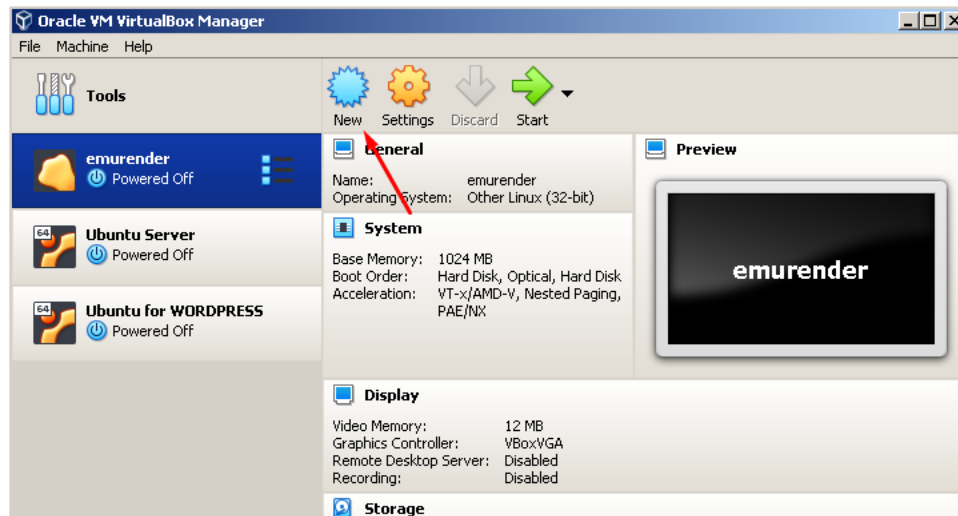
VirtualBox 6.1.16 platform packages

- [Windows hosts](#)
- [OS X hosts](#)
- [Linux distributions](#)
- [Solaris hosts](#)

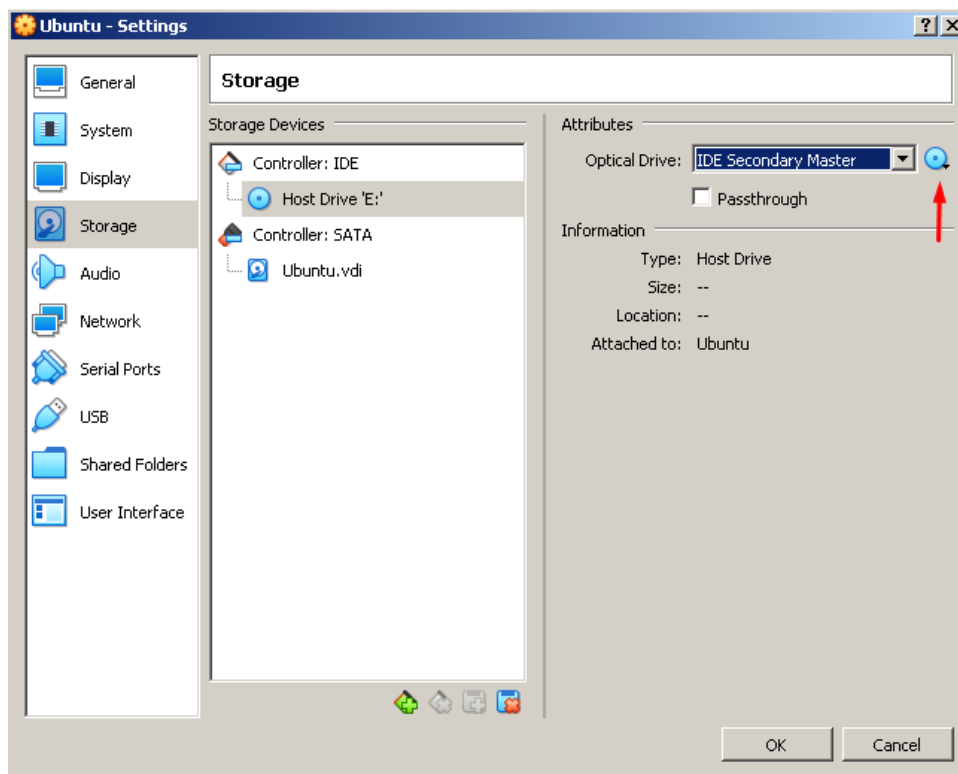
download sesuai OS sekarang.

c. install ubuntu server di VirtualBox

buka virtualbox lalu click new, lalu beri nama terus ganti typenya ke linux, versionnya ubuntu (64-bit) klik next terus hingga selesai.



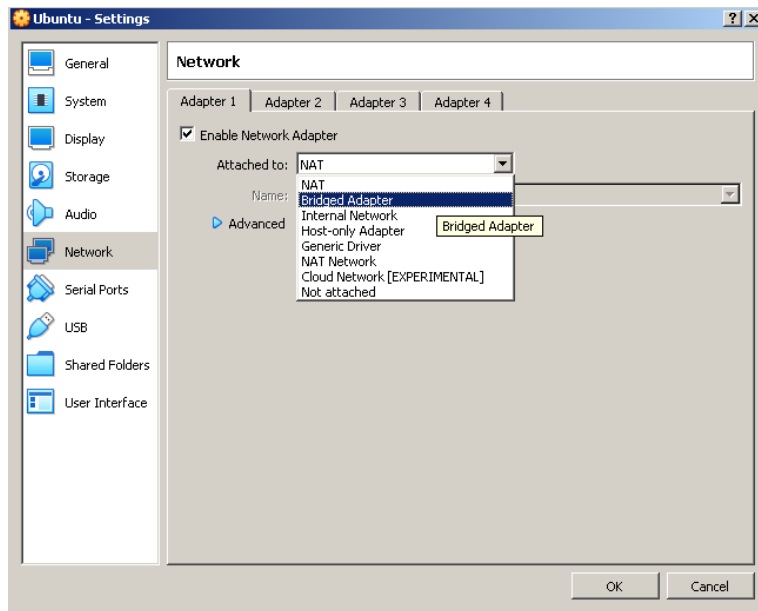
setelah selesai, buka setting , buka bagian storage, klik bagian kaset lalu choose a disk file.



. lalu klik ubuntu server yang telah kita download , lalu open dan Ok.

