

TUGAS

PENGANTAR TELEKOMUNIKASI



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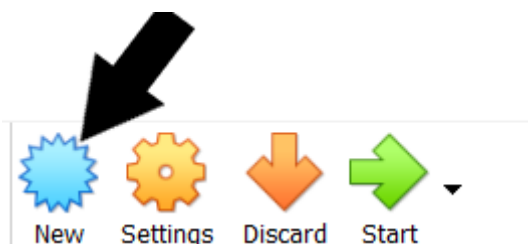
Jurusan : Sistem Komputer

1. Langkah pertama yaitu kita harus menyiapkan :

- App Virtual Box
- Ubuntu Server (Disini saya menggunakan ubuntu server 20.04.1)
- PuTTY

2. Install Virtual Box, lalu buka app nya. Lalu install ubuntu server melalui Virtual Box.

- Klik icon **New** untuk membuat Virtual Machine.



- Selanjutnya, atur nama file

? ×


← Create Virtual Machine

Name and operating system

Please choose a descriptive name and destination folder for the new virtual machine and select the type of operating system you intend to install on it. The name you choose will be used throughout VirtualBox to identify this machine.

Name:

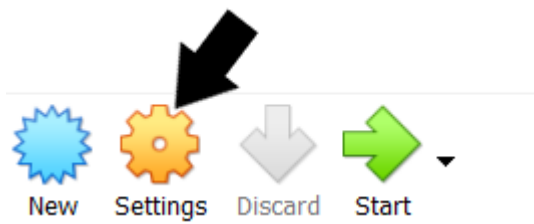
Machine Folder:

Type: 

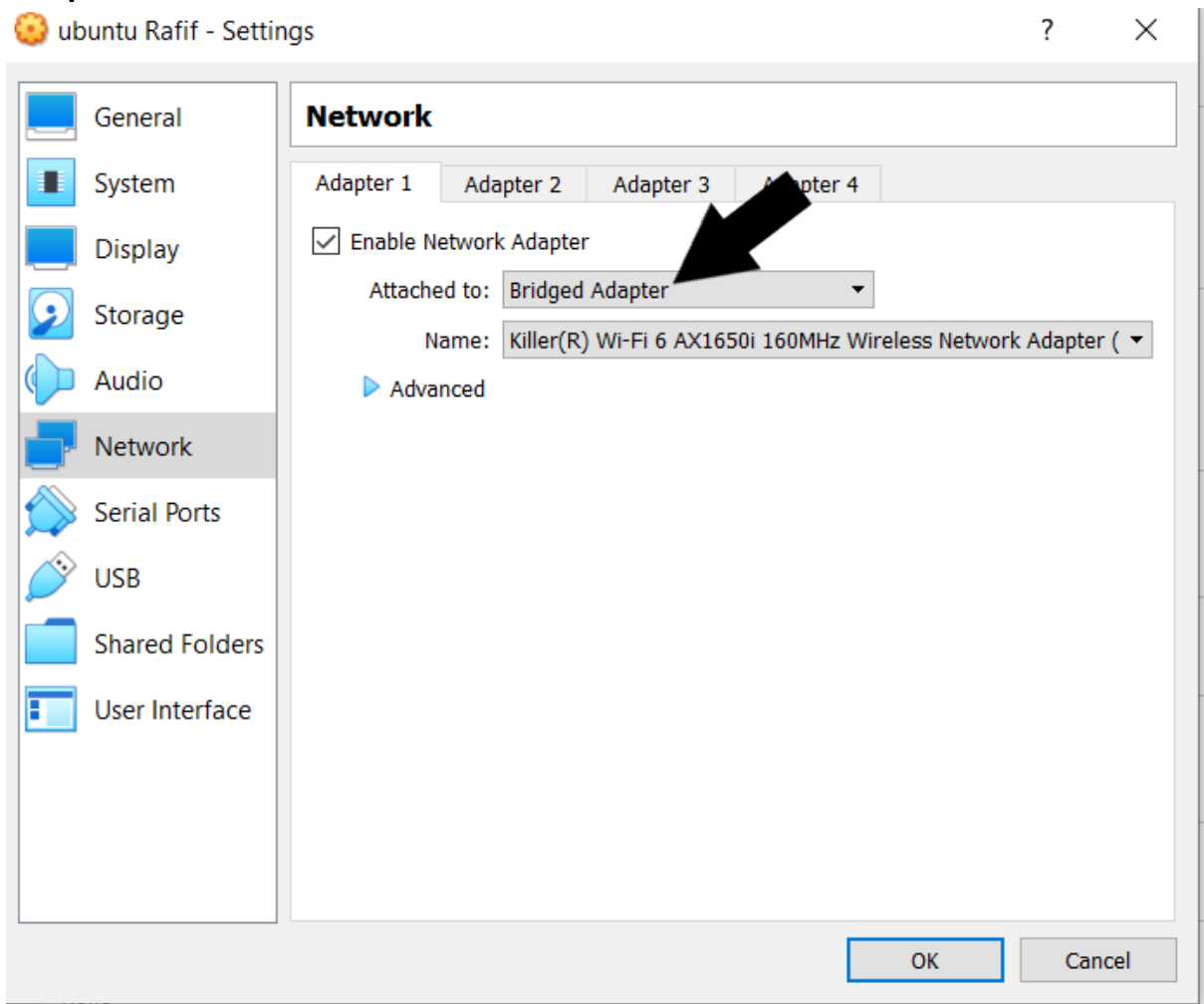
Version:

Expert Mode Cancel

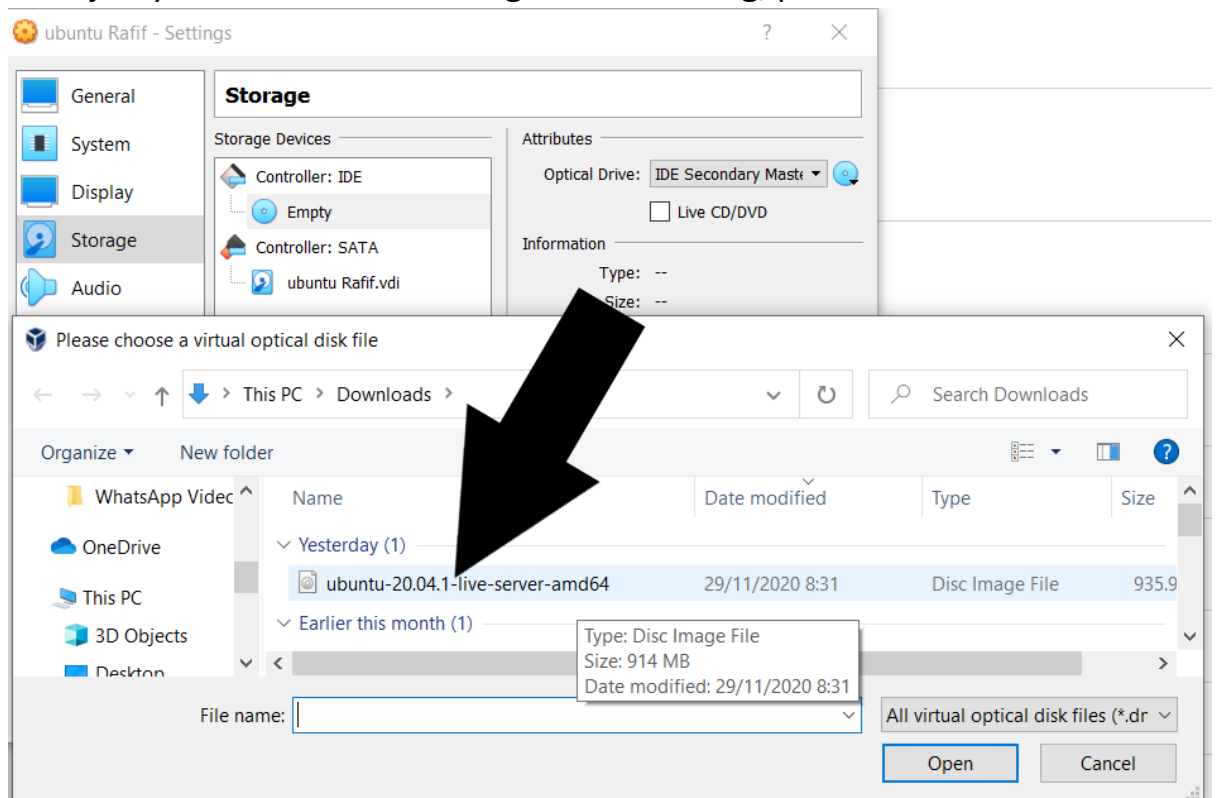
- Pilih icon **setting**.



