PANGASINAN STATE UNIVERSITY
Urdaneta Campus, Urdaneta City Pangasinan
College of Engineering and Architecture
Computer Engineering Department

Elective 1 – Systems and Network Administration 1

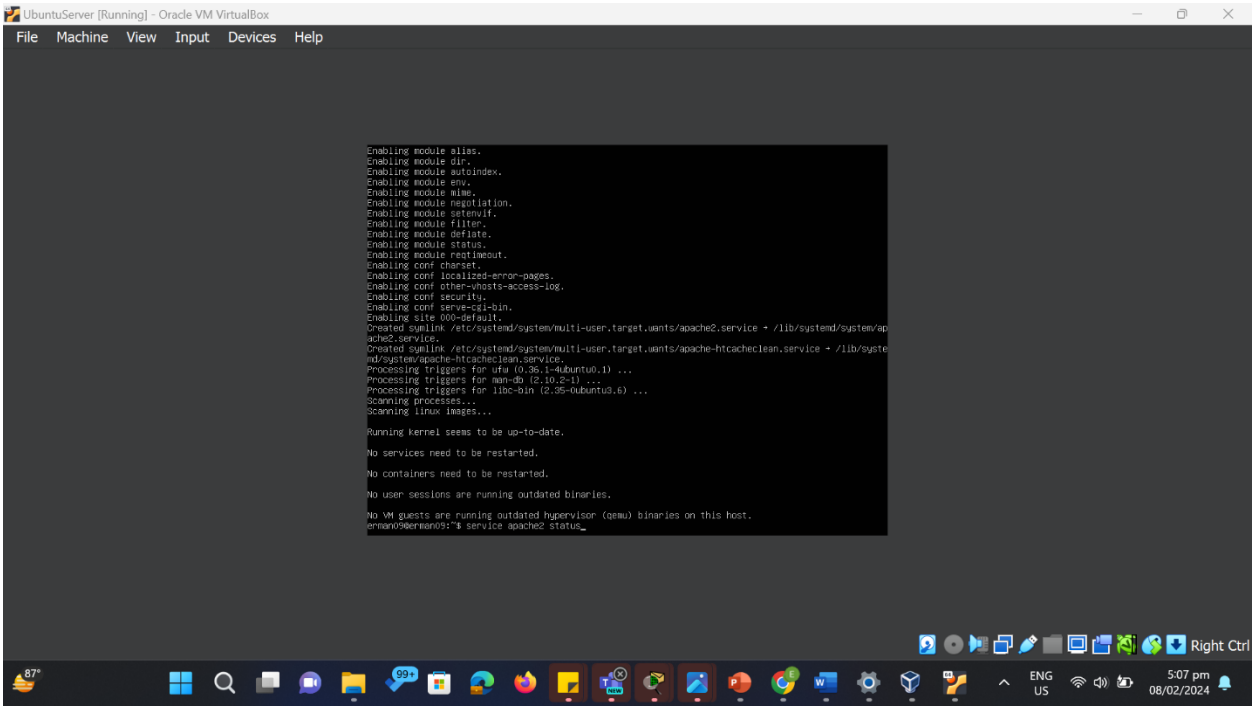
Evaluation: Assignment 1 Score: _____
Topic: Setup Web Server Date: February 13, 2024

Name: Cerujano Erman Ace Morales
(Family Name) (Given Name) (Middle)

INSTRUCTIONS:

1. Setup a web server (Apache) in your Virtual Machine using any linux distros of your choice.
2. Use your date of birth as the ip address of your web server mm.dd.yy.1. If your birthday is June 12, 2007 then your web server's ip address should be 06.12.07.1.
3. Use appropriate subnet mask for your respective ip address.
4. Modify the Apache default page and insert your name somewhere on the default page.
5. Access the web site using your cellphone.
6. Show the output to your instructor.
7. After physical checking, create and submit a step by step procedure how did you set up your web server on the space provided below. Please make sure that when copying a screen shot of a terminal window, use white background and black foreground.

STEP 1: Open your ubuntu server in Virtual Box.



