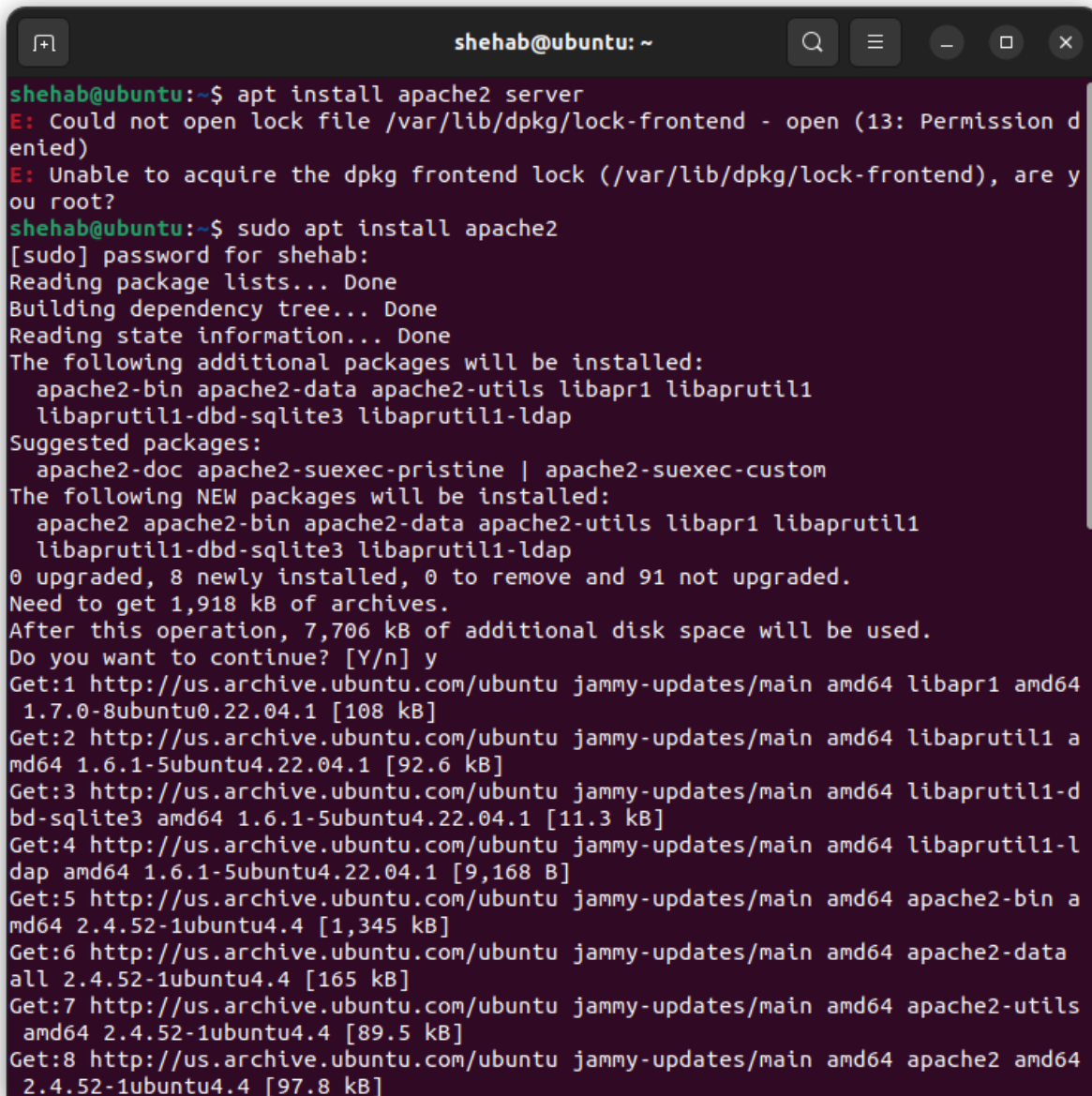


Shehab Hossam

Using apt install apache2 server

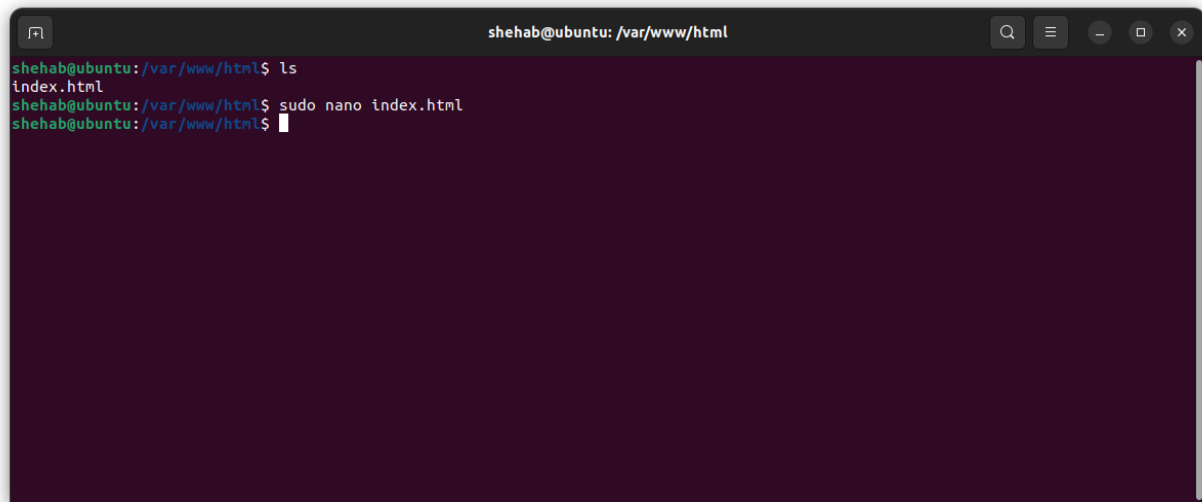
```
sudo apt install apache2
```

```
sudo service apache2 start
```

A terminal window titled 'shehab@ubuntu: ~' with standard window controls. The terminal shows the command 'apt install apache2 server' being executed. It displays error messages about lock files, then 'sudo apt install apache2' is run. The terminal shows the password prompt, package lists being read, and the dependency tree being built. It lists additional packages to be installed (apache2-bin, apache2-data, etc.), suggested packages, and the disk space requirements. Finally, it shows the progress of downloading eight packages from the Ubuntu archive.

```
shehab@ubuntu:~$ apt install apache2 server
E: Could not open lock file /var/lib/dpkg/lock-frontent - open (13: Permission denied)
E: Unable to acquire the dpkg frontend lock (/var/lib/dpkg/lock-frontent), are you root?
shehab@ubuntu:~$ sudo apt install apache2
[sudo] password for shehab:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  apache2-bin apache2-data apache2-utils libapr1 libaprutil1
  libaprutil1-dbd-sqlite3 libaprutil1-ldap
Suggested packages:
  apache2-doc apache2-suexec-pristine | apache2-suexec-custom
The following NEW packages will be installed:
  apache2 apache2-bin apache2-data apache2-utils libapr1 libaprutil1
  libaprutil1-dbd-sqlite3 libaprutil1-ldap
0 upgraded, 8 newly installed, 0 to remove and 91 not upgraded.
Need to get 1,918 kB of archives.
After this operation, 7,706 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libapr1 amd64 1.7.0-8ubuntu0.22.04.1 [108 kB]
Get:2 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libaprutil1 amd64 1.6.1-5ubuntu4.22.04.1 [92.6 kB]
Get:3 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libaprutil1-dbd-sqlite3 amd64 1.6.1-5ubuntu4.22.04.1 [11.3 kB]