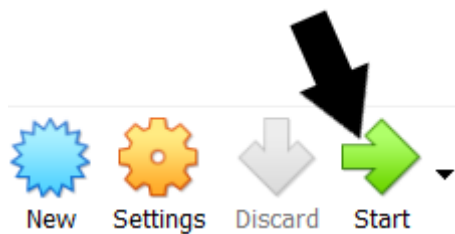
- Kemudian pada menu Network dalam setting, pada tab **Adapter 1** pilih **Bridge Adapter**.



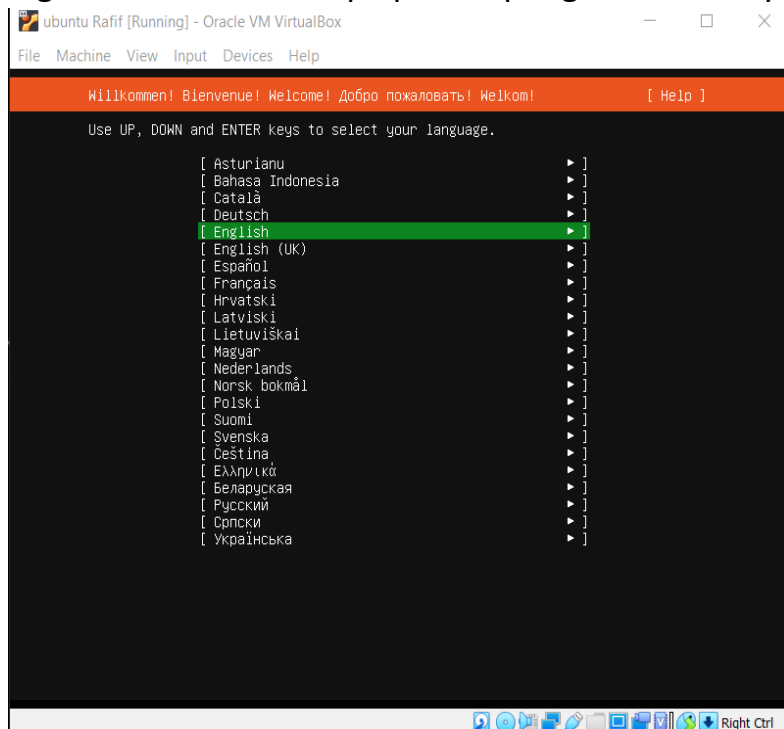
- Selanjutnya masih di menu **storage** dalam **setting**, pilih file **ubuntu server**.



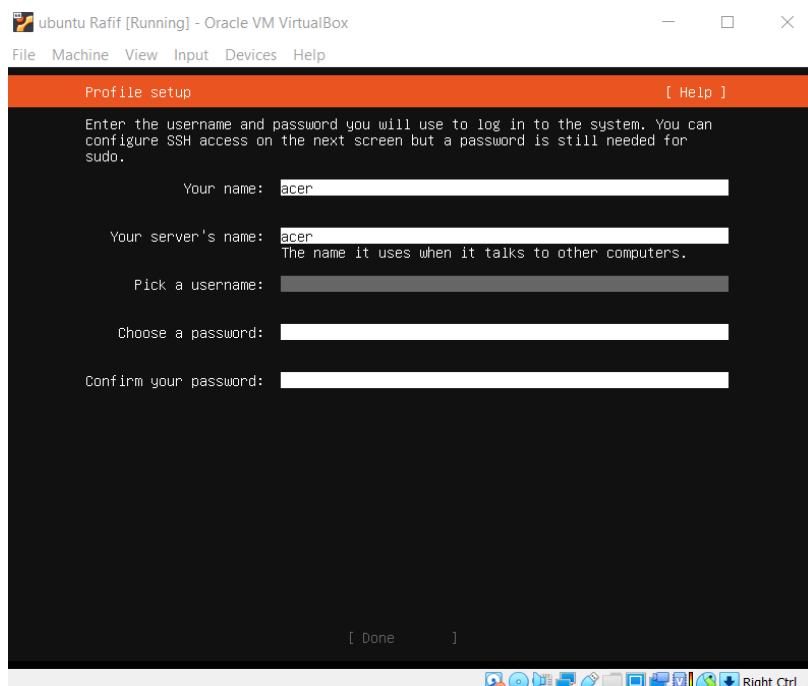
- Selanjutnya, klik menu **start**.



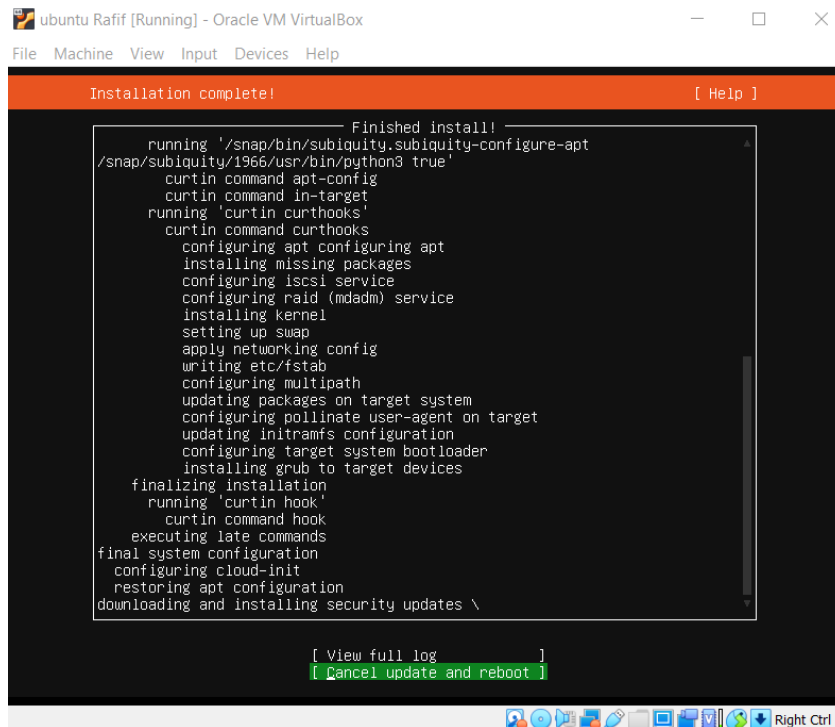
- Setelah klik menu **start**, maka akan muncul beberapa pilihan Bahasa yang dapat digunakan dan beberapa pilihan pengaturan lainnya.



