

**LAPORAN PRAKTIKUM MANAJEMEN DATA**  
**PROYEK LINUX WORDPRESS**



**Disusun untuk Memenuhi**  
**Tugas Mata Kuliah:**  
**PRAKTIKUM MANAJEMEN DATA**

**WAHYU IKBAL MAULANA**

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**D4 SAINS DATA TERAPAN B**

**PROGRAM STUDI D4 SAINS DATA TERAPAN**  
**POLITEKNIK ELEKTRONIKA NEGERI SURABAYA**

## PROYEK LINUX WORDPRESS

1. Dengan Buatlah script untuk membuat user dan group secara otomatis di linux

- Buat Group dilinux : KelasSDTB
- Buat 5 user yang dipilih dari teman anda dan masukkan ke group KelasSDTB

Masuk ke root, lalu buat create user.sh

Buat file create\_users.sh

```
~# nano create_users.sh
```

Isi file create\_users.sh dengan skrip dibawah ini.

```
GNU nano 7.2 create_users.sh
sudo groupadd KelasSDTB
users=("fina" "jo" "robi" "kriza" "aza")
for user in "${users[@]}"
do
sudo useradd -m "$user"
echo "$user:password" | sudo chpasswd
sudo usermod -aG KelasSDTB "$user"
echo "Pengguna $user telah berhasil dibuat dan di tambahkan ke grup KelasSDTB."
done

echo "Pembuatan pengguna dan penambahan ke grup selesai."
```

[ Read 11 lines ]

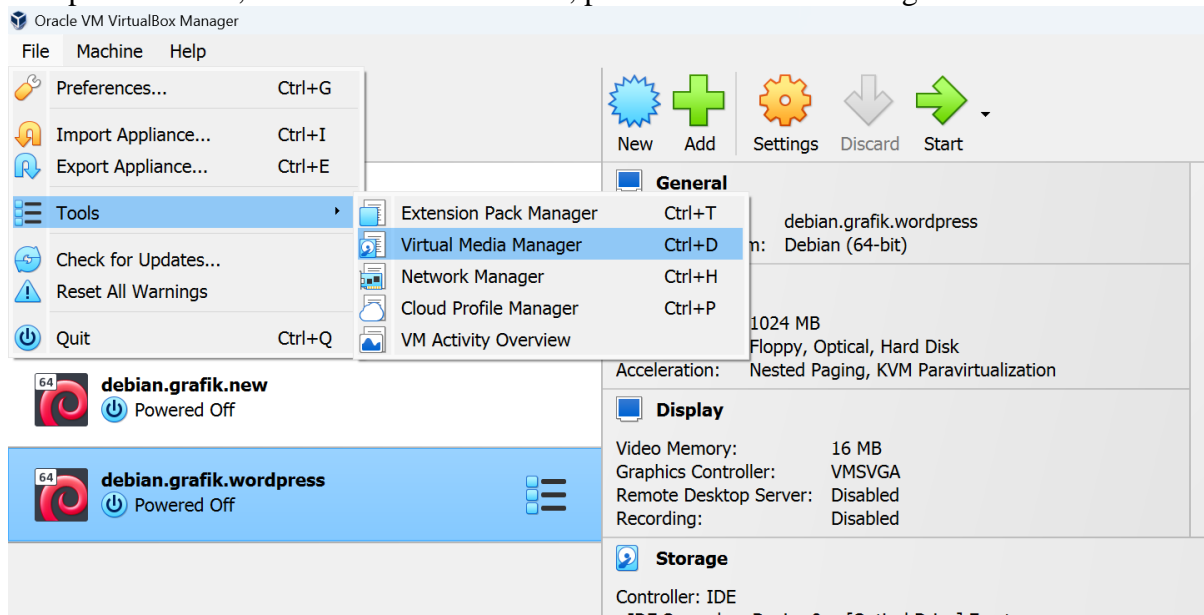
<b>^G</b> Help	<b>^O</b> Write Out	<b>^W</b> Where Is	<b>^K</b> Cut	<b>^T</b> Execute	<b>^C</b> Location
<b>^X</b> Exit	<b>^R</b> Read File	<b>^_\</b> Replace	<b>^U</b> Paste	<b>^J</b> Justify	<b>^/</b> Go To Line

Lakukan konfigurasi file create\_users.sh supaya executable

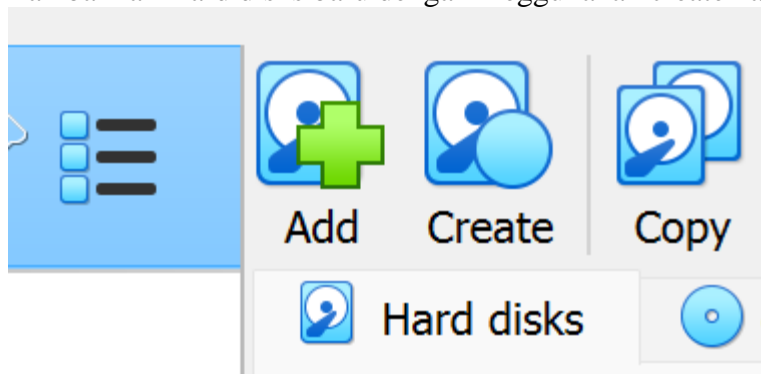
```
Pengguna fina telah berhasil dibuat dan di tambahkan ke grup KelasSDTB.
Pengguna jo telah berhasil dibuat dan di tambahkan ke grup KelasSDTB.
Pengguna robi telah berhasil dibuat dan di tambahkan ke grup KelasSDTB.
Pengguna kriza telah berhasil dibuat dan di tambahkan ke grup KelasSDTB.
Pengguna aza telah berhasil dibuat dan di tambahkan ke grup KelasSDTB.
Pembuatan pengguna dan penambahan ke grup selesai.
```

## 2. Melalui vm Tambahkan haddisk baru dan taruh di direktory /mnt/data

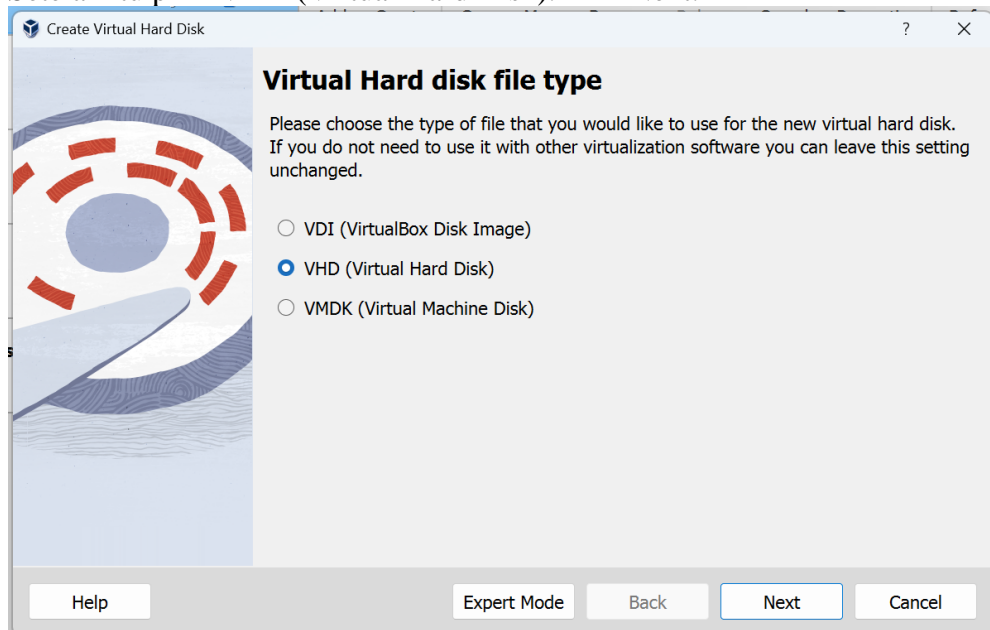
Tutup VM debian, buka Virtual Box Oracle, pilih virtual Media manager



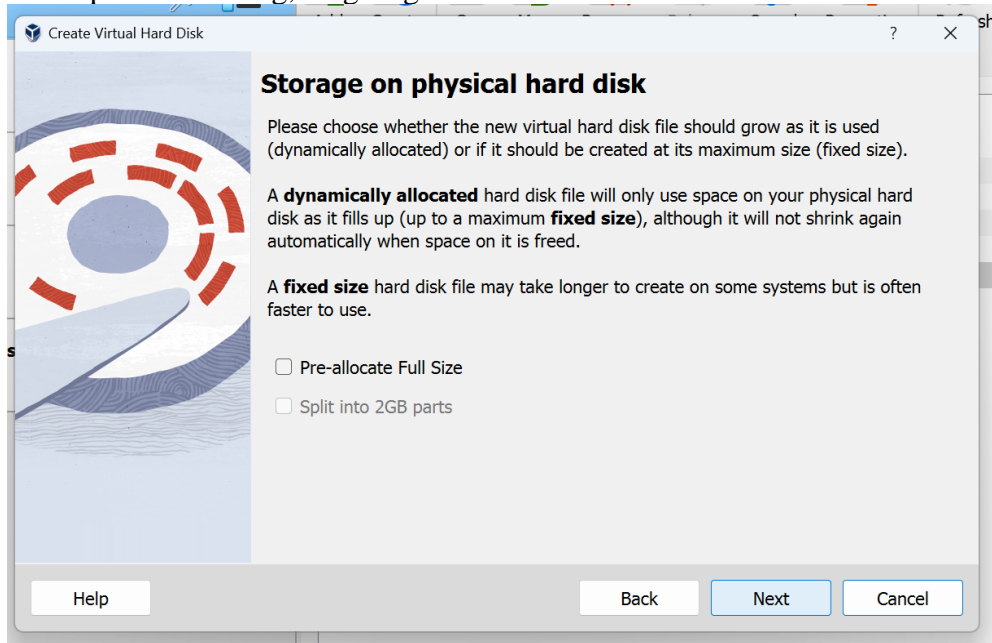
Tambahkan Hard disks baru dengan menggunakan create hard disk.



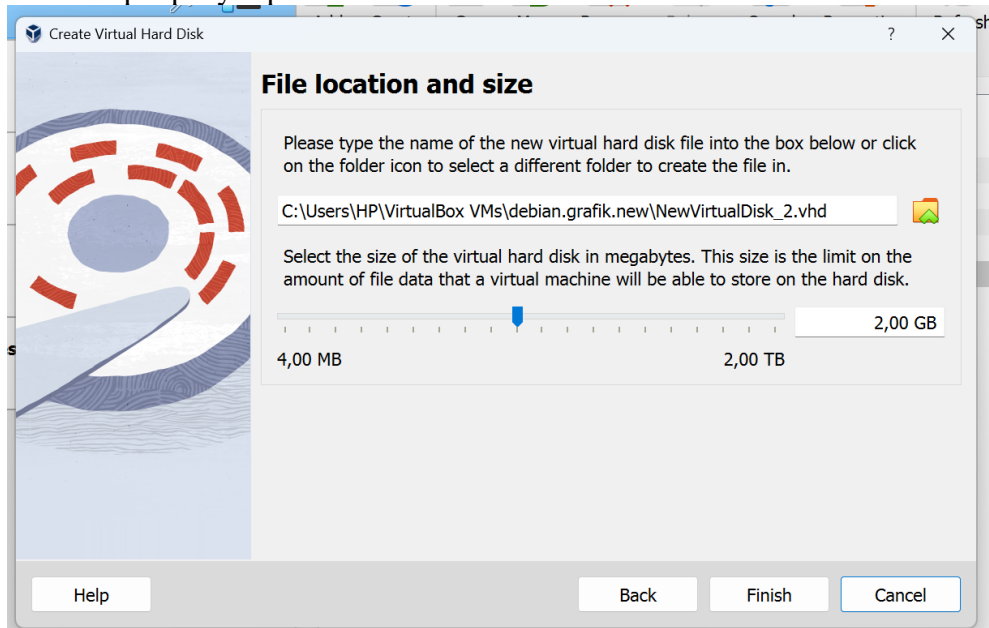
Setelah itu pilih VHD (Virtual Hard Disk). Klik Next.