Get:4 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libaprutil1-ldap amd64 1.6.1-5ubuntu4.22.04.1 [9,168 B]
Get:5 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 apache2-bin amd64 2.4.52-1ubuntu4.4 [1,345 kB]
Get:6 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 apache2-data all 2.4.52-1ubuntu4.4 [165 kB]
Get:7 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 apache2-utils amd64 2.4.52-1ubuntu4.4 [89.5 kB]
Get:8 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 apache2 amd64 2.4.52-1ubuntu4.4 [97.8 kB]
```

Replace the default index.html content with your own content



```
shehab@ubuntu: /var/www/html
shehab@ubuntu: /var/www/html$ ls
index.html
shehab@ubuntu: /var/www/html$ sudo nano index.html
shehab@ubuntu: /var/www/html$
```



install php module for apache2

```
php -v
```

```
sudo apt install libapache2-mod-php8.1
```

```
shehab@ubuntu: /var/www/html
apache2_invoke: Enable module php8.1
Setting up php8.1 (8.1.2-1ubuntu2.11) ...
Setting up php (2:8.1+92ubuntu1) ...
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for php8.1-cli (8.1.2-1ubuntu2.11) ...
Processing triggers for libapache2-mod-php8.1 (8.1.2-1ubuntu2.11) ...
shehab@ubuntu:/var/www/html$ php -v
PHP 8.1.2-1ubuntu2.11 (cli) (built: Feb 22 2023 22:56:18) (NTS)
Copyright (c) The PHP Group
Zend Engine v4.1.2, Copyright (c) Zend Technologies
with Zend OPcache v8.1.2-1ubuntu2.11, Copyright (c), by Zend Technologies
shehab@ubuntu:/var/www/html$ sudo apt install libapache2-mod-php8.1.2
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
E: Unable to locate package libapache2-mod-php8.1.2
E: Couldn't find any package by glob 'libapache2-mod-php8.1.2'
shehab@ubuntu:/var/www/html$ sudo apt install libapache2-mod-php8.1
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
libapache2-mod-php8.1 is already the newest version (8.1.2-1ubuntu2.11).
libapache2-mod-php8.1 set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 91 not upgraded.
```