- Setelah memilih Bahasa dan memilih beberapa pengaturan tadi, selanjutnya silahkan isi nama kalian, nama server kalian, username kalian, dan password yang akan kalian buat.

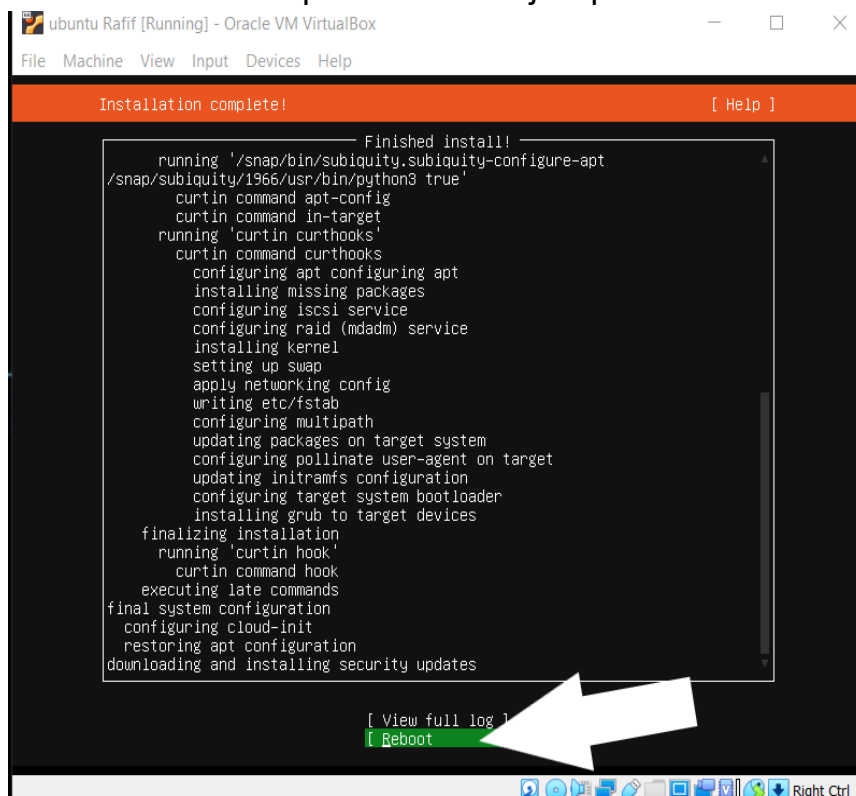


- Selanjutnya, silahkan menginstall dan menunggu proses instalasi ubuntu server (proses ini membutuhkan sinyal internet dan juga akan memakan waktu).



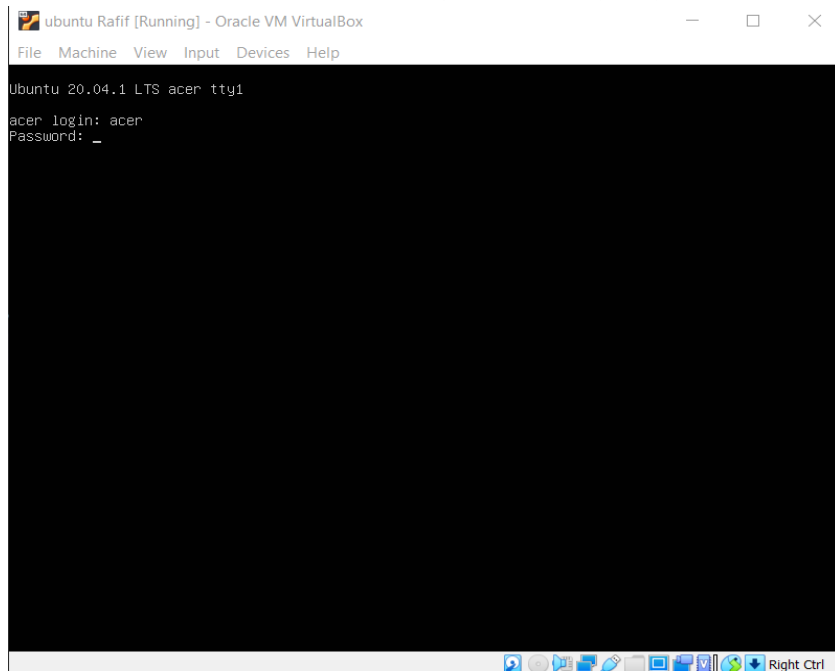
The screenshot shows the Oracle VM VirtualBox window titled 'ubuntu Rafif [Running]'. The main display area shows the Ubuntu installer's progress. At the top, a red banner reads 'Installation complete!' with a '[Help]' link on the right. Below this, a black terminal window displays the text 'Finished install!' followed by a list of completed tasks: running '/snap/bin/subiquity.subiquity-configure-apt', running '/snap/subiquity/1966/usr/bin/python3 true', curtin command apt-config, curtin command in-target, running 'curtin curthooks', curtin command curthooks, configuring apt, installing missing packages, configuring iscsi service, configuring raid (mdadm) service, installing kernel, setting up swap, apply networking config, writing etc/fstab, configuring multipath, updating packages on target system, configuring pollinate user-agent on target, updating initramfs configuration, configuring target system bootloader, installing grub to target devices, finalizing installation, running 'curtin hook', curtin command hook, executing late commands, final system configuration, configuring cloud-init, restoring apt configuration, and downloading and installing security updates. At the bottom of the terminal, two options are visible: '[View full log]' and '[Cancel update and reboot]'.

- Kemudian silahkan pilih “Reboot” jika proses instalasi telah selesai.



This screenshot is similar to the one above, showing the same installation progress in the Oracle VM VirtualBox window. However, the option '[Reboot]' at the bottom of the terminal window is highlighted in green. A large white arrow points directly to this green button, indicating the next step in the process.

- Setelah melakukan “**Reboot**”, maka akan muncul login user, dan kita akan diminta untuk memasukkan password yang kita buat tadi.