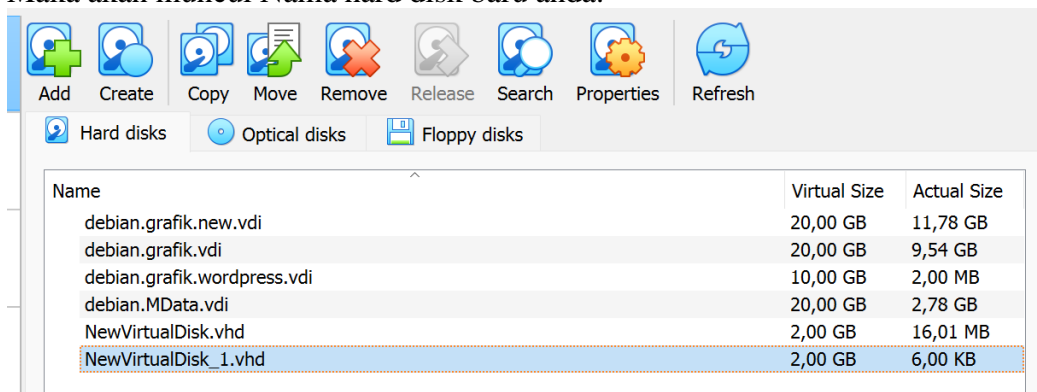
Tidak perlu dicentang, langsung next.



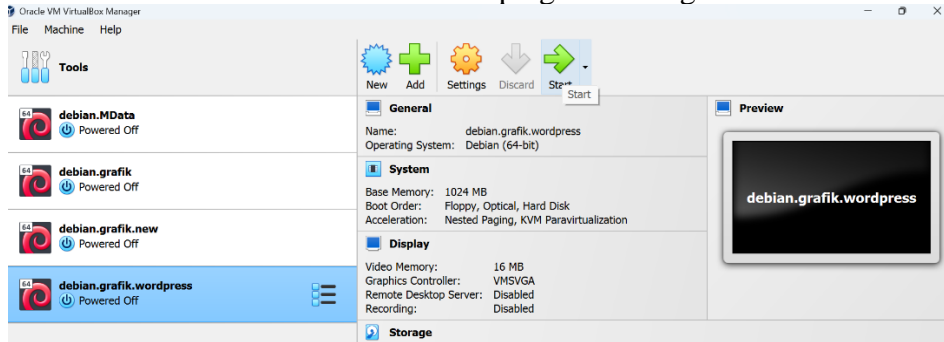
Pilih tempat penyimpanan hard disk dan size hard disk. Klik Finish.



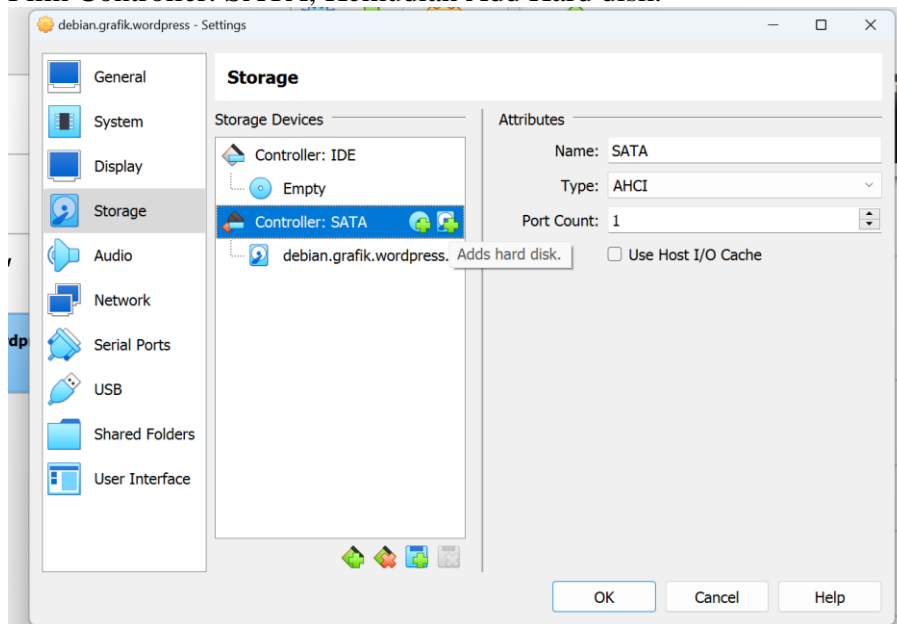
Maka akan muncul Nama hard disk baru anda.



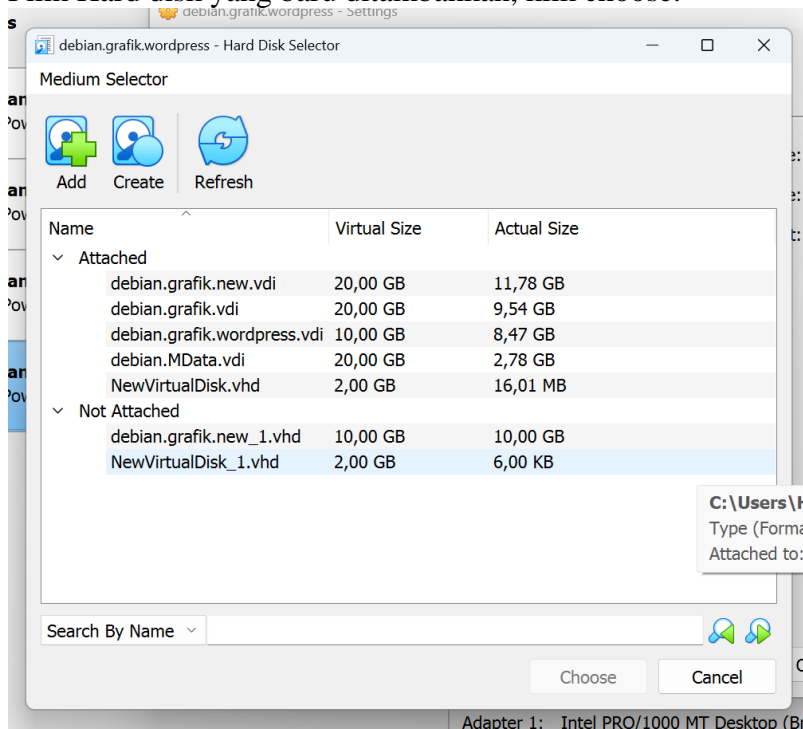
Kembali ke halaman awal. Kemudian pergi ke setting.



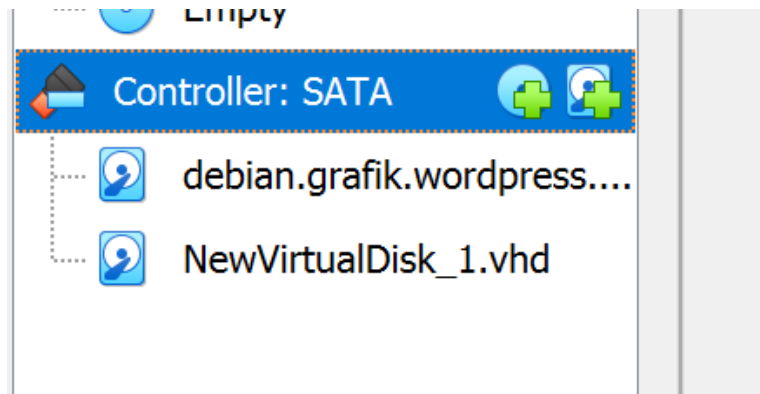
Pilih Controller: SATA, Kemudian Add Hard disk.



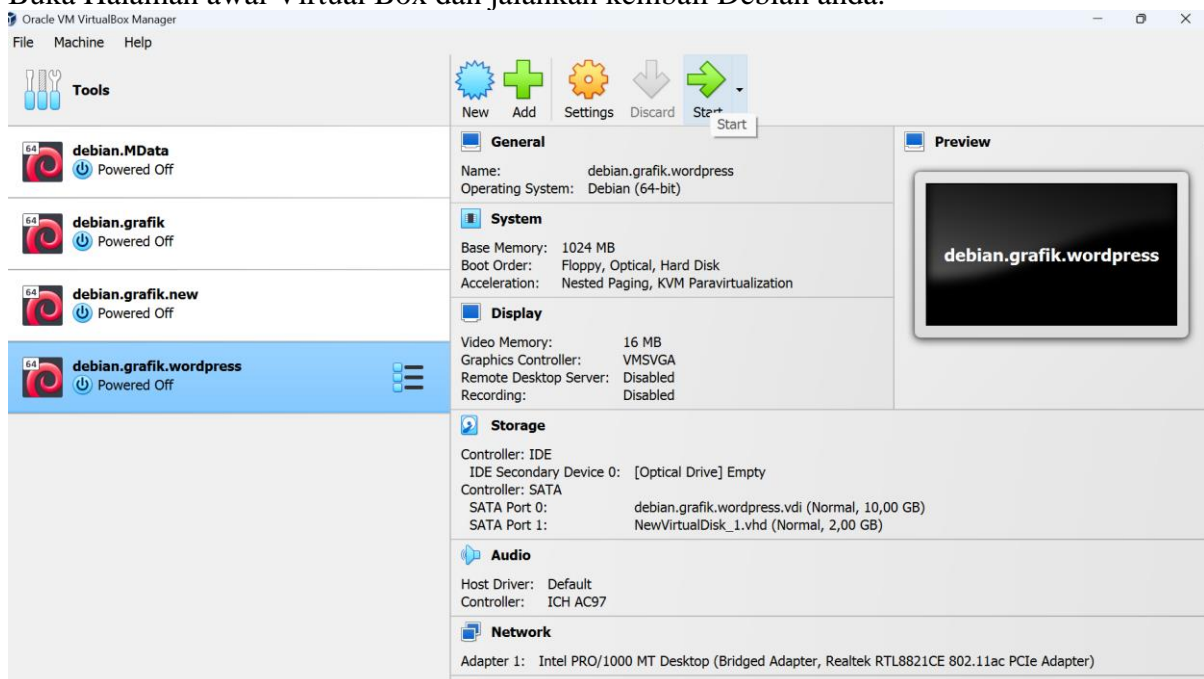
Pilih Hard disk yang baru ditambahkan, klik choose.



Maka akan muncul hard disk yang baru anda tambahkan pada Controller : SATA.



Buka Halaman awal Virtual Box dan jalankan kembali Debian anda.



Pergi ke terminal, login dan cek hard disk yang tersedia dengan menggunakan command `lsblk` atau `fdisk -l`.

```
NAME      MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
sda         8:0    0   10G  0 disk
├─sda1       8:1    0    9G  0 part /
├─sda2       8:2    0    1K  0 part
└─sda5       8:5    0   975M  0 part [SWAP]
sdb         8:16   0    2G  0 disk
sr0        11:0    1 1024M  0 rom
```

```

Disk /dev/sdb: 2 GiB, 2147483648 bytes, 4194304 sectors
Disk model: VBOX HARDDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/sda: 10 GiB, 10737418240 bytes, 20971520 sectors
Disk model: VBOX HARDDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0x97f5e63c

Device      Boot      Start        End    Sectors   Size Id Type
/dev/sda1   *          2048  18970623  18968576    9G 83 Linux
/dev/sda2                18972670  20969471   1996802   975M  5 Extended
/dev/sda5                18972672  20969471   1996800   975M 82 Linux swap / Solaris
root@sabreena:~#

```

Kemudian set up hard disk baru tersebut dengan command dibawah ini.

```

Welcome to fdisk (util-linux 2.38.1).
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Device does not contain a recognized partition table.
Created a new DOS (MBR) disklabel with disk identifier 0x79422089.

Command (m for help): n

```

```

Welcome to fdisk (util-linux 2.38.1).
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Device does not contain a recognized partition table.
Created a new DOS (MBR) disklabel with disk identifier 0x79422089.

Command (m for help): n
Partition type
  p   primary (0 primary, 0 extended, 4 free)
  e   extended (container for logical partitions)
Select (default p): p
Partition number (1-4, default 1): 1
First sector (2048-4194303, default 2048): 2048
Last sector, +/-sectors or +/-size{K,M,G,T,P} (2048-4194303, default 4194303): 4194303

Created a new partition 1 of type 'Linux' and of size 2 GiB.

Command (m for help): w
The partition table has been altered.
Calling ioctl() to re-read partition table.
Syncing disks.

```

Kemudian ketikkan command dibawah ini untuk membuat sistem file ext4.

```
root@sabreena:~# sudo mkfs.ext4 /dev/sdb
mke2fs 1.47.0 (5-Feb-2023)
Found a dos partition table in /dev/sdb
Proceed anyway? (y,N) y
Creating filesystem with 524288 4k blocks and 131072 inodes
Filesystem UUID: da32e4b3-bbe4-45ef-b80d-95204a29d2bb
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376, 294912

Allocating group tables: done
Writing inode tables: done
Creating journal (16384 blocks): done
Writing superblocks and filesystem accounting information: done
```

Buatlah direktori /mnt/data. Kemudian Mount Hard disk baru dengan command dibawah ini.

```
root@debian:~# sudo mkdir -p /mnt/data
```

Buka skrip pengaturan file /etc/fstab.

```
root@debian:~# nano /etc/fstab
```

```
root@debian:~# sudo mount /dev/sdb /mnt/data
```

Tambahkan script seperti dibawah ini.

```
GNU nano 7.2 /etc/fstab *
# /etc/fstab: static file system information.
#
# Use 'blkid' to print the universally unique identifier for a
# device; this may be used with UUID= as a more robust way to name devices
# that works even if disks are added and removed. See fstab(5).
#
# systemd generates mount units based on this file, see systemd.mount(5).
# Please run 'systemctl daemon-reload' after making changes here.
#
# <file system> <mount point> <type> <options> <dump> <pass>
# / was on /dev/sda1 during installation
UUID=08d2f397-acaa-40aa-a231-14b0e9091877 / ext4 errors=remount-ro 0 >
# swap was on /dev/sda5 during installation
UUID=7c07d6f4-8a07-423f-8a3f-b270b43442fe none swap sw 0 >
/dev/sr0 /media/cdrom0 udf,iso9660 user,noauto 0 0
/dev/sdb /mnt/data ext4 defaults 0 0
```

<b>^G</b> Help	<b>^O</b> Write Out	<b>^W</b> Where Is	<b>^K</b> Cut	<b>^T</b> Execute	<b>^C</b> Location
<b>^X</b> Exit	<b>^R</b> Read File	<b>^N</b> Replace	<b>^U</b> Paste	<b>^J</b> Justify	<b>^_</b> Go To Line



### 3. Set Up di linux anda bisa diakses via ssh

Update aplikasi pada linux anda.

```
root@sabreena:~# sudo apt update
Hit:1 http://deb.debian.org/debian bookworm InRelease
Hit:2 http://security.debian.org/debian-security bookworm-security InRelease
Hit:3 http://deb.debian.org/debian bookworm-updates InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
All packages are up to date.
```

Install ssh server, buka file sshd config dan langsung jalankan skrip

```
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  openssh-sftp-server runit-helper
Suggested packages:
  molly-guard monkeysphere ssh-askpass ufw
The following NEW packages will be installed:
  openssh-server openssh-sftp-server runit-helper
0 upgraded, 3 newly installed, 0 to remove and 0 not upgraded.
Need to get 529 kB of archives.
After this operation, 2,214 kB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://deb.debian.org/debian bookworm/main amd64 openssh-sftp-server amd64 1:9.2p1-2+deb12u2 [66.0 kB]
Get:2 http://deb.debian.org/debian bookworm/main amd64 runit-helper all 2.15.2 [6,520 B]
Get:3 http://deb.debian.org/debian bookworm/main amd64 openssh-server amd64 1:9.2p1-2+deb12u2 [456 kB]
Fetched 529 kB in 5s (97.5 kB/s)
Preconfiguring packages ...
Selecting previously unselected package openssh-sftp-server.
(Reading database ... 151339 files and directories currently installed.)
```

Buka file sshd config lalu langsung jalankan skrip

```
GNU nano 7.2 /etc/ssh/sshd_config
# This is the sshd server system-wide configuration file. See
# sshd_config(5) for more information.

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

# 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

[ Read 124 lines ]
^G Help      ^O Write Out  ^W Where Is   ^K Cut        ^T Execute    ^C Location
^X Exit      ^R Read File  ^_ Replace    ^U Paste      ^J Justify    ^_ Go To Line
```

Restart dan cek status ssh anda dengan command dibawah ini. Pastikan ssh berjalan. Jika ssh tidak aktif atau belum berjalan, maka gunakan command `sudo systemctl enable ssh`. Kemudian restart kembali ssh anda.

```
• ssh.service - OpenBSD Secure Shell server
   Loaded: loaded (/lib/systemd/system/ssh.service; enabled; preset: enabled)
   Active: active (running) since Tue 2024-04-30 22:24:29 PDT; 10s ago
     Docs: man:sshd(8)
           man:sshd_config(5)
   Process: 2836 ExecStartPre=/usr/sbin/sshd -t (code=exited, status=0/SUCCESS)
   Main PID: 2839 (sshd)
    Tasks: 1 (limit: 1086)
   Memory: 1.7M
      CPU: 26ms
   CGroup: /system.slice/ssh.service
           └─2839 "sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups"
```

Install ufw firewall untuk mengatur firewall.

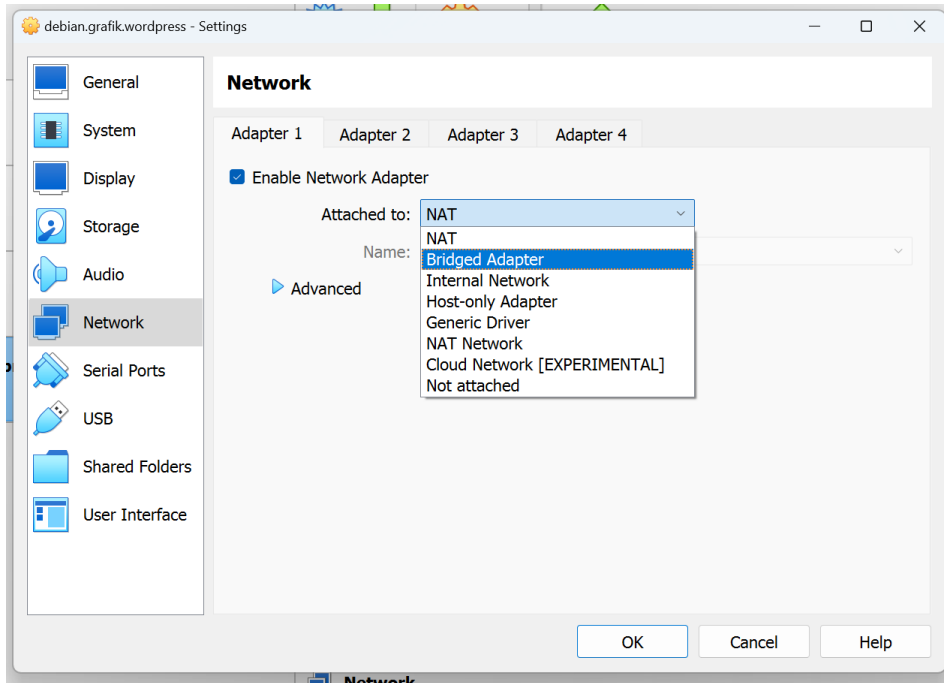
```
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  iptables libip6tc2
Suggested packages:
  firewalld rsyslog
The following NEW packages will be installed:
  iptables libip6tc2 ufw
0 upgraded, 3 newly installed, 0 to remove and 0 not upgraded.
Need to get 548 kB of archives.
```

Berikan izin ssh untuk memasuki ufw supaya ssh dapat diakses.

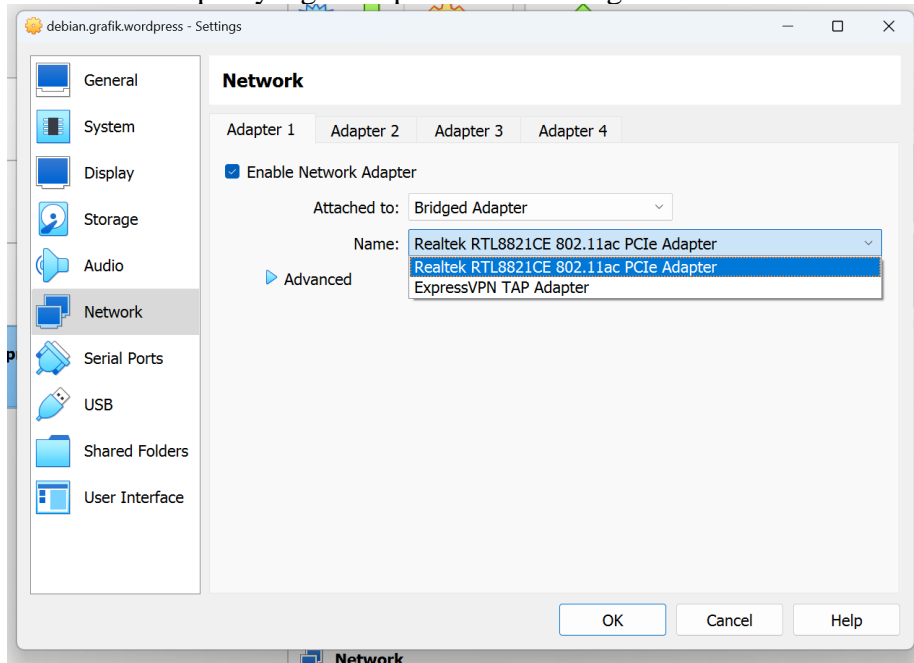
```
Rule added
Rule added (v6)
```

#### 4. Lakukan akses via aplikasi putty dari desktop windows ke linux anda

Tutup debian. Pergi ke setting di home lalu network lalu NAT ke Bridge Adapter untuk dapat memunculkan ip linux.



Pilih nama adapter yang anda pakai untuk mengakses wifi. Klik OK. Start Debian kembali.

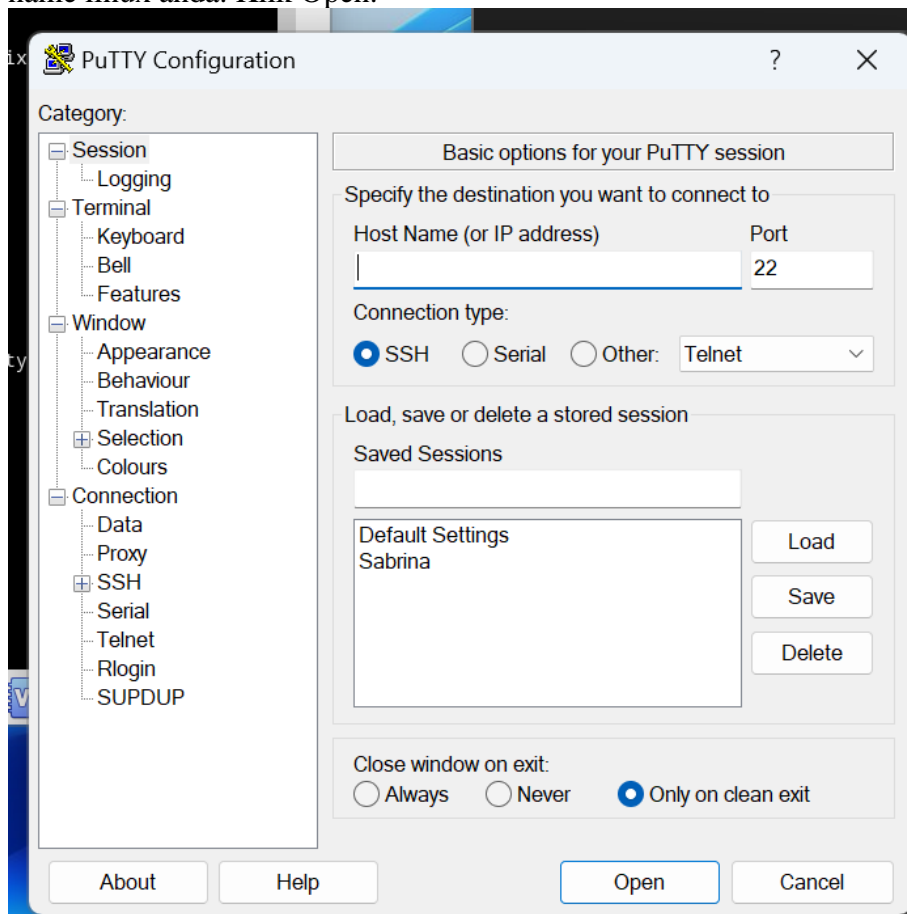


Pergi ke terminal debian, ketikkan ip a untuk melihat ip address anda.

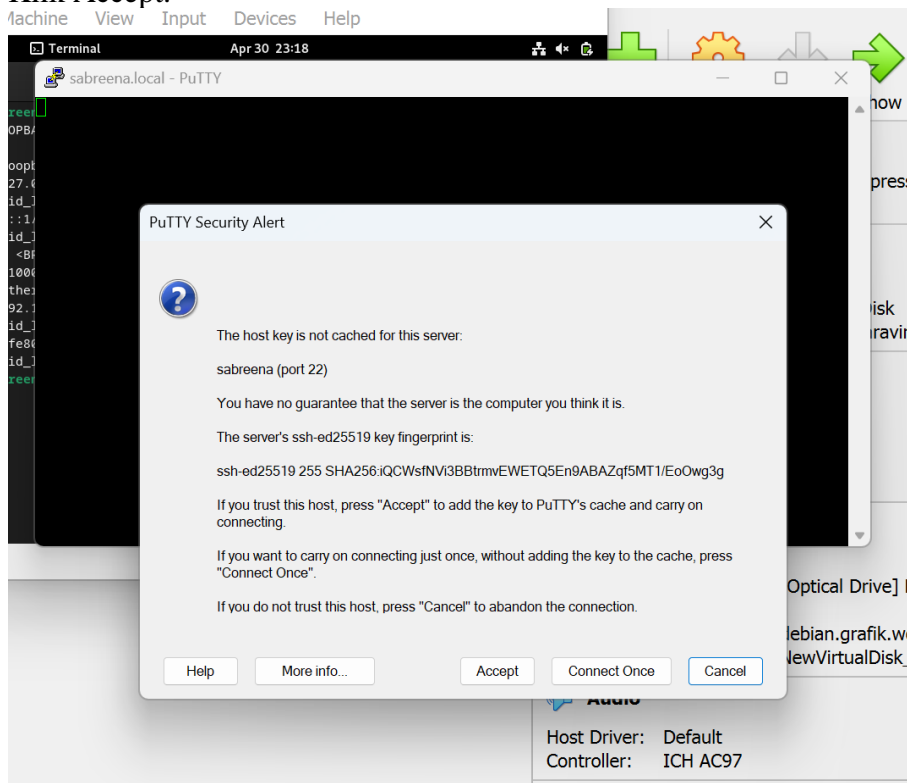
```
Activities  Terminal  Apr 30 22:40
breena@sabreena: ~
breena@sabreena:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
        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:d4:33:ed brd ff:ff:ff:ff:ff:ff
    inet 192.168.1.65/24 brd 192.168.1.255 scope global dynamic noprefixroute enp0s3
        valid_lft 86344sec preferred_lft 86344sec
    inet6 fe80::a00:27ff:fed4:33ed/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
breena@sabreena:~$
```

Install Putty di <https://www.putty.org/>

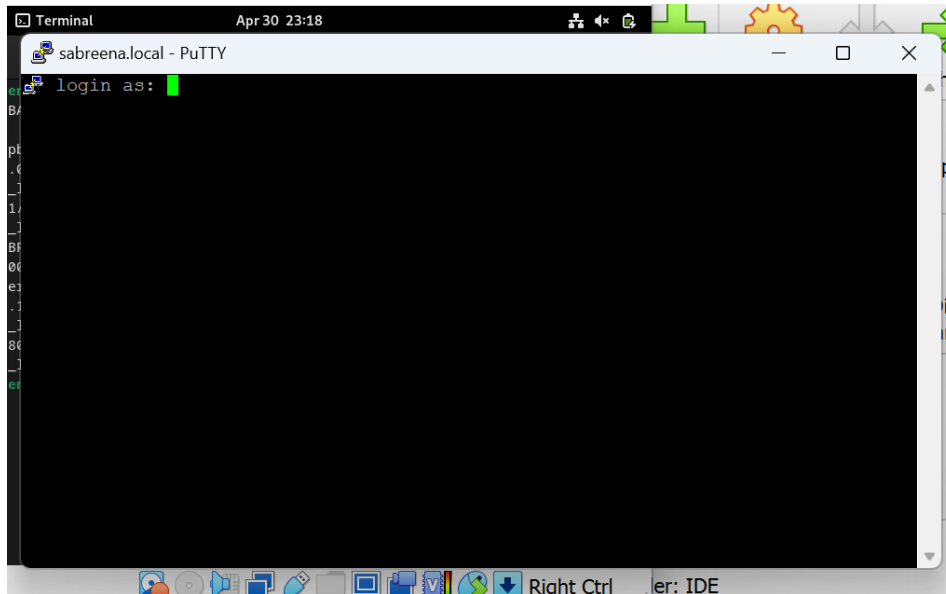
Setelah menginstall PuTTY, buka aplikasi tersebut dan masukkan alamat ip linux atau host name linux anda. Klik Open.



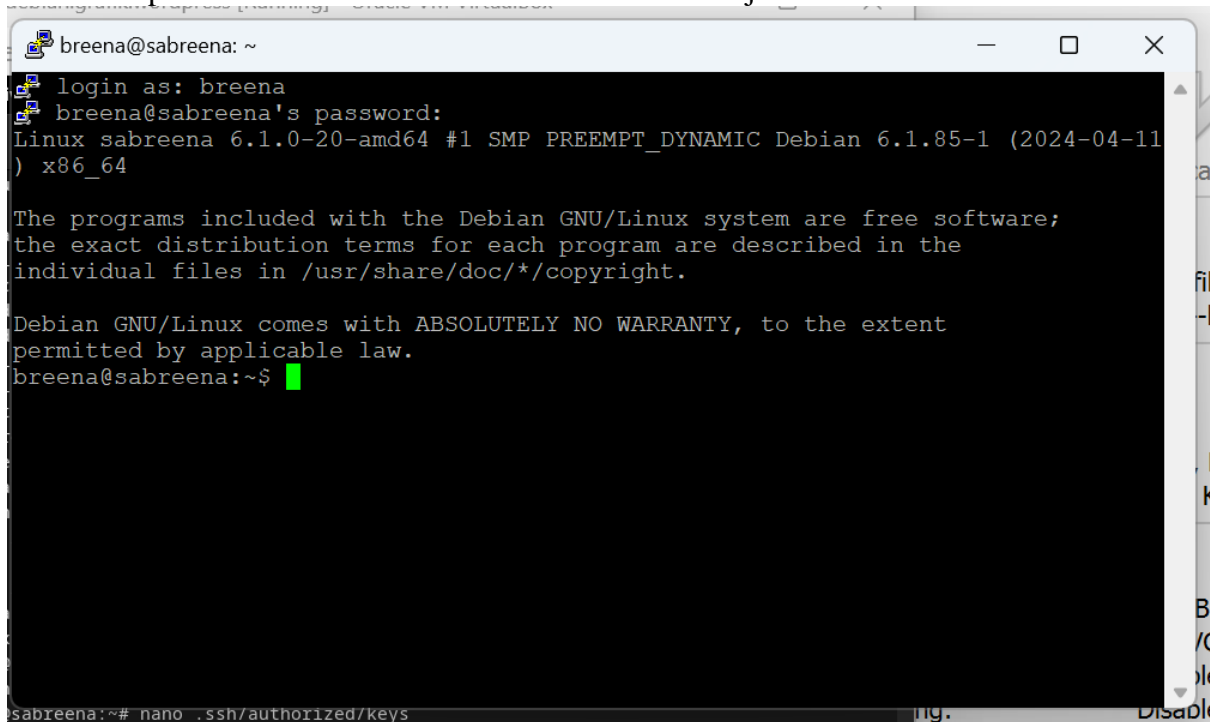
Klik Accept.



Masukkan username linux anda.



Masukkan password linux anda. Maka PuTTY berhasil dijalankan.



## 5. Install tmux di linux anda untuk memungkinkan bisa membuka beberapa terminal sekaligus sebagai konsep runlevel

Install tmux lalu buat sesi baru di terminal

```
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libevent-core-2.1-7 libutempter0
The following NEW packages will be installed:
  libevent-core-2.1-7 libutempter0 tmux
0 upgraded, 3 newly installed, 0 to remove and 0 not upgraded.
Need to get 595 kB of archives.
After this operation, 1,493 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://deb.debian.org/debian bookworm/main amd64 libevent-core-2.1-7 amd64 2.1.12-1+b1 [131 kB]
Get:2 http://deb.debian.org/debian bookworm/main amd64 libutempter0 amd64 1.2.1-3+b1 [12.5 kB]
Get:3 http://deb.debian.org/debian bookworm/main amd64 tmux amd64 3.2a-2 [452 kB]
debconf: delaying package configuration, since apt-utils is not installed
Fetched 595 kB in 0s (12.5 MB/s)
Selecting previously unselected package libevent-core-2.1-7:amd64.
(Reading database ... 123456 files and directories currently installed.)
Preparing to unpack .../libevent-core-2.1-7_2.1.12-1+b1_amd64.deb ...
Unpacking libevent-core-2.1-7:amd64 (2.1.12-1+b1) ...
Selecting previously unselected package libutempter0:amd64.
Preparing to unpack .../libutempter0_1.2.1-3+b1_amd64.deb ...
Unpacking libutempter0:amd64 (1.2.1-3+b1) ...
Selecting previously unselected package tmux.
Preparing to unpack .../tmux_3.2a-2_amd64.deb ...
Unpacking tmux (3.2a-2) ...
Setting up libevent-core-2.1-7:amd64 (2.1.12-1+b1) ...
Setting up libutempter0:amd64 (1.2.1-3+b1) ...
Setting up tmux (3.2a-2) ...
```

Buatlah sesi baru di terminal lalu buatlah jendela baru





- Ctrl+b d: Keluar dari sesi tmux tanpa menutupnya.

```
[detached (from session sesi1)]
```

**6. Lakukan instalasi web server apache php dan mysql/mariadb di linux anda dan install wordpress di linux anda**

Install apache2 php apache dan mariadb

```
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libapache2-mod-php8.2 php-common php8.2 php8.2-cli php8.2-common php8.2-mysql
  php8.2-opcache php8.2-readline
Suggested packages:
  php-pear
The following NEW packages will be installed:
  libapache2-mod-php libapache2-mod-php8.2 php php-common php-mysql php8.2 php8.2-cli
  php8.2-common php8.2-mysql php8.2-opcache php8.2-readline
0 upgraded, 11 newly installed, 0 to remove and 0 not upgraded.
Need to get 4,622 kB of archives.
After this operation, 21.7 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://deb.debian.org/debian bookworm/main amd64 php-common all 2:93 [13.1 kB]
Get:2 http://deb.debian.org/debian bookworm/main amd64 libapache2-mod-php all 2:8.2+93
```

Gunakan command berikut untuk keamanan server anda.

```
NOTE: RUNNING ALL PARTS OF THIS SCRIPT IS RECOMMENDED FOR ALL MariaDB
      SERVERS IN PRODUCTION USE!  PLEASE READ EACH STEP CAREFULLY!

In order to log into MariaDB to secure it, we'll need the current
password for the root user. If you've just installed MariaDB, and
haven't set the root password yet, you should just press enter here.

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

Setelah memasukkan password, lakukan konfigurasi seperti dibawah ini.

```
Enter current password for root (enter for none):
OK, successfully used password, moving on...

Setting the root password or using the unix_socket ensures that nobody
can log into the MariaDB root user without the proper authorisation.

You already have your root account protected, so you can safely answer 'n'.

Switch to unix_socket authentication [Y/n] n
... skipping.

You already have your root account protected, so you can safely answer 'n'.

Change the root password? [Y/n] n
... skipping.

By default, a MariaDB installation has an anonymous user, allowing anyone
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

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] n
... skipping.

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] n
... skipping.

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

Reload privilege tables now? [Y/n] y

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@sabreena:~#
```

Gunakan command dibawah ini untuk menginstall wordpress.

```
root@sabreena:~# sudo wget https://wordpress.org/latest.tar.gz
--2024-05-01 10:43:11-- https://wordpress.org/latest.tar.gz
Resolving wordpress.org (wordpress.org)... failed: Name or service not known.
wget: unable to resolve host address 'wordpress.org'
root@sabreena:~# sudo wget https://wordpress.org/latest.tar.gz
--2024-05-01 10:43:21-- https://wordpress.org/latest.tar.gz
Resolving wordpress.org (wordpress.org)... 198.143.164.252, 64:ff9b::c68f:a4fc
Connecting to wordpress.org (wordpress.org)|198.143.164.252|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 24697732 (24M) [application/octet-stream]
Saving to: 'latest.tar.gz'

latest.tar.gz      100%[=====>] 23.55M  4.51MB/s   in 9.1s

2024-05-01 10:43:34 (2.58 MB/s) - 'latest.tar.gz' saved [24697732/24697732]
```

Gunakan command dibawah ini untuk mengekstrak folder gzip wordpress.

```
wordpress/
wordpress/xmlrpc.php
wordpress/wp-blog-header.php
wordpress/readme.html
wordpress/wp-signup.php
wordpress/index.php
wordpress/wp-cron.php
wordpress/wp-config-sample.php
wordpress/wp-login.php
wordpress/wp-settings.php
wordpress/license.txt
wordpress/wp-content/
wordpress/wp-content/themes/
wordpress/wp-content/themes/twentytwentythree/
wordpress/wp-content/themes/twentytwentythree/theme.json
wordpress/wp-content/themes/twentytwentythree/parts/
wordpress/wp-content/themes/twentytwentythree/parts/footer.html
wordpress/wp-content/themes/twentytwentythree/parts/comments.html
```

Pindahkan wordpress ke /var/www/html

```
~# sudo mv wordpress /var/www/html/
~# ls /var/www/html
```

Masukkan command dibawah ini untuk mengatur skrip database server.

```
root@sabreena:~# sudo mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 31
Server version: 10.11.6-MariaDB-0+deb12u1 Debian 12

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

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

MariaDB [(none)]>
```

Masukkan script dibawah ini untuk membuat database wordpress mengkonfigurasi server.

```
MariaDB [(none)]> CREATE DATABASE wordpress;
Query OK, 1 row affected (0.005 sec)

MariaDB [(none)]> CREATE USER 'wordpressuser'@'localhost' IDENTIFIED BY 'password';
Query OK, 0 rows affected (0.016 sec)

MariaDB [(none)]> GRANT ALL PRIVILEGES ON wordpress.* TO 'wordpressuser'@'localhost';
Query OK, 0 rows affected (0.040 sec)

MariaDB [(none)]> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.001 sec)

MariaDB [(none)]> EXIT;
Bye
```

Masukkan kode dibawah ini untuk mengcopy konfigurasi sample wordpress ke wp-config.

```
root@sabreena:~# sudo cp /var/www/html/wordpress/wp-config-sample.php /var/www/html/wordpress/wp-config.php
```

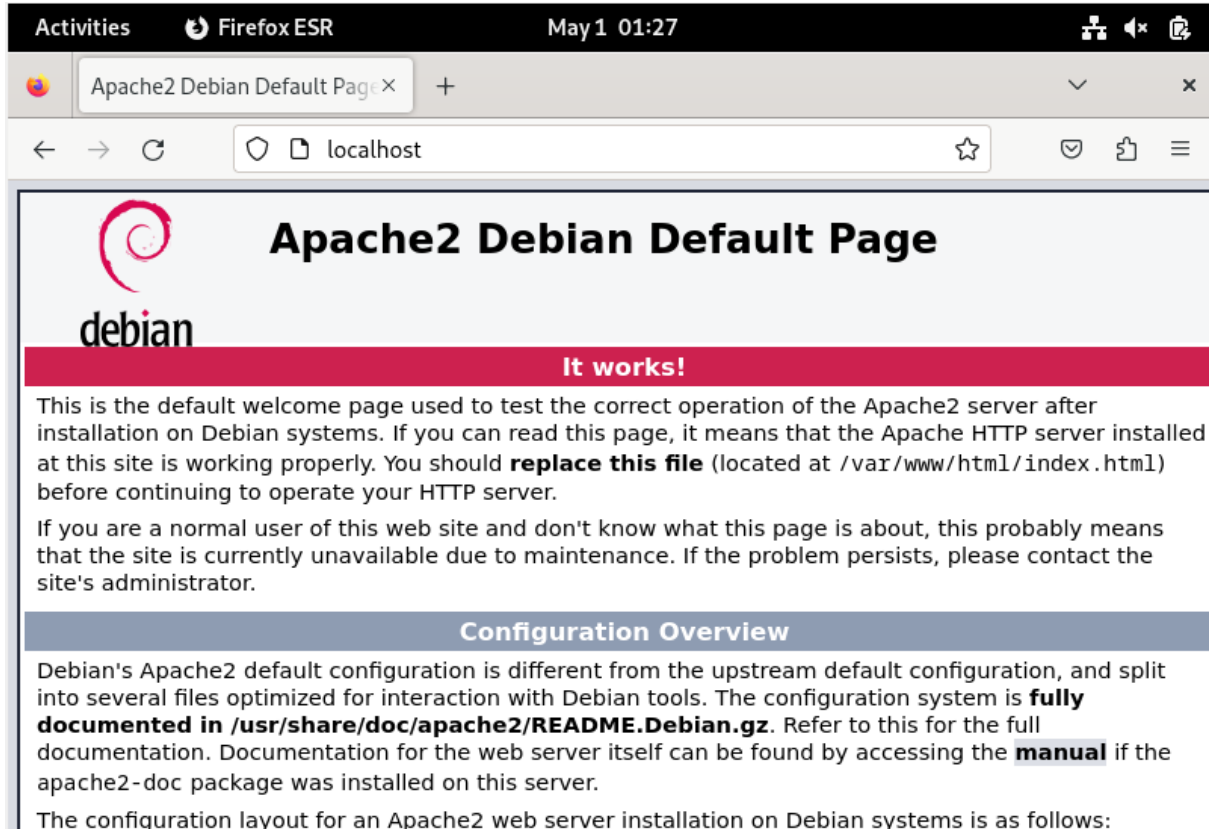
Buka file konfigurasi wp-config lalu ubahlah skrip wp-confignya

```
root@sabreena:~# sudo nano /var/www/html/wordpress/wp-config.php
```

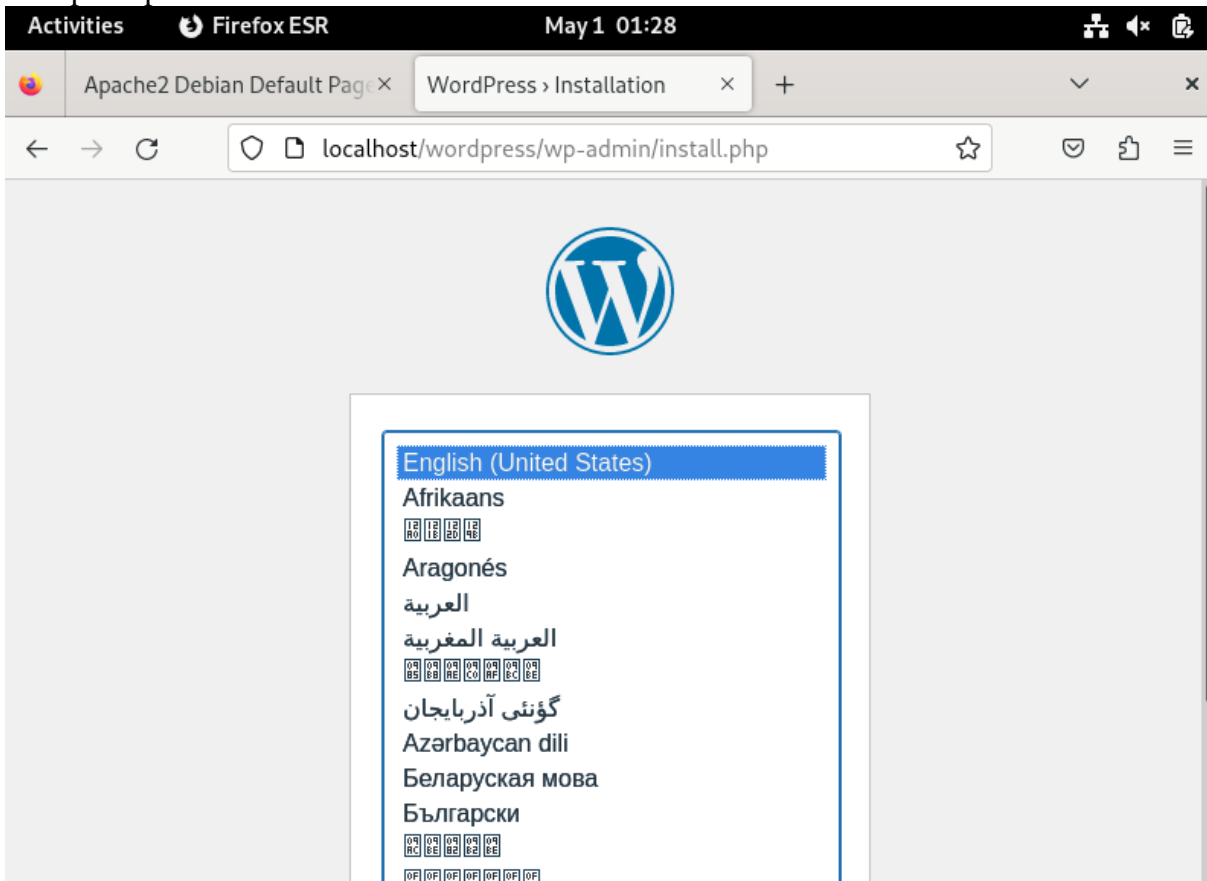
Ubahlah hak kepemilikan dan hak akses menggunakan command dibawah ini.

