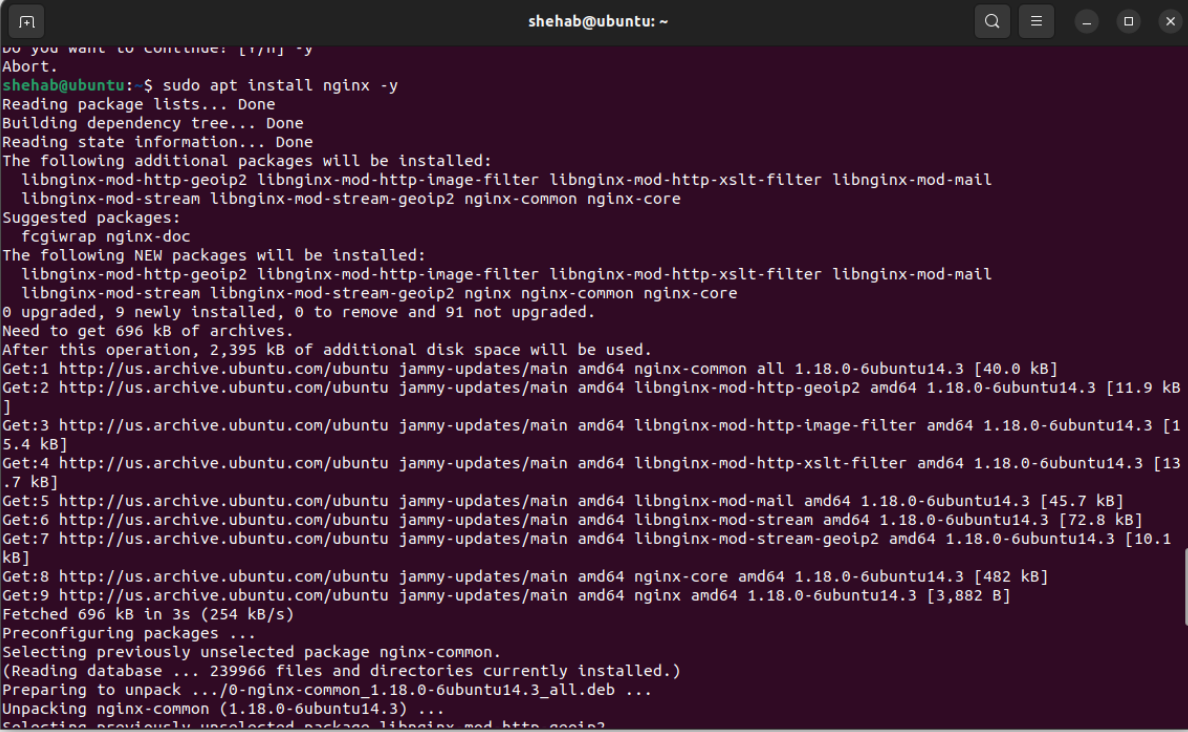


Shehab Hossam

- Using apt, install nginx

```
sudo apt install nginx -y
```

A terminal window titled 'shehab@ubuntu: ~' showing the command 'sudo apt install nginx -y' and its output. The output lists additional packages to be installed, suggested packages, and the disk space requirements. It shows the progress of downloading and unpacking the nginx-common package and its dependencies.

```
do you want to continue? [Y/n] -y
Abort.
shehab@ubuntu:~$ sudo apt install nginx -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libnginx-mod-http-geoip2 libnginx-mod-http-image-filter libnginx-mod-http-xslt-filter libnginx-mod-mail
  libnginx-mod-stream libnginx-mod-stream-geoip2 nginx-common nginx-core
Suggested packages:
  fcgiwrap nginx-doc
The following NEW packages will be installed:
  libnginx-mod-http-geoip2 libnginx-mod-http-image-filter libnginx-mod-http-xslt-filter libnginx-mod-mail
  libnginx-mod-stream libnginx-mod-stream-geoip2 nginx nginx-common nginx-core
0 upgraded, 9 newly installed, 0 to remove and 91 not upgraded.
Need to get 696 kB of archives.
After this operation, 2,395 kB of additional disk space will be used.
Get:1 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 nginx-common all 1.18.0-6ubuntu14.3 [40.0 kB]
