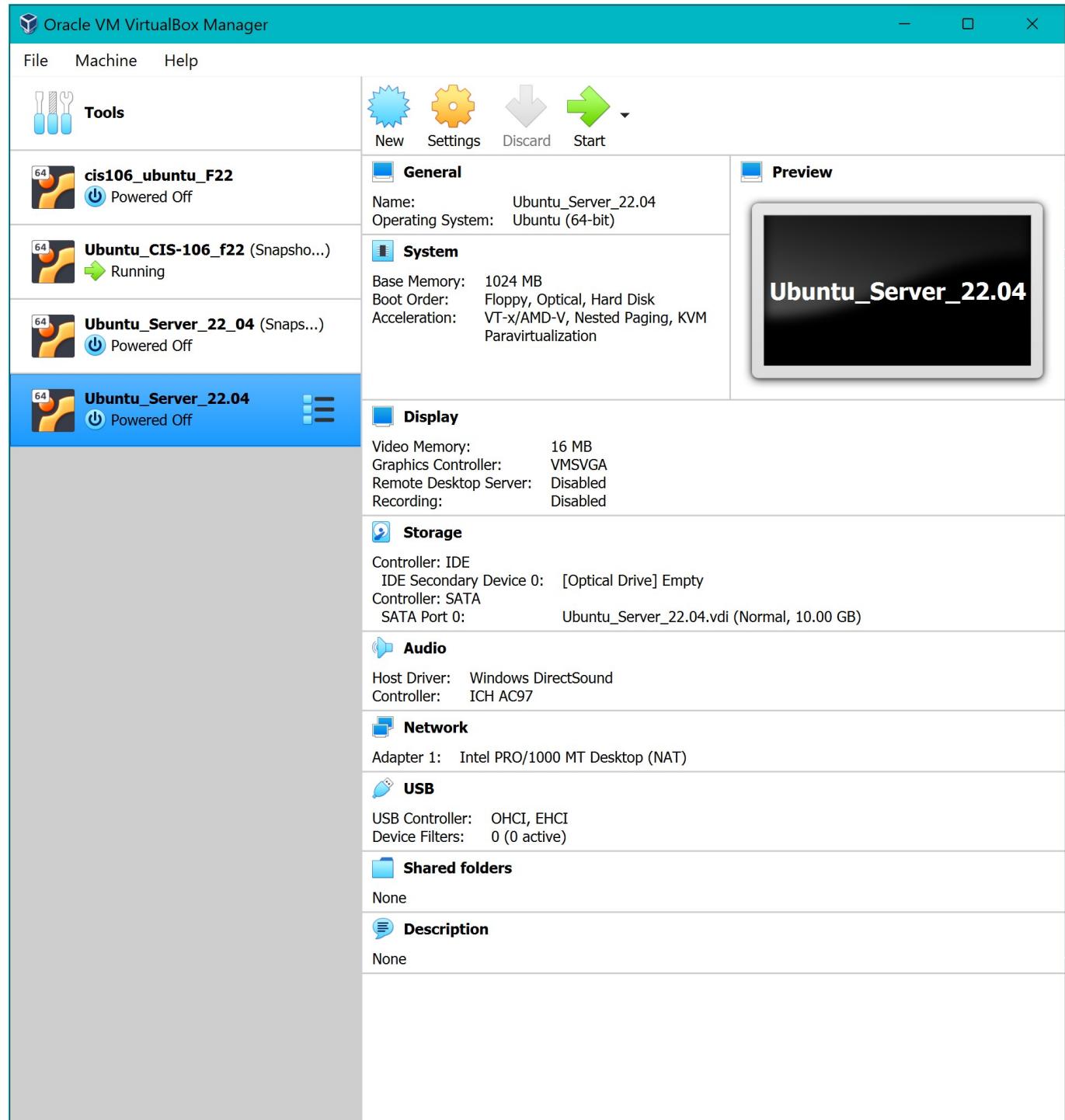
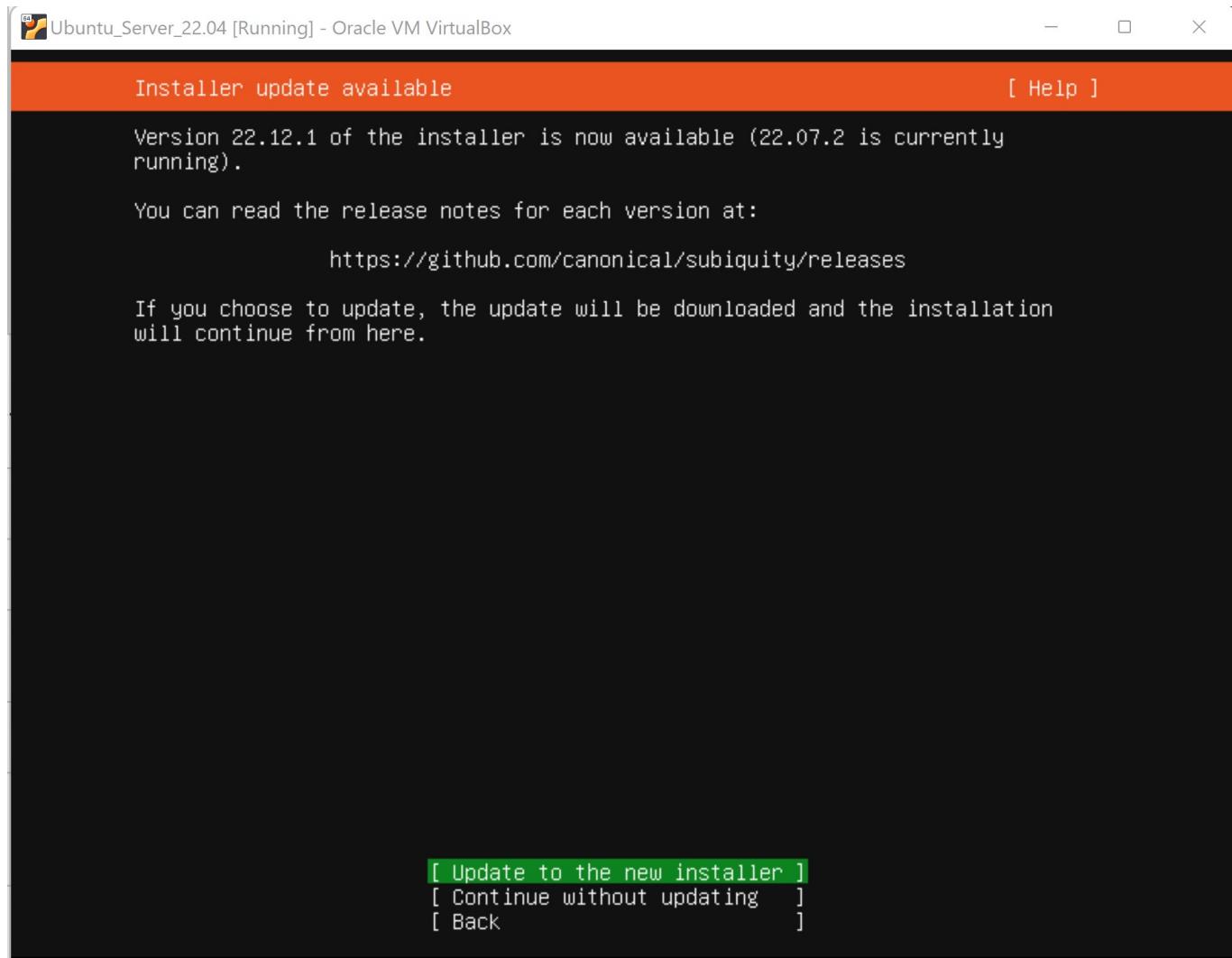


