MUHAMMAD OMER SIDDIQUI 19B-004-SE

ADNAN SAMAD 19B-011-SE

Step 1: Commands to get kvm and virtual manager installed

Check if hardware supports virtualization

egrep -c '(vmx|svm)' /proc/cpuinfo

kvm-ok

sudo apt-get update

sudo apt -y install bridge-utils cpu-checker libvirt-clients libvirt-daemon qemu qemu-kvm

sudo apt-get install qemu-system -y

sudo systemctl enable –now libvirtd

kvm-ok

sudo /usr/sbin/kvm-ok

sudo apt install qemu-kvm libvirt-clients libvirt-daemon-system bridge-utils

sudo adduser Ommmi1 libvirt

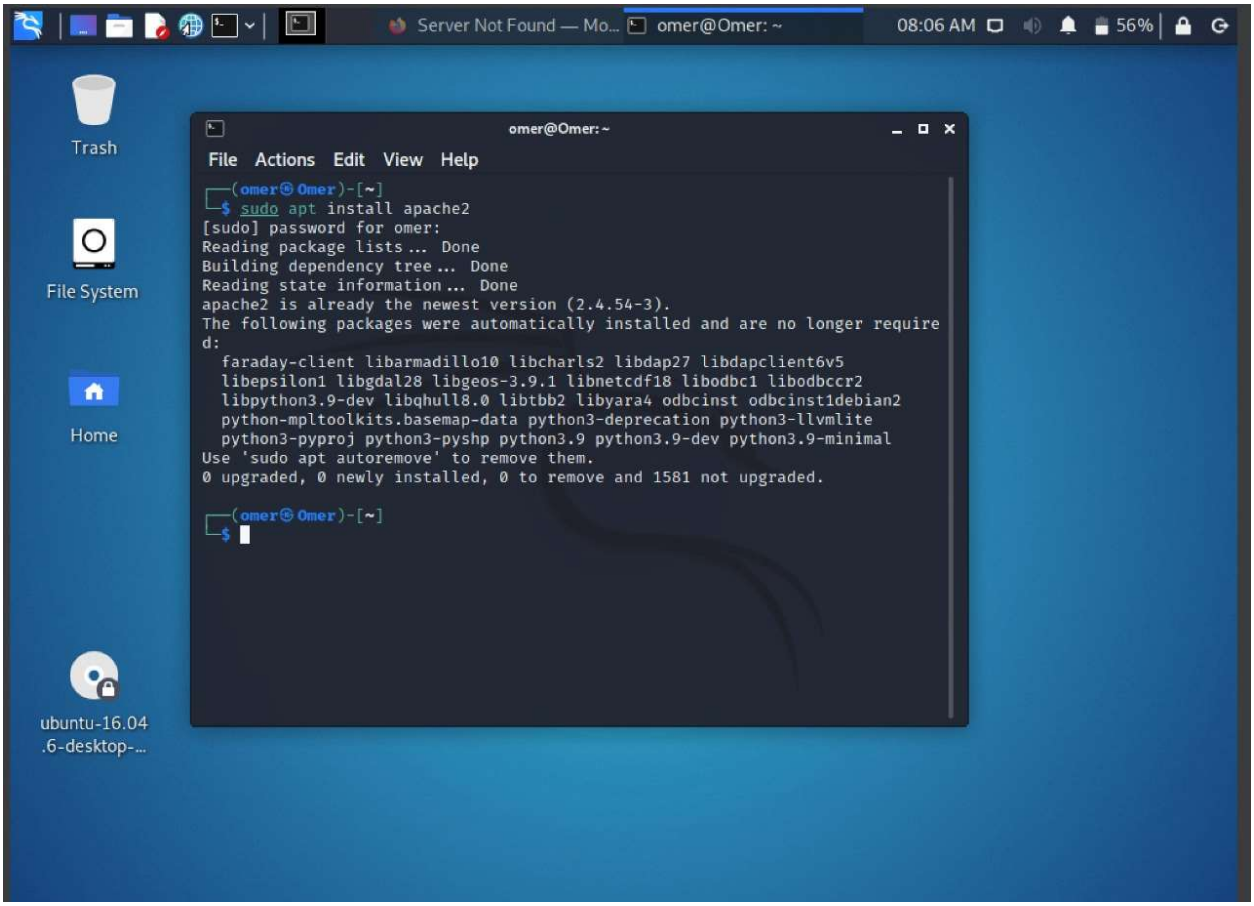
sudo adduser Ommmi1 kvm

sudo apt install virt-manager

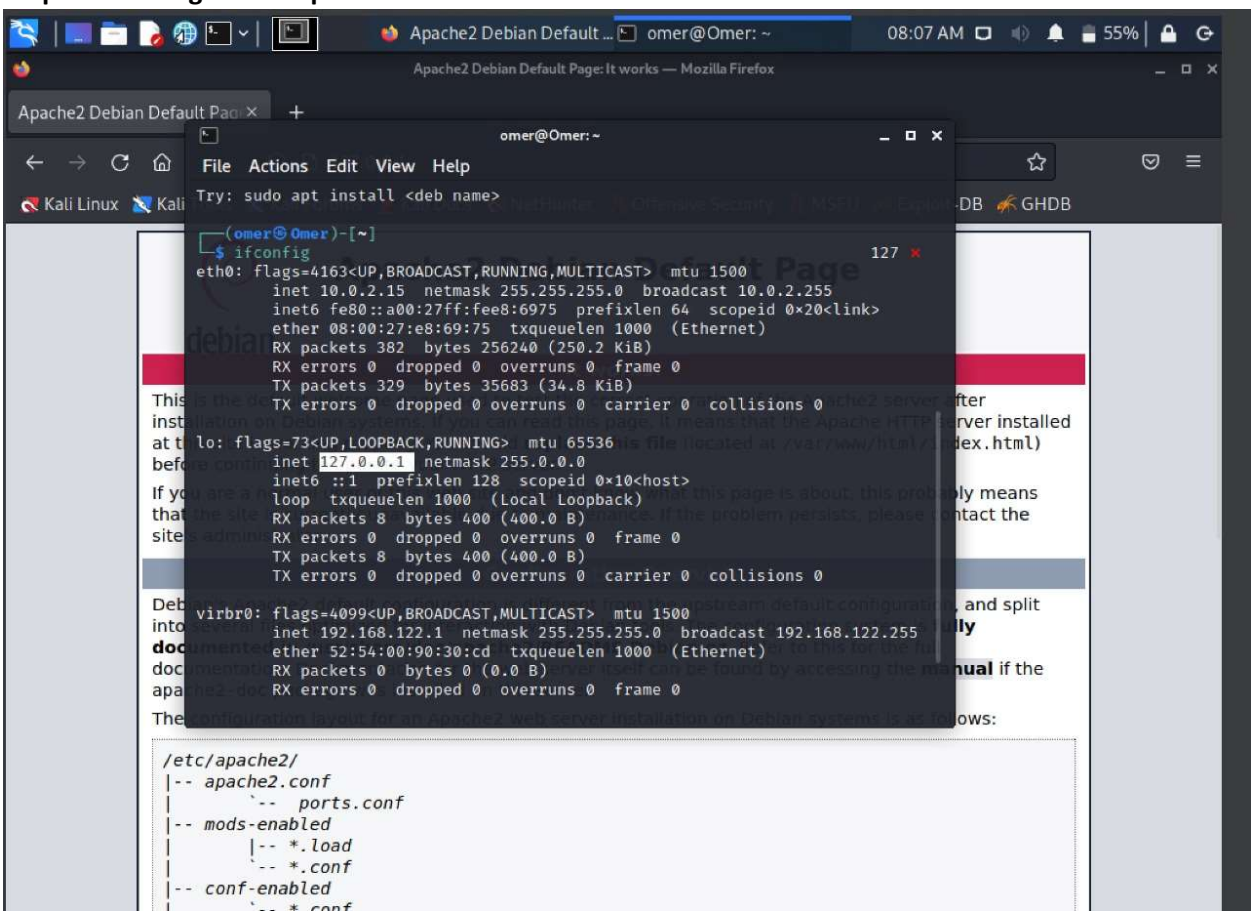
virt-manager

sudo apt install qemu-kvm ovmf+

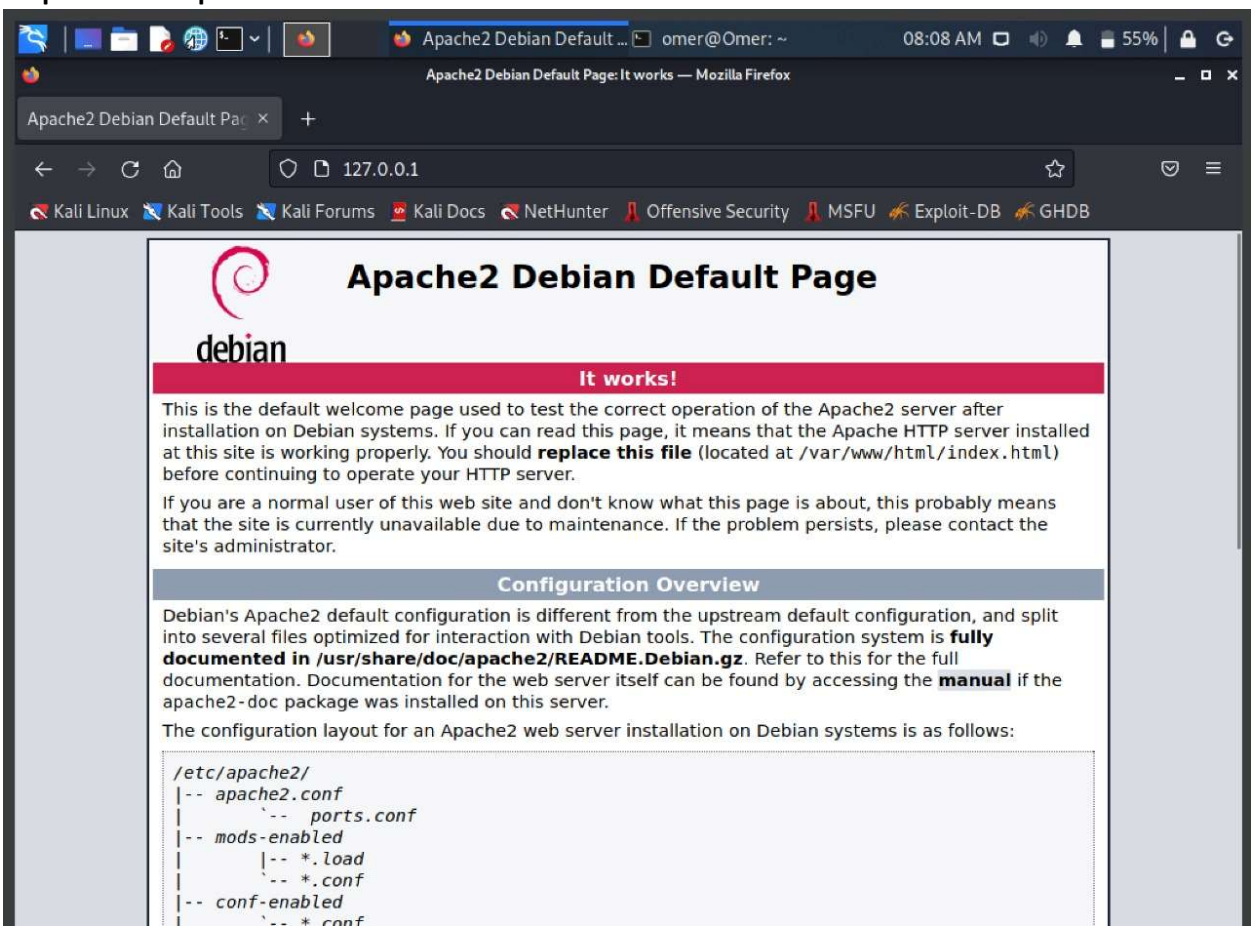
Step 2: Installing apache2 server on our virtual machine



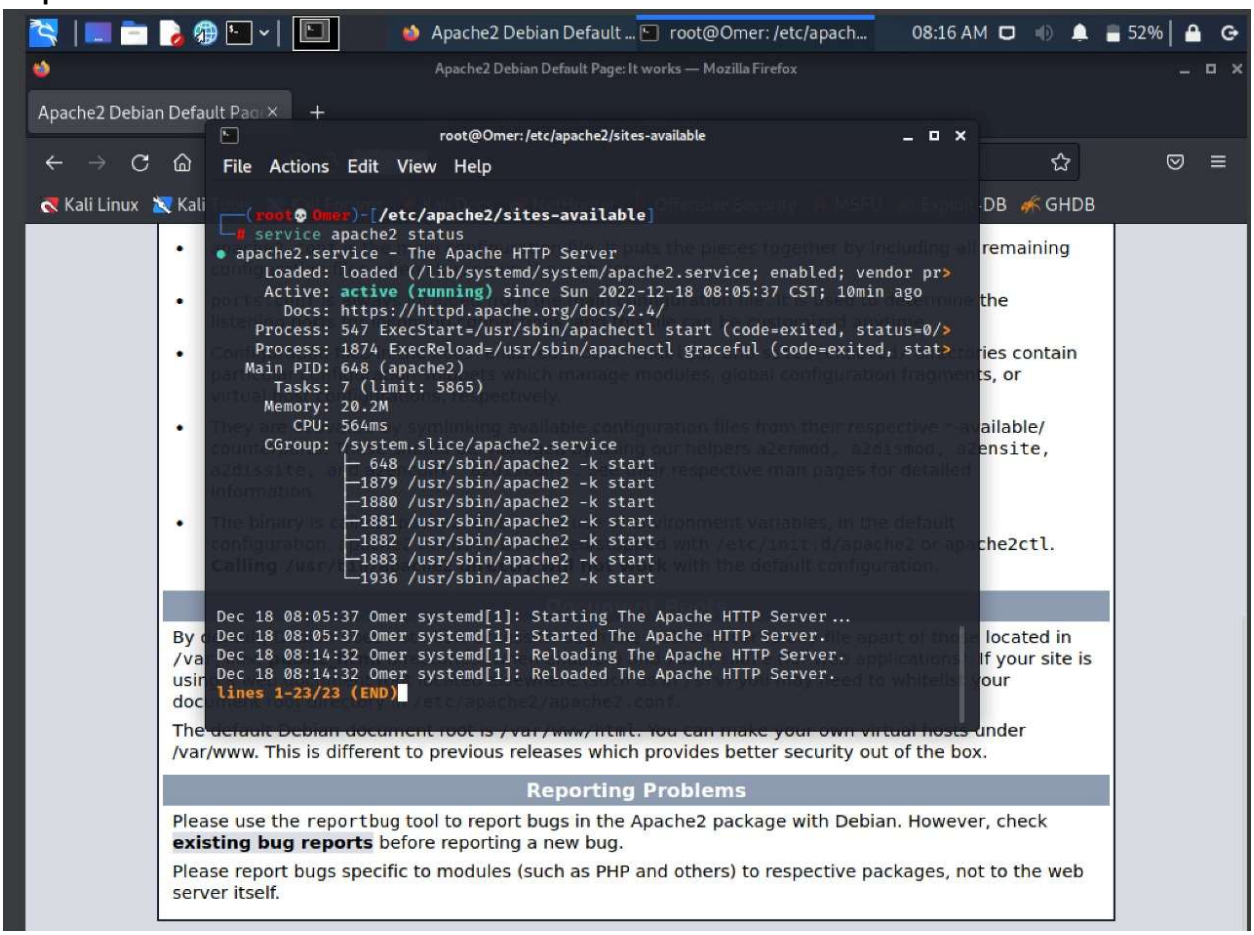
Step 3: Checking default ip to check server