Get:2 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libnginx-mod-http-geoip2 amd64 1.18.0-6ubuntu14.3 [11.9 kB]
Get:3 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libnginx-mod-http-image-filter amd64 1.18.0-6ubuntu14.3 [15.4 kB]
Get:4 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libnginx-mod-http-xslt-filter amd64 1.18.0-6ubuntu14.3 [13.7 kB]
Get:5 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libnginx-mod-mail amd64 1.18.0-6ubuntu14.3 [45.7 kB]
Get:6 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libnginx-mod-stream amd64 1.18.0-6ubuntu14.3 [72.8 kB]
Get:7 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libnginx-mod-stream-geoip2 amd64 1.18.0-6ubuntu14.3 [10.1 kB]
Get:8 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 nginx-core amd64 1.18.0-6ubuntu14.3 [482 kB]
Get:9 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 nginx amd64 1.18.0-6ubuntu14.3 [3,882 B]
Fetched 696 kB in 3s (254 kB/s)
Preconfiguring packages ...
Selecting previously unselected package nginx-common.
(Reading database ... 239966 files and directories currently installed.)
Preparing to unpack .../0-nginx-common_1.18.0-6ubuntu14.3_all.deb ...
Unpacking nginx-common (1.18.0-6ubuntu14.3) ...
Selecting previously unselected package libnginx-mod-http-geoip2.
```