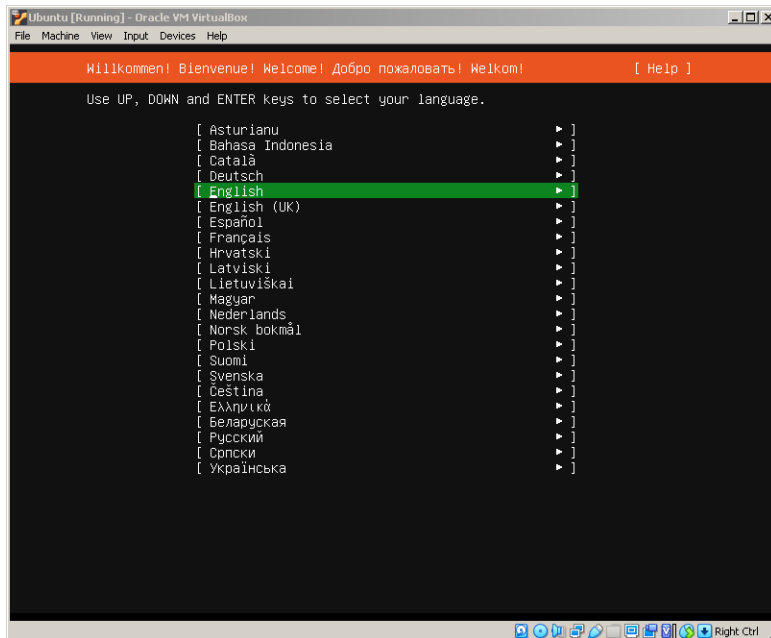


lalu klik setting lagi , masuk ke bagian network, ganti attached to dari **NAT**, ke **bridged adapter**, klik advanced , ganti promiscuous Mode ke **Allow All** klik ok, dan jalankan ubuntu server nya

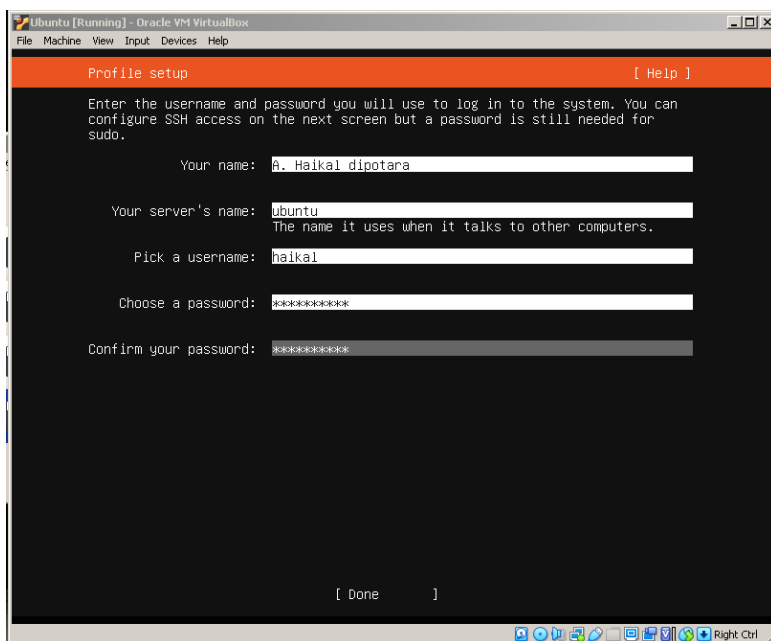


booting Ubuntu server

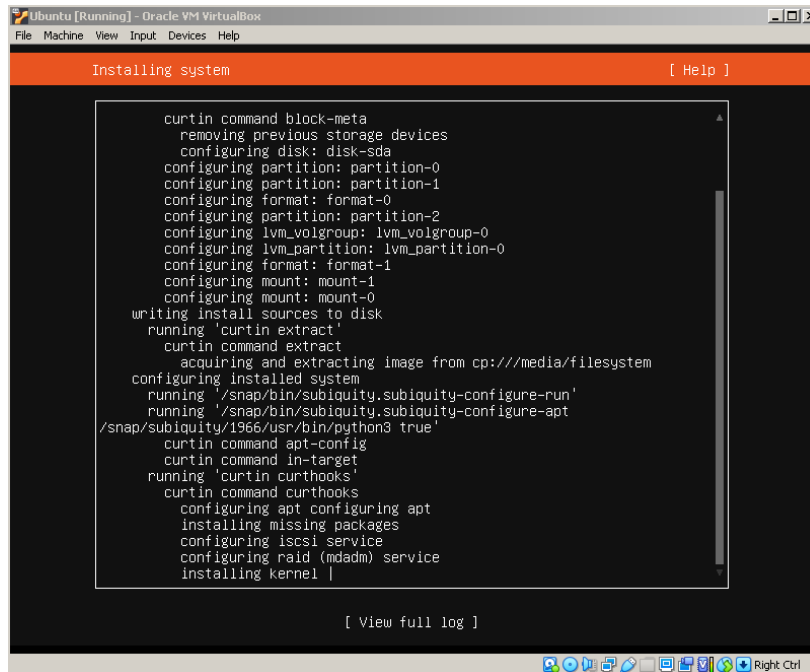
setelah tampilan seperti dibawah ini, pilih bagian default saja seperti bahasa inggris, klik enter



lalu klik enter terus sampai ke tampilan seperti ini masukan nama , nama server dan password sesuai yang diinginkan. lalu done



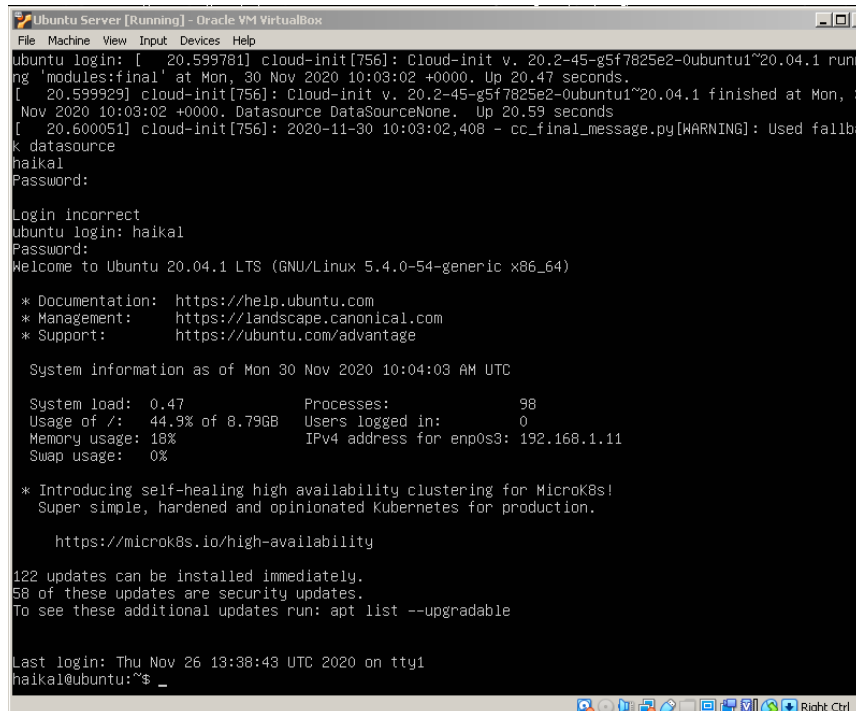
terus klik done terus hingga selesai. setelah selesai nanti reboot



```
curtin command block-meta
removing previous storage devices
configuring disk: disk-sda
configuring partition: partition-0
configuring partition: partition-1
configuring format: format-0
configuring partition: partition-2
configuring lvm_voigroup: lvm_voigroup-0
configuring lvm_partition: lvm_partition-0
configuring format: format-1
configuring mount: mount-1
configuring mount: mount-0
writing install sources to disk
running 'curtin extract'
curtin command extract
acquiring and extracting image from cp:///media/filesystem
configuring installed system
running '/snap/bin/subiquity.subiquity-configure-run'
running '/snap/bin/subiquity.subiquity-configure-apt'
/snap/bin/subiquity/1966/usr/bin/python3 true
curtin command apt-config
curtin command in-target
running 'curtin curthooks'
curtin command curthooks
configuring apt configuring apt
installing missing packages
configuring iscsi service
configuring raid (mdadm) service
installing kernel |

[ View full log ]
```