3. Install dan Konfigurasi SSH

- Masukkan perintah **sudo su** dan masukkan password yang kita buat tadi untuk memulai konfigurasi SSH.

```
acer@acer:~$ sudo su
[sudo] password for acer: _
```

- Lalu setelah beberapa Langkah, selanjutnya masukkan **apt install openssh-server**

```
root@acer:/home/acer# apt install openssh-server_
```

- Lalu masukkan Kembali **apt install openssh-server**

```
root@acer:/home/acer# apt install openssh-server_
```

- Selanjutnya masukkan perintah **systemctl status ssh**

```
root@acer:/home/acer# systemctl status ssh
```

- Kemudian masukkan perintah **hostname -l**

```
root@acer:/home/acer# hostname -l
```

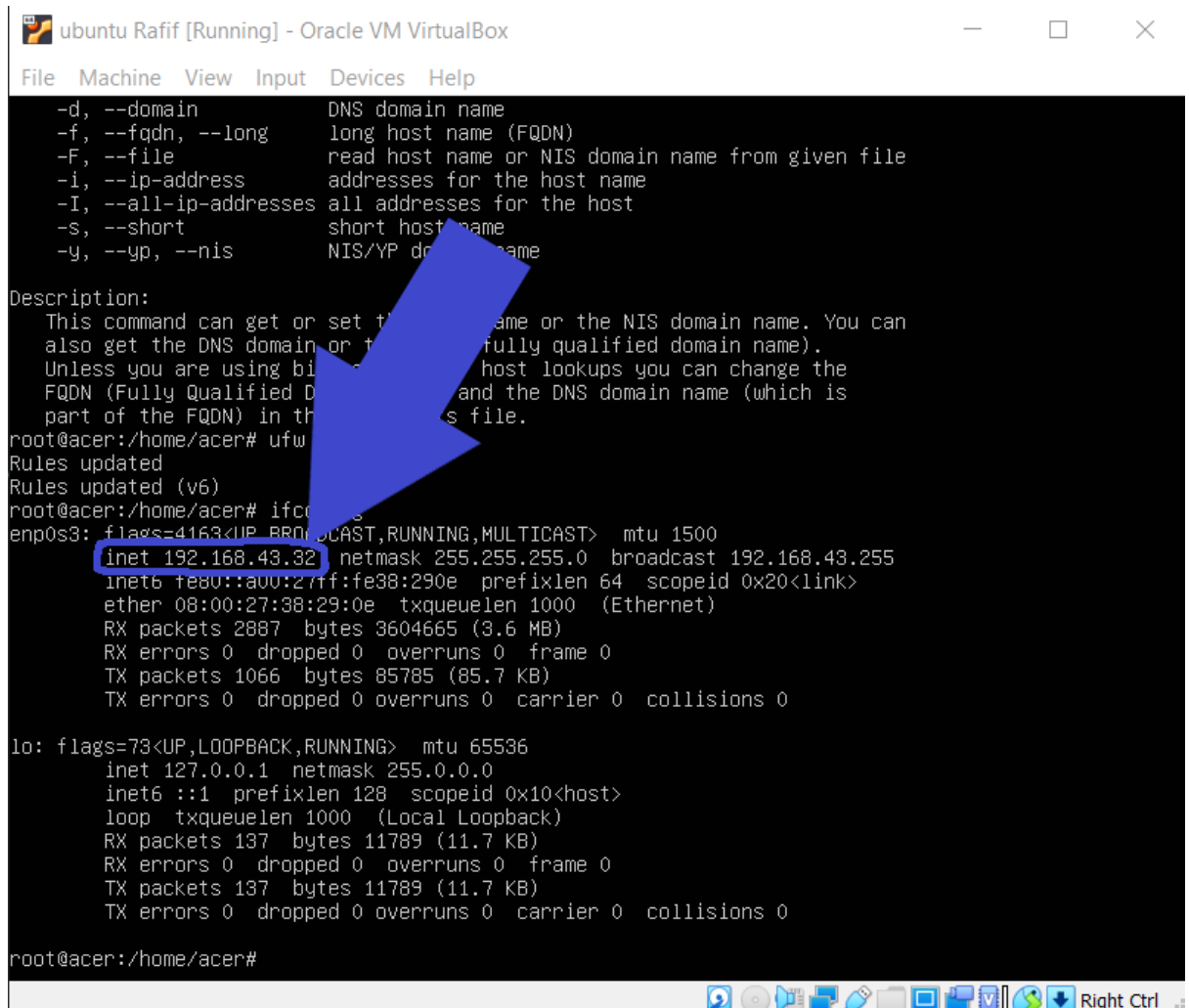
- Masukkan perintah **ufw allow ssh**

```
root@acer:/home/acer# ufw allow ssh
```

- Lalu masukkan perintah **ifconfig**

```
root@acer:/home/acer# ifconfig_
```

- Lihat IP Address Host.



```
ubuntu Rafif [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
-d, --domain          DNS domain name
-f, --fqdn, --long    long host name (FQDN)
-F, --file            read host name or NIS domain name from given file
-i, --ip-address      addresses for the host name
-I, --all-ip-addresses all addresses for the host
-s, --short           short host name
-y, --yp, --nis       NIS/YP domain name

Description:
  This command can get or set the host name or the NIS domain name. You can
  also get the DNS domain or the fully qualified domain name).
  Unless you are using bind for host lookups you can change the
  FQDN (Fully Qualified Domain Name) and the DNS domain name (which is
  part of the FQDN) in the /etc/passwd file.

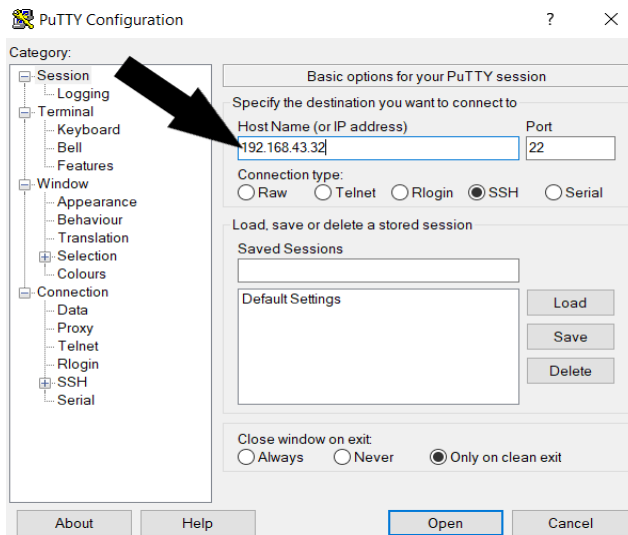
root@acer:/home/acer# ufw
Rules updated
Rules updated (v6)
root@acer:/home/acer# ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.43.32 netmask 255.255.255.0 broadcast 192.168.43.255
    inet6 fe80::a00:27ff:fe38:290e prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:38:29:0e txqueuelen 1000 (Ethernet)
    RX packets 2887 bytes 3604665 (3.6 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 1066 bytes 85785 (85.7 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 137 bytes 11789 (11.7 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 137 bytes 11789 (11.7 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

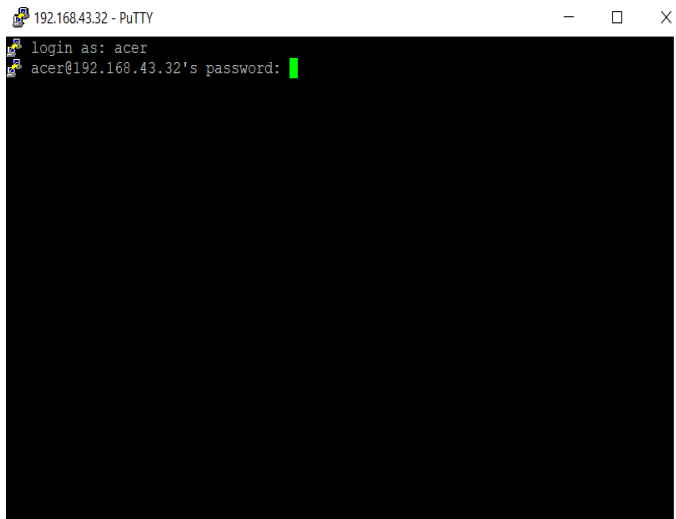
root@acer:/home/acer#
```