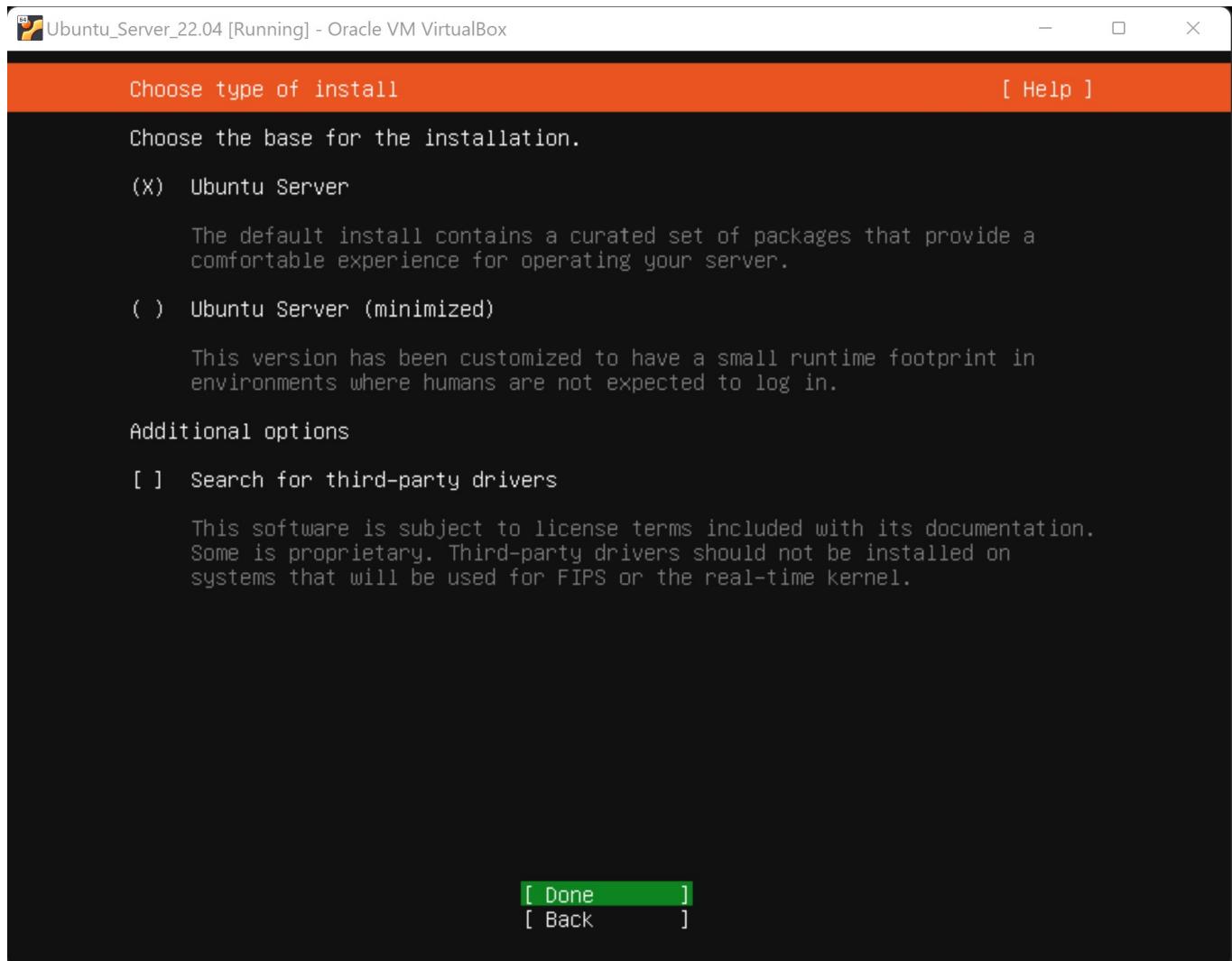
Sever Installed

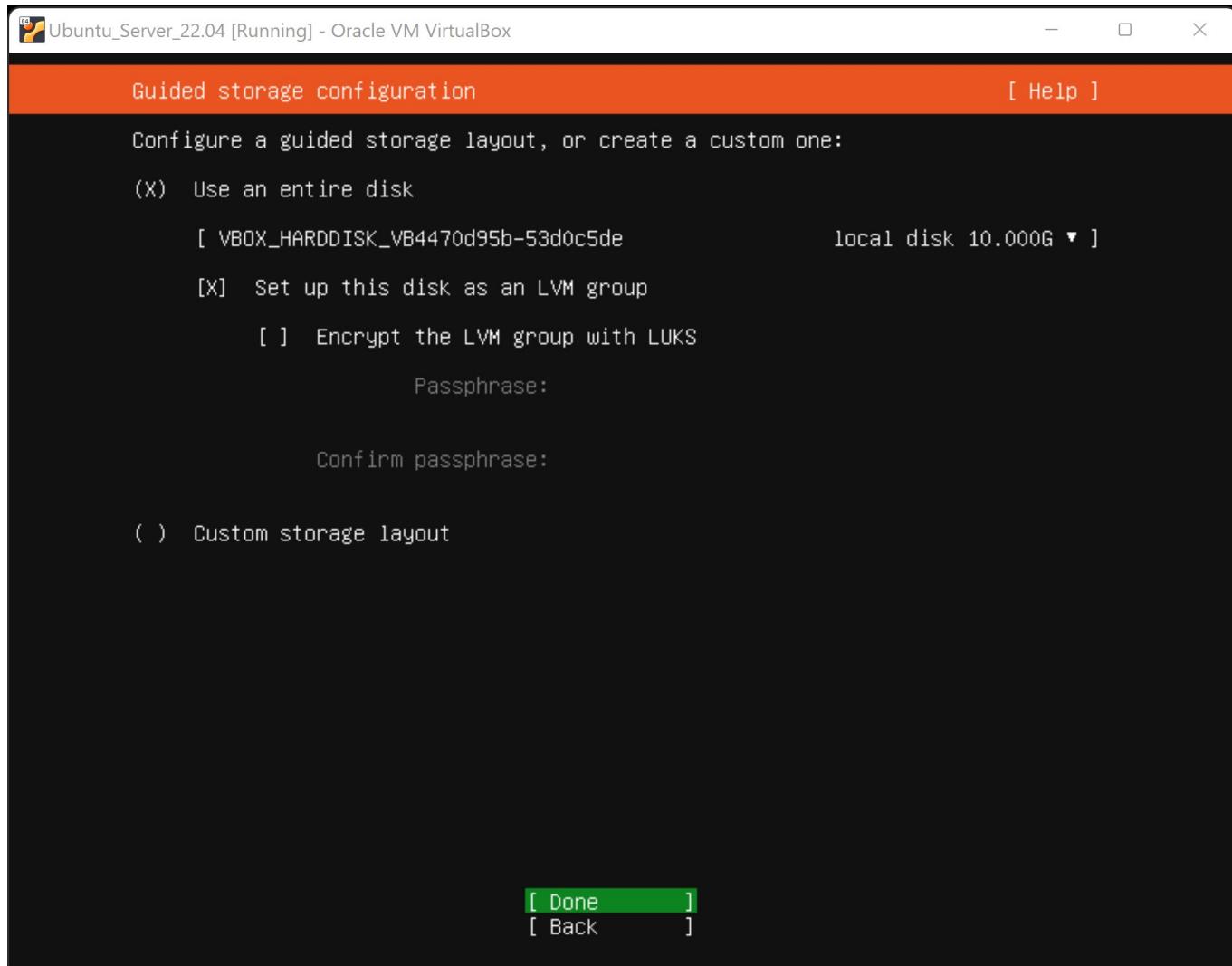
Recommended Requirement System

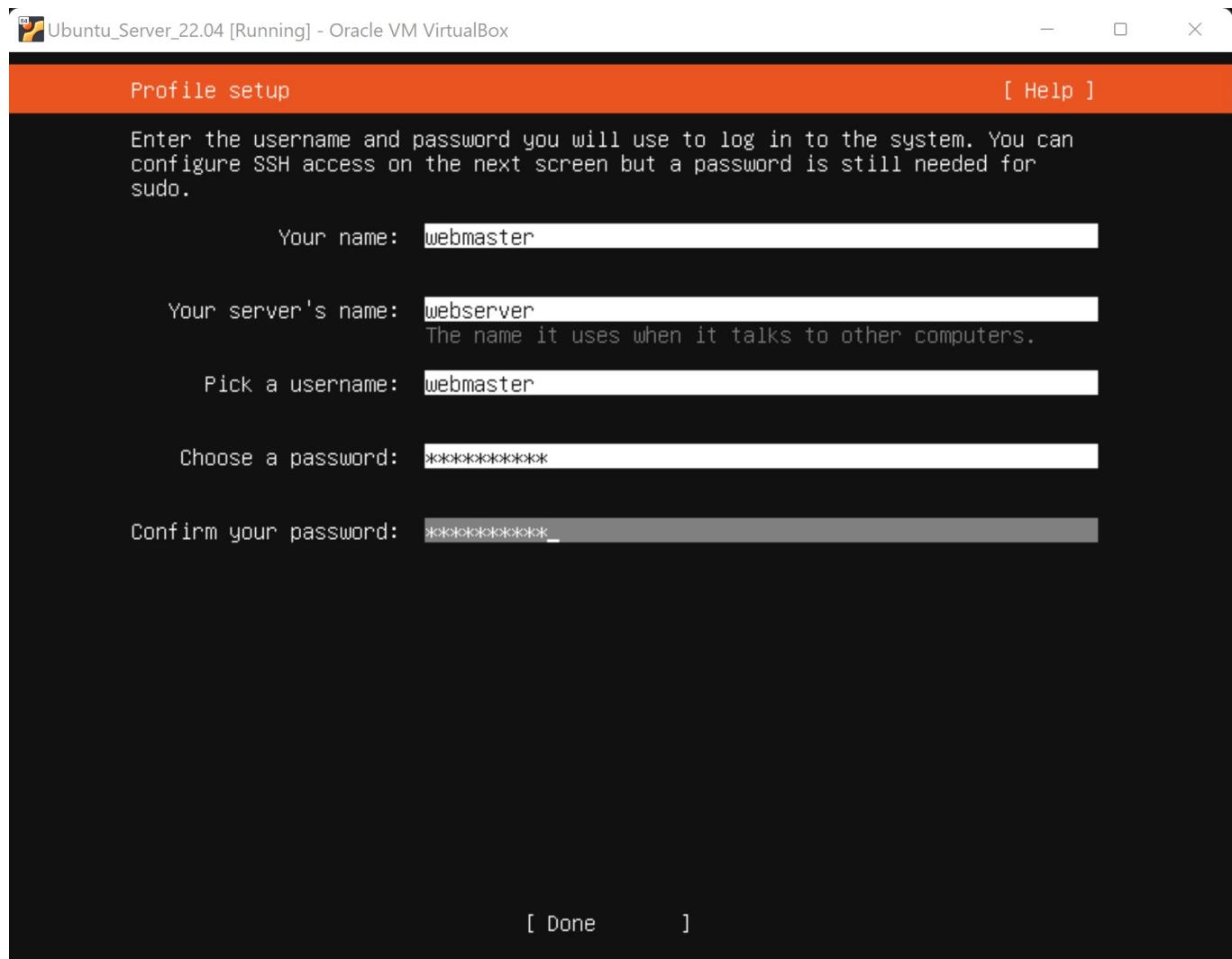
In order to create a server there will be a few step the user will need to take. The most important step would be to make user there is a good amount of system storage where the server can be save. Most commonly use Ubuntu can be use as a web-server and for the virtual machine the use of virtualbox will be helping set up the server, remember that once ubuntu is download and set with the virtual box then the user can create a user name, server name, pick name and create a password. There will be SSH set up which will be install but there will not be any import identity and last there will have to be a waiting time until server is install

