

1.

**Install nginx and host a simple index.html with message “Hello NGINX”.**

## Answer:

Firstly, we need to install the nginx. To install nginx we use following command;

- sudo apt install nginx

```
aashish@aashish-VirtualBox:~$ sudo apt install nginx
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libnginx-mod-http-image-filter libnginx-mod-http-xslt-filter
  libnginx-mod-mail libnginx-mod-stream nginx-common nginx-core
Suggested packages:
  fcgiwrap nginx-doc
The following NEW packages will be installed:
  libnginx-mod-http-image-filter libnginx-mod-http-xslt-filter
  libnginx-mod-mail libnginx-mod-stream nginx nginx-common nginx-core
0 upgraded, 7 newly installed, 0 to remove and 0 not upgraded.
Need to get 603 kB of archives.
After this operation, 2,134 kB of additional disk space will be used.
Do you want to continue? [Y/n]
Get:1 http://np.archive.ubuntu.com/ubuntu focal-updates/main amd64 nginx-common
all 1.18.0-0ubuntu1.2 [37.5 kB]
Get:2 http://np.archive.ubuntu.com/ubuntu focal-updates/main amd64 libnginx-mod-
http-image-filter amd64 1.18.0-0ubuntu1.2 [14.4 kB]
Get:3 http://np.archive.ubuntu.com/ubuntu focal-updates/main amd64 libnginx-mod-
http-xslt-filter amd64 1.18.0-0ubuntu1.2 [12.7 kB]
Get:4 http://np.archive.ubuntu.com/ubuntu focal-updates/main amd64 libnginx-mod-
mail amd64 1.18.0-0ubuntu1.2 [42.5 kB]
```

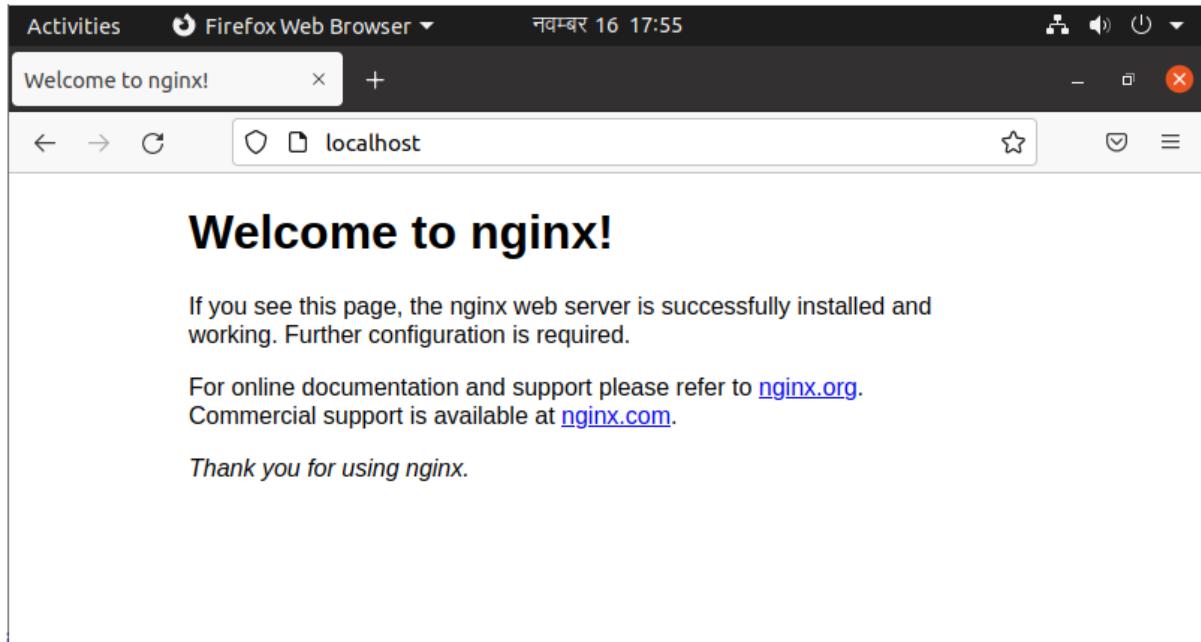
After installing the nginx server, we start the nginx server and check the status using following commands;