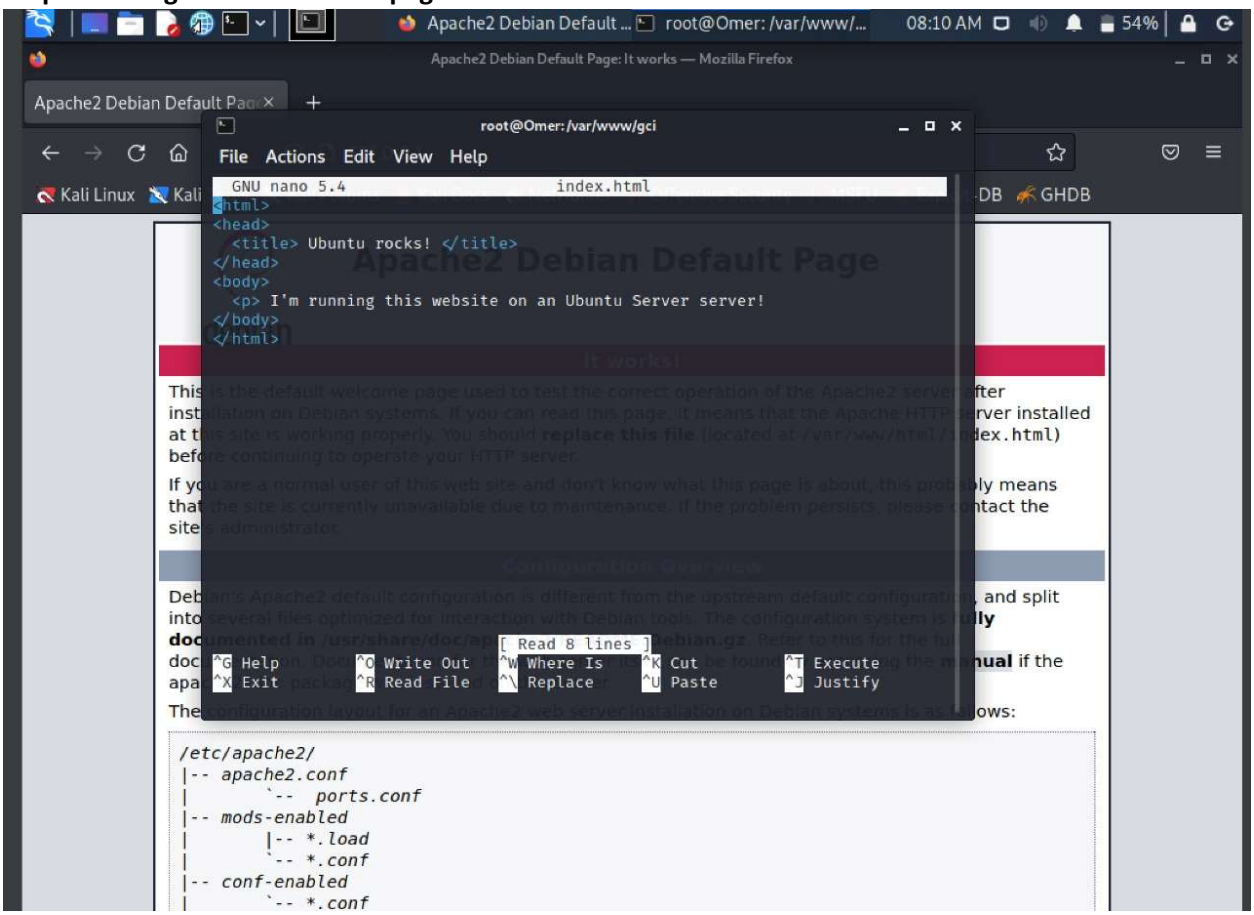
Step 4: Default ip on the browser



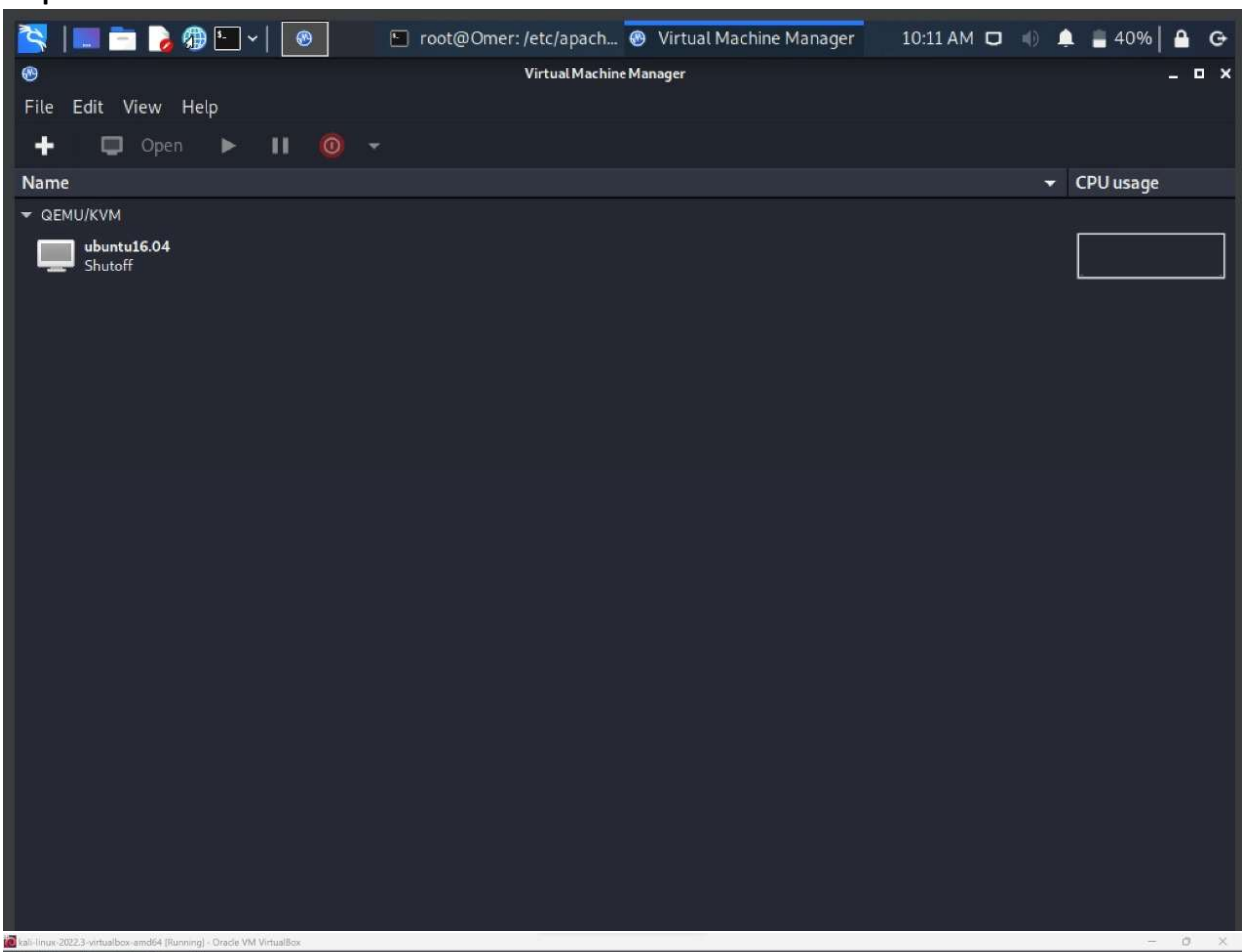