jika tampilan seperti ini masukan username dan password . ubuntu server sudah bisa digunakan.



```
Ubuntu login: [ 20.599781] cloud-init[756]: Cloud-init v. 20.2-45-g5f7825e2-0ubuntu1~20.04.1 runn
ing 'modules:final' at Mon, 30 Nov 2020 10:03:02 +0000. Up 20.47 seconds.
[ 20.599929] cloud-init[756]: Cloud-init v. 20.2-45-g5f7825e2-0ubuntu1~20.04.1 finished at Mon, 3
Nov 2020 10:03:02 +0000. DataSource DataSourceNone. Up 20.59 seconds
[ 20.600051] cloud-init[756]: 2020-11-30 10:03:02,408 - cc_final_message.py[WARNING]: Used fallback
k_datasource
haikal
Password:
Login incorrect
ubuntu login: haikal
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 Mon 30 Nov 2020 10:04:03 AM UTC

System load:  0.47          Processes:           98
Usage of /:   44.9% of 8.79GB Users logged in:          0
Memory usage: 18%          IPv4 address for enp0s3: 192.168.1.11
Swap usage:   0%

 * Introducing self-healing high availability clustering for MicroK8s!
   Super simple, hardened and opinionated Kubernetes for production.

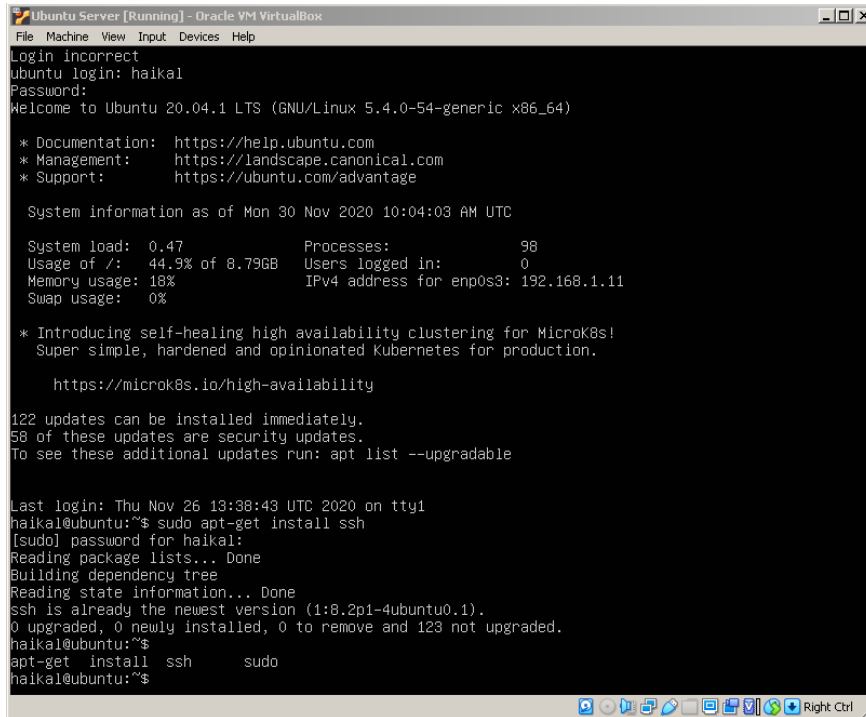
   https://microk8s.io/high-availability

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

Last login: Thu Nov 26 13:38:43 UTC 2020 on tty1
haikal@ubuntu:~$ _
```

2. Konfigurasi SSH

setelah login di ubuntu server, ketik `$ sudo apt-get install ssh`, masukkan password, hanya dengan mengetik perintah seperti itu saja SSH server pun sudah berhasil di install.



```
Ubuntu Server [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Login incorrect
ubuntu login: haikal
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 Mon 30 Nov 2020 10:04:03 AM UTC

System load:  0.47               Processes:           98
Usage of /:   44.9% of 8.79GB     Users logged in:    0
Memory usage: 18%               IPv4 address for enp0s3: 192.168.1.11
Swap usage:   0%

 * Introducing self-healing high availability clustering for MicroK8s!
   Super simple, hardened and opinionated Kubernetes for production.

   https://microk8s.io/high-availability

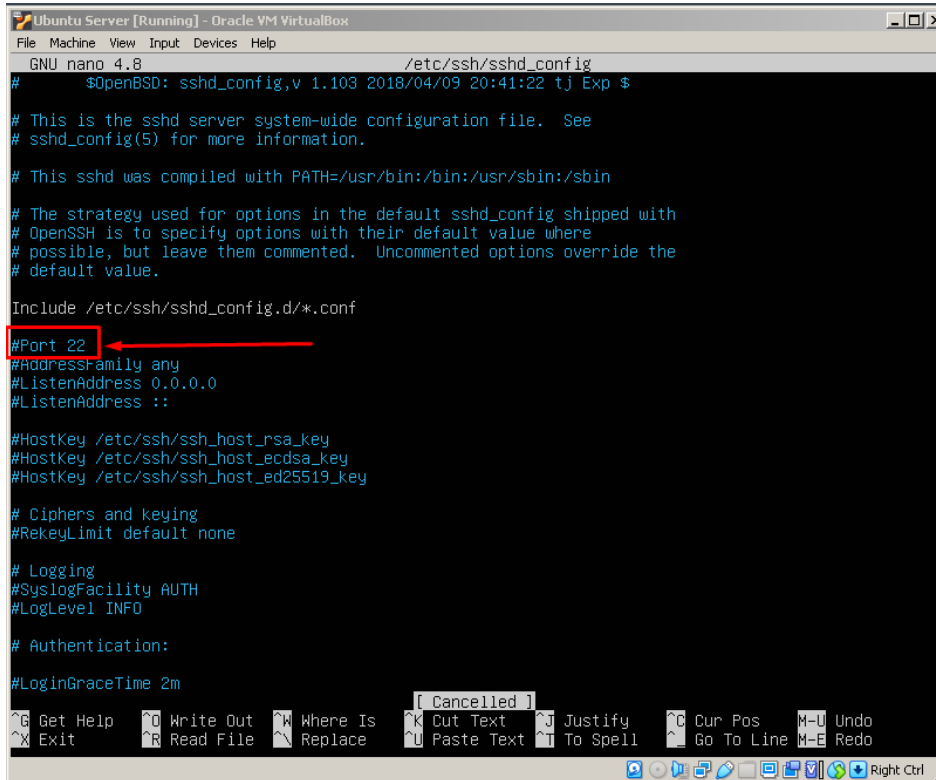
122 updates can be installed immediately.
58 of these updates are security updates.
To see these additional updates run: apt list --upgradable

Last login: Thu Nov 26 13:38:43 UTC 2020 on tty1
haikal@ubuntu:~$ sudo apt-get install ssh
[sudo] password for haikal:
Reading package lists... Done
Building dependency tree
Reading state information... Done
ssh is already the newest version (1:8.2p1-4ubuntu0.1).
0 upgraded, 0 newly installed, 0 to remove and 123 not upgraded.
haikal@ubuntu:~$
apt-get install ssh      sudo
haikal@ubuntu:~$
```