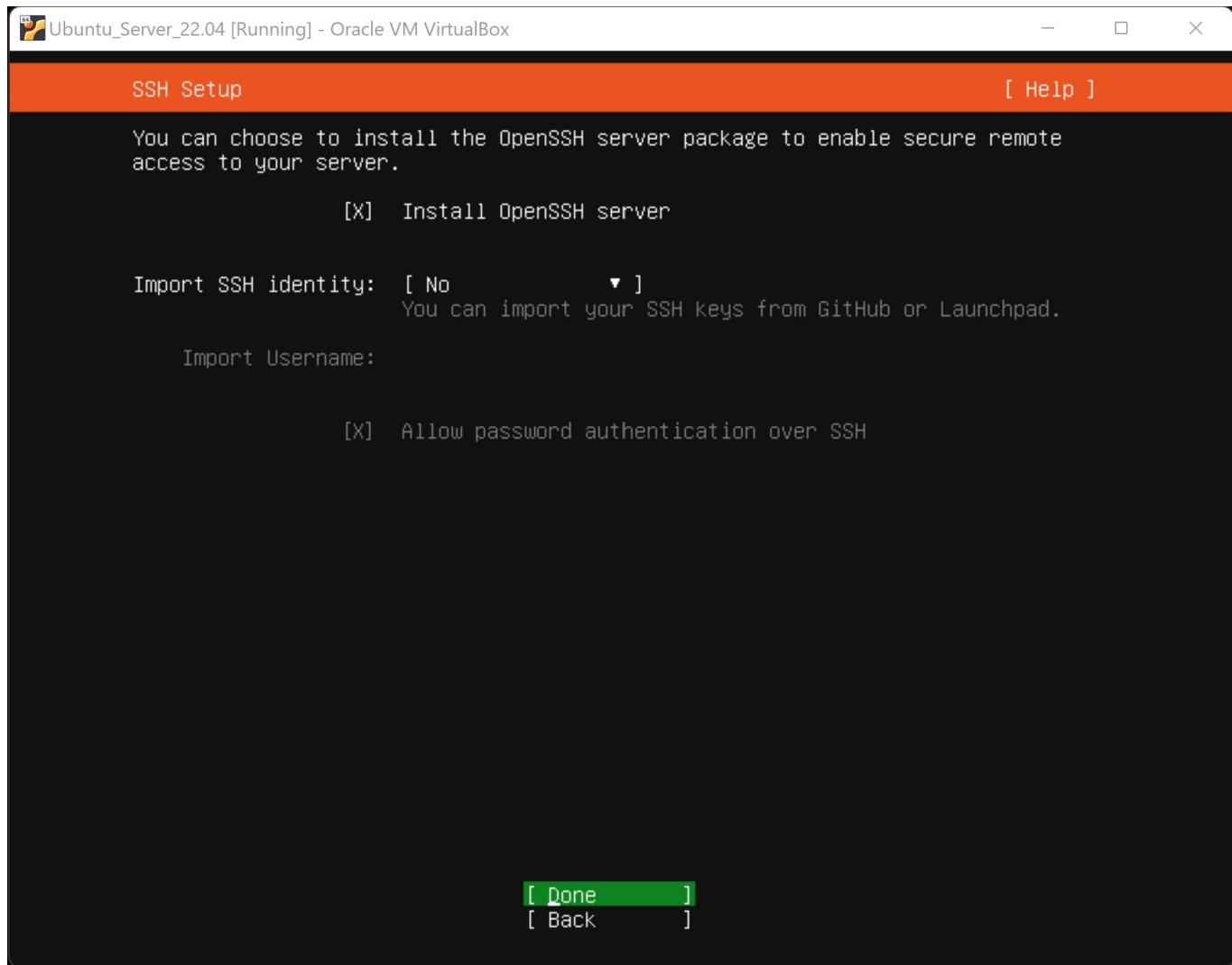












Ubuntu_Server_22.04 [Running] - Oracle VM VirtualBox

Installing system [Help]

```
configuring disk: disk-sda
configuring partition: partition-0
configuring partition: partition-1
configuring format: format-0
configuring partition: partition-2
configuring lvm_vvolgroup: lvm_vvolgroup-0
configuring lvm_partition: lvm_partition-0
configuring format: format-1
configuring mount: mount-1
configuring mount: mount-0
executing curtin install extract step
curtin command install
writing install sources to disk
running 'curtin extract'
curtin command extract
acquiring and extracting image from cp:///tmp/tmpqrnkf9oa/mount
executing curtin install curthooks step
curtin command install
configuring installed system
running 'mount --bind /cdrom /target/cdrom'
running 'curtin in-target -- setupcon --save-only'
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 ]
```

```
Ubuntu 22.04.1 LTS webserver tty1

webserver login: webmaster
Password:
Welcome to Ubuntu 22.04.1 LTS (GNU/Linux 5.15.0-56-generic x86_64)

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

System information as of Thu Dec 22 08:29:47 UTC 2022

System load: 0.62255859375    Processes:          114
Usage of /: 50.4% of 8.02GB   Users logged in:      0
Memory usage: 19%            IPv4 address for enp0s3: 10.0.2.15
Swap usage:  0%

0 updates can be applied immediately.

Last login: Thu Dec 22 20:21:48 UTC 2022 on tty1
webmaster@webserver:~$
```

Apache Installed

In order to install Apache 2 make sure to use Sudo and once is install then we will try allowing Apache to run. Enabling the firewall will start the system and make the status of the firewall active. The user can then re-check the status and see it will show this time as active but if that is not enough then the user can input the ip address of the server in a website and in return it will show Ubuntu website running as default

```
Ubuntu_Server_22.04 (Snapshot 1 Server Install) [Running] - Oracle VM VirtualBox  
Enabling module alias.  
Enabling module dir.  
Enabling module autoindex.  
Enabling module env.  
Enabling module mime.  
Enabling module negotiation.  
Enabling module setenvif.  
Enabling module filter.  
Enabling module deflate.  
Enabling module status.  
Enabling module reqtimeout.  
Enabling conf charset.  
Enabling conf localized-error-pages.  
Enabling conf other-vhosts-access-log.  
Enabling conf security.  
Enabling conf serve-cgi-bin.  
Enabling site 000-default.  
Created symlink /etc/systemd/system/multi-user.target.wants/apache2.service → /lib/systemd/system/apache2.service.  
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.service → /lib/systemd/system/apache-htcacheclean.service.  
Processing triggers for ufw (0.36.1-4build1) ...  
Processing triggers for man-db (2.10.2-1) ...  
Processing triggers for libc-bin (2.35-0ubuntu3.1) ...  
Scanning processes...  
Scanning linux images...  
  
Running kernel seems to be up-to-date.  
  
No services need to be restarted.  
  
No containers need to be restarted.  
  
No user sessions are running outdated binaries.  
  
No VM guests are running outdated hypervisor (qemu) binaries on this host.  
webmaster@webserver:~$ sudo apt install apache2 -y
```

```
Ubuntu_Server_22.04 (Snapshot 1 Server Install) [Running] - Oracle VM VirtualBox  
webmaster@webserver:~$ sudo ufw allow 'Apache'  
Skipping adding existing rule  
Skipping adding existing rule (v6)  
webmaster@webserver:~$ _
```

```
Ubuntu_Server_22.04 (Snapshot 1 Server Install) [Running] - Oracle VM VirtualBox
webmaster@webserver:~$ sudo ufw status 'Apache'
ERROR: Invalid syntax

Usage: ufw COMMAND

Commands:
enable                                enables the firewall
disable                               disables the firewall
default ARG                           set default policy
logging LEVEL                          set logging to LEVEL
allow ARGS                            add allow rule
deny ARGS                             add deny rule
reject ARGS                           add reject rule
limit ARGS                            add limit rule
delete RULE|NUM                      delete RULE
insert NUM RULE                       insert RULE at NUM
prepend RULE                          prepend RULE
route RULE                           add route RULE
route delete RULE|NUM                 delete route RULE
route insert NUM RULE                 insert route RULE at NUM
reload                                reload firewall
reset                                 reset firewall
status                                show firewall status
status numbered                       show firewall status as numbered list of RULES
status verbose                         show verbose firewall status
show ARG                             show firewall report
version                               display version information

Application profile commands:
app list                               list application profiles
app info PROFILE                      show information on PROFILE
app update PROFILE                     update PROFILE
app default ARG                        set default application policy

webmaster@webserver:~$
```

```
webmaster@webserver:~$ sudo ufw enable
Firewall is active and enabled on system startup
webmaster@webserver:~$ sudo ufw status
Status: active
```