- Enable port 80 on the firewall

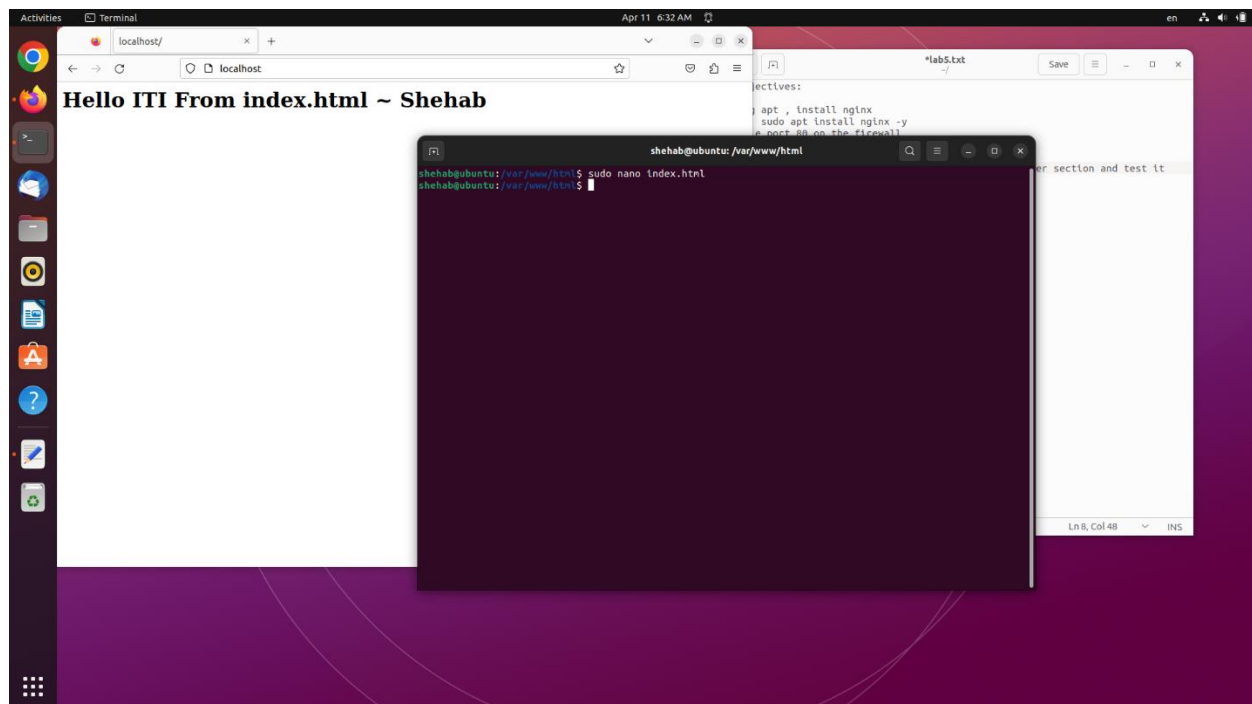
```
sudo ufw allow 80/tcp
```

```
sudo ufw allow 80/udp
```

```
shehab@ubuntu: ~  
To      Action      From  
--      -  
Apache  ALLOW      Anywhere  
Apache Full  ALLOW      Anywhere  
21/tcp  DENY      Anywhere  
20/tcp  DENY      Anywhere  
Apache (v6)  ALLOW      Anywhere (v6)  
Apache Full (v6)  ALLOW      Anywhere (v6)  
21/tcp (v6)  DENY      Anywhere (v6)  
20/tcp (v6)  DENY      Anywhere (v6)  
  
shehab@ubuntu:~$ sudo ufw allow 80/tcp  
Rule added  
Rule added (v6)  
shehab@ubuntu:~$ sudo ufw allow 80/udp  
Rule added  
Rule added (v6)  
shehab@ubuntu:~$ sudo ufw status  
Status: active  
  
To      Action      From  
--      -  
Apache  ALLOW      Anywhere  
Apache Full  ALLOW      Anywhere  
21/tcp  DENY      Anywhere  
20/tcp  DENY      Anywhere  
80/tcp  ALLOW      Anywhere  
80/udp  ALLOW      Anywhere  
Apache (v6)  ALLOW      Anywhere (v6)  
Apache Full (v6)  ALLOW      Anywhere (v6)  
21/tcp (v6)  DENY      Anywhere (v6)  
20/tcp (v6)  DENY      Anywhere (v6)  
80/tcp (v6)  ALLOW      Anywhere (v6)  
80/udp (v6)  ALLOW      Anywhere (v6)  
  
shehab@ubuntu:~$
```