STEP 2: Update your ubuntu server using the command “sudo apt update.”

```
erman09@erman09:~$ sudo apt update
[sudo] password for erman09:
Hit:1 http://ph.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://ph.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Hit:3 http://ph.archive.ubuntu.com/ubuntu jammy-backports InRelease
Get:4 http://ph.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [1,371 kB]
Get:5 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:6 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [1,144 kB]
Get:7 http://ph.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [273 kB]
Get:8 http://security.ubuntu.com/ubuntu jammy-security/main Translation-en [211 kB]
Get:9 http://ph.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [1,421 kB]
Get:10 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [1,369 kB]
Get:11 http://security.ubuntu.com/ubuntu jammy-security/restricted Translation-en [224 kB]
Get:12 http://ph.archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [234 kB]
Get:13 http://ph.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1,046 kB]
Get:14 http://ph.archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [236 kB]
Fetched 7,758 kB in 24s (328 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
50 packages can be upgraded. Run 'apt list --upgradable' to see them.
erman09@erman09:~$
```

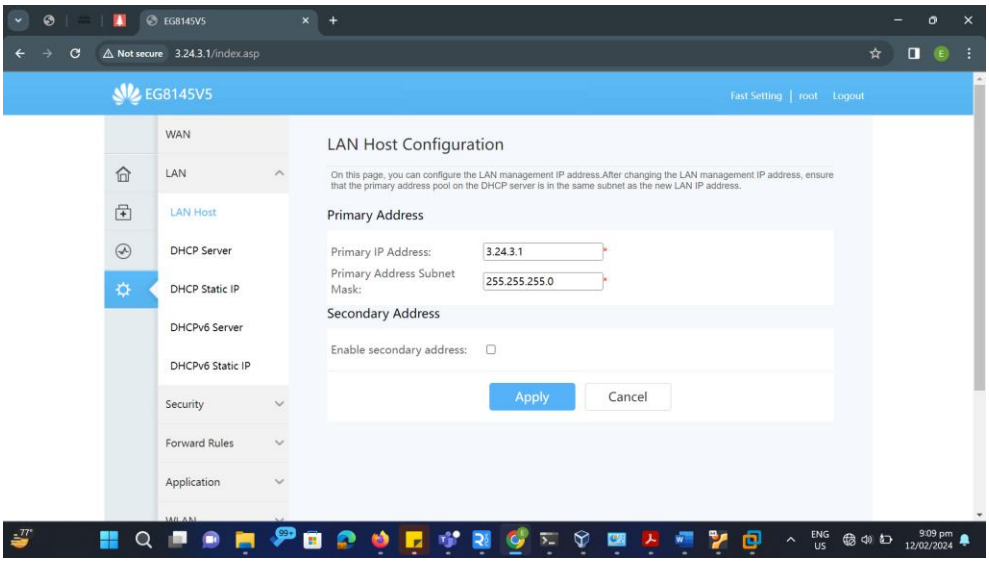
STEP 3: Install the Apache into your ubuntu server. Use the command “sudo apt-get install apache2”

```
erman09@erman09:~$ sudo apt-get install apache2
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
apache2 is already the newest version (2.4.52-1ubuntu4.7).
0 upgraded, 0 newly installed, 0 to remove and 50 not upgraded.
erman09@erman09:~$ _
```

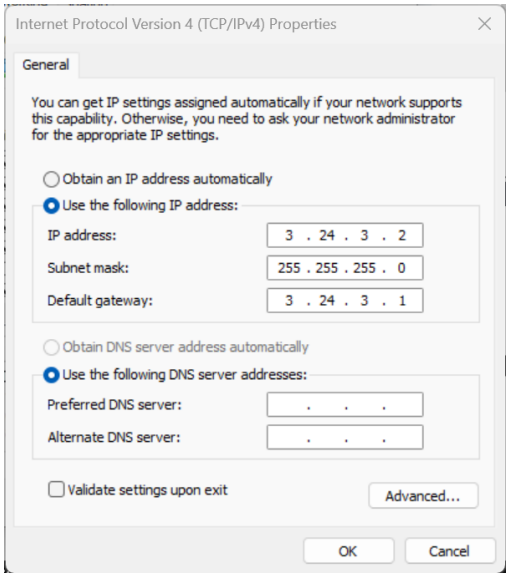
STEP 4: Check the status of your Apache using the command “service apache2 status.” The status of your Apache should be active.

```
ache2.service.
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.service → /lib/syste
md/system/apache-htcacheclean.service.
Processing triggers for ufw (0.36.1-4ubuntu0.1) ...
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for libc-bin (2.35-0ubuntu3.6) ...
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.
erman09@erman09:~$ service apache2 status
● apache2.service - The Apache HTTP Server
     Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
     Active: active (running) since Thu 2024-02-08 09:05:29 UTC; 1min 54s ago
       Docs: https://httpd.apache.org/docs/2.4/
   Main PID: 1634 (apache2)
      Tasks: 55 (limit: 8179)
     Memory: 5.4M
        CPU: 79ms
     CGroup: /system.slice/apache2.service
             ├─1634 /usr/sbin/apache2 -k start
             ├─1635 /usr/sbin/apache2 -k start
             └─1636 /usr/sbin/apache2 -k start

Feb 08 09:05:28 erman09 systemd[1]: Starting The Apache HTTP Server...
Feb 08 09:05:28 erman09 apachectl[1633]: AH00558: apache2: Could not reliably determine the server'
Feb 08 09:05:29 erman09 systemd[1]: Started The Apache HTTP Server.

erman09@erman09:~$ _
```