agar ubuntu server yang sudah terinstall SSH bisa aman dari serangan brute force make sebaiknya kita ubah port defaultnya.

caranya ketikkan perintah berikut `$ sudo nano /etc/ssh/sshd_config` .

File Konfigurasi sshd_config akan terlihat seperti gambar dibawah.



```
GNU nano 4.8 /etc/ssh/sshd_config
# $OpenBSD: sshd_config,v 1.103 2018/04/09 20:41:22 tj Exp $

# This is the sshd server system-wide configuration file. See
# sshd_config(5) for more information.

# This sshd was compiled with PATH=/usr/bin:/bin:/usr/sbin:/sbin

# The strategy used for options in the default sshd_config shipped with
# OpenSSH is to specify options with their default value where
# possible, but leave them commented. Uncommented options override the
# default value.

Include /etc/ssh/sshd_config.d/*.conf
#Port 22
#AddressFamily any
#ListenAddress 0.0.0.0
#ListenAddress ::

#HostKey /etc/ssh/ssh_host_rsa_key
#HostKey /etc/ssh/ssh_host_ecdsa_key
#HostKey /etc/ssh/ssh_host_ed25519_key

# Ciphers and keying
#RekeyLimit default none

# Logging
#SyslogFacility AUTH
#LogLevel INFO

# Authentication:

#LoginGraceTime 2m

Cancelled
Get Help Write Out Where Is Cut Text Justify Cur Pos M-U Undo
Exit Read File Replace Paste Text To Spell Go To Line M-E Redo
Right Ctrl
```

kemudian cari cari baris port 22, silahkan ganti dengan port yang diinginkan, misalnya 2244, dan hapus juga bagian bintang pada port ,kalau sudah diubah silahkan disave dan close dengan menekan tombol kombinasi CTRL + X dan tekan Y, lalu enter.

agar perubahan konfigurasi dapat dijalankan oleh sistem, kita harus restart service SSHnya dengan perintah `$ sudo /etc/init.d/ssh restart`.

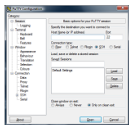
Untuk melihat service SSH sudah berjalan/running, kita bisa mengetikkan `$ sudo /etc/init.d/ssh status`, dan dapat kita lihat servernya sudah running/active

```
haikal@ubuntu:~$ sudo /etc/init.d/ssh status
• ssh.service - OpenBSD Secure Shell server
   loaded: loaded (/lib/systemd/systemd/ssh.service; enabled; vendor preset: enabled)
   Active: active (running) since Mon 2020-11-30 10:20:44 UTC; 1min 39s ago
     Docs: man:sshd(8)
           man:sshd_config(5)
   Process: 1738 ExecStartPre=/usr/sbin/sshd -t (code=exited, status=0/SUCCESS)
  Main PID: 1748 (sshd)
    Tasks: 1 (limit: 1074)
   Memory: 1.1M
   CGroup: /system.slice/ssh.service
           └─1748 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups

Nov 30 10:20:44 ubuntu systemd[1]: Starting OpenBSD Secure Shell server...
Nov 30 10:20:44 ubuntu sshd[1748]: Server listening on 0.0.0.0 port 2244.
Nov 30 10:20:44 ubuntu sshd[1748]: Server listening on :: port 2244.
Nov 30 10:20:44 ubuntu systemd[1]: Started OpenBSD Secure Shell server.
haikal@ubuntu:~$
```

3. Install PUTTY

Pertama download PUTTY di <https://www.putty.org>, lalu klik [here](#)

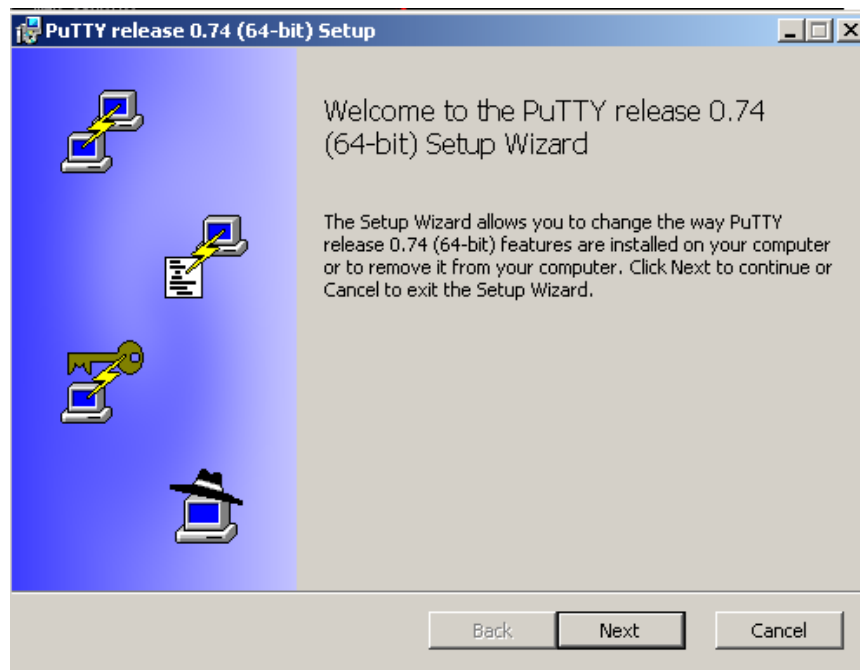


Download PuTTY

PuTTY is an SSH and telnet client, developed originally by Simon Tatham for the Windows platform. PuTTY is open source software that is available with source code and is developed and supported by a group of volunteers.

You can download PuTTY [here](#).

