

Step 1 – Installing the Nginx Web Server

```
emmanuel@webserver: ~  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
emmanuel@webserver:~$ sudo apt update  
[sudo] password for emmanuel:  
Hit:1 http://us.archive.ubuntu.com/ubuntu focal InRelease  
Get:2 http://us.archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]  
Get:3 http://us.archive.ubuntu.com/ubuntu focal-backports InRelease [101 kB]  
Get:4 http://security.ubuntu.com/ubuntu focal-security InRelease [109 kB]  
Get:5 http://us.archive.ubuntu.com/ubuntu focal-updates/main amd64 DEP-11 Metad  
ata [263 kB]  
Get:6 http://us.archive.ubuntu.com/ubuntu focal-updates/universe amd64 DEP-11 M  
etadadata [205 kB]  
Get:7 http://us.archive.ubuntu.com/ubuntu focal-updates/multiverse amd64 DEP-11  
Metadata [2,468 B]  
Get:8 http://us.archive.ubuntu.com/ubuntu focal-backports/universe amd64 DEP-11  
Metadata [1,768 B]  
Get:9 http://security.ubuntu.com/ubuntu focal-security/main amd64 DEP-11 Metada  
ta [24.3 kB]  
Get:10 http://security.ubuntu.com/ubuntu focal-security/universe amd64 DEP-11 M  
etadadata [56.5 kB]  
Fetched 876 kB in 2s (463 kB/s)  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
293 packages can be upgraded. Run 'apt list --upgradable' to see them.
```

```
emmanuel@webserver: ~  
emmanuel@webserver:~$ 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 293 not upgraded.  
Need to get 602 kB of archives.  
After this operation, 2,134 kB of additional disk space will be used.  
Do you want to continue? [Y/n]
```

```
emmanuel@webserver:~$ sudo ufw app list
Available applications:
  CUPS
  Nginx Full
  Nginx HTTP
  Nginx HTTPS
emmanuel@webserver:~$
```

```
emmanuel@webserver:~$ sudo ufw app list
Available applications:
  CUPS
  Nginx Full
  Nginx HTTP
  Nginx HTTPS
emmanuel@webserver:~$ sudo apt install openssh-server
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  ncurses-term openssh-sftp-server ssh-import-id
Suggested packages:
  molly-guard monkeysphere ssh-askpass
The following NEW packages will be installed:
  ncurses-term openssh-server openssh-sftp-server ssh-import-id
0 upgraded, 4 newly installed, 0 to remove and 293 not upgraded.
Need to get 688 kB of archives.
After this operation, 6,010 kB of additional disk space will be used.
Do you want to continue? [Y/n]
```

```
emmanuel@webserver:~$ sudo systemctl status ssh
● ssh.service - OpenBSD Secure Shell server
   Loaded: loaded (/lib/systemd/system/ssh.service; enabled; vendor preset: v
   Active: active (running) since Tue 2020-12-22 18:39:23 EST; 1min 0s ago
     Docs: man:sshd(8)
           man:sshd_config(5)
   Main PID: 4104 (sshd)
      Tasks: 1 (limit: 2319)
     Memory: 1.1M
    CGroup: /system.slice/ssh.service
            └─4104 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups

Dec 22 18:39:23 webserver systemd[1]: Starting OpenBSD Secure Shell server...
Dec 22 18:39:23 webserver sshd[4104]: Server listening on 0.0.0.0 port 22.
Dec 22 18:39:23 webserver sshd[4104]: Server listening on :: port 22.
Dec 22 18:39:23 webserver systemd[1]: Started OpenBSD Secure Shell server.
lines 1-15/15 (END)
```

```
emmanuel@webserver:~$ sudo ufw allow ssh
Rules updated
Rules updated (v6)
emmanuel@webserver:~$
```

```
emmanuel@webserver:~$ sudo ufw app list
Available applications:
  CUPS
  Nginx Full
  Nginx HTTP
  Nginx HTTPS
  OpenSSH
emmanuel@webserver:~$
```

```

emmanuel@webserver:~$ sudo ufw allow 'Nginx HTTP'
Rules updated
Rules updated (v6)
emmanuel@webserver:~$ sudo ufw status
Status: inactive
emmanuel@webserver:~$ sudo ufw enable
Firewall is active and enabled on system startup
emmanuel@webserver:~$ sudo ufw status
Status: active

To Action From
--
22/tcp ALLOW Anywhere
Nginx HTTP ALLOW Anywhere
22/tcp (v6) ALLOW Anywhere (v6)
Nginx HTTP (v6) ALLOW Anywhere (v6)

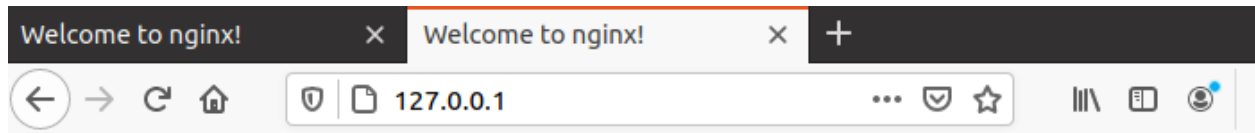
emmanuel@webserver:~$ █