```
/var/www/html# sudo chown -R www-data:www-data /var/www/html/wordpress
/var/www/html# sudo chmod -R 755 /var/www/html/wordpress
```

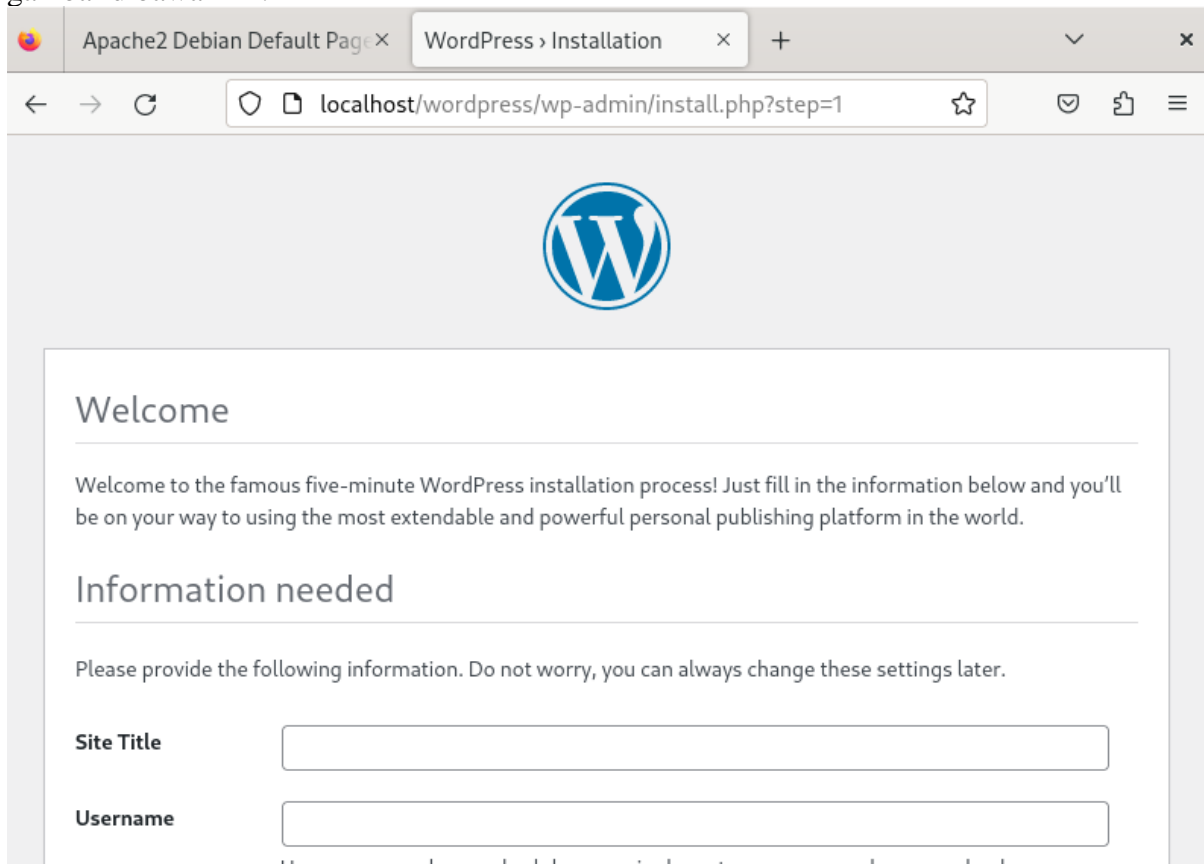
Cobalah untuk membuka localhost di browser linux anda.



Setelah berhasil, bukalah localhost/wordpress/wp-admin/ untuk melakukan instalasi wordpress pada browser linux anda.



Setelah memiliki bahasa, maka akan muncul pembuatan username dan title wordpress seperti gambar dibawah ini.



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.

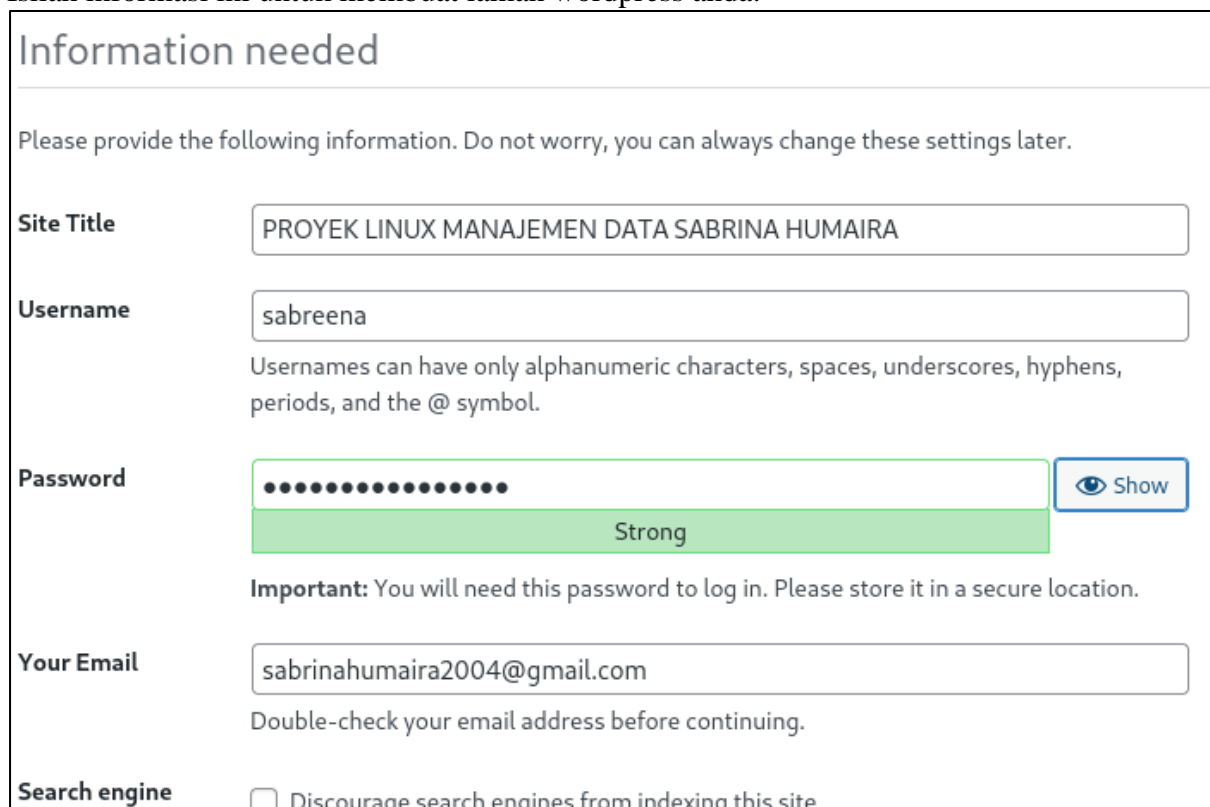
### Information needed

Please provide the following information. Do not worry, you can always change these settings later.

**Site Title**

**Username**

Isilah informasi ini untuk membuat laman wordpress anda.



### Information needed

Please provide the following information. Do not worry, you can always change these settings later.

**Site Title**

**Username**

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

**Password**  [Show](#)

**Strong**

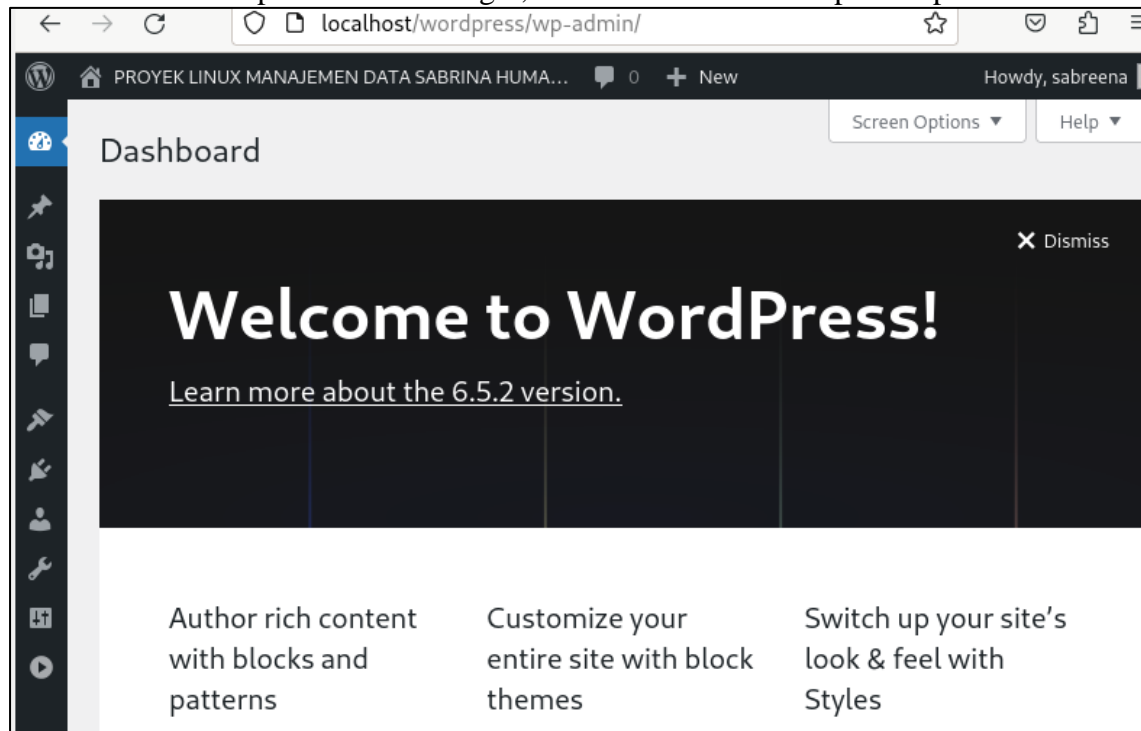
**Important:** You will need this password to log in. Please store it in a secure location.

**Your Email**

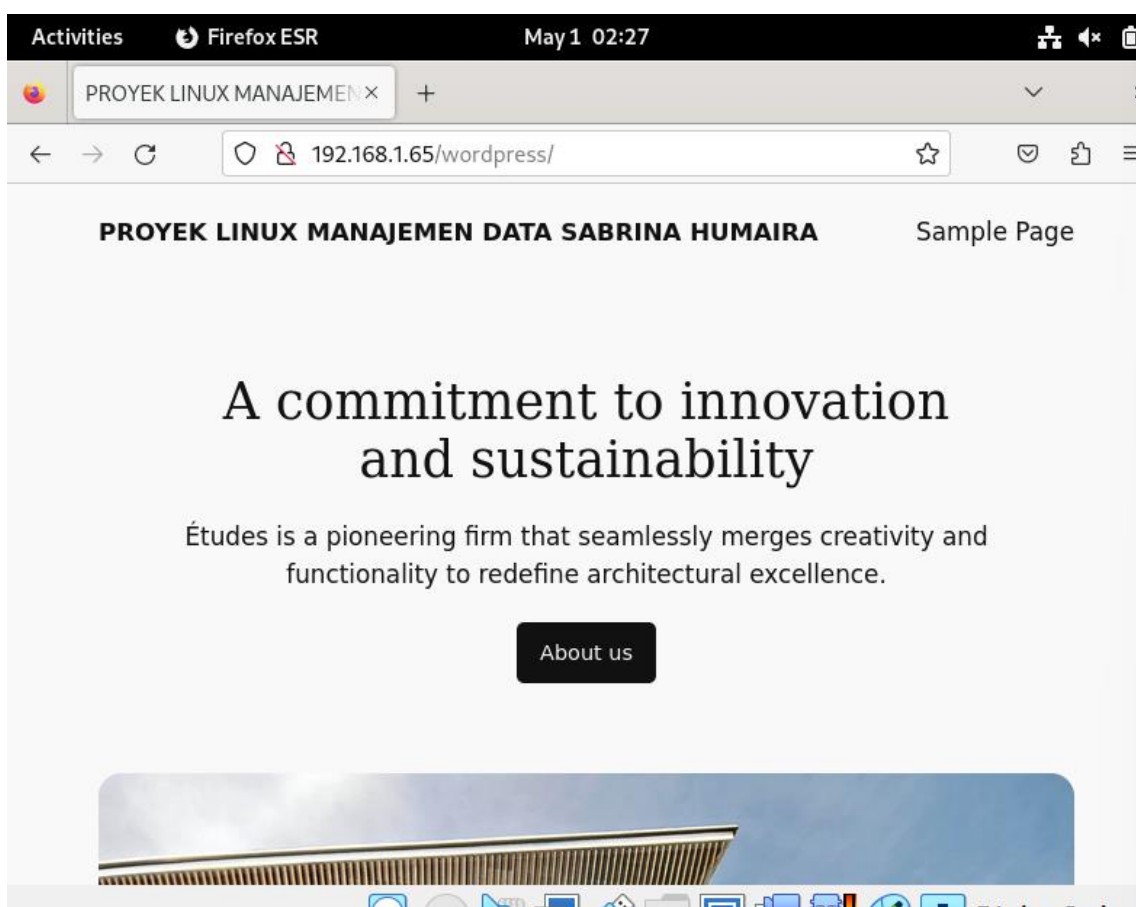
Double-check your email address before continuing.

**Search engine** ☐ Discourage search engines from indexing this site

Setelah melakukan pendaftaran dan login, maka akan muncul tampilan seperti dibawah ini.



Kemudian, coba akses kembali <http://alamat ip anda/wordpress/> di browser linux anda. Jika berhasil, maka akan muncul tampilan seperti gambar dibawah ini.





### ADDITIONAL CONDITION:

- Jika **web localhost atau apache2 tidak bisa dibuka**, maka error tersebut disebabkan oleh instalasi apache2 anda. Lakukan uninstall apache2, restart pc anda, dan install ulang kembali.
- Jika **wordpress tidak bisa dibuka**, maka terdapat error pada database server atau pada instalasi wordpress anda. Lakukan uninstall server mariadb dan wordpress, kemudian restart pc anda, dan install ulang kembali.

Error establishing a database connection

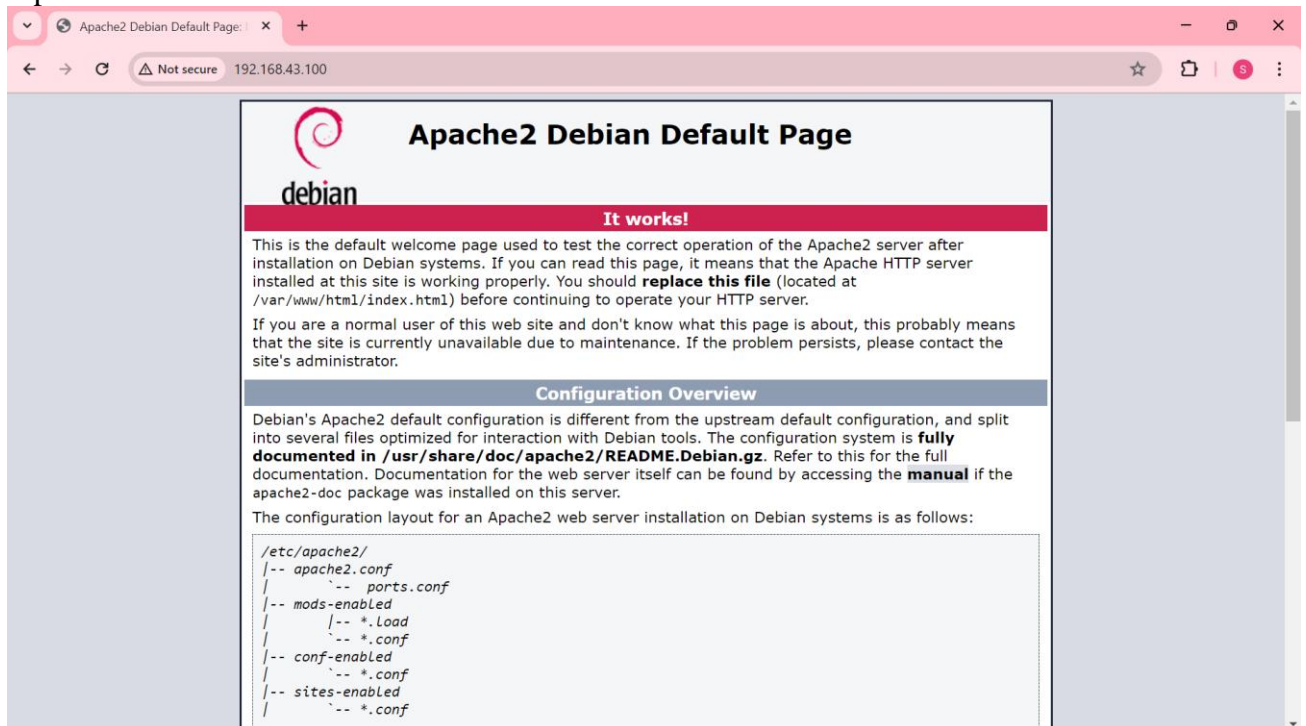
### 7. Dari dekstop windows akses wordpress yang sudah anda buat untuk memastikan hasil instalasi wordpress anda

Pastikan firewall/ufw memperbolehkan mengakses web pada port 80 dan https pada port 443.

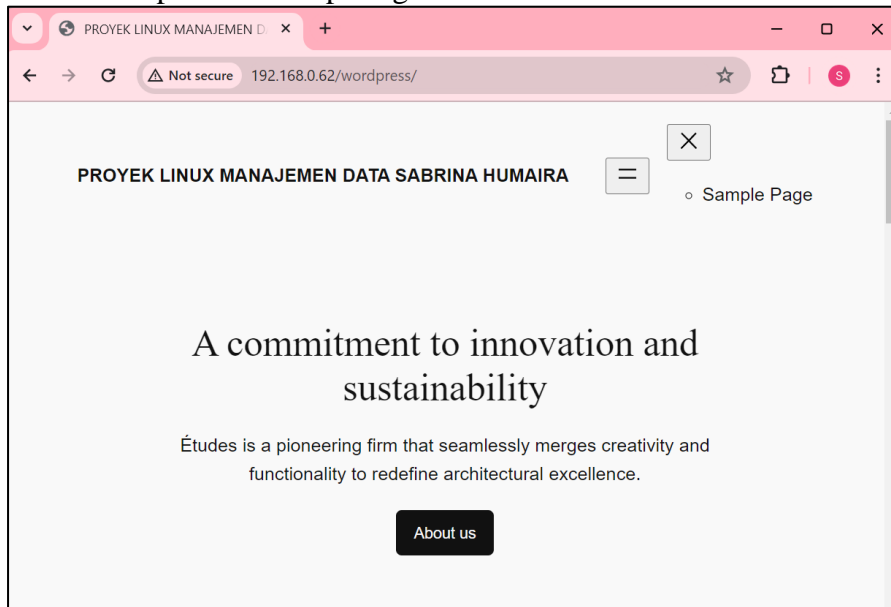
```
root@sabreena:~# sudo ufw allow 80/tcp
```