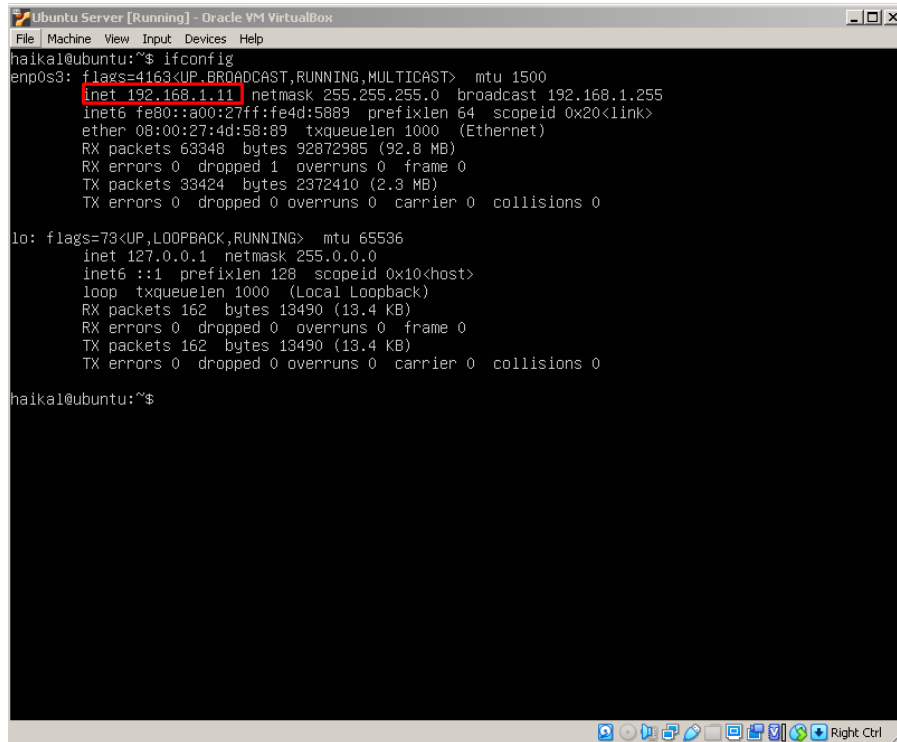
lalu open download putty tadi klik run, klik next hingga selesai



4. Remote by puTTY.

kemudian kita tes apakah server sudah bisa diremote dengan SSH atau belum? menggunakan PuTTY.

pertama ketik \$ ifconfig, dan bisa kita lihat bagian inet, yang merupakan ip address kita.

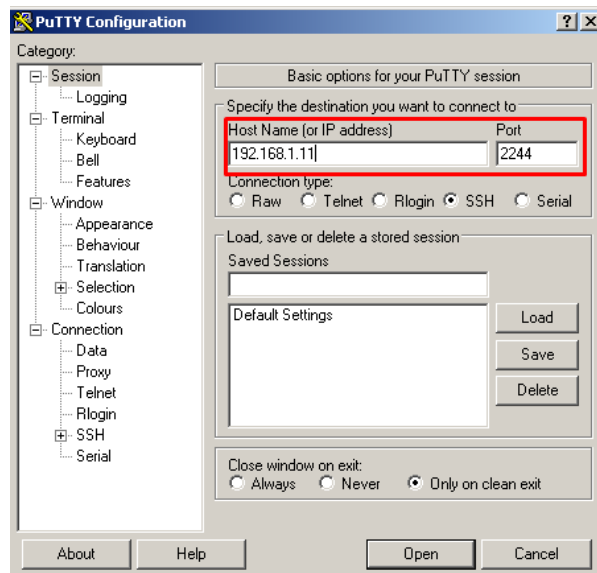


```
haikal@ubuntu:~$ ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
    inet 192.168.1.11 netmask 255.255.255.0  broadcast 192.168.1.255
    inet6 fe80::a00:27ff:fe4d:5889 prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:4d:58:89 txqueuelen 1000 (Ethernet)
    RX packets 63348  bytes 92872985 (92.8 MB)
    RX errors 0  dropped 1  overruns 0  frame 0
    TX packets 33424  bytes 2372410 (2.3 MB)
    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 162  bytes 13490 (13.4 KB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 162  bytes 13490 (13.4 KB)
    TX errors 0  dropped 0  overruns 0  carrier 0  collisions 0

haikal@ubuntu:~$
```

Buka Aplikasi PuTTY. ketikan bagian host name dengan Ip Address tadi, dan masukkan port sesuai dengan port yang telah kita konfigurasi tadi, lingkarkan bagian ssh dan Open, dan Klik yes



login di aplikasi PuTTY dengan username Ubuntu server tadi, dan masukkan password juga, dan selesai, kita telah remote SSH dengan menggunakan aplikasi PuTTY

```
haikal@ubuntu: ~  
  
* Documentation:  https://help.ubuntu.com  
* Management:    https://landscape.canonical.com  
* Support:        https://ubuntu.com/advantage  
  
System information as of Mon 30 Nov 2020 10:38:07 AM UTC  
  
System load:  0.0          Processes:            104  
Usage of /:   46.4% of 8.79GB Users logged in:      1  
Memory usage: 21%         IPv4 address for enp0s3: 192.168.1.11  
Swap usage:   0%  
  
* Introducing self-healing high availability clustering for MicroK8s!  
  Super simple, hardened and opinionated Kubernetes for production.  
  
    https://microk8s.io/high-availability  
  
122 updates can be installed immediately.  
58 of these updates are security updates.  
To see these additional updates run: apt list --upgradable  
  
Last login: Mon Nov 30 10:04:04 2020  
haikal@ubuntu:~$
```

bisa kita ketik ping google.com , dan berhasil konek

```
haikal@ubuntu: ~  
122 updates can be installed immediately.  
58 of these updates are security updates.  
To see these additional updates run: apt list --upgradable  
  
Last login: Mon Nov 30 10:04:04 2020  
haikal@ubuntu:~$ ping google.com  
PING google.com (216.239.38.120) 56(84) bytes of data:  
64 bytes from any-in-2678.1e100.net (216.239.38.120): icmp_seq=1 ttl=115 time=25  
.5 ms  
64 bytes from any-in-2678.1e100.net (216.239.38.120): icmp_seq=2 ttl=115 time=25  
.3 ms  
64 bytes from any-in-2678.1e100.net (216.239.38.120): icmp_seq=3 ttl=115 time=25  
.6 ms  
64 bytes from any-in-2678.1e100.net (216.239.38.120): icmp_seq=4 ttl=115 time=28  
.5 ms  
64 bytes from any-in-2678.1e100.net (216.239.38.120): icmp_seq=5 ttl=115 time=25  
.5 ms  
64 bytes from any-in-2678.1e100.net (216.239.38.120): icmp_seq=6 ttl=115 time=24  
.9 ms  
64 bytes from any-in-2678.1e100.net (216.239.38.120): icmp_seq=7 ttl=115 time=24  
.7 ms
```