Step 5: Check the status of server

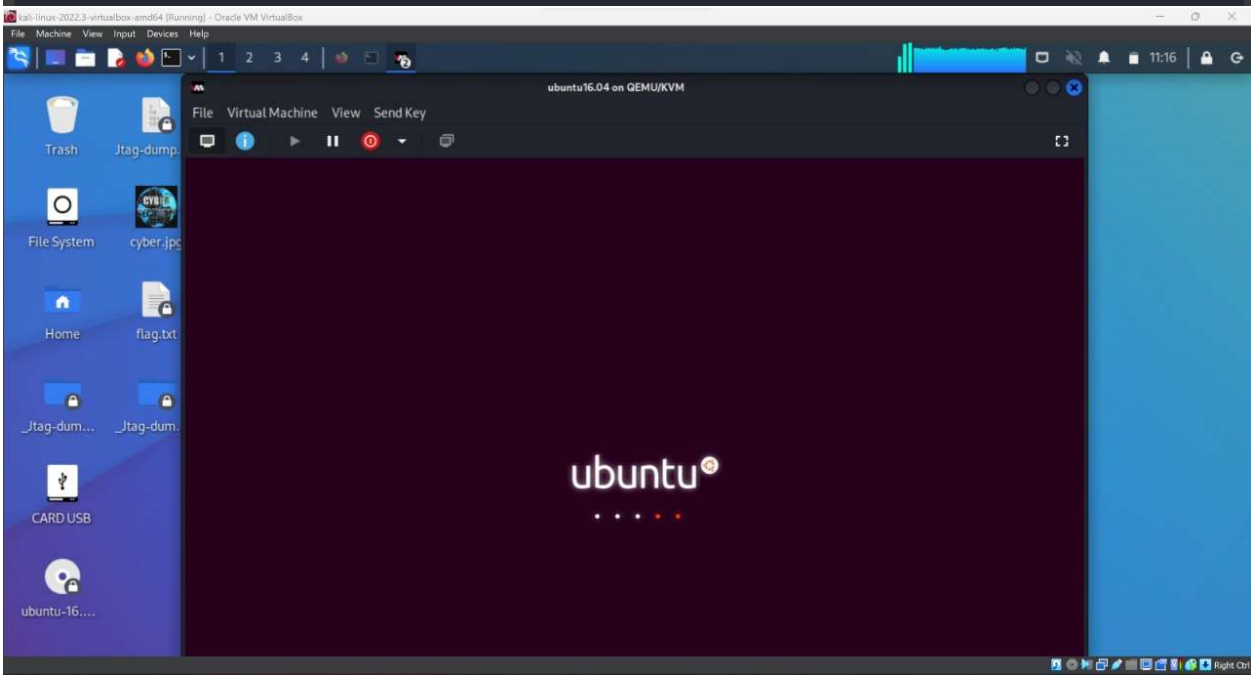


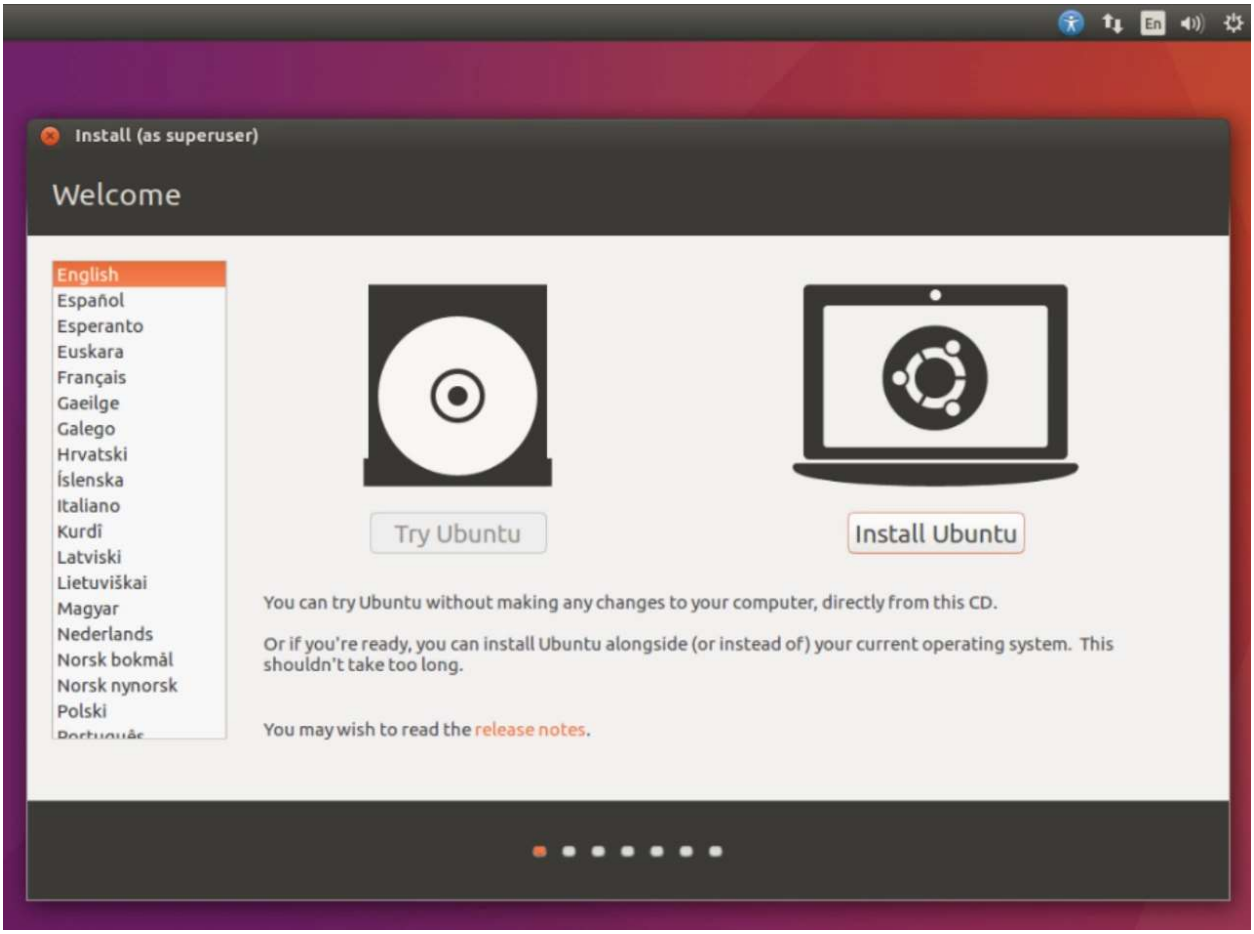
Step 6: Editing the default html page