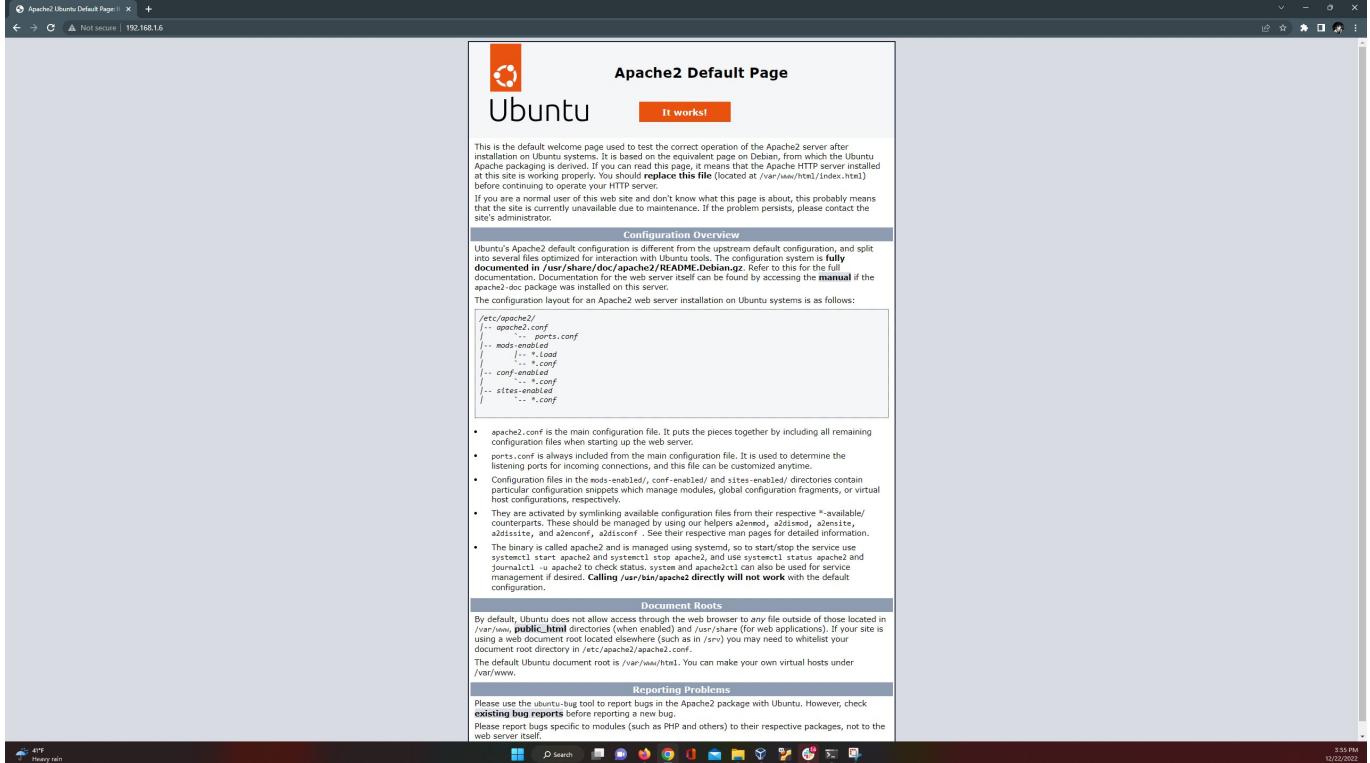
| To | Action | From |
|-------------|--------|---------------|
| -- | ----- | ---- |
| Apache | ALLOW | Anywhere |
| Apache (v6) | ALLOW | Anywhere (v6) |

```
webmaster@webserver:~$
```

```
webmaster@webserver:~$ sudo systemctl status apache2 --no-pager
● apache2.service - The Apache HTTP Server
  Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
  Active: active (running) since Thu 2022-12-22 20:31:17 UTC; 8min ago
    Docs: https://httpd.apache.org/docs/2.4/
   Main PID: 1500 (apache2)
     Tasks: 55 (limit: 1029)
    Memory: 5.1M
      CPU: 99ms
     CGroup: /system.slice/apache2.service
             ├─1500 /usr/sbin/apache2 -k start
             ├─1501 /usr/sbin/apache2 -k start
             └─1502 /usr/sbin/apache2 -k start

Dec 22 20:31:17 webserver systemd[1]: Starting The Apache HTTP Server...
Dec 22 20:31:17 webserver apachectl[1499]: AH00558: apache2: Could not reliably determine the message...
Dec 22 20:31:17 webserver systemd[1]: Started The Apache HTTP Server.
Hint: Some lines were ellipsized, use -l to show in full.
webmaster@webserver:~$
```

```
Ubuntu_Server_22.04 (Snapshot 1 Server Install) [Running] - Oracle VM VirtualBox  
System load: 0.2998046875  
Usage of /: 50.5% of 8.02GB  
Memory usage: 20%  
Swap usage: 0%  
Processes: 119  
Users logged in: 0  
IPv4 address for enp0s3: 192.168.1.6  
IPv6 address for enp0s3: fd22:4e39:e630:1:a00:27ff:feb4:9b24  
  
0 updates can be applied immediately.  
  
Last login: Thu Dec 22 20:29:48 UTC 2022 on tty1  
webmaster@webserver:~$ hostname -I | cut -d ' ' -f1  
192.168.1.6  
webmaster@webserver:~$ sudo systemctl status apache2 --no-pager  
[sudo] password for webmaster:  
● apache2.service - The Apache HTTP Server  
    Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)  
    Active: active (running) since Thu 2022-12-22 20:49:07 UTC; 5min ago  
      Docs: https://httpd.apache.org/docs/2.4/  
    Process: 682 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)  
   Main PID: 752 (apache2)  
     Tasks: 55 (limit: 1029)  
    Memory: 7.7M  
      CPU: 156ms  
     CGroup: /system.slice/apache2.service  
             ├─752 /usr/sbin/apache2 -k start  
             ├─755 /usr/sbin/apache2 -k start  
             └─759 /usr/sbin/apache2 -k start  
  
Dec 22 20:49:06 webserver systemd[1]: Starting The Apache HTTP Server...  
Dec 22 20:49:07 webserver apachectl[713]: AH00558: apache2: Could not reliably determine the ...message  
Dec 22 20:49:07 webserver systemd[1]: Started The Apache HTTP Server.  
Hint: Some lines were ellipsized, use -l to show in full.  
webmaster@webserver:~$
```



SSH Set Up

Before setting up the SSH for our website the user should have an understanding of the ip address, subnet, ip route for the server. After knowing that the user have to create a nano name 01-netcfg.yaml inside the directory of /etc/net-plan/. Once this step is done then the user can ping to google to see if there is any connection which should show 0% packet, plus remember to allow ssh and finally using sudo we will find the status of the ssh service. Once all this step is done then the user can install openssh-server.

```

Ubuntu_Server_22.04 (Snapshot 2 Apache Installed) [Running] - Oracle VM VirtualBox
webmaster@webserver:~$ hostname -I | cut -d ' ' -f1
192.168.1.6
webmaster@webserver:~$ ip addr | grep "inet"
    inet 127.0.0.1/8 scope host lo
        inet6 ::1/128 scope host
            inet 192.168.1.6/24 metric 100 brd 192.168.1.255 scope global dynamic enp0s3
                inet6 fd22:4e39:e630:1:a00:27ff:feb4:9b24/64 scope global mngtmpaddr noprefixroute
                    inet6 fe80::a00:27ff:feb4:9b24/64 scope link
webmaster@webserver:~$ ip addr | grep "inet" | head -3 | tail -1
    inet 192.168.1.6/24 metric 100 brd 192.168.1.255 scope global dynamic enp0s3
webmaster@webserver:~$ ip route | head -1
default via 192.168.1.1 dev enp0s3 proto dhcp src 192.168.1.6 metric 100
webmaster@webserver:~$ 