```

```

emmanuel@webserver:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group defau
lt qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP g
roup default qlen 1000
    link/ether 08:00:27:62:d5:d5 brd ff:ff:ff:ff:ff:ff
    inet 192.168.0.9/24 brd 192.168.0.255 scope global dynamic noprefixroute en
p0s3
        valid_lft 2842sec preferred_lft 2842sec
    inet6 2601:5cb:100:6a70:9ce6:6d65:be11:e4d6/128 scope global dynamic nopref
ixroute
        valid_lft 2844sec preferred_lft 2844sec
    inet6 2601:5cb:100:6a70:e892:e425:751b:a321/64 scope global temporary dynam
ic
        valid_lft 3600sec preferred_lft 3600sec
    inet6 2601:5cb:100:6a70:5d25:ed08:28a8:58cf/64 scope global dynamic mngtmpa
ddr noprefixroute
        valid_lft 3600sec preferred_lft 3600sec
    inet6 fe80::b670:bfe:140f:e93c/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
emmanuel@webserver:~$ █

```

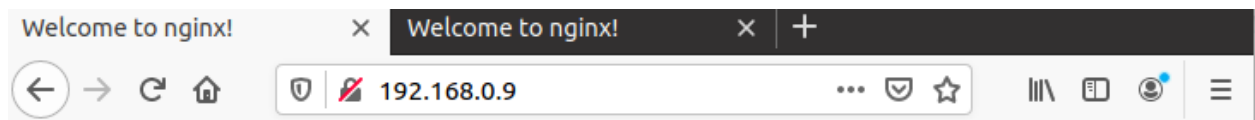


Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.



Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.

Step 2 — Installing MySQL

```
emmanuel@webserver:~$ sudo apt install mysql-server+
[sudo] password for emmanuel:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libaio1 libcgi-fast-perl libcgi-pm-perl libevent-core-2.1-7
  libevent-pthreads-2.1-7 libfcgi-perl libhtml-template-perl libmecab2
  mecab-ipadic mecab-ipadic-utf8 mecab-utils mysql-client-8.0
  mysql-client-core-8.0 mysql-server-8.0 mysql-server-core-8.0
Suggested packages:
  libipc-sharedcache-perl mailx tinycd
The following NEW packages will be installed:
  libaio1 libcgi-fast-perl libcgi-pm-perl libevent-core-2.1-7
  libevent-pthreads-2.1-7 libfcgi-perl libhtml-template-perl libmecab2
  mecab-ipadic mecab-ipadic-utf8 mecab-utils mysql-client-8.0
  mysql-client-core-8.0 mysql-server mysql-server-8.0 mysql-server-core-8.0
0 upgraded, 16 newly installed, 0 to remove and 179 not upgraded.
Need to get 30.4 MB of archives.
After this operation, 248 MB of additional disk space will be used.
Do you want to continue? [Y/n]
```

```
emmanuel@webserver:~$ sudo mysql_secure_installation

Securing the MySQL server deployment.

Connecting to MySQL using a blank password.

VALIDATE PASSWORD COMPONENT can be used to test passwords
and improve security. It checks the strength of password
and allows the users to set only those passwords which are
secure enough. Would you like to setup VALIDATE PASSWORD component?

Press y|Y for Yes, any other key for No:
```

```
emmanuel@webserver:~$ sudo mysql
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 10
Server version: 8.0.22-0ubuntu0.20.04.3 (Ubuntu)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> █
```

Step 3 – Installing PHP

```
emmanuel@webserver:~$ sudo apt install php-fpm php-mysql
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  php-common php7.4-cli php7.4-common php7.4-fpm php7.4-json php7.4-mysql
  php7.4-opcache php7.4-readline
Suggested packages:
  php-pear
The following NEW packages will be installed:
  php-common php-fpm php-mysql php7.4-cli php7.4-common php7.4-fpm
  php7.4-json php7.4-mysql php7.4-opcache php7.4-readline
0 upgraded, 10 newly installed, 0 to remove and 179 not upgraded.
Need to get 4,202 kB of archives.
After this operation, 18.6 MB of additional disk space will be used.
Do you want to continue? [Y/n]
```