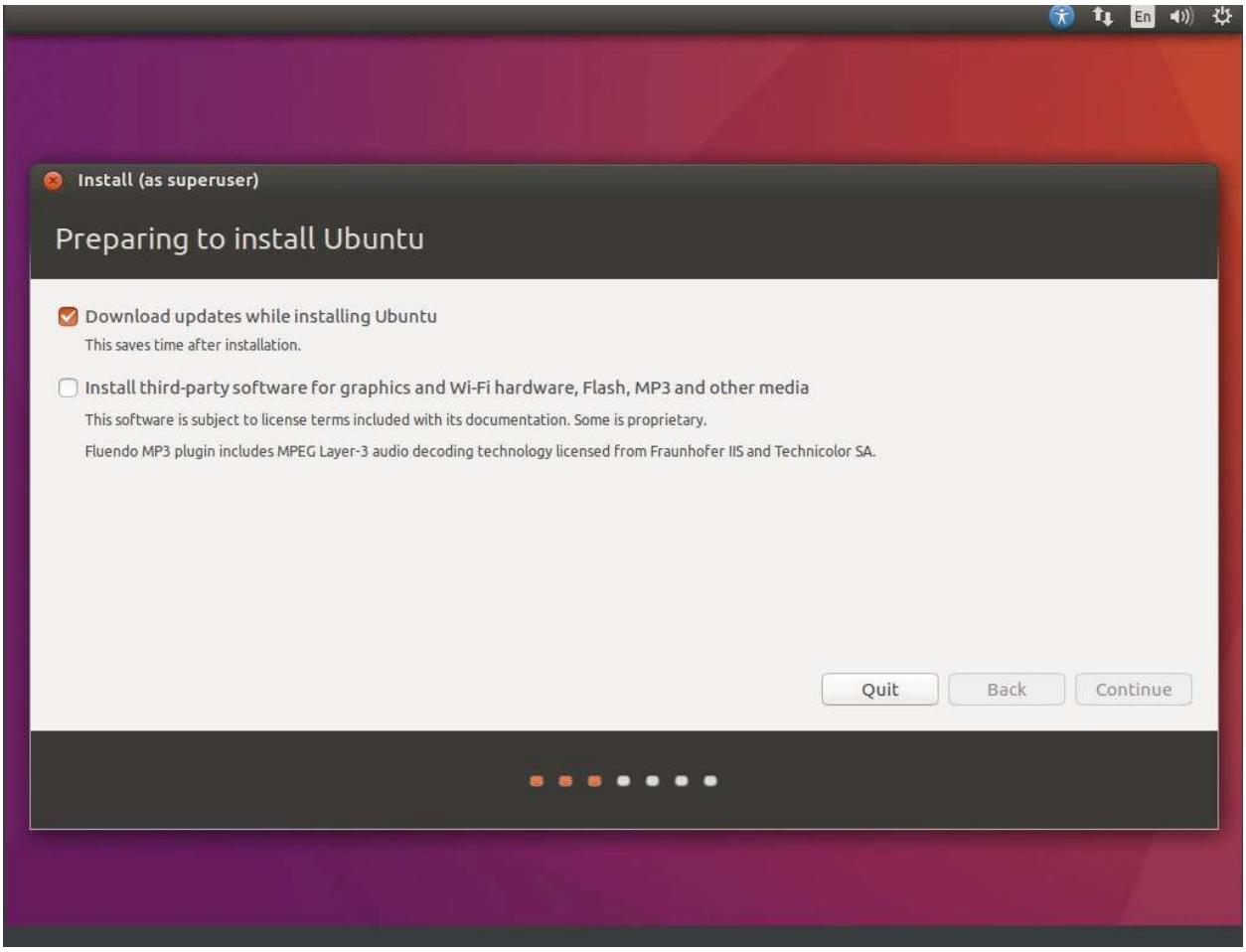


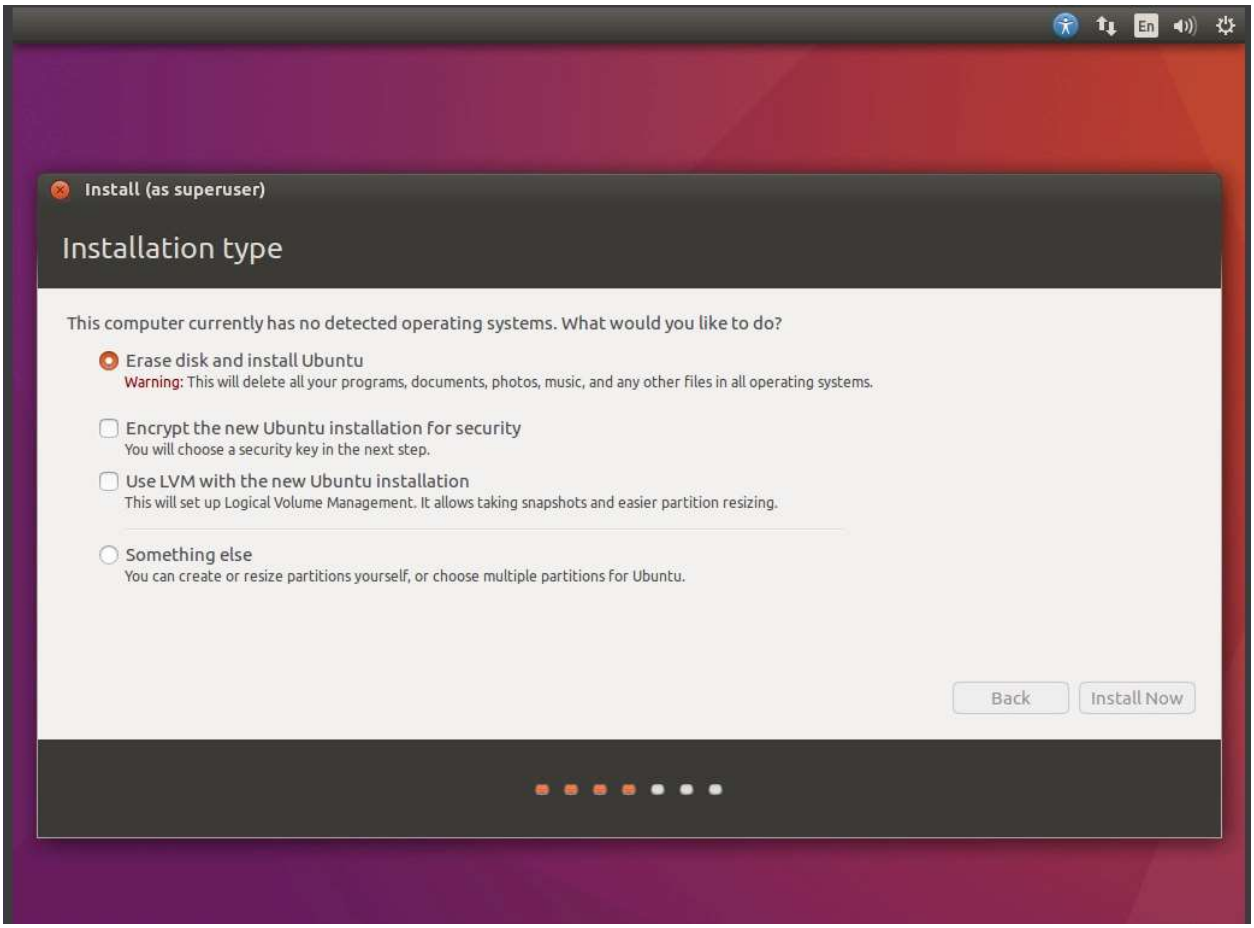
Step 7: Installation of KVM in Kali linux