```
root@sabreena:~# sudo ufw allow 443/tcp
```

Kemudian masukkan alamat ip anda pada browser desktop windows. Maka akan muncul seperti dibawah ini.

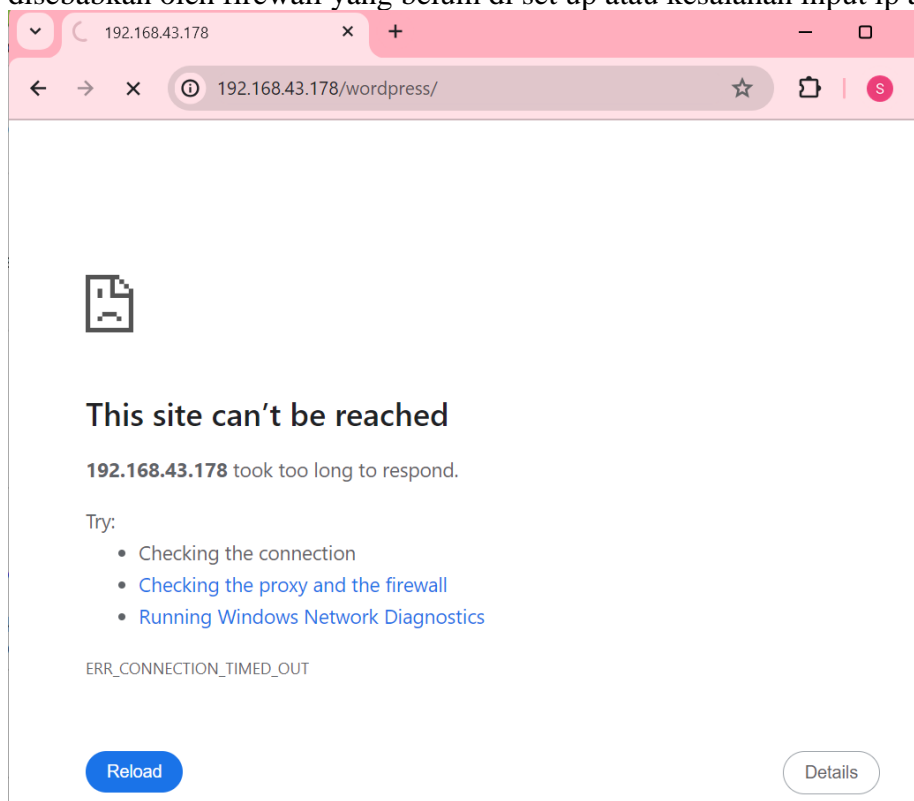


Masukkan alamat ip anda/wordpress pada browser desktop windows. Maka akan muncul laman wordpress anda seperti gambar dibawah ini.

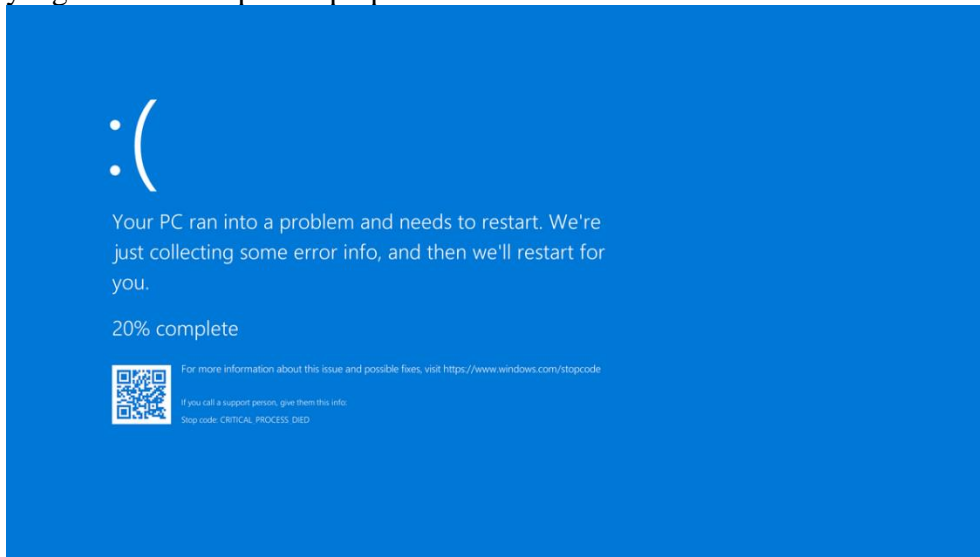


### ADDITIONAL CONDITION:

- Jika **browser linux dan windows tidak bisa dihubungkan**, maka error tersebut disebabkan oleh firewall yang belum di set up atau kesalahan input ip address.

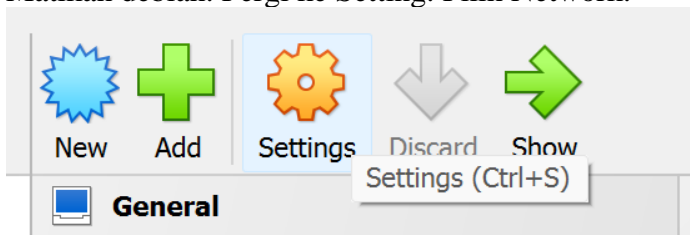


- Jika **terjadi blue screen pada saat memasukkan alamat ip**, maka terdapat error pada software laptop anda atau laptop anda mengalami crash dikarenakan konfigurasi yang terlalu berat pada laptop anda.

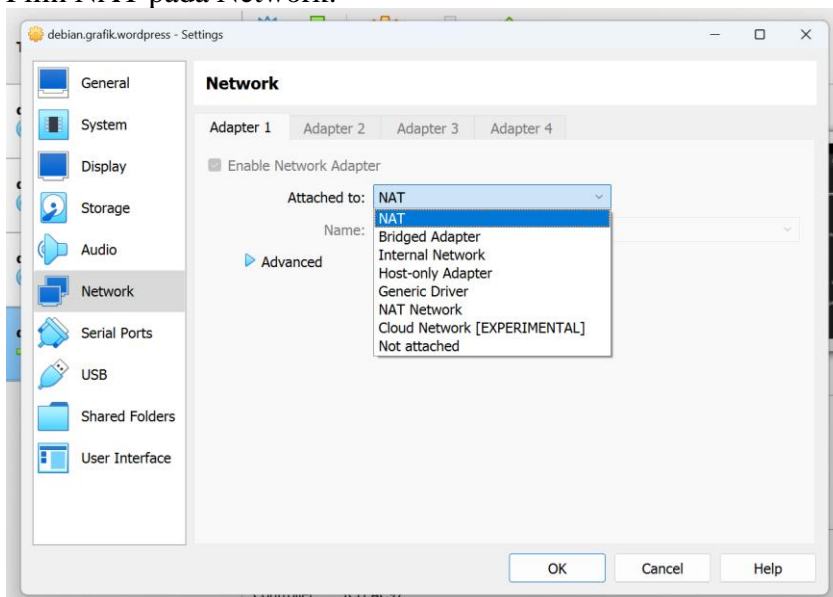


Maka, sebagai solusi ketika laptop anda tidak dapat melakukan bridge network, maka dapat dilakukan perubahan network ke NAT. Tetapi terdapat kekurangan dimana ketika menggunakan NAT maka wordpress anda hanya dapat digunakan untuk perangkat yang terhubung ke jaringan internet yang sama dengan mesin linux anda.

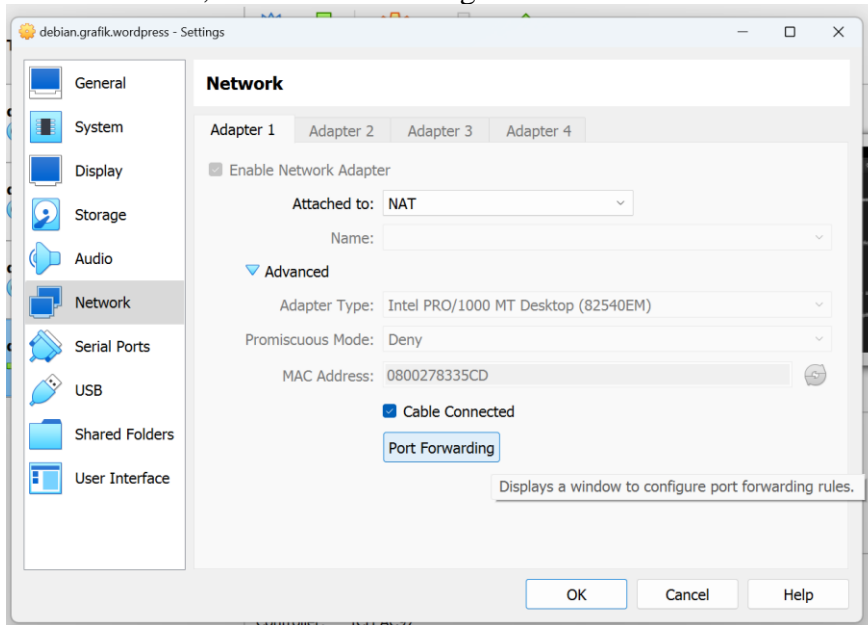
Berikut cara untuk mengubah jaringan ke NAT dan juga tambahan set up nya:  
Matikan debian. Pergi ke Setting. Pilih Network.



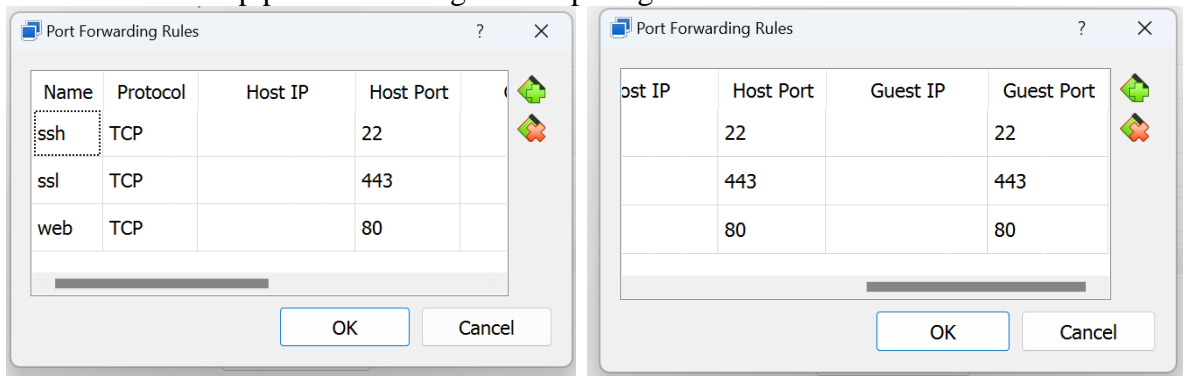
Pilih NAT pada Network.



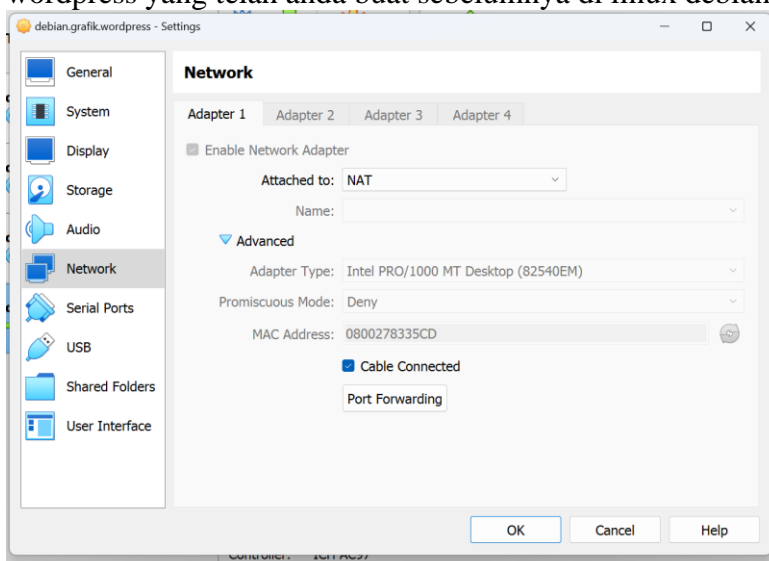
Buka advanced, klik Port Forwarding.



Tambahkan set up port forwarding rules seperti gambar dibawah ini. Klik OK.



Klik OK. Setelah itu mulai kembali membuka debian anda. Coba masukkan alamat ip anda ke browser desktop windows anda, jika tidak ada masalah maka akan muncul apache2. Kemudian buka alamat ip anda/wordpress/ maka akan muncul laman wordpress yang telah anda buat sebelumnya di linux debian anda.



**8. Isikan beberapa file ke direktory user misal terdapat user1 maka masukkan ke direktory /home/user1 dan isikan beberapa file**

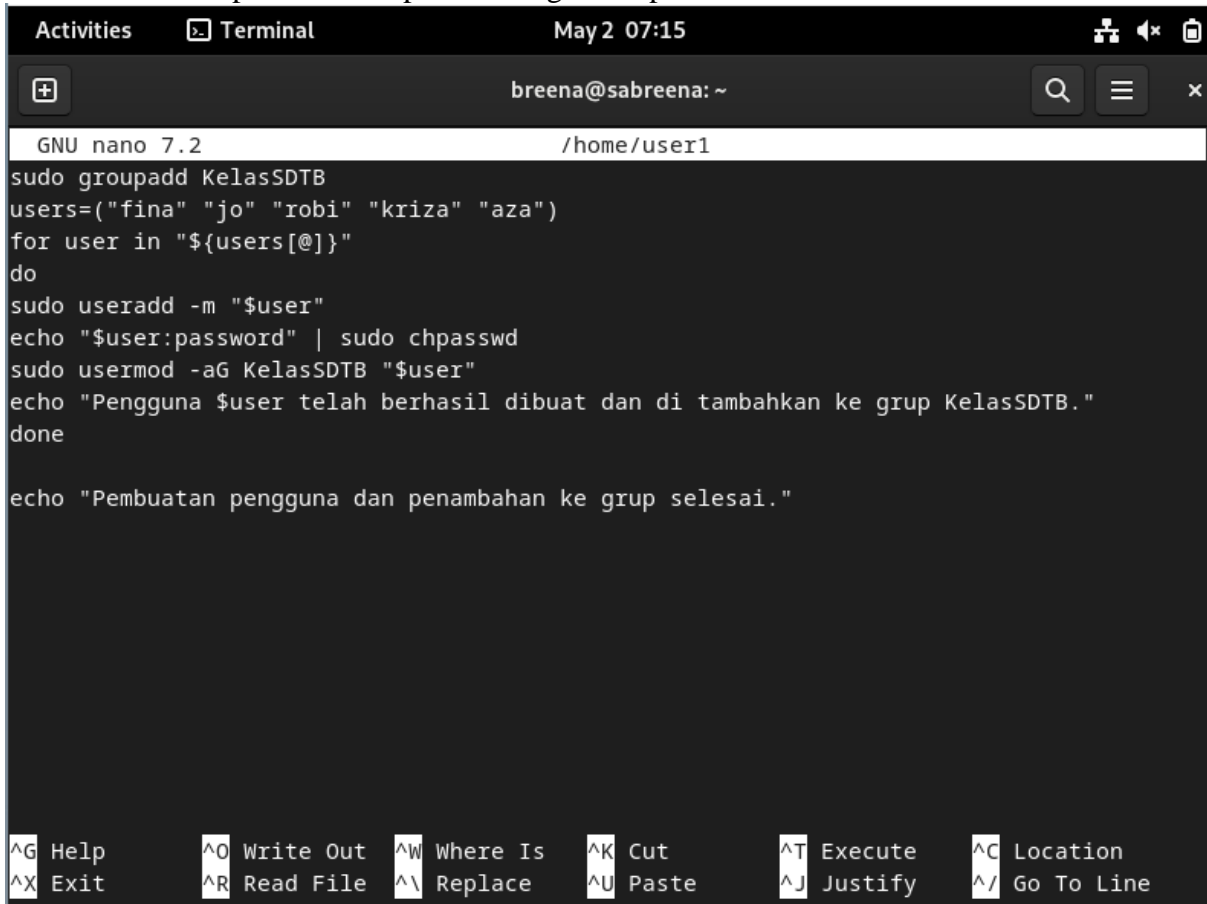
Salin file create\_users.sh ke direktori /home/user1