```

```
GNU nano 6.2          /etc/netplan/01-netcfg.yaml *
```

```
network:
  version: 2
  renderer: networkd
  ethernets:
    eth0:
      addresses:
        - 192.168.1.1/24
      nameservers:
        addresses: [1.1.1.1, 8.8.8.8, 8.8.4.4]
      routes:
        - to: default
          via: 192.168.1.6
```

File Name to Write: /etc/netplan/01-netcfg.yaml

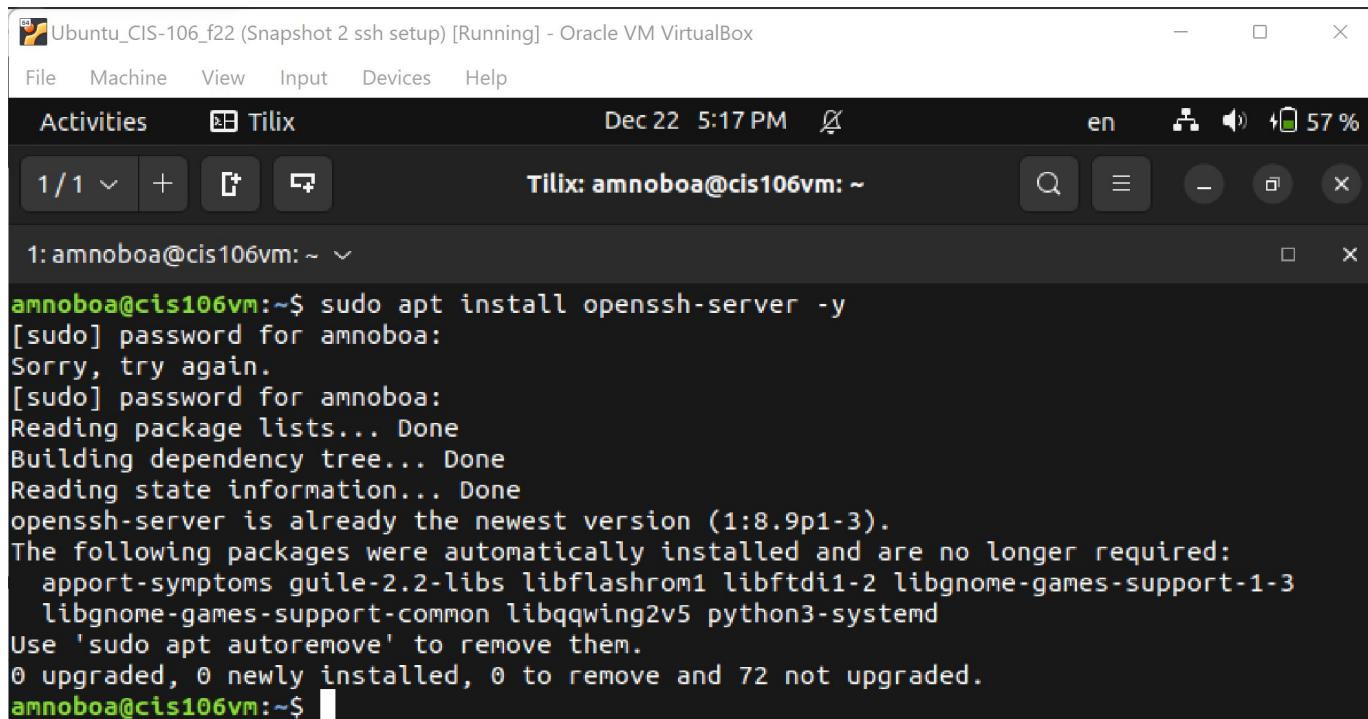
^G Help M-D DOS Format M-A Append M-B Backup File
^Q Cancel M-M Mac Format M-P Prepend ^T Browse

```
webmaster@webserver:~$ sudo netplan applu
usage: /usr/sbin/netplan [-h] [--debug] ...
/usr/sbin/netplan : error: argument : invalid choice: 'applu' (choose from 'help', 'apply', 'generat
e', 'get', 'info', 'ip', 'set', 'rebind', 'try')
webmaster@webserver:~$ sudo netplan apply
webmaster@webserver:~$ ping -c4 google.com
PING google.com (142.250.65.238) 56(84) bytes of data.
64 bytes from lga25s73-in-f14.1e100.net (142.250.65.238): icmp_seq=1 ttl=57 time=15.7 ms
64 bytes from lga25s73-in-f14.1e100.net (142.250.65.238): icmp_seq=2 ttl=57 time=14.1 ms
64 bytes from lga25s73-in-f14.1e100.net (142.250.65.238): icmp_seq=3 ttl=57 time=16.7 ms
64 bytes from lga25s73-in-f14.1e100.net (142.250.65.238): icmp_seq=4 ttl=57 time=16.7 ms

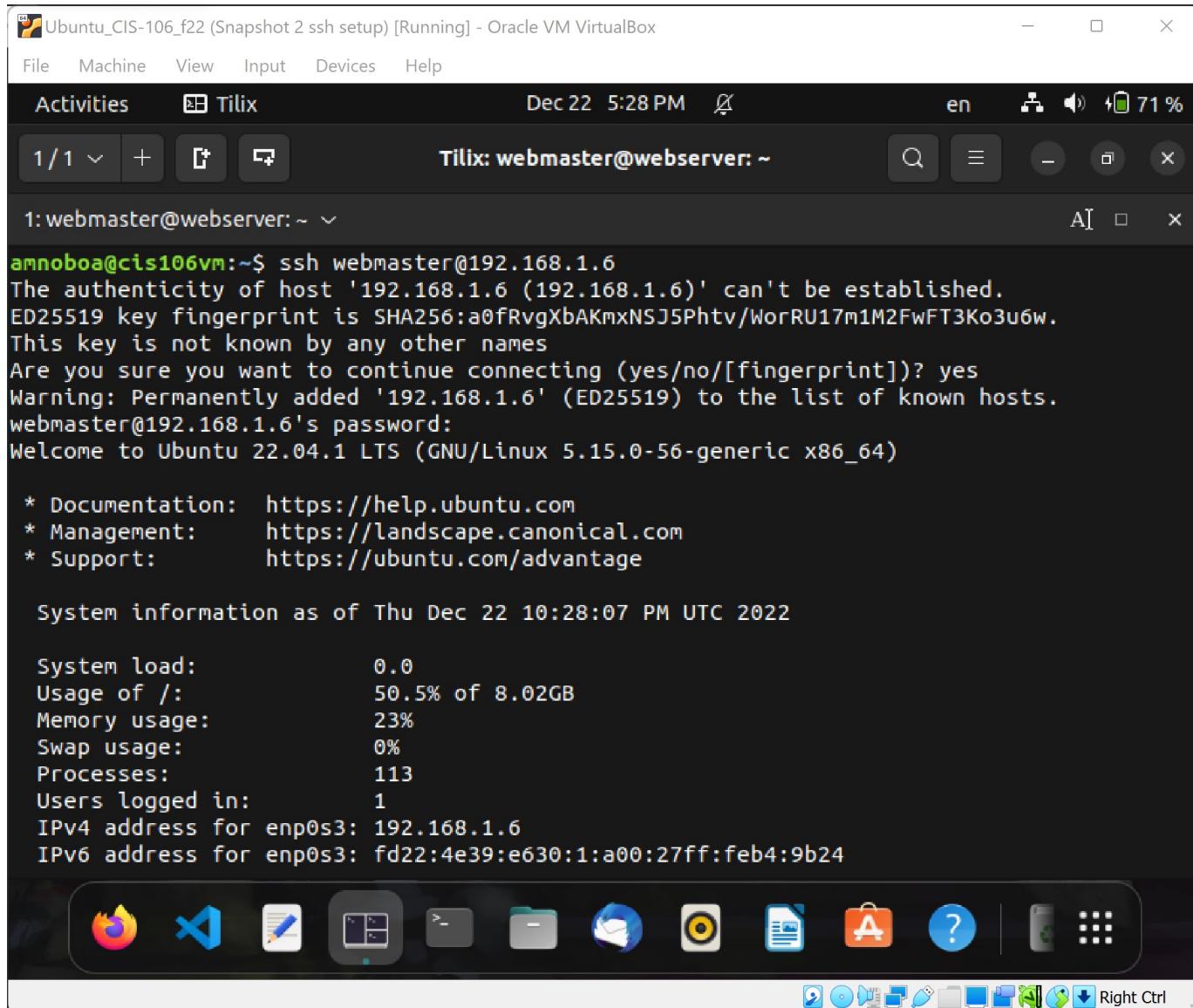
--- google.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3186ms
rtt min/avg/max/mdev = 14.057/15.791/16.741/1.083 ms
webmaster@webserver:~$
```

```
Ubuntu_Server_22.04 (Snapshot 2 Apache Installed) [Running] - Oracle VM VirtualBox
webmaster@webserver:~$ sudo ufw allow 'ssh'
Rule added
Rule added (v6)
webmaster@webserver:~$ sudo systemctl status ssh.service
● ssh.service - OpenBSD Secure Shell server
  Loaded: loaded (/lib/systemd/system/ssh.service; enabled; vendor preset: enabled)
  Active: active (running) since Thu 2022-12-22 21:00:11 UTC; 1h 12min ago
    Docs: man:sshd(8)
          man:sshd_config(5)
  Main PID: 729 (sshd)
    Tasks: 1 (limit: 1029)
   Memory: 4.4M
      CPU: 77ms
     CGroup: /system.slice/ssh.service
             └─729 "sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups"

Dec 22 21:00:11 webserver systemd[1]: Starting OpenBSD Secure Shell server...
Dec 22 21:00:11 webserver sshd[729]: Server listening on 0.0.0.0 port 22.
Dec 22 21:00:11 webserver sshd[729]: Server listening on :: port 22.
Dec 22 21:00:11 webserver systemd[1]: Started OpenBSD Secure Shell server.
webmaster@webserver:~$ _
```



```
Ubuntu_CIS-106_f22 (Snapshot 2 ssh setup) [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Activities Tilix Dec 22 5:17 PM en 57 %
1/1 + Q X
Tilix: amnoboaa@cis106vm: ~
1:amnoboaa@cis106vm:~ ~
amnoboaa@cis106vm:~$ sudo apt install openssh-server -y
[sudo] password for amnoboaa:
Sorry, try again.
[sudo] password for amnoboaa:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
openssh-server is already the newest version (1:8.9p1-3).
The following packages were automatically installed and are no longer required:
  apport-symptoms guile-2.2-libs libflashrom1 libftdi1-2 libgnome-games-support-1-3
  libgnome-games-support-common libqqwing2v5 python3-systemd
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 72 not upgraded.
amnoboaa@cis106vm:~$
```