create new Named VirtualHost to serve new php project with special access log

```
sudo cp 000-default.conf 001-shehab.conf
```

```
sudo nano /etc/hosts
```

```
sudo a2ensite 001-shehab.conf
```

```
systemctl reload apache2
```

```
shehab@ubuntu: /etc/apache2/sites-available
shehab@ubuntu:/etc/apache2/sites-available$ ls
000-default.conf  default-ssl.conf
shehab@ubuntu:/etc/apache2/sites-available$ cp 000-default.conf 001-shehab.conf
cp: cannot create regular file '001-shehab.conf': Permission denied
shehab@ubuntu:/etc/apache2/sites-available$ sudo cp 000-default.conf 001-shehab.conf
shehab@ubuntu:/etc/apache2/sites-available$ ls
000-default.conf  001-shehab.conf  default-ssl.conf
shehab@ubuntu:/etc/apache2/sites-available$
```

```
shehab@ubuntu: /var/www/html
shehab@ubuntu:/var/www/html$ cat /etc/hosts
127.0.0.1    localhost
127.0.1.1    ubuntu.myquest.virtualbox.org  ubuntu

# The following lines are desirable for IPv6 capable hosts
::1         ip6-localhost ip6-loopback
fe00::0     ip6-localnet
ff00::0     ip6-mcastprefix
ff02::1     ip6-allnodes
ff02::2     ip6-allrouters
shehab@ubuntu:/var/www/html$ sudo nano /etc/hosts
shehab@ubuntu:/var/www/html$ cat /etc/hosts
127.0.0.1    localhost
127.0.0.1    shehab.com
127.0.1.1    ubuntu.myquest.virtualbox.org  ubuntu

# The following lines are desirable for IPv6 capable hosts
::1         ip6-localhost ip6-loopback
fe00::0     ip6-localnet
ff00::0     ip6-mcastprefix
ff02::1     ip6-allnodes
ff02::2     ip6-allrouters
shehab@ubuntu:/var/www/html$
```

create simple index.php file for the php site

`sudo nano index.php`



configure /etc/hosts for php site.

`sudo nano /etc/hosts`

```
shehab@ubuntu: /var/www/html
shehab@ubuntu:/var/www/html$ cat /etc/hosts
127.0.0.1    localhost
127.0.1.1    ubuntu.myquest.virtualbox.org  ubuntu

# The following lines are desirable for IPv6 capable hosts
::1         ip6-localhost ip6-loopback
fe00::0     ip6-localnet
ff00::0     ip6-mcastprefix
ff02::1     ip6-allnodes
ff02::2     ip6-allrouters
shehab@ubuntu:/var/www/html$ sudo nano /etc/hosts
shehab@ubuntu:/var/www/html$ cat /etc/hosts
127.0.0.1    localhost
127.0.0.1    shehab.com
127.0.1.1    ubuntu.myquest.virtualbox.org  ubuntu

# The following lines are desirable for IPv6 capable hosts
::1         ip6-localhost ip6-loopback
fe00::0     ip6-localnet
ff00::0     ip6-mcastprefix
ff02::1     ip6-allnodes
ff02::2     ip6-allrouters
shehab@ubuntu:/var/www/html$
```

disable directory listing for the new virtualhost

<Directory /var/www/html/shehab>

Options -Indexes

</Directory>

Open ▾

lab4.txt
~/

Save≡-□×

```
1 Using apt install apache2 server
2     sudo apt install apache2
3     sudo service apache2 start
4 Replace the default index.html content with your own content
5
6 install php module for apache2
7     php -v
8     sudo apt install libapache2-mod-php8.1
9 create new Named VirtualHost to serve new php project with special access log
10    sudo cp 000-default.conf 001-shehab.conf
11    sudo nano /etc/hosts
12    sudo a2ensite 001-shehab.conf
13    systemctl reload apache2
14 create simple index.php file for the php site
15    sudo nano index.php
16 configure /etc/hosts for php site.
17    sudo nano /etc/hosts
18 disable directory listing for the new virtualhost
19    <Directory /var/www/html/shehab>
20        Options -Indexes
21    </Directory>
22
```

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