5. buat aplikasi wordpress di Ubuntu server

masuk ke mode SuperUser dengan mengetik `$ sudo su` , dan masukkan password

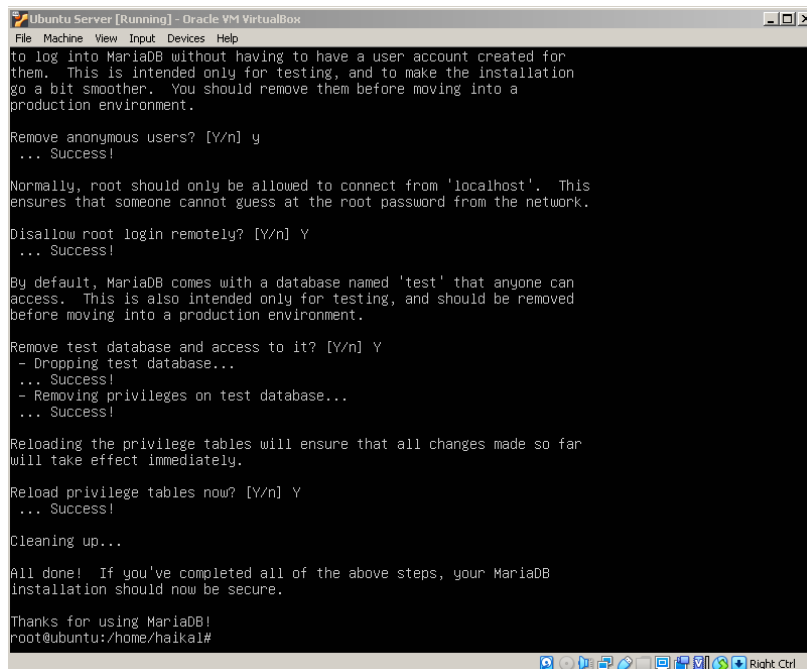
lalu kita update dengan mengetik perintah `# apt update`

```
Ubuntu Server [Running] - Oracle VM VirtualBox  
File Machine View Input Devices Help  
root@ubuntu:/home/haikal# apt update  
Hit:1 http://id.archive.ubuntu.com/ubuntu focal InRelease  
Get:2 http://id.archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]  
Get:3 http://id.archive.ubuntu.com/ubuntu focal-backports InRelease [101 kB]  
Get:4 http://id.archive.ubuntu.com/ubuntu focal-security InRelease [109 kB]  
Get:5 http://id.archive.ubuntu.com/ubuntu focal-updates/main amd64 Packages [671 kB]  
Get:6 http://id.archive.ubuntu.com/ubuntu focal-updates/main Translation-en [168 kB]  
Get:7 http://id.archive.ubuntu.com/ubuntu focal-updates/main amd64 c-n-f Metadata [11.2 kB]  
Get:8 http://id.archive.ubuntu.com/ubuntu focal-updates/universe amd64 Packages [698 kB]  
Get:9 http://id.archive.ubuntu.com/ubuntu focal-updates/universe Translation-en [137 kB]  
Get:10 http://id.archive.ubuntu.com/ubuntu focal-updates/universe amd64 c-n-f Metadata [13.3 kB]  
Get:11 http://id.archive.ubuntu.com/ubuntu focal-security/main amd64 Packages [372 kB]  
Get:12 http://id.archive.ubuntu.com/ubuntu focal-security/main Translation-en [85.4 kB]  
Get:13 http://id.archive.ubuntu.com/ubuntu focal-security/main amd64 c-n-f Metadata [5,488 B]  
Get:14 http://id.archive.ubuntu.com/ubuntu focal-security/universe amd64 Packages [519 kB]  
Get:15 http://id.archive.ubuntu.com/ubuntu focal-security/universe amd64 c-n-f Metadata [9,364 B]  
Fetched 3,013 kB in 22s (136 kB/s)  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
123 packages can be upgraded. Run 'apt list --upgradable' to see them.  
root@ubuntu:/home/haikal# _
```

lalu instal apache dengan mengetik `# apt install apache2 -y`

lalu install mariadb-server dengan mengetik # apt install mariadb-server mariadb-client -y
lalu start server dengan mengetik # sudo systemctl start mariadb

lalu kita mengkonfigurasi database dengan mengetik perintah # sudo mysql_secure_installation
masukkan password dan ketik Y enter terus sampai selesai



```
Ubuntu Server [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
to log into MariaDB without having to have a user account created for
them. This is intended only for testing, and to make the installation
go a bit smoother. You should remove them before moving into a
production environment.

Remove anonymous users? [Y/n] y
... Success!

Normally, root should only be allowed to connect from 'localhost'. This
ensures that someone cannot guess at the root password from the network.

Disallow root login remotely? [Y/n] Y
... Success!

By default, MariaDB comes with a database named 'test' that anyone can
access. This is also intended only for testing, and should be removed
before moving into a production environment.

Remove test database and access to it? [Y/n] Y
- Dropping test database...
... Success!
- Removing privileges on test database...
... Success!

Reloading the privilege tables will ensure that all changes made so far
will take effect immediately.

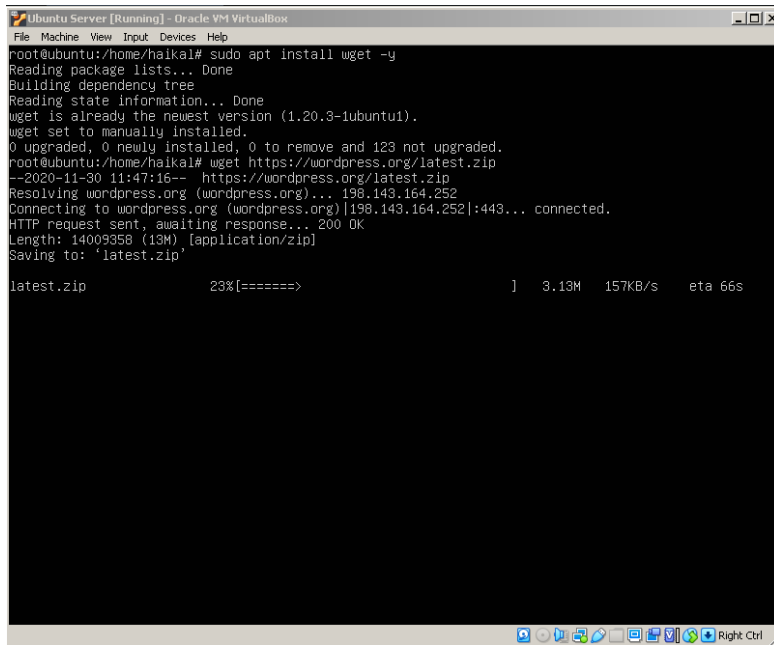
Reload privilege tables now? [Y/n] Y
... Success!

Cleaning up...

All done! If you've completed all of the above steps, your MariaDB
installation should now be secure.

Thanks for using MariaDB!
root@ubuntu:/home/haikal#
```