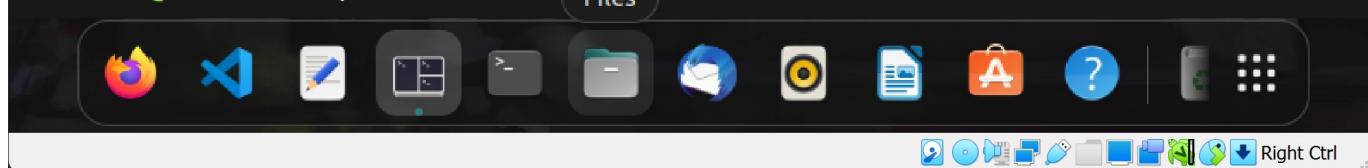
```
Ubuntu_CIS-106_f22 (Snapshot 2 ssh setup) [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Activities Tilix Dec 22 5:28 PM en 71 %
1/1 + Q X
Tilix: webmaster@webserver: ~
1:webmaster@webserver:~ ~
A[ Q X
amnoboaa@cis106vm:~$ ssh webmaster@192.168.1.6
The authenticity of host '192.168.1.6 (192.168.1.6)' can't be established.
ED25519 key fingerprint is SHA256:a0fRvgXbAKmxNSJ5Phtv/WorRU17m1M2FwFT3Ko3u6w.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '192.168.1.6' (ED25519) to the list of known hosts.
webmaster@192.168.1.6's password:
Welcome to Ubuntu 22.04.1 LTS (GNU/Linux 5.15.0-56-generic x86_64)

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

 System information as of Thu Dec 22 10:28:07 PM UTC 2022

System load:          0.0
Usage of /:           50.5% of 8.02GB
Memory usage:         23%
Swap usage:           0%
Processes:            113
Users logged in:      1
IPv4 address for enp0s3: 192.168.1.6
IPv6 address for enp0s3: fd22:4e39:e630:1:a00:27ff:feb4:9b24
```

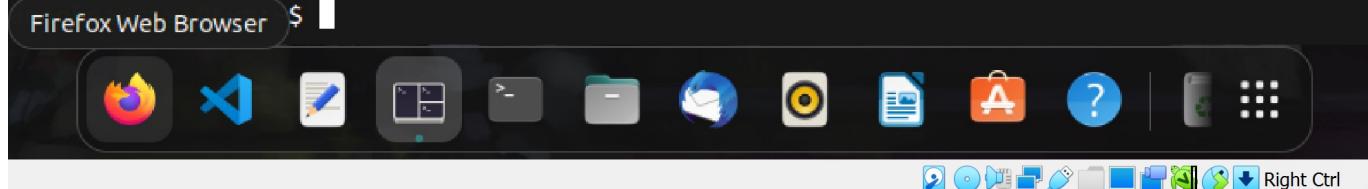
```
webmaster@webserver:~$ sudo apt update
[sudo] password for webmaster:
Hit:1 http://us.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://us.archive.ubuntu.com/ubuntu jammy-updates InRelease [114 kB]
Get:3 http://us.archive.ubuntu.com/ubuntu jammy-backports InRelease [99.8 kB]
Get:4 http://us.archive.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Fetched 324 kB in 1s (415 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
All packages are up to date.
webmaster@webserver:~$
```



```
webmaster@webserver:~$ cat /etc/netplan/01-netcfg.yaml
```

```
network:
  version: 2
  renderer: networkd
  ethernets:
    eth0:
      addresses:
        - 192.168.1.6/24
      nameservers:
        addresses: [1.1.1.1, 8.8.8.8, 8.8.4.4]
      routes:
        - to: default
          via: 192.168.1.6
```

```
webmaster@webserver:~$ exit
logout
Connection to 192.168.1.6 closed.
```



```
webmaster@webserver:~$ ssh-copy-id -i ~/.ssh/id_rsa.pub webmaster@192.168.1.6
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/home/webmaster/.ssh/id_r
sa.pub"
The authenticity of host '192.168.1.6 (192.168.1.6)' can't be established.
ED25519 key fingerprint is SHA256:a0fRvgXbAKmxNSJ5Phtv/WorRU17m1M2FwFT3Ko3u6w.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filter out any
that are already installed
/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are prompted now i
t is to install the new keys
webmaster@192.168.1.6's password:
Permission denied, please try again.
webmas Visual Studio Code's password: [REDACTED]
```



Right Ctrl

```
webmaster@webserver:~$ ssh webmaster@webserver
The authenticity of host 'webserver (127.0.1.1)' can't be established.
ED25519 key fingerprint is SHA256:a0fRvgXbAKmxNSJ5Phtv/WorRU17m1M2FwFT3Ko3u6w.
This host key is known by the following other names/addresses:
  ~/.ssh/known_hosts:1: [hashed name]
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'webserver' (ED25519) to the list of known hosts.
Welcome to Ubuntu 22.04.1 LTS (GNU/Linux 5.15.0-56-generic x86_64)

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

System information as of Thu Dec 22 10:37:13 PM UTC 2022

```
System load:          0.001953125
Usage of /:           50.5% of 8.02GB
Memory usage:        24%
Swap usage:          0%
Processes:           121
Users logged in:    1
IPv4 address for enp0s3: 192.168.1.6
IPv6 address for enp0s3: fd22:4e39:e630:1:a00:27ff:feb4:9b24
```

* Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s just raised the bar for easy, resilient and secure K8s cluster deployment.

<https://ubuntu.com/engage/secure-kubernetes-at-the-edge>

0 updates can be applied immediately. Thunderbird Mail



Right Ctrl

remember always to keep in a save file the ip address and ip route of the server

Creating a configuration file

Enable Virtual Hosts

Before you enabling a virtual hosts remember to turn on your server. Once the server is fully running the user can create a file inside the directory website and in this file nano will be use to run the program , don't forget also to nano the website.conf, the following step will guide the user to create a main website called index.html

```
Activities Tilix Dec 22
1/1 + 🔍 Tilix: webmaster@webserver: ~
1: webmaster@webserver: ~
amnobo@cis106vm:~$ ssh webmaster@webserver
The authenticity of host 'webserver (192.168.1.6)' can't be established.
ED25519 key fingerprint is SHA256:a0fRvgXbAKmxNSJ5Phtv/WorRU17m1M2FwFT3Ko3u6w.
This host key is known by the following other names/addresses:
  ~/.ssh/known_hosts:1: [hashed name]
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'webserver' (ED25519) to the list of known hosts.
webmaster@webserver's password:
Welcome to Ubuntu 22.04.1 LTS (GNU/Linux 5.15.0-56-generic x86_64)