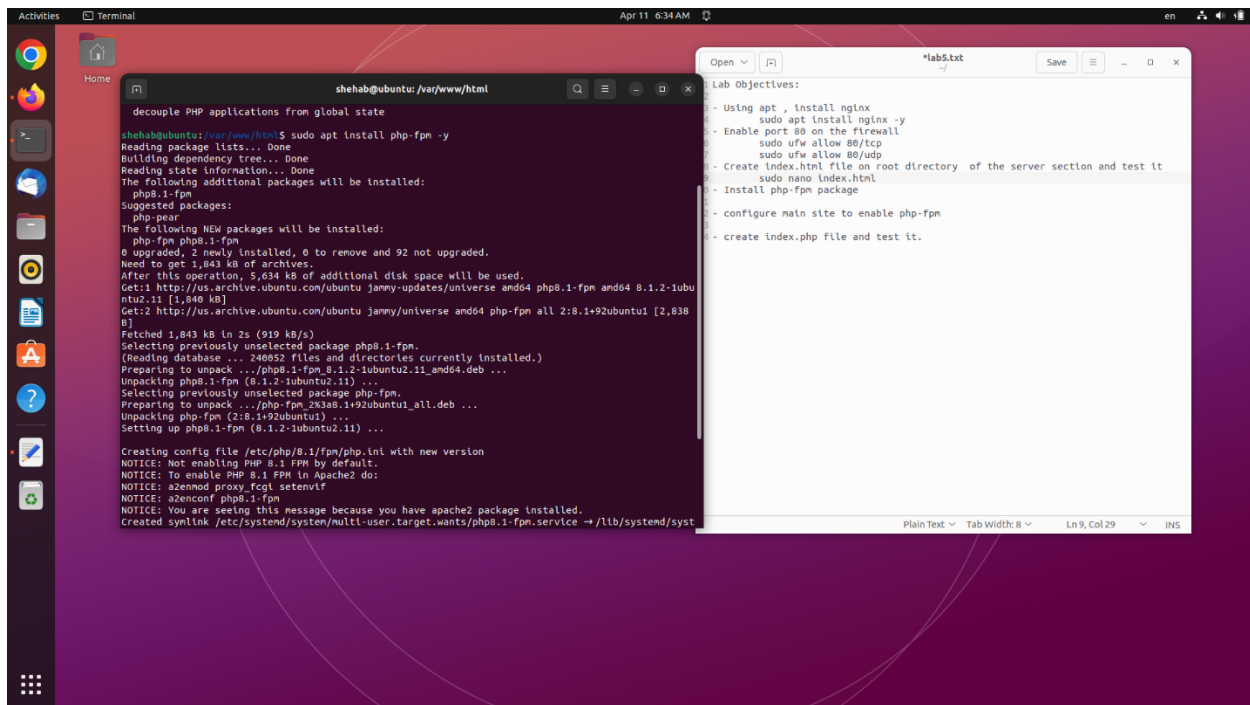
- Create index.html file on root directory of the server section and test it

sudo nano index.html



- Install php-fpm package

`sudo apt install php-fpm -y`



The terminal window shows the command `sudo apt install php-fpm -y` being executed. The output indicates that the package is being installed along with its dependencies. A Lab Objectives window is also open, listing the steps for the lab.

```
shehab@ubuntu: /var/www/html$ sudo apt install php-fpm -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  php8.1-fpm
Suggested packages:
  php-pear
The following NEW packages will be installed:
  php-fpm php8.1-fpm
0 upgraded, 2 newly installed, 0 to remove and 92 not upgraded.
Need to get 1,843 kB of archives.
After this operation, 5,634 kB of additional disk space will be used.
Get:1 http://us.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 php8.1-fpm amd64 8.1.2-1ubuntu2.11 [1,840 kB]
Get:2 http://us.archive.ubuntu.com/ubuntu jammy/universe amd64 php-fpm all 2:8.1+92ubuntu1 [2,038 B]
Fetched 1,843 kB in 2s (919 kB/s)
Selecting previously unselected package php8.1-fpm.
(Reading database ... 240952 files and directories currently installed.)
Preparing to unpack .../php8.1-fpm_8.1.2-1ubuntu2.11_amd64.deb ...
Unpacking php8.1-fpm (8.1.2-1ubuntu2.11) ...
Selecting previously unselected package php-fpm.
Preparing to unpack .../php-fpm_2:8.1+92ubuntu1_all.deb ...
Unpacking php-fpm (2:8.1+92ubuntu1) ...
Setting up php8.1-fpm (8.1.2-1ubuntu2.11) ...
Creating config file /etc/php/8.1/fpm/php.ini with new version
NOTICE: Not enabling PHP 8.1 FPM by default.
NOTICE: To enable PHP 8.1 FPM in Apache2 do:
NOTICE: a2enmod proxy_fcgi setenvif
NOTICE: a2enconf php8.1-fpm
NOTICE: You are seeing this message because you have apache2 package installed.
Created symlink /etc/systemd/system/multi-user.target.wants/php8.1-fpm.service -> /lib/systemd/systemd
```