STEP 5: To set the IP of your web server to your birthday. You need to configure first the IP of your router. Go to your router and change its IP address to your birthday (example: 3.24.3.1)

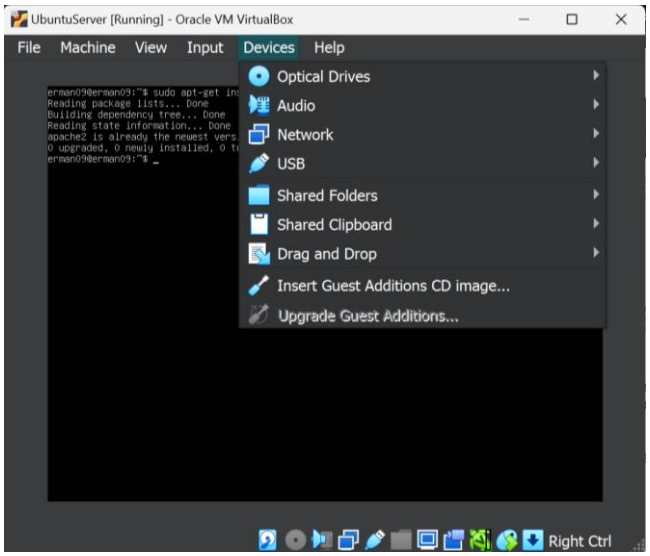


STEP 6: Connect your physical computer to your router and set its statis IP address to “3.24.3.2.”

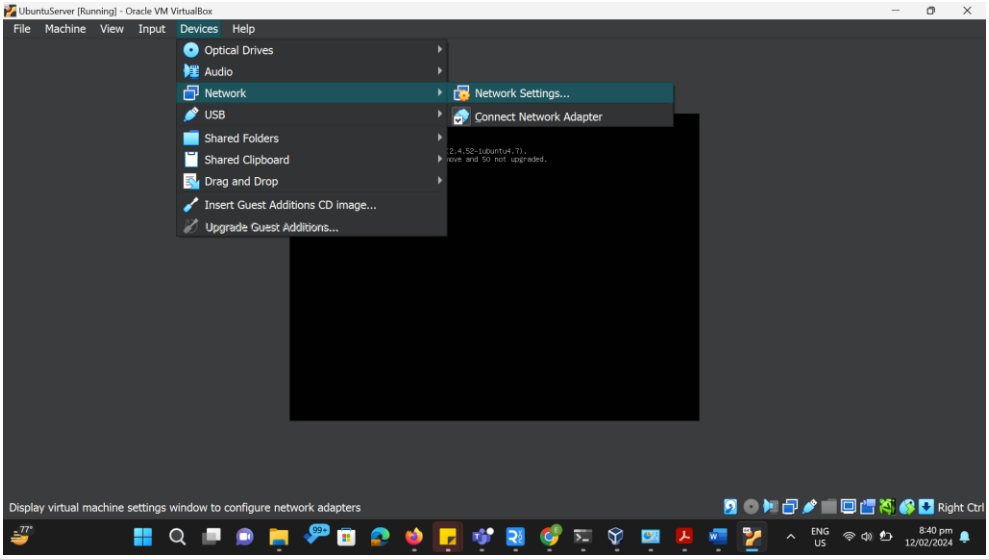


STEP 7: Configure the port forwarding of your webserver.