4. Install dan Remoot PuTTY.

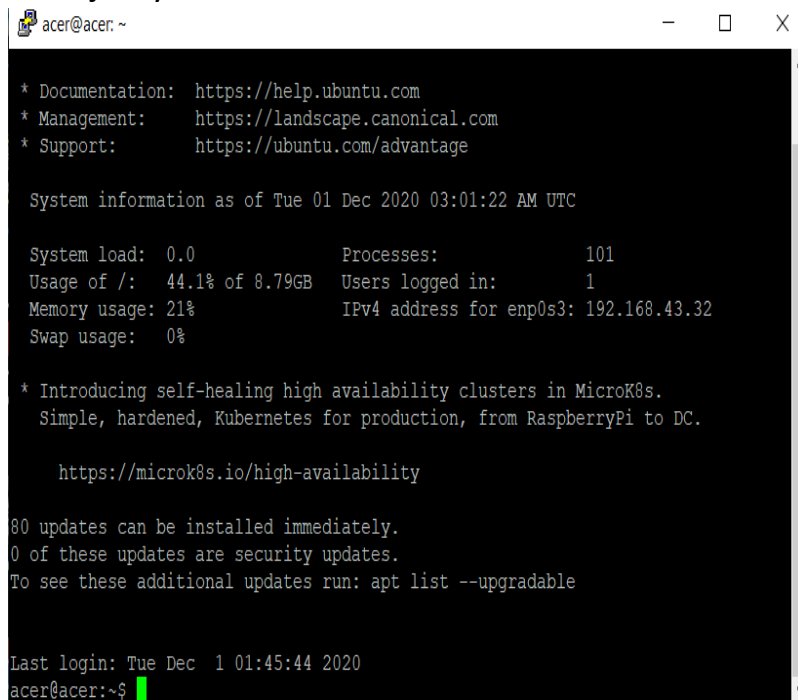
- Pertama, download dahulu PuTTY, lalu Install.
- Selanjutnya, masukkan IP Address didalam kolom Host Name (or IP Address), lalu pilih icon **Open**.



- Lalu Login menggunakan akun dan password yang telah kita buat sebelumnya.



- Setelah login, maka akan muncul tampilan seperti gambar dibawah ini. Selanjutnya buka kembali ubuntu server di virtual box tadi.

A terminal window titled 'acer@acer: ~' with standard window controls. It displays system information as of Tue 01 Dec 2020 03:01:22 AM UTC. The output includes links for documentation, management, and support; system load, processes, memory usage, and swap usage; and a list of available updates. The prompt 'acer@acer:~\$' is visible at the bottom.

```
acer@acer: ~  
* Documentation: https://help.ubuntu.com  
* Management:   https://landscape.canonical.com  
* Support:      https://ubuntu.com/advantage  
  
System information as of Tue 01 Dec 2020 03:01:22 AM UTC  
  
System load: 0.0          Processes:            101  
Usage of /:  44.1% of 8.79GB Users logged in:      1  
Memory usage: 21%        IPv4 address for enp0s3: 192.168.43.32  
Swap usage:  0%  
  
* Introducing self-healing high availability clusters in MicroK8s.  
  Simple, hardened, Kubernetes for production, from RaspberryPi to DC.  
  
  https://microk8s.io/high-availability  
  
80 updates can be installed immediately.  
0 of these updates are security updates.  
To see these additional updates run: apt list --upgradable  
  
Last login: Tue Dec  1 01:45:44 2020  
acer@acer:~$
```

5. Membuat Wordpress.

- Langkah pertama, masukkan perintah **sudo apt update -y** pada ubuntu server di virtual box.

```
root@acer:/home/acer# sudo apt update -y
```

- Selanjutnya install “**apache**” dengan memasukkan perintah **sudo apt install apache2 -y**

```
root@acer:/home/acer# sudo apt install apache2 -y_
```

- Setelah menginstal “**apache**”, selanjutnya kita akan menginstal “**mariadb**” dengan menggunakan perintah **sudo apt install mariadb-server mariadb-client -y**

```
root@acer:/home/acer# sudo apt install mariadb-server mariadb-client -y_
```

- Selanjutnya kita akan mengkonfigurasi database nya menggunakan perintah **sudo systemctl start mariadb**

```
root@acer:/home/acer# sudo systemctl start mariadb_
```

- Lalu dilanjutkan dengan memasukkan perintah **sudo systemctl status mariadb**

```
root@acer:/home/acer# sudo systemctl status mariadb
```

- Selanjutnya kita akan mengkonfigurasi database nya dengan menjalankan perintah **sudo mysql_secure_installation**

```
root@acer:/home/acer# sudo mysql_secure_installation
```

- Selanjutnya masukkan password jika ingin menggunakan password (tekan enter saja jika tidak ingin menggunakan password).

```
Enter current password for root (enter for none): _
```

- Ketik “Y” untuk mengonfirmasi password yang ingin diganti. Bila tidak ingin diganti maka ketik saja “n”.

```
Change the root password? [Y/n] Y  
New password: _
```

- Ketik “Y” untuk menghapus **anonymous users**.

```
Remove anonymous users? [Y/n] Y
```

- Selanjutnya akan muncul **disallow root login remotely**. Maka ketik saja “Y”.

```
Disallow root login remotely? [Y/n] Y_
```

- Kemudian akan muncul juga **remove test database and access to it**. Maka ketik saja “Y”.

```
Remove test database and access to it? [Y/n] Y
```

- Dan terakhir akan muncul perintah **reload privilege tables now**. Maka ketik saja **"Y"**.

```
Reload privilege tables now? [Y/n] Y_
```

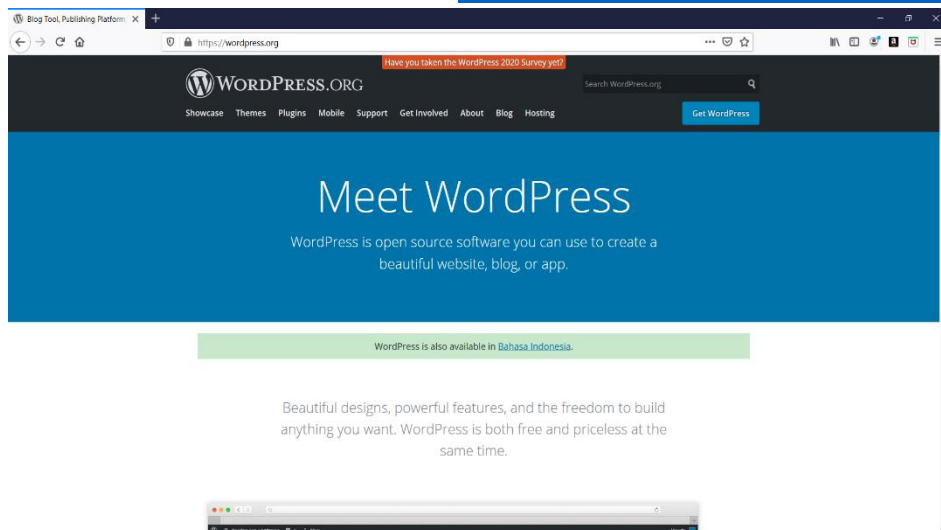
- Lalu, selanjutnya kita akan menginstall **"php"** menggunakan perintah **sudo apt install php -y**

```
acer@acer:~$ sudo apt install php -y_
```