- **sudo systemctl start nginx**
- **sudo systemctl status nginx**

```
aashish@aashish-VirtualBox:~$ curl -4 icanhazip.com
110.44.124.138
aashish@aashish-VirtualBox:~$ systemctl status nginx
● nginx.service - A high performance web server and a reverse proxy server
   Loaded: loaded (/lib/systemd/system/nginx.service; enabled; vendor preset: enabled)
   Active: active (running) since Tue 2021-11-16 17:49:36 +0545; 46min ago
     Docs: man:nginx(8)
 Main PID: 4682 (nginx)
    Tasks: 2 (limit: 4638)
   Memory: 2.9M
      CGroup: /system.slice/nginx.service
              └─4682 nginx: master process /usr/sbin/nginx -g daemon on; master process...
                  ├─4683 nginx: worker process

नवम्बर 16 17:49:36 aashish-VirtualBox systemd[1]: Starting A high performance web server...
नवम्बर 16 17:49:36 aashish-VirtualBox systemd[1]: Started A high performance web server...
```

Since, the nginx server is running. We can test it from the web browser as well.



Now, we create a directory `/var/www/aashish/html/` and add index.html in the directory using following command;

- `sudo mkdir /var/www/aashish/html`
- `cd /var/www/aashish/html`
- `sudo nano index.html`

A screenshot of a terminal window titled "aashish@aashish-VirtualBox: ~". The command "GNU nano 4.8" is at the top, followed by the file path "/var/www/aashish/html/index.html". The content of the file is displayed:

```
<html>
  <head>
    <title>Welcome to DevOps Internship</title>
  </head>

  <body>
    <h1>Hello NGINX</h1>
  </body>
</html>
```

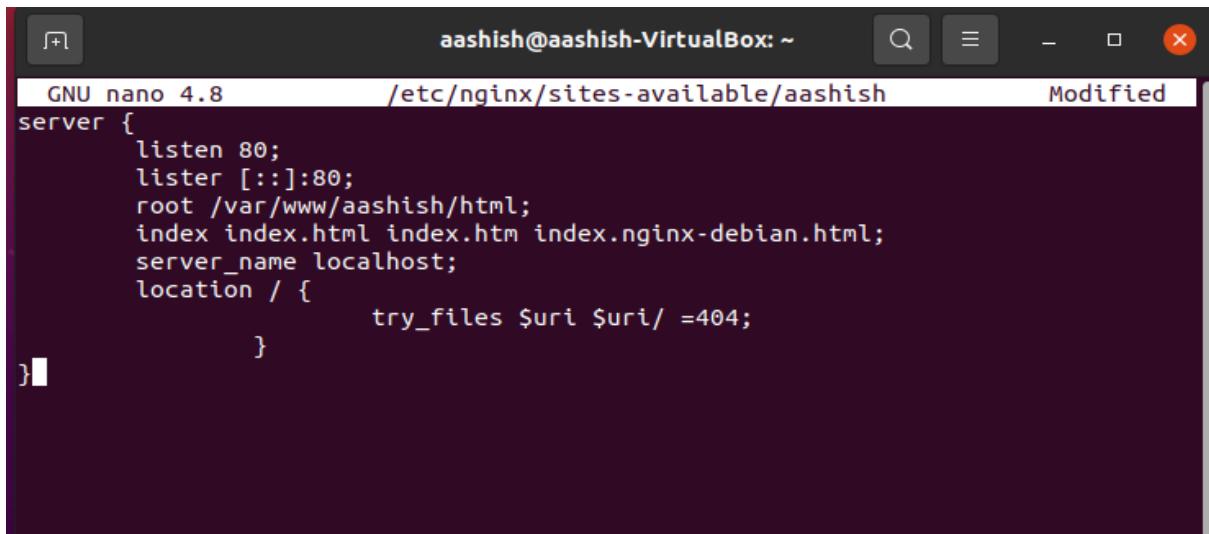
In the `index.html` file the above things are added.