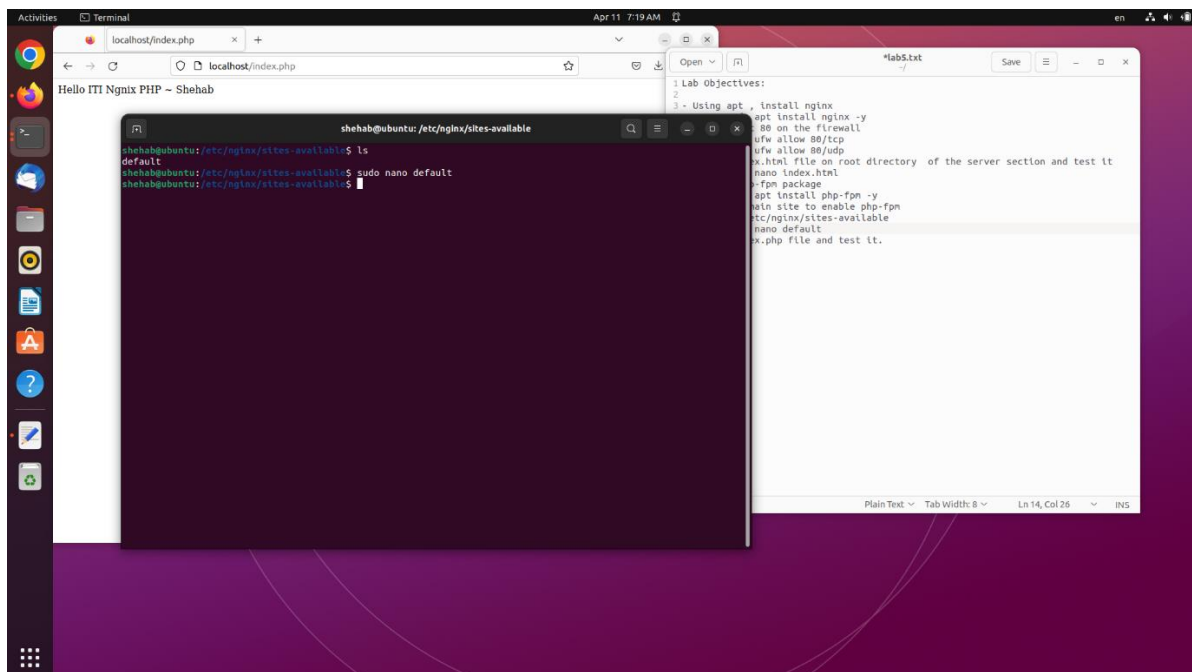
Lab Objectives:

- Using apt , install nginx
- sudo apt install nginx -y
- Enable port 80 on the firewall
- sudo ufw allow 80/tcp
- sudo ufw allow 80/udp
- Create index.html file on root directory of the server section and test it
- sudo nano index.html
- Install php-fpm package
- configure main site to enable php-fpm
- create index.php file and test it.

- configure main site to enable php-fpm

`cd /etc/nginx/sites-available`

`sudo nano default`



The terminal window shows the command `cd /etc/nginx/sites-available` being executed. The output indicates that the directory is now the current working directory. A Lab Objectives window is also open, listing the steps for the lab.

```
shehab@ubuntu: /etc/nginx/sites-available$ ls
default
shehab@ubuntu: /etc/nginx/sites-available$ sudo nano default
shehab@ubuntu: /etc/nginx/sites-available$
```

Lab Objectives:

- 1 Lab Objectives:
- 2
- 3 - Using apt , install nginx
- 4 apt install nginx -y
- 5 80 on the firewall
- 6 ufw allow 80/tcp
- 7 ufw allow 80/udp
- 8 x.html file on root directory of the server section and test it
- 9 nano index.html
- 10 fpm package
- 11 apt install php-fpm -y
- 12 main site to enable php-fpm
- 13 etc/nginx/sites-available
- 14 nano default
- 15 x.php file and test it.

- create index.php file and test it.

```
cd /var/www/html
```

```
sudo nano index.php
```