selanjutnya kita instal php dengan mengetik perintah # sudo apt install php
lalu instal wget dengan mengetik perintah # sudo apt install wget -y
setelah terinstall wget , kita akan menginstall wordpress dengan mengetik perintah wget
<https://wordpress.org/latest.zip> .



```
root@ubuntu:/home/haikal# sudo apt install wget -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
wget is already the newest version (1.20.3-1ubuntu1).
wget set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 123 not upgraded.
root@ubuntu:/home/haikal# wget https://wordpress.org/latest.zip
--2020-11-30 11:47:16-- https://wordpress.org/latest.zip
Resolving wordpress.org (wordpress.org)... 198.143.164.252
Connecting to wordpress.org (wordpress.org)[198.143.164.252]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 14009358 (13M) [application/zip]
Saving to: 'latest.zip'

latest.zip           23%[=====>] 3.13M  157KB/s  eta 66s
```

setelah menginstall latest zip tadi, kita butuh aplikasi unzip untuk mengekstrak latest zip tersebut, dengan perintah # `sudo apt install unzip -y`

lalu kita unzip kan latest.zip tadi dengan perintah # `unzip latest.zip`

lalu ketik perintah # `cd wordpress/`

lalu kita akan menkopy file di dalam ls tadi dengan perintah # `sudo cp -r * /var/www/html/`

lalu ketik perintah # `cd /var/www/html/`

lalu ketik `sudo rm -rf index.html`

```
Ubuntu Server [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
root@ubuntu:/home/haikal/wordpress# sudo cp -r * /var/www/html
root@ubuntu:/home/haikal/wordpress# cd /wordpress/
bash: cd: /: No such file or directory
root@ubuntu:/home/haikal/wordpress# cd wordpress/
bash: cd: wordpress/: No such file or directory
root@ubuntu:/home/haikal/wordpress# ls
index.php      wp-admin      wp-content    wp-load.php   wp-signup.php
license.txt    wp-blog-header.php wp-cron.php   wp-login.php  wp-trackback.php
readme.html    wp-comments-post.php wp-includes   wp-mail.php   xmlrpc.php
wp-activate.php wp-config-sample.php wp-links-opml.php wp-settings.php
root@ubuntu:/home/haikal/wordpress# sudo rm -rf index.html
root@ubuntu:/home/haikal/wordpress# cd /var/www/html/
root@ubuntu:/var/www/html# sudo rm -rf index.html
root@ubuntu:/var/www/html# ls
index.php      wp-admin      wp-content    wp-load.php   wp-signup.php
license.txt    wp-blog-header.php wp-cron.php   wp-login.php  wp-trackback.php
readme.html    wp-comments-post.php wp-includes   wp-mail.php   xmlrpc.php
wp-activate.php wp-config-sample.php wp-links-opml.php wp-settings.php
root@ubuntu:/var/www/html# _
```

selanjutnya kita install php-mysql, php-cgi, php-cli php-gd dengan perintah

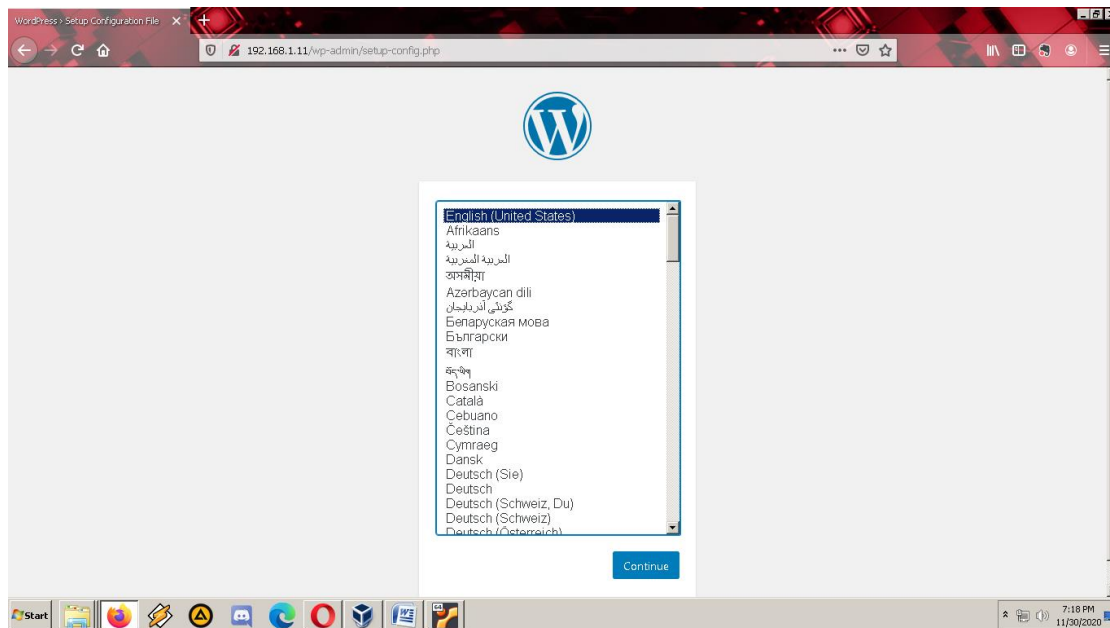
```
# sudo apt install php-mysql php-cgi php-cli php-gd -y
```