Now, we create a `aashish.conf` file in `/etc/nginx/sites-available` using following command;

- `nano /etc/nginx/sites-available/aashish.conf`

We add the following things in the **aashish.conf** file and save and exit.

```
server {
    listen 80;
    listen [::]:80;
    root /var/www/aashish/html;
    index index.html index.htm index.nginx-debian.html;
server_name localhost;
location / {
    try_files $uri $uri/ =404;
}
}
```



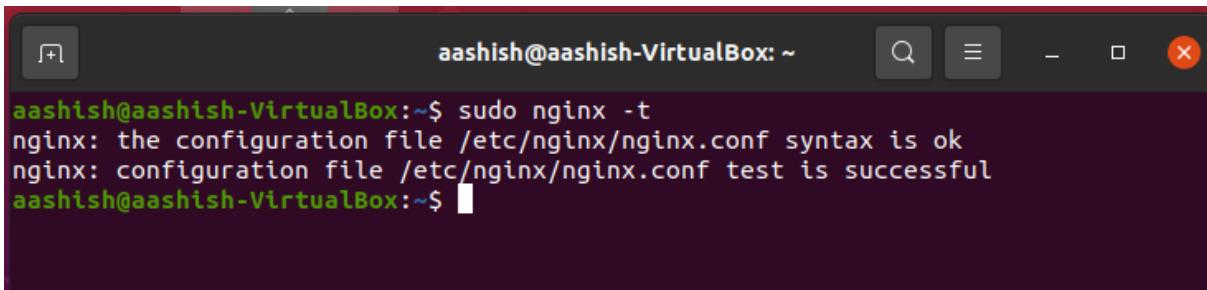
```
GNU nano 4.8          /etc/nginx/sites-available/aashish      Modified
server {
    listen 80;
    listen [::]:80;
    root /var/www/aashish/html;
    index index.html index.htm index.nginx-debian.html;
    server_name localhost;
    location / {
        try_files $uri $uri/ =404;
    }
}
```

We create symbolic link or soft link of aashish.conf file from /etc/nginx/sites-available to /etc/nginx/sites-enabled using following command;

- **In -s /etc/nginx/sites-available/aashish.conf /etc/nginx/sites-available**

Then, we check the for syntax error and if everything is fine we restart the nginx server using following commands;

- **sudo nginx -t**  
- **sudo systemctl restart nginx**



```
aashish@aashish-VirtualBox:~$ sudo nginx -t
nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
nginx: configuration file /etc/nginx/nginx.conf test is successful
aashish@aashish-VirtualBox:~$
```

```
aashish@aashish-VirtualBox:~$ sudo nginx -t
nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
nginx: configuration file /etc/nginx/nginx.conf test is successful
aashish@aashish-VirtualBox:~$ systemctl restart nginx
aashish@aashish-VirtualBox:~$ systemctl status nginx
● nginx.service - A high performance web server and a reverse proxy server
   Loaded: loaded (/lib/systemd/system/nginx.service; enabled; vendor preset:>)
   Active: active (running) since Tue 2021-11-16 18:53:13 +0545; 9s ago
     Docs: man:nginx(8)
  Process: 5849 ExecStartPre=/usr/sbin/nginx -t -q -g daemon on; master_proce>
  Process: 5850 ExecStart=/usr/sbin/nginx -g daemon on; master_process on; (c>
 Main PID: 5851 (nginx)
    Tasks: 2 (limit: 4638)
   Memory: 2.4M
      CGroup: /system.slice/nginx.service
              └─5851 nginx: master process /usr/sbin/nginx -g daemon on; master_>
                  ├─5852 nginx: worker process

नवम्बर 16 18:53:13 aashish-VirtualBox systemd[1]: Starting A high performance we>
नवम्बर 16 18:53:13 aashish-VirtualBox systemd[1]: Started A high performance web>
lines 1-15/15 (END)
```

After restarting the server, we test it on the web browser as follows;



Hence, the **index.html** file is hosted successfully with message “**Hello NGINX**” at localhost.