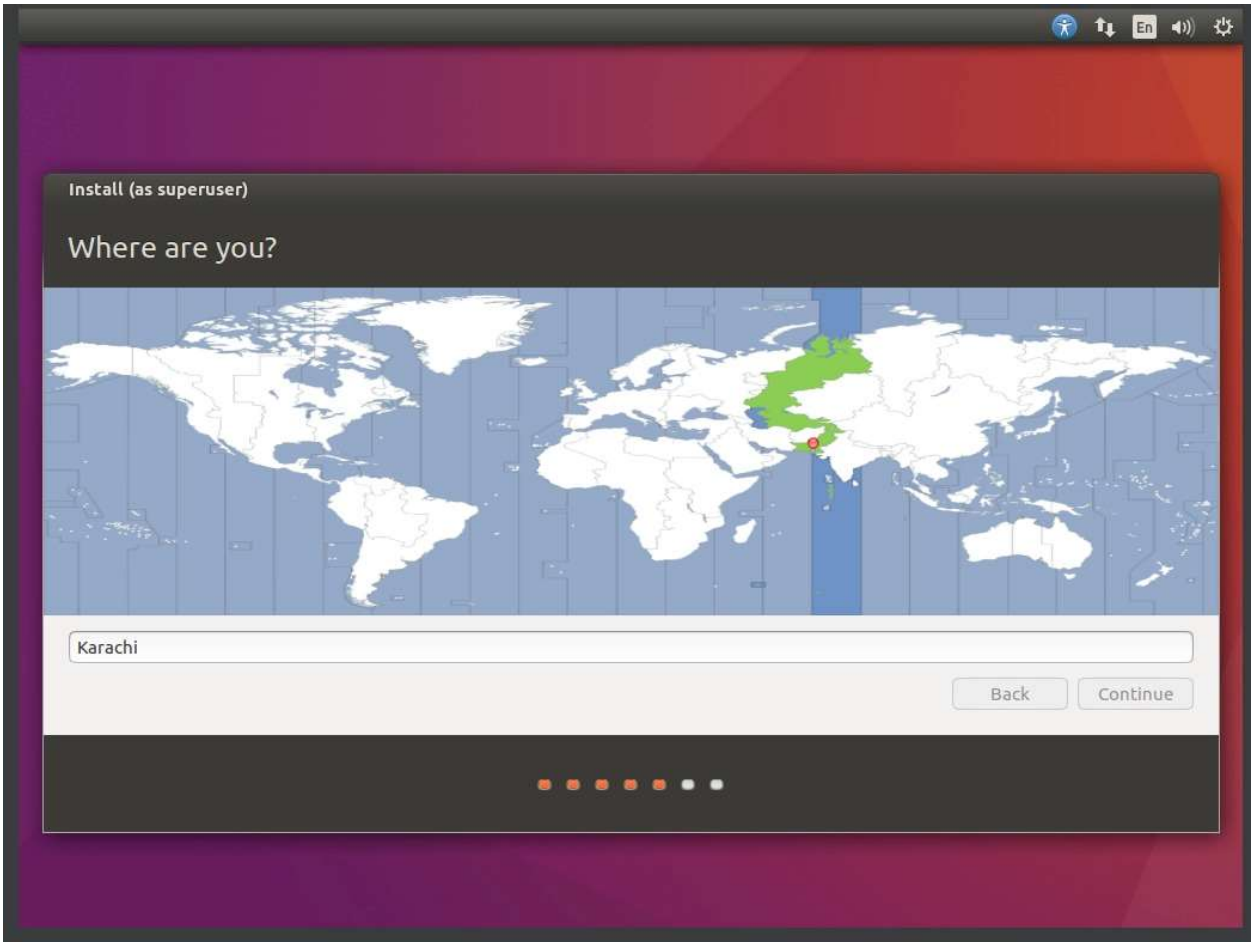


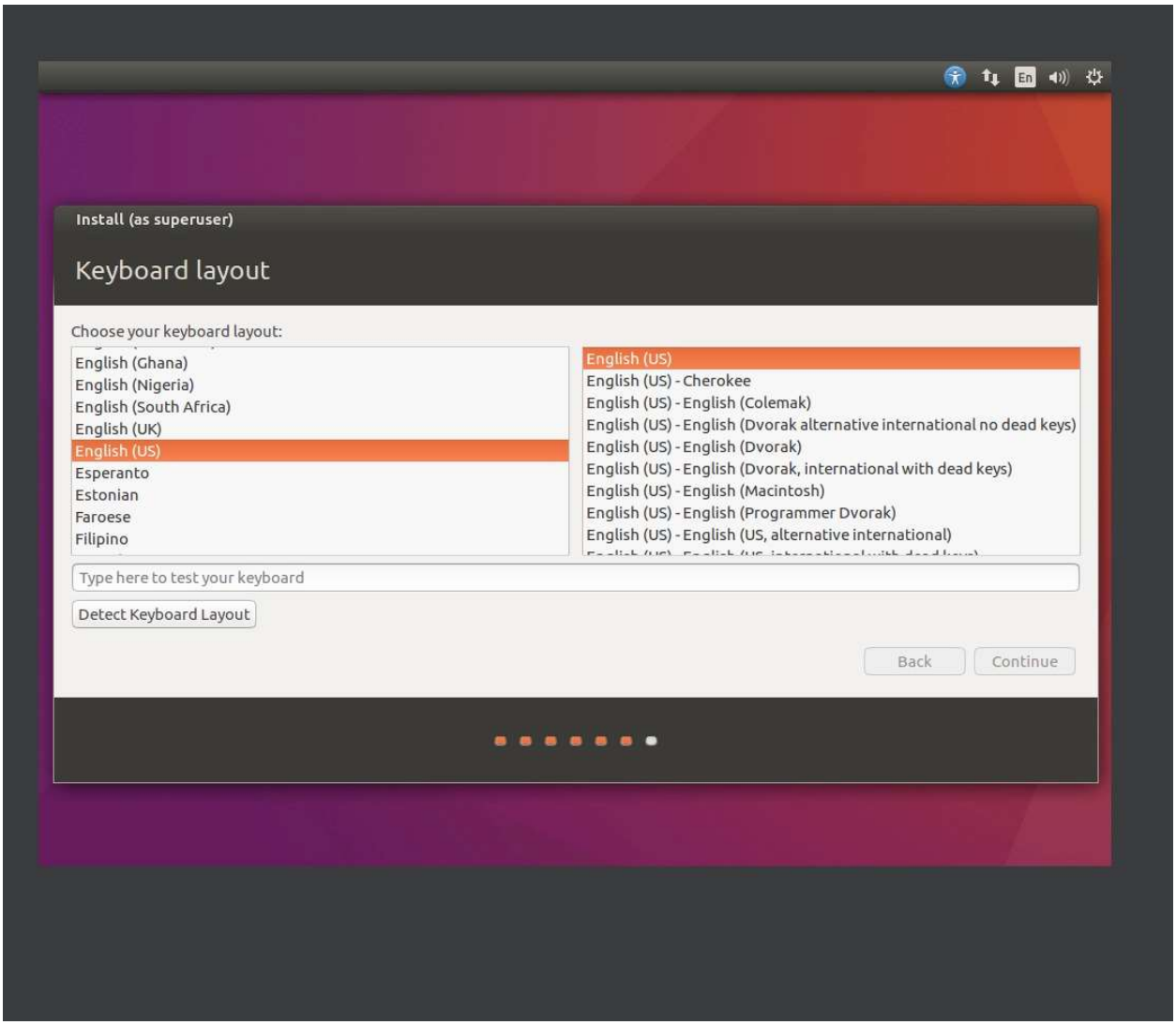


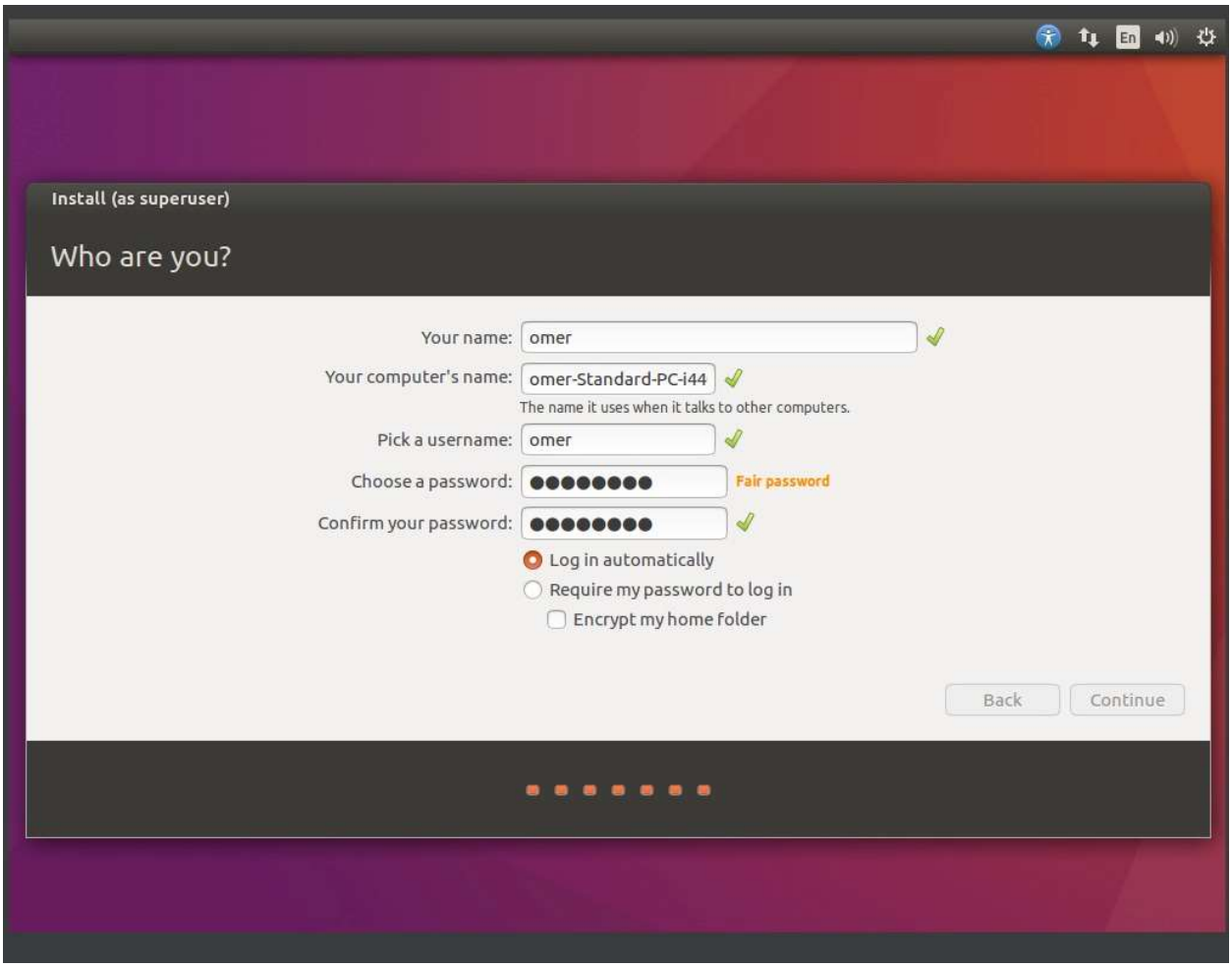

Install (as superuser)
Welcome
English
Español
Esperanto
Euskara
Français
Gaeilge
Galego
Hrvatski
Íslenska
Italiano
Kurdî
Latviski
Lietuviškai
Magyar
Nederlands
Norsk bokmål
Norsk nynorsk
Polski
Try Ubuntu
Install Ubuntu
You can try Ubuntu without making any changes to your computer, directly from this CD.
Or if you're ready, you can install Ubuntu alongside (or instead of) your current operating system. This shouldn't take too long.
You may wish to read the release notes.


En
Install (as superuser)
Preparing to install Ubuntu
Download updates while installing Ubuntu
This saves time after installation.
Install third-party software for graphics and Wi-Fi hardware, Flash, MP3 and other media
This software is subject to license terms included with its documentation. Some is proprietary.
Fluendo MP3 plugin includes MPEG Layer-3 audio decoding technology licensed from Fraunhofer IIS and Technicolor SA.
Quit
Back
Continue


En
Install (as superuser)
Installation type
This computer currently has no detected operating systems. What would you like to do?
Erase disk and install Ubuntu
Warning: This will delete all your programs, documents, photos, music, and any other files in all operating systems.
Encrypt the new Ubuntu installation for security
You will choose a security key in the next step.
Use LVM with the new Ubuntu installation
This will set up Logical Volume Management. It allows taking snapshots and easier partition resizing.
Something else
You can create or resize partitions yourself, or choose multiple partitions for Ubuntu.
Back
Install Now