```
root@sabreena:~# cp create_users.sh /home/user1
```

Buka skrip /home/user1 menggunakan nano

```
root@sabreena:~# nano /home/user1
```

Periksa kembali apakah isi skrip sama dengan skrip create\_users.sh



```
Activities Terminal May 2 07:15
breena@sabreena: ~
GNU nano 7.2 /home/user1
sudo groupadd KelasSDTB
users=("fina" "jo" "robi" "kriza" "aza")
for user in "${users[@]}"
do
sudo useradd -m "$user"
echo "$user:password" | sudo chpasswd
sudo usermod -aG KelasSDTB "$user"
echo "Pengguna $user telah berhasil dibuat dan di tambahkan ke grup KelasSDTB."
done

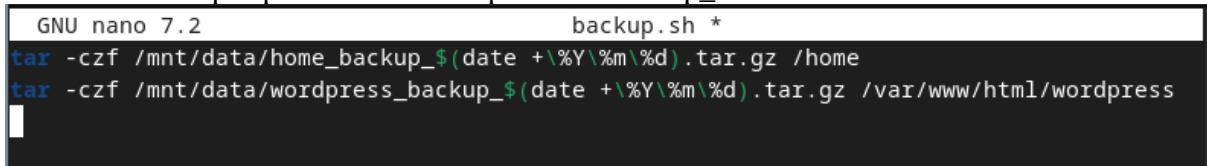
echo "Pembuatan pengguna dan penambahan ke grup selesai."
```

**9. Backup secara periodik setiap jam 02.00 AM direktory home dan direktori wordpress anda ke /mnt/data**

Buatlah file backup.sh

```
root@sabreena:~# nano backup.sh
```

Tambahkan skrip seperti dibawah ini pada file backup.sh



```
GNU nano 7.2 backup.sh *
tar -czf /mnt/data/home_backup_$(date +%Y%m%d).tar.gz /home
tar -czf /mnt/data/wordpress_backup_$(date +%Y%m%d).tar.gz /var/www/html/wordpress
```

Ubah izin akses dengan command dibawah ini.

```
root@sabreena:~# chmod +x backup.sh
```

Install crontab, pilih editor 1. /bin/nano

```
root@sabreena:~# crontab -e
no crontab for root - using an empty one

Select an editor. To change later, run 'select-editor'.
 1. /bin/nano          <---- easiest
 2. /usr/bin/vim.tiny

Choose 1-2 [1]: 1
crontab: installing new crontab
```

Tambahkan skrip pada crontab seperti gambar dibawah ini. 0 2 \* \* \* memiliki arti yakni backup dilakukan pukul 02.00AM setiap hari, per bulan, dan per tahunnya. Jangan lupa untuk Ctrl + O yang berfungsi untuk menyimpan skrip. Kemudian Ctrl + x untuk menutup skrip.

```
GNU nano 7.2 /tmp/crontab.CHYfw7/crontab
# Each task to run has to be defined through a single line
# indicating with different fields when the task will be run
# and what command to run for the task
#
# To define the time you can provide concrete values for
# minute (m), hour (h), day of month (dom), month (mon),
# and day of week (dow) or use '*' in these fields (for 'any').
#
# Notice that tasks will be started based on the cron's system
# daemon's notion of time and timezones.
#
# Output of the crontab jobs (including errors) is sent through
# email to the user the crontab file belongs to (unless redirected).
#
# For example, you can run a backup of all your user accounts
# at 5 a.m every week with:
# 0 5 * * 1 tar -zcf /var/backups/home.tgz /home/
#
# For more information see the manual pages of crontab(5) and cron(8)
#
# m h dom mon dow   command
0 2 * * * /root/backup.sh
```

Untuk melihat data backup gunakan command dibawah ini. Saat ini belum terdapat data yang telah di backup dikarenakan belum pukul 02.00AM

```
root@sabreena:~# ls -l /mnt/data/home_backup
total 0
```