- Selanjutnya masukkan perintah **sudo apt install wget -y**

```
acer@acer:~$ sudo apt install wget -y_
```

- Kemudian buka dan salin link <https://wordpress.org/latest.zip>



- Selanjutnya buka kembali ubuntu server di virtual box, lalu masukkan perintah **wget https://wordpress.org/latest.zip**

```
acer@acer:~$ wget https://wordpress.org/latest.zip
```

- Lalu masukkan perintah **ls**. Jika sudah ada tulisan **latest.zip**, berarti file di link <https://wordpress.org/latest.zip> tadi sudah terdownload.

```
acer@acer:~$ ls
latest.zip
acer@acer:~$ _
```

- Lalu masukkan perintah **sudo apt install unzip -y**

```
acer@acer:~$ sudo apt install unzip -y_
```

- Selanjutnya masukkan perintah **unzip latest.zip**

```
acer@acer:~$ unzip latest.zip
```

- Kemudian masukkan perintah **ls**. Dan terlihat seperti gambar dibawah yaitu **latest.zip wordpress**

```
acer@acer:~$ ls
latest.zip  wordpress
acer@acer:~$
```

- Masukkan perintah **cd wordpress/** lalu dilanjutkan dengan perintah **ls**

```
acer@acer:~$ cd wordpress/
acer@acer:~/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
acer@acer:~/wordpress$ _
```

- Kemudian masukkan perintah **sudo cp -r * /var/www/html**

```
acer@acer:~/wordpress$ sudo cp -r * /var/www/html
```

- Selanjutnya masukkan perintah **cd /var/www/html/** lalu dilanjutkan dengan perintah **ls**

```
acer@acer:~/wordpress$ cd /var/www/html/
acer@acer:/var/www/html$ ls
index.html  wp-activate.php  wp-config-sample.php  wp-links-opml.php  wp-settings.php
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
acer@acer:/var/www/html$
```

- Selanjutnya, kita masukkan perintah **sudo rm -rf index.html** kemudian dilanjutkan kembali dengan perintah **ls**

```
acer@acer:/var/www/html$ sudo rm -rf index.html
acer@acer:/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
acer@acer:/var/www/html$ _
```

- Langkah selanjutnya adalah memasukkan perintah **sudo apt install php-mysql php-cgi php-cli php-gd -y**

```
acer@acer:/var/www/html$ sudo apt install php-mysql php-cgi php-cli php-gd -y
```

- Langkah selanjutnya adalah dengan me-restart service dari “apache” dengan memasukkan perintah **sudo systemctl restart apache2**

```
acer@acer:/var/www/html$ sudo systemctl restart apache2
```

- Kemudian masukkan perintah **chown -R www-data:www-data /var/www/**

```
acer@acer:/var/www/html$ chown -R www-data:www-data /var/www/_
```

- Lalu masukkan perintah **sudo chown -R www-data:www-data /var/www/**

```
acer@acer:/var/www/html$ sudo chown -R www-data:www-data /var/www/
```

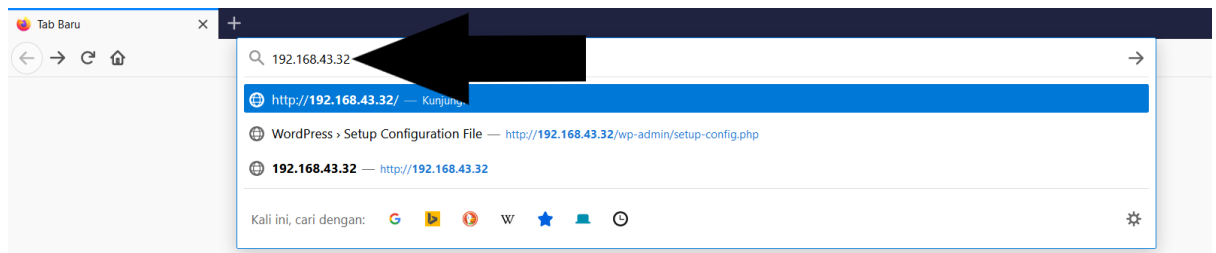
- Kemudian masukkan perintah **ip a** untuk melihat ip address untuk membuka wordpress kita.

```

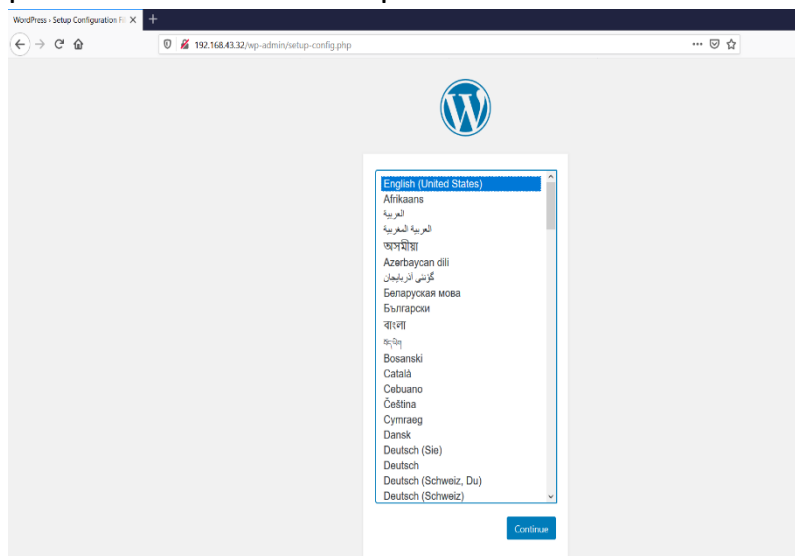
ubuntu Rafif [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

ot permitted
chown: changing ownership of '/var/www/html/wp-content/themes/twentyineteen/package-lock.json': Operation not permitted
chown: changing ownership of '/var/www/html/wp-content/themes/twentyineteen/page.php': Operation not permitted
chown: changing ownership of '/var/www/html/wp-content/themes/twentyineteen/style.scss': Operation not permitted
chown: changing ownership of '/var/www/html/wp-content/themes/twentyineteen': Operation not permitted
chown: changing ownership of '/var/www/html/wp-content/themes': Operation not permitted
chown: changing ownership of '/var/www/html/wp-content': Operation not permitted
chown: changing ownership of '/var/www/html/wp-cron.php': Operation not permitted
chown: changing ownership of '/var/www/html/wp-blog-header.php': Operation not permitted
chown: changing ownership of '/var/www/html/wp-activate.php': Operation not permitted
chown: changing ownership of '/var/www/html/wp-mail.php': Operation not permitted
chown: changing ownership of '/var/www/html/index.php': Operation not permitted
chown: changing ownership of '/var/www/html/wp-config-sample.php': Operation not permitted
chown: changing ownership of '/var/www/html/wp-load.php': Operation not permitted
chown: changing ownership of '/var/www/html': Operation not permitted
chown: changing ownership of '/var/www': Operation not permitted
acer@acer:/var/www/html$ sudo chown -R www-data:www-data /var/www/
[sudo] password for acer:
acer@acer:/var/www/html$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host 
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:3d:29:0e brd ff:ff:ff:ff:ff:ff
    inet 192.168.43.32/24 brd 192.168.43.255 scope global dynamic enp0s3
        valid_lft 3266sec preferred_lft 3266sec
    inet6 fe80::a00:27ff:fe38:290e/64 scope link
        valid_lft forever preferred_lft forever
acer@acer:/var/www/html$
  