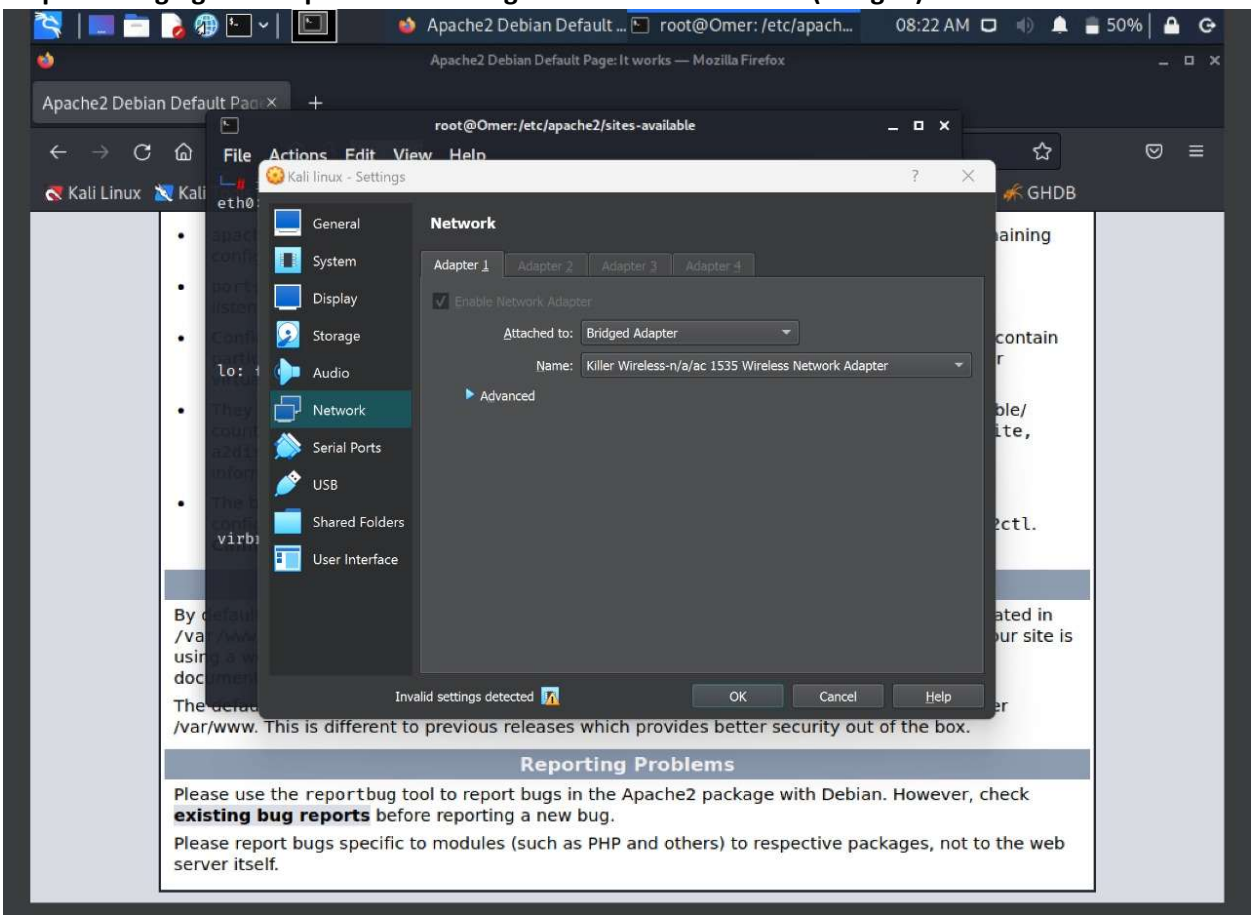

En
Install (as superuser)
Where are you?
Karachi
Back
Continue

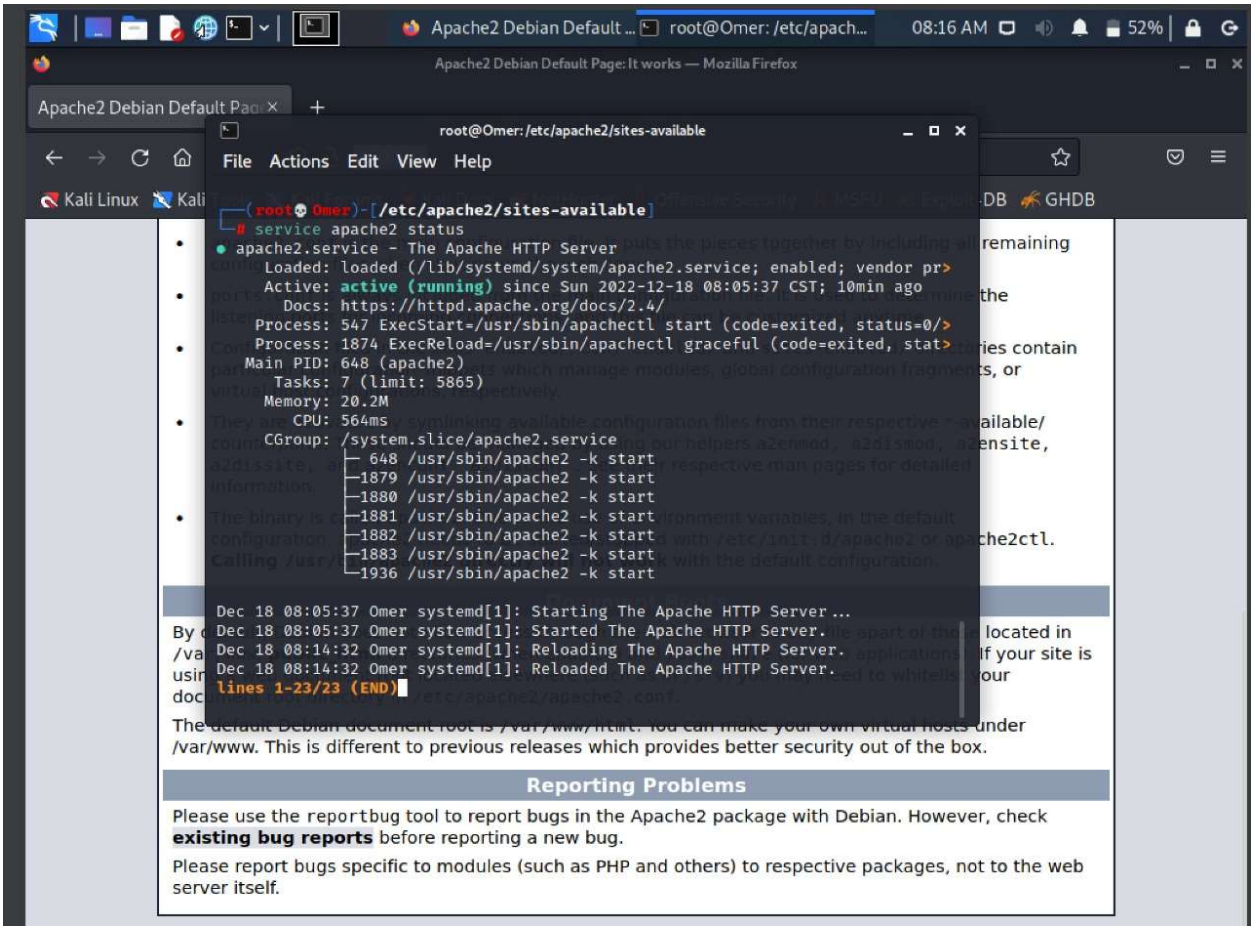

Install (as superuser)
Keyboard layout
Choose your keyboard layout:
English (Ghana)
English (Nigeria)
English (South Africa)
English (UK)
English (US)
Esperanto
Estonian
Faroese
Filipino
English (US)
English (US) - Cherokee
English (US) - English (Colemak)
English (US) - English (Dvorak alternative international no dead keys)
English (US) - English (Dvorak)
English (US) - English (Dvorak, international with dead keys)
English (US) - English (Macintosh)
English (US) - English (Programmer Dvorak)
English (US) - English (US, alternative international)
Type here to test your keyboard
Detect Keyboard Layout
Back
Continue



Note : Apache not installed in KVM because of available resources

Step 8: Changing the adapter for accessing outside virtual machine(Bridged)




Apache2 Debian Default ...
root@Omer: /etc/apach...
08:16 AM
52%
Apache2 Debian Default Page: It works — Mozilla Firefox
Apache2 Debian Default Pag
root@Omer: /etc/apache2/sites-available
File Actions Edit View Help
(root Omer)-[/etc/apache2/sites-available]
service apache2 status
● apache2.service - The Apache HTTP Server
Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor pr>
Active: active (running) since Sun 2022-12-18 08:05:37 CST; 10min ago
Docs: https://httpd.apache.org/docs/2.4/
Process: 547 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/>
Process: 1874 ExecReload=/usr/sbin/apachectl graceful (code=exited, stat>
Main PID: 648 (apache2)