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

System information as of Thu Dec 22 10:46:35 PM UTC 2022

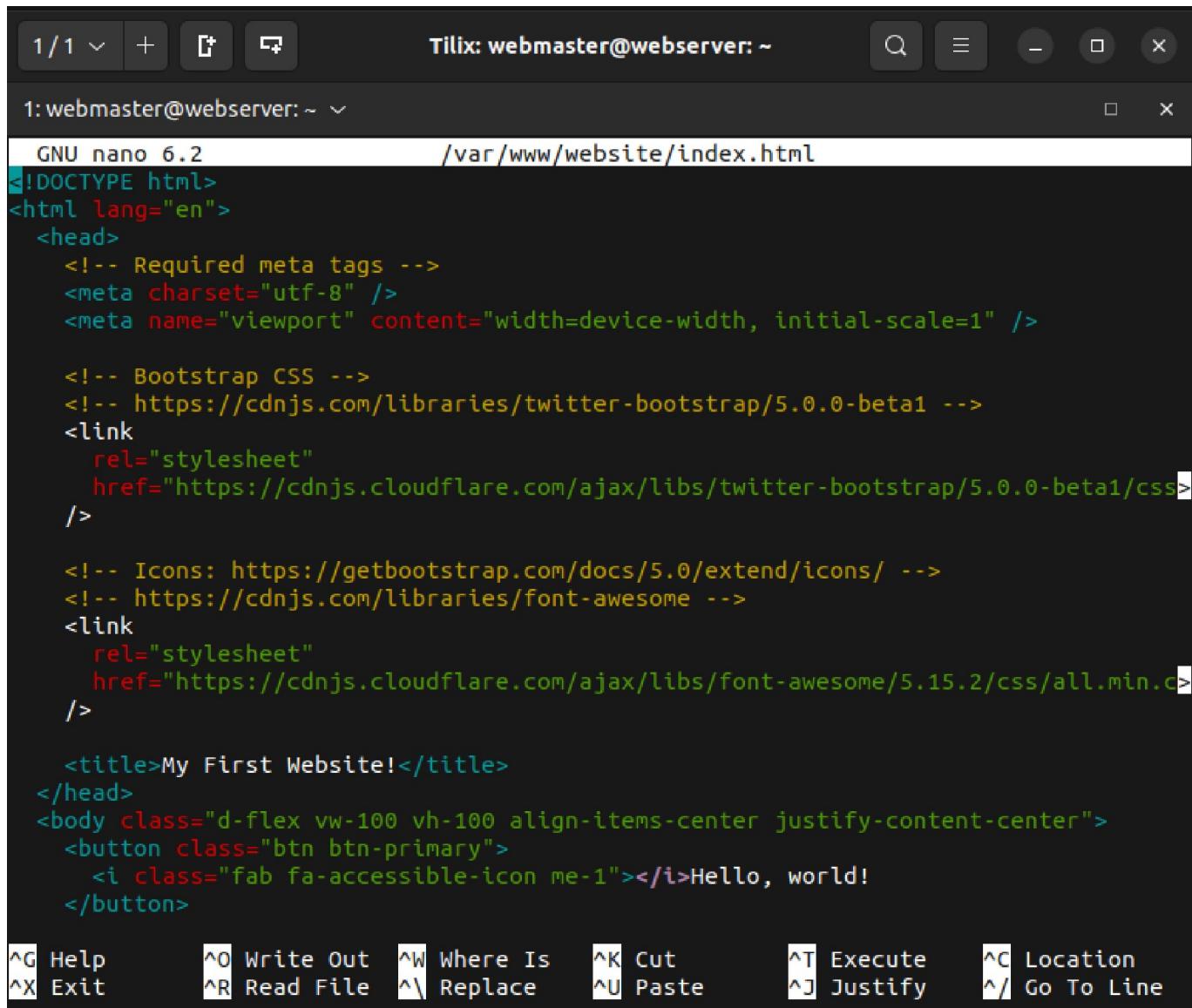
System load:          0.01025390625
Usage of /:            50.7% of 8.02GB
Memory usage:         22%
Swap usage:           0%
Processes:            121
Users logged in:     0
IPv4 address for enp0s3: 192.168.1.6
IPv6 address for enp0s3: fd22:4e39:e630:1:a00:27ff:feb4:9b24

* Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s just raised the bar for easy, resilient and secure K8s cluster deployment.
  https://ubuntu.com/engage/secure-kubernetes-at-the-edge

0 updates can be applied immediately.

webmaster@webserver:~$ sudo mkdir /var/www/website
[sudo] password for webmaster:
webmaster@webserver:~$ sudo chown -R $USER:$USER /var/www/website/
webmaster@webserver:~$ sudo chmod -R 755 /var/www//website/
webmaster@webserver:~$ Firefox Web Browser

webmaster@webserver:~$ sudo nano /var/www/website/index.html
webmaster@webserver:~$ sudo nano /etc/apache2/sites-available/website.conf
webmaster@webserver:~$
```



Tilix: webmaster@webserver: ~

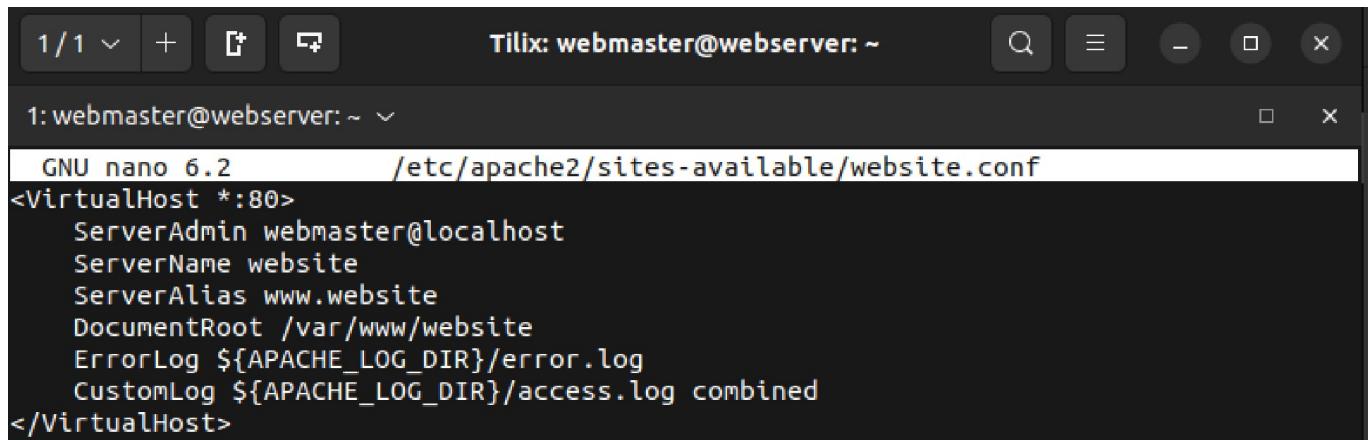
```
1:webmaster@webserver: ~
GNU nano 6.2          /var/www/website/index.html
<!DOCTYPE html>
<html lang="en">
<head>
    <!-- Required meta tags -->
    <meta charset="utf-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1" />

    <!-- Bootstrap CSS -->
    <!-- https://cdnjs.com/libraries/twitter-bootstrap/5.0.0-beta1 -->
    <link
        rel="stylesheet"
        href="https://cdnjs.cloudflare.com/ajax/libs/twitter-bootstrap/5.0.0-beta1/css/>
    />

    <!-- Icons: https://getbootstrap.com/docs/5.0/extend/icons/ -->
    <!-- https://cdnjs.com/libraries/font-awesome -->
    <link
        rel="stylesheet"
        href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/5.15.2/css/all.min.c>
    />

    <title>My First Website!</title>
</head>
<body class="d-flex vw-100 vh-100 align-items-center justify-content-center">
    <button class="btn btn-primary">
        <i class="fab fa-accessible-icon me-1"></i>Hello, world!
    </button>
```

^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location
^X Exit ^R Read File ^M Replace ^U Paste ^J Justify ^L Go To Line



Tilix: webmaster@webserver: ~

```
1:webmaster@webserver: ~
GNU nano 6.2          /etc/apache2/sites-available/website.conf
<VirtualHost *:80>
    ServerAdmin webmaster@localhost
    ServerName website
    ServerAlias www.website
    DocumentRoot /var/www/website
    ErrorLog ${APACHE_LOG_DIR}/error.log
    CustomLog ${APACHE_LOG_DIR}/access.log combined
</VirtualHost>
```