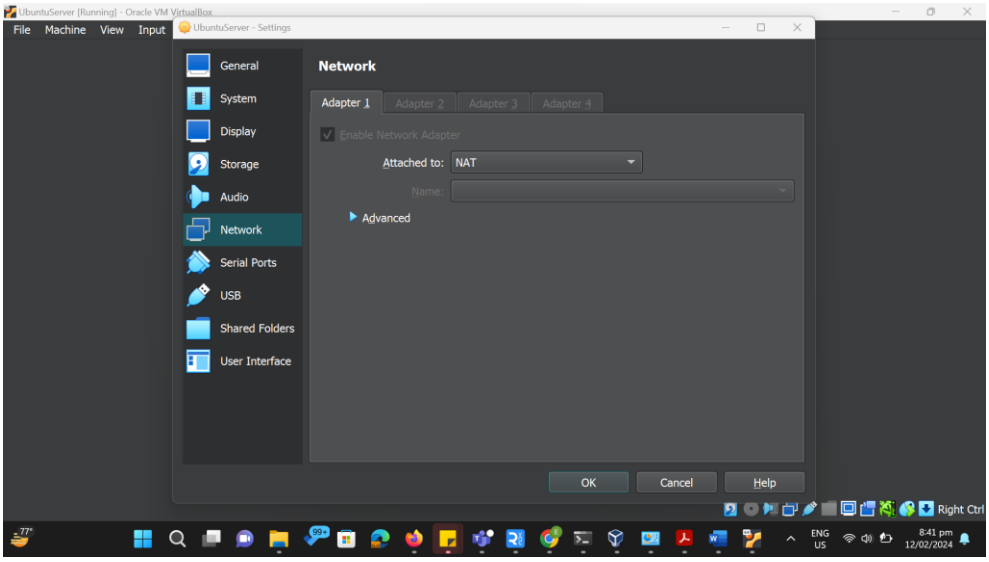
a. Go to the devices and select network.



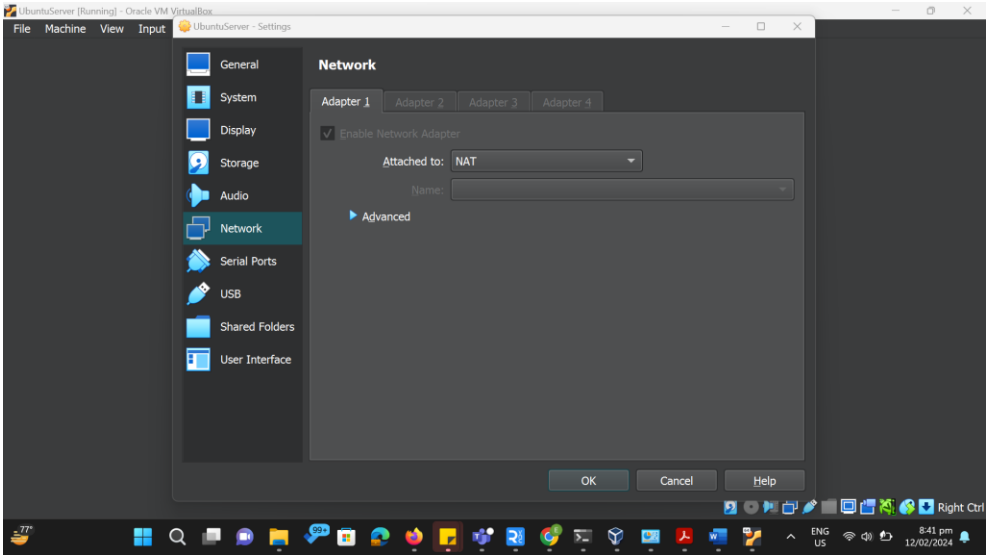
b. Then click the network settings.