```

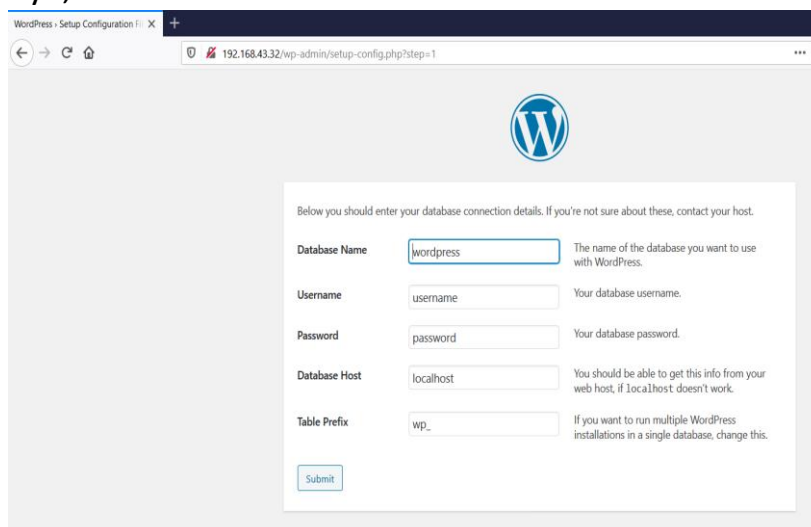
- Masukkan IP Adress dan buka di web browser.



- Setelah laman **Wordpress** telah berhasil dibuka, maka akan muncul beberapa pilihan Bahasa. Silahkan pilih salah satu Bahasa.



- Selanjutnya akan muncul seperti gambar dibawah ini. Tapi sebelum kita mengisinya, kita harus kembali membuka ubuntu server dari virtual box.



- Masukkan perintah **sudo mysql -u root -p** lalu masukan password.

```
acer@acer:/var/www/html$ sudo mysql -u root -p
[sudo] password for acer:
```

- Masukkan perintah **create database wordpress;**

```
MariaDB [(none)]> create database wordpress;
```

- Selanjutnya masukkan perintah **show databases;** maka akan muncul seperti gambar dibawah ini.

```
MariaDB [(none)]> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| wordpress |
+-----+
4 rows in set (0.011 sec)

MariaDB [(none)]> _
```

- Setelah itu, masukkan perintah **create user "wordpress"@"%" identified by "password";** untuk membuat username dan password wordpress kita.

```
MariaDB [(none)]> create user "wordpress"@"%"identified by "password";
```

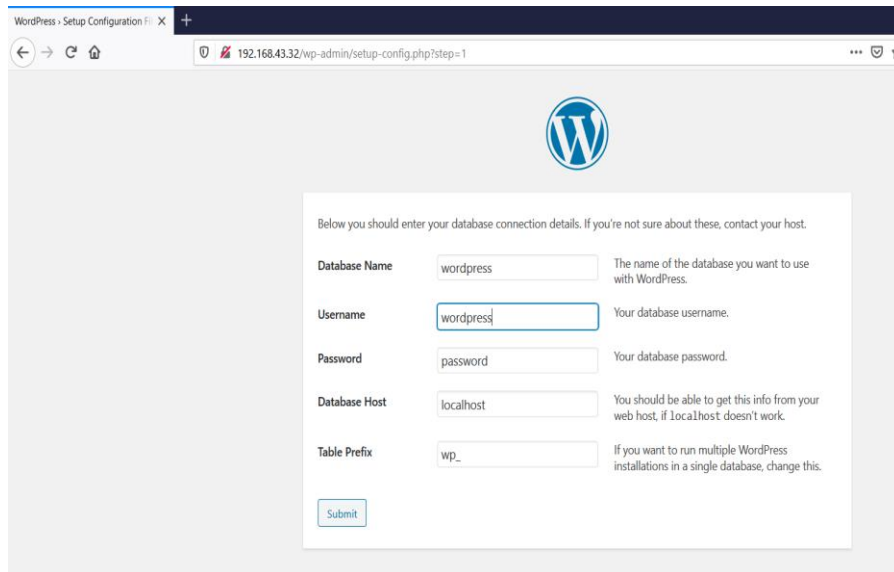
- Kemudian masukkan perintah **grant all privileges on wordpress.* to "wordpress"@"%";**

```
MariaDB [(none)]> grant all privileges on wordpress.* to "wordpress"@"%";_
```

- Terakhir, masukkan perintah **exit** maka akan muncul seperti gambar dibawah ini.

```
MariaDB [(none)]> exit
Bye
acer@acer:/var/www/html$
```


- Langkah selanjutnya yaitu buka kembali laman **Wordpress** tadi, lalu masukkan username dan password yang telah kita buat sebelumnya.

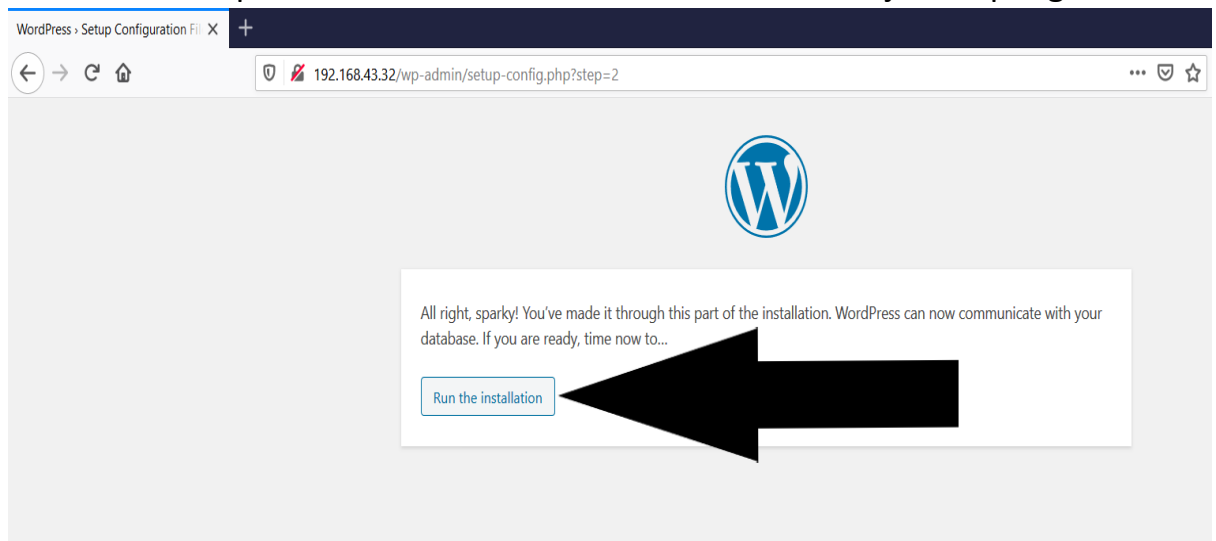


WordPress Setup Configuration

Below you should enter your database connection details. If you're not sure about these, contact your host.