```

1:webmaster@webserver:~ ~
webmaster@webserver:~$ sudo a2ensite
000-default.conf default-ssl.conf website.conf
webmaster@webserver:~$ sudo a2ensite website.conf
Enabling site website.
To activate the new configuration, you need to run:
  systemctl reload apache2
webmaster@webserver:~$ sudo a2enssite 000-default.conf
sudo: a2ensite: command not found
webmaster@webserver:~$ sudo a2dissite 000-default.conf
Site 000-default disabled.
To activate the new configuration, you need to run:
  systemctl reload apache2
webmaster@webserver:~$ sudo systemctl reload apache2.service
webmaster@webserver:~$ sudo apache2ctl configtest
AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 127.0.1.1. Set the 'ServerName' directive globally to suppress this message
Syntax OK
webmaster@webserver:~$
```

```

1:webmaster@webserver:~ ~
GNU nano 6.2          /etc/apache2/apache2.conf *
# a CustomLog directive.
#
# These deviate from the Common Log Format definitions in that they use %O
# (the actual bytes sent including headers) instead of %b (the size of the
# requested file), because the latter makes it impossible to detect partial
# requests.
#
# Note that the use of %{X-Forwarded-For}i instead of %h is not recommended.
# Use mod_remoteip instead.
#
LogFormat "%v:%p %h %l %u %t \"%r\" %>s %O \"%{Referer}i\" \"%{User-Agent}i\" vhost"
LogFormat "%h %l %u %t \"%r\" %>s %O \"%{Referer}i\" \"%{User-Agent}i\" combined"
LogFormat "%h %l %u %t \"%r\" %>s %O" common
LogFormat "%{Referer}i -> %U" referer
LogFormat "%{User-agent}i" agent

# Include of directories ignores editors' and dpkg's backup files,
# see README.Debian for details.

# Include generic snippets of statements
IncludeOptional conf-enabled/*.conf

# Include the virtual host configurations:
IncludeOptional sites-enabled/*.conf

# vim: syntax=apache ts=4 sw=4 sts=4 sr noet
ServerName 127.0.0.1
```

^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

```
webmaster@webserver:~$ sudo apache2ctl configtest
AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 127.0.1.1. Set the 'ServerName' directive globally to suppress this message
Syntax OK
webmaster@webserver:~$ sudo nano /etc/apache2/apache2.conf
webmaster@webserver:~$ sudo apache2ctl configtest
Syntax OK
webmaster@webserver:~$
```

Add a sample site

Having a website could be difficult if the user is not so much of a web developer, thankfully there are websites which can help the user create a website or a sample website. Most of the bootstrap website will be files that need to be downloaded. Once the files are download in the correct home then the user can unzip the file (*remember to have unzip installed*), after unzip the directories then the user can change his directory to the unzip website and finally copy all files from the website to the owner domain been created in `/var/www/domain`

In the pictures below there will be some steps which could help set up the sample website

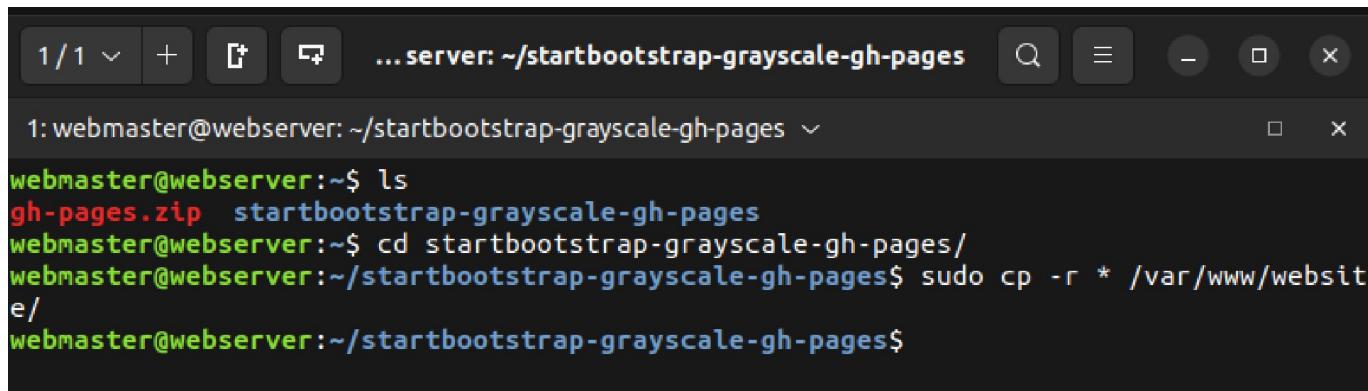
The screenshot shows a Firefox browser window with the address bar displaying `https://startbootstrap.com`. The main content area shows the Start Bootstrap homepage. It features a large purple header with a stylized 'S' logo. Below the header, there are four main theme cards:

- SB UI Kit Pro Vue**: A premium Vue.js UI Kit. Status: **Pro**, **241**.
- Simple Sidebar**: A Bootstrap sidebar template. Status: **Free**, **526,644**.
- Grayscale**: A multipurpose one page theme. Status: **Free**, **772,160**.
- Clean Blog**: A clean blog theme. Status: **Free**, **523,744**.

Each theme card includes a small preview image and a brief description.

```
1:webmaster@webserver:~ ~  
webmaster@webserver:/var/www/website$ cd  
webmaster@webserver:~$ wget https://github.com/startbootstrap/startbootstrap-grayscale/archive/gh-pages.zip  
--2022-12-23 02:08:52-- https://github.com/startbootstrap/startbootstrap-grayscale/archive/gh-pages.zip  
Resolving github.com (github.com)... 140.82.112.3  
Connecting to github.com (github.com)|140.82.112.3|:443... connected.  
HTTP request sent, awaiting response... 302 Found  
Location: https://codeload.github.com/StartBootstrap/startbootstrap-grayscale/zip/refs/heads/gh-pages [following]  
--2022-12-23 02:08:53-- https://codeload.github.com/StartBootstrap/startbootstrap-grayscale/zip/refs/heads/gh-pages  
Resolving codeload.github.com (codeload.github.com)... 140.82.113.10  
Connecting to codeload.github.com (codeload.github.com)|140.82.113.10|:443... connected.  
HTTP request sent, awaiting response... 200 OK  
Length: unspecified [application/zip]  
Saving to: 'gh-pages.zip'  
  
gh-pages.zip [ => ] 1.08M 1.06MB/s in 1.0s  
  
2022-12-23 02:08:54 (1.06 MB/s) - 'gh-pages.zip' saved [1137179]  
webmaster@webserver:~$ ls  
gh-pages.zip
```

```
1 / 1 + ⌂ ⌂ Tilix: webmaster@webserver: ~ Q ⌂ ⌂ ⌂  
1:webmaster@webserver:~ ~  
webmaster@webserver:~$ ls  
gh-pages.zip  
webmaster@webserver:~$ unzip gh-pages.zip  
Archive: gh-pages.zip  
24c2a475685f6340cf7e6d5af52bd7d44d5e6c8f  
  creating: startbootstrap-grayscale-gh-pages/  
  creating: startbootstrap-grayscale-gh-pages/assets/  
  inflating: startbootstrap-grayscale-gh-pages/assets/favicon.ico  
  creating: startbootstrap-grayscale-gh-pages/assets/img/  
  inflating: startbootstrap-grayscale-gh-pages/assets/img/bg-masthead.jpg  
  inflating: startbootstrap-grayscale-gh-pages/assets/img/bg-signup.jpg  
  inflating: startbootstrap-grayscale-gh-pages/assets/img/demo-image-01.jpg  
  inflating: startbootstrap-grayscale-gh-pages/assets/img/demo-image-02.jpg  
  inflating: startbootstrap-grayscale-gh-pages/assets/img/ipad.png  
  creating: startbootstrap-grayscale-gh-pages/css/  
  inflating: startbootstrap-grayscale-gh-pages/css/styles.css  
  inflating: startbootstrap-grayscale-gh-pages/index.html  
  creating: startbootstrap-grayscale-gh-pages/js/  
  inflating: startbootstrap-grayscale-gh-pages/js/scripts.js  
webmaster@webserver:~$ ls  
gh-pages.zip startbootstrap-grayscale-gh-pages  
webmaster@webserver:~$
```



1 / 1 + ⌂ ...server: ~/startbootstrap-grayscale-gh-pages Q - ×

1: webmaster@webserver: ~/startbootstrap-grayscale-gh-pages ~

```
webmaster@webserver:~$ ls
gh-pages.zip  startbootstrap-grayscale-gh-pages
webmaster@webserver:~$ cd startbootstrap-grayscale-gh-pages/
webmaster@webserver:~/startbootstrap-grayscale-gh-pages$ sudo cp -r * /var/www/websit
e/
webmaster@webserver:~/startbootstrap-grayscale-gh-pages$
```