Tasks: 7 (limit: 5865)
Memory: 20.2M
CPU: 564ms
CGroup: /system.slice/apache2.service
├─ 648 /usr/sbin/apache2 -k start
├─1879 /usr/sbin/apache2 -k start
├─1880 /usr/sbin/apache2 -k start
├─1881 /usr/sbin/apache2 -k start
├─1882 /usr/sbin/apache2 -k start
├─1883 /usr/sbin/apache2 -k start
└─1936 /usr/sbin/apache2 -k start
Dec 18 08:05:37 Omer systemd[1]: Starting The Apache HTTP Server ...
Dec 18 08:05:37 Omer systemd[1]: Started The Apache HTTP Server.
Dec 18 08:14:32 Omer systemd[1]: Reloading The Apache HTTP Server.
Dec 18 08:14:32 Omer systemd[1]: Reloaded The Apache HTTP Server.
lines 1-23/23 (END)
Kali Linux
GHDB
/var/www. This is different to previous releases which provides better security out of the box.
Reporting Problems
Please use the reportbug tool to report bugs in the Apache2 package with Debian. However, check existing bug reports before reporting a new bug.
Please report bugs specific to modules (such as PHP and others) to respective packages, not to the web server itself.

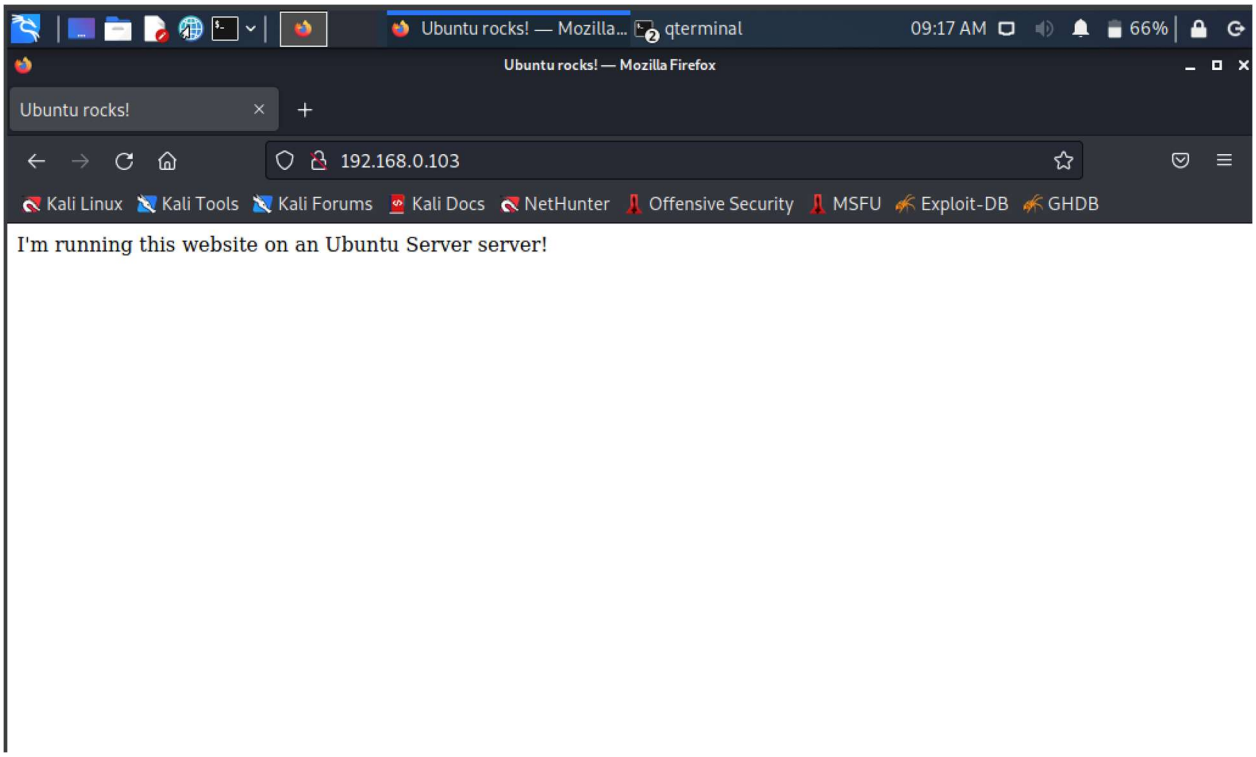
Step 9: Pinging the server from windows machine

```
C:\Users\Omer>ping 192.168.0.103

Pinging 192.168.0.103 with 32 bytes of data:
Reply from 192.168.0.103: bytes=32 time=3ms TTL=64
Reply from 192.168.0.103: bytes=32 time=1ms TTL=64
Reply from 192.168.0.103: bytes=32 time=1ms TTL=64
Reply from 192.168.0.103: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.0.103:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 3ms, Average = 1ms
```

Step 10: Type ip on your browser(Linux)



Step 11: Type ip on your browser(Windows)