Step 4 — Configuring Nginx to Use the PHP Processor

```
emmanuel@webserver:~$ sudo mkdir /var/www/fuspec
emmanuel@webserver:~$ sudo chown -R $USER:$USER /var/www/fuspec
emmanuel@webserver:~$ sudo nano /etc/nginx/sites-available/fuspec
emmanuel@webserver:~$ █
```



```
emmanuel@webserver:~$ sudo ln -s /etc/nginx/sites-available/'fuspec' /etc/nginx/sites-enabled/
fuspec: command not found
emmanuel@webserver:~$ sudo ln -s /etc/nginx/sites-available/fuspec /etc/nginx/sites-enabled/
emmanuel@webserver:~$ sudo ln -s /etc/nginx/sites-available/fuspec /etc/nginx/sites-enabled/
ln: failed to create symbolic link '/etc/nginx/sites-enabled/fuspec': File exists
emmanuel@webserver:~$ sudo nginx -t
nginx: [emerg] unknown directive "/etc/nginx/sites-available/'fuspec'" in /etc/nginx/sites-enabled/fuspec:3
nginx: configuration file /etc/nginx/nginx.conf test failed
emmanuel@webserver:~$
```

```
emmanuel@webserver:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:62:d5:d5 brd ff:ff:ff:ff:ff:ff
    inet 192.168.0.9/24 brd 192.168.0.255 scope global dynamic noprefixroute enp0s3
        valid_lft 3448sec preferred_lft 3448sec
    inet6 2601:5cb:100:6a70:5078:7554:64db:1bb9/64 scope global temporary dynamic
        valid_lft 3600sec preferred_lft 3600sec
    inet6 2601:5cb:100:6a70:5d25:ed08:28a8:58cf/64 scope global dynamic mngt noprefixroute
        valid_lft 3600sec preferred_lft 3600sec
    inet6 fe80::b670:bfe:140f:e93c/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
emmanuel@webserver:~$ sudo mkdir /var/www/192.168.0.9
emmanuel@webserver:~$ sudo chown -R $USER:$USER /var/www/192.168.0.9
emmanuel@webserver:~$ sudo nano /etc/nginx/sites-available/192.168.0.9
```

```
emmanuel@webserver:~$ sudo chown -R $USER:$USER /var/www/your_domain
emmanuel@webserver:~$ sudo nano /etc/nginx/sites-available/your_domain
```



```
GNU nano 4.8 /etc/nginx/sites-available/your_domain Modified
/etc/nginx/sites-available/`your_domain`

server {
    listen 80;
    server_name `your_domain` www.`your_domain`;
    root /var/www/`your_domain`;

    index index.html index.htm index.php;

    location / {
        try_files $uri $uri/ =404;
    }

    location ~ /\.php$ {
        include snippets/fastcgi-php.conf;
        fastcgi_pass unix:/var/run/php/php7.4-fpm.sock;
    }

    location ~ /\.ht {
        deny all;
    }
}

^G Get Help    ^O Write Out  ^W Where Is   ^K Cut Text   ^J Justify
^X Exit        ^R Read File  ^\ Replace    ^U Paste Text ^T To Spell
```

```
emmanuel@webserver:~$ sudo chown -R $USER:$USER /var/www/your_domain
emmanuel@webserver:~$ sudo nano /etc/nginx/sites-available/your_domain
emmanuel@webserver:~$ sudo ln -s /etc/nginx/sites-available/`your_domain` /etc/
nginx/sites-enabled/
your_domain: command not found
ln: failed to create symbolic link '/etc/nginx/sites-enabled/sites-available':
File exists
emmanuel@webserver:~$
```

```

emmanuel@webserver:~$ sudo nginx -t
nginx: [emerg] open() "/etc/nginx/sites-enabled/192.168.0.9" failed (2: No such
file or directory) in /etc/nginx/nginx.conf:62
nginx: configuration file /etc/nginx/nginx.conf test failed
emmanuel@webserver:~$ sudo ls -ltr /var/www
total 8
drwxr-xr-x 2 root      root      4096 Dec 22 18:34 html
drwxr-xr-x 2 emmanuel emmanuel 4096 Dec 24 12:09