Database Name	<input type="text" value="wordpress"/>	The name of the database you want to use with WordPress.
Username	<input type="text" value="wordpress"/>	Your database username.
Password	<input type="password" value="password"/>	Your database password.
Database Host	<input type="text" value="localhost"/>	You should be able to get this info from your web host, if localhost doesn't work.
Table Prefix	<input type="text" value="wp_"/>	If you want to run multiple WordPress installations in a single database, change this.

- Jika telah muncul seperti gambar dibawah ini, berarti kita telah berhasil login. Maka Silahkan pilih icon **Run the installation** untuk melanjutkan penginstalan.



- Selanjutnya silahkan masukkan data-data seperti Site Title, Username, Password, dan Email. Setelah selesai, silahkan pilih icon **Install Wordpress**.

WordPress - Installation

Welcome

Welcome to the famous five-minute WordPress installation process! Just fill in the information below and you'll be on your way to using the most extendable and powerful personal publishing platform in the world.

Information needed

Please provide the following information. Don't worry, you can always change these settings later.

Site Title: syeh Rafif Fadhal Nugraha SK1A

Username: Syeh Rafif Fadhal Nugraha

Username can have only alphanumeric characters, spaces, underscores, hyphens, periods, and the @ symbol.

Password: [masked] Strong

Important: You will need this password to log in. Please store it in a secure location.

Your Email: [empty]

Double-check your email address before continuing.

Search engine visibility: ☐ Discourage search engines from indexing this site

It is up to search engines to honor this request.

Install WordPress

- Instalasi wordpress telah berhasil dilakukan jika muncul laman seperti gambar dibawah ini. Setelah itu silahkan pilih icon **login**.

WordPress - Installation

Success!

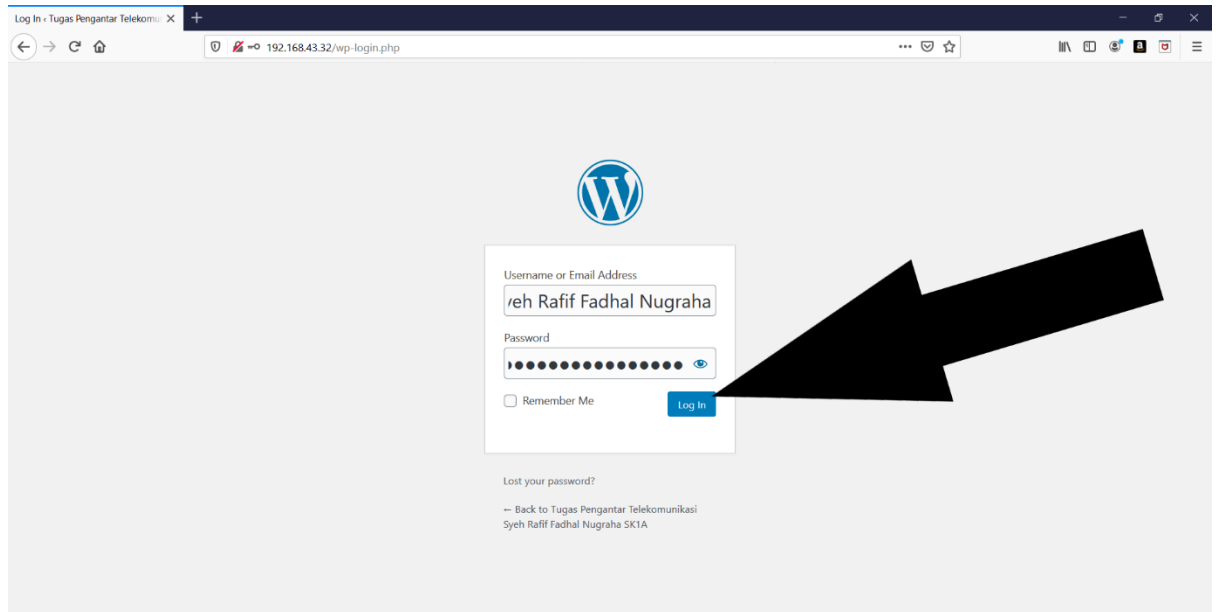
WordPress has been installed. Thank you, and enjoy!

Username: Syeh Rafif Fadhal Nugraha

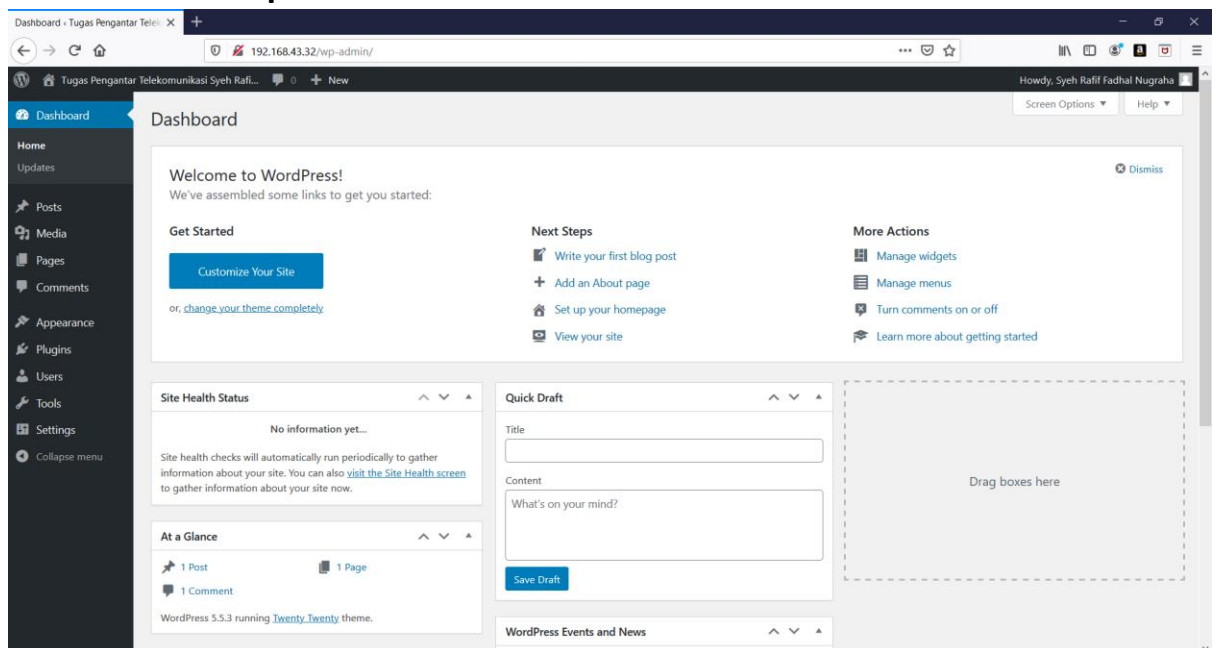
Password: Your chosen password.

Log In

- Yang terakhir, silahkan masukkan username yang telah dibuat tadi atau email yang telah dimasukkan tadi dan juga password yang telah kita buat sebelumnya. Setelah itu silahkan pilih icon **login**.



- Dan laman **Wordpress** telah berhasil kita buat.



- Laman **Wordpress** yang telah berhasil kita buat.