lalu restart server dengan perintah # sudo systemctl restart apache2

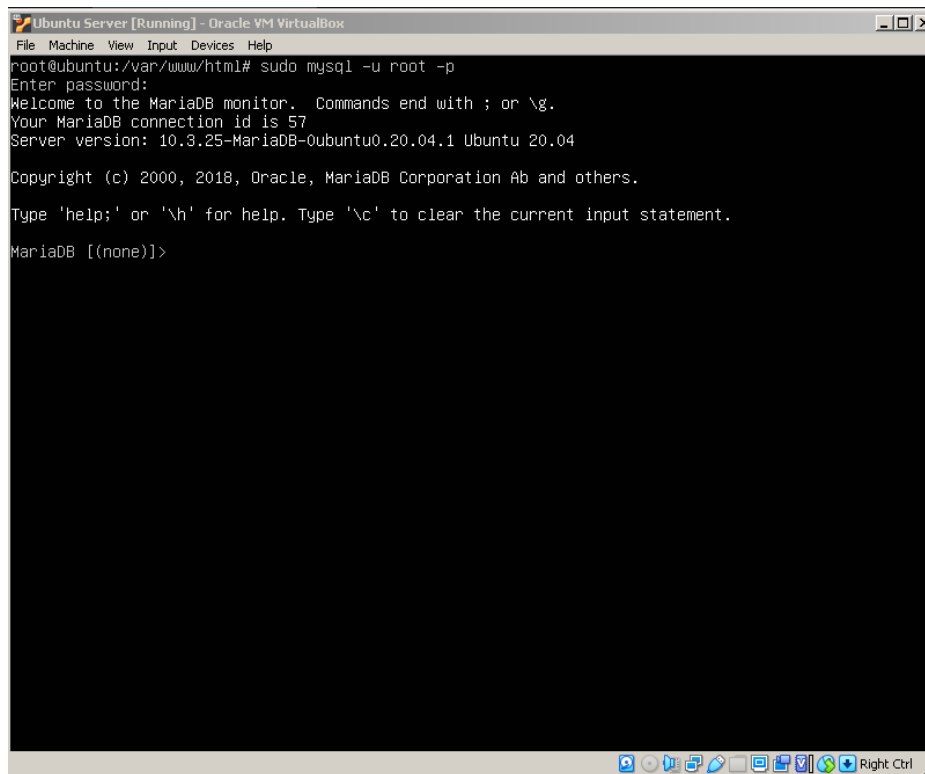
lalu ketik

```
sudo chown -R www-data:www-data /var/www/
```

lalu masuk ke web dan mengetik ip address kita tadi , lalu continue, dan Lets go



setelah itu buka lagi ubuntu server nya dan kita akan create databasenya , tapi sebelum create , ketik perintah berikut# sudo mysql -u root -p. lalu masukkan password



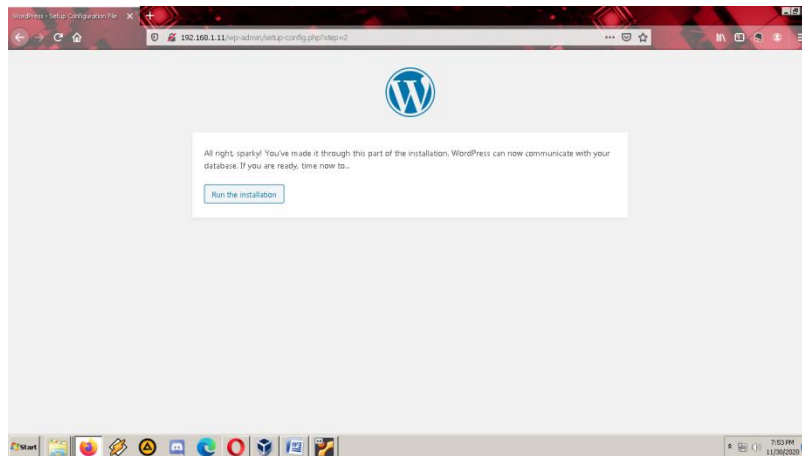
lalu kita create database dengan perintah > create database ptlwordpress;

lalu kita create user di database dengan perintah > create user "(username)"@"%" identified by "password";

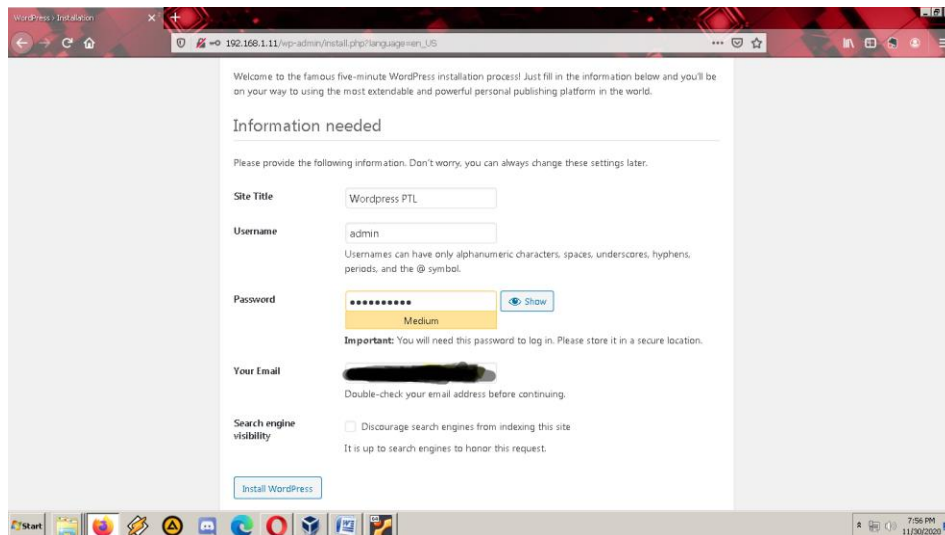
lalu kita akan memberikan akses user ke database dengan perintah > grant all privileges on wordpress.* to "username"@"%";

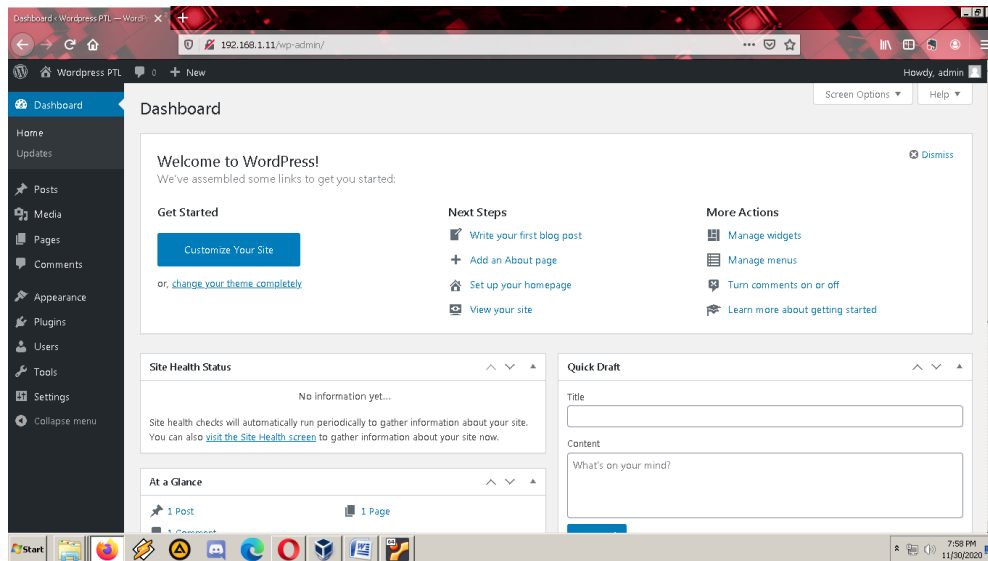
lalu kita exit, kembali lagi ke web tadi

masukan database name sesuai dengan yang tadi serta username dan passwordnya lalu submit, dan run the instalation



lalu masukkan sesuai yang diinginkan, klik install wordpress, dan login





dan selesai