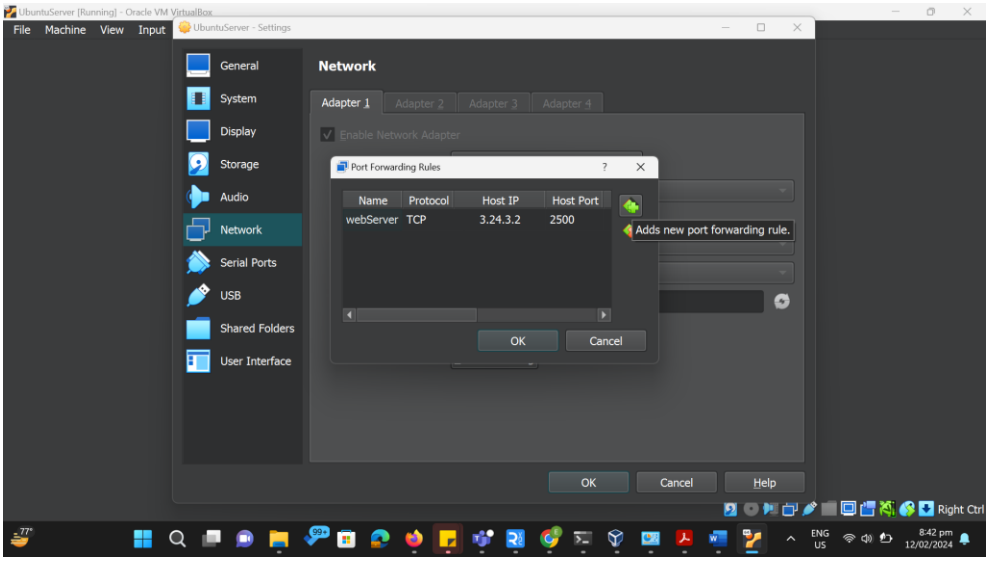
c. Click on the network, then advance.



d. Check the “cable connected” and click “port forwarding.”



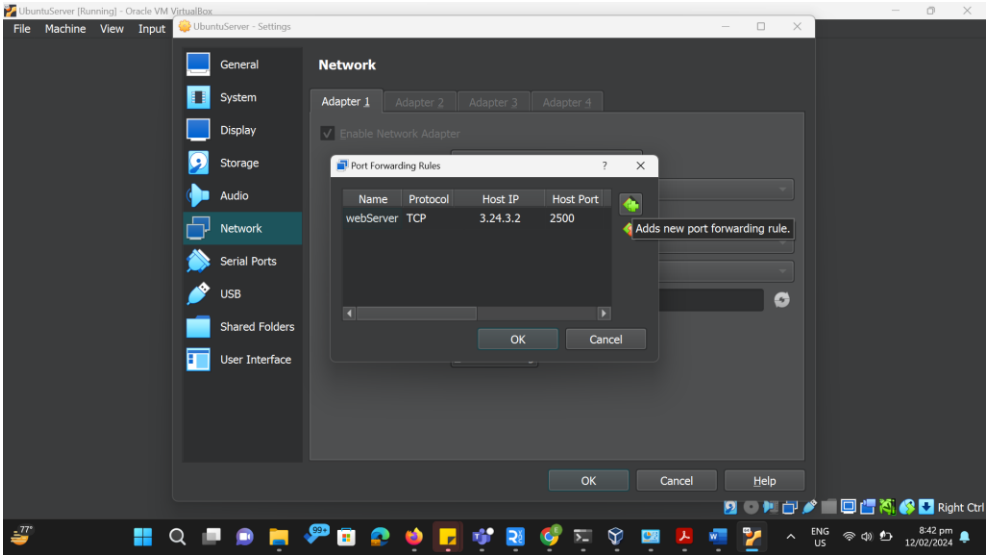
e. Click the “add” button.



f. Then set the needed information. For the:

- “Name” chooses whatever you want to use as a name in this port forwarding.
- “Protocol” chooses “TCP.”
- “HOST IP” choose the IP address of your physical computer.
- “HOST Port” choose the “2500.”
- “Guess IP” choose the IP address of your virtual machine.
- “Guess Port” choose the “8080.”

After filling up the needed information, click “OK.”



STEP 8: Edit the index.html. To edit the index.html use the following command “sudo nano /var/www/erman09/index.html”

```
erman09@erman09:~$ sudo nano /var/www/erman09/index.html
```

Then enter your password. After you enter your password, you can now edit the content of index.html file. After you edit the content of index.html file, save it.

STEP 9: Go to the browser of your physical machine and search for “3.24.3.2:2500.” It should display this:

Physical Machine

Mobile Phone