

1. Install nginx and host a simple index.html with message “hello nginx”.

Nginx is installed in our VM using command:

Sudo apt-get install nginx

After nginx is installed, Nginx services are to be allowed in the firewall.

Using command: ***Sudo ufw app list*** we can list the application profile, and following command to allow the services in firewall specifically.

Ufw allow ‘Nginx Full’

Ufw allow ‘Nginx HTTP’

To check Nginx status:

Sudo systemctl status nginx

```
root@batman:~# sudo systemctl status nginx
● nginx.service - A high performance web server and a reverse proxy server
   Loaded: loaded (/lib/systemd/system/nginx.service; enabled; vendor p
   Active: active (running) since Tue 2021-11-16 20:38:01 +0545; 2min 4
     Docs: man:nginx(8)
    Main PID: 32355 (nginx)
      Tasks: 5 (limit: 9110)
     Memory: 5.3M
    CGroup: /system.slice/nginx.service
            └─32355 nginx: master process /usr/sbin/nginx -g daemon on;
               └─32356 nginx: worker process
                  └─32357 nginx: worker process
                     └─32358 nginx: worker process
                        └─32359 nginx: worker process

नवम्बर 16 20:38:01 batman systemd[1]: Starting A high performance web serv
नवम्बर 16 20:38:01 batman systemd[1]: Started A high performance web serve
```

We can see that nginx is active.

Now, we copy the directory which contains test application which is ready to be deployed in the /var/www/html file using the command:

Cp NginxTask/ /var/www/html/

My directory was NginxTask which contains a simple index.html file.

Now my index.html file's absolute path is /var/www/html/NginxTask/index.html

We use this absolute path quite often.

And that directory's ownership was changed to current non root user:

Sudo chown -R \$USER:\$USER /var/www/html/NginxTask/

Now we create a configuration file for the application which is to be deployed.

Inside the directory /etc/nginx/sites-available/, a default configuration file is present. We copy this file to a new file called NginxTask.conf inside the same directory using command:

Cp default NginxTask.conf

To edit the file:

Nano NginxTask.conf

Inside this file some configurations are edited: Inside server block, the server name was enlisted, also the absolute path of the index.html file was mentioned with root.

```
root /var/www/html/NginxTest/;

# Add index.php to the list if you are using PHP
index index.html, index.htm;

server_name www.bijaykandel33.com bijaykandel37.com;
```

And the file was saved and exited.

Now nginx.conf file was edited using command:

Nano /etc/nginx/nginx.conf

Inside http block, a Server block is added with some configurations as shown:

```
http {

    ##
    # Basic Settings
    ##

server {
    listen 80;
    server_name www.bijaykandel37.com;
    root /var/www/html/NginxTask;
}
```

Symlink was created with the NginxTask.conf located in sites-available directory and that of sites-enabled directory using command:

In -s /etc/nginx/sites-available/NginxTask.conf /etc/nginx/sites-enabled/

Now host ip was configured using command:

Sudo nano /etc/hosts and listing my IP and domainname as:

```
GNU nano 4.8 /etc/hosts
127.0.0.1 localhost
127.0.1.1 batman
192.168.1.67 www.bijaykandel37.com bijaykandel37.com
```

To test the system configurations,

nginx -t

Since no errors were generated, nginx was restarted using command:

Sudo systemctl restart nginx

And when we go to the browser and enter the domain name which is provided before (www.bijaykandel37.com) in my case and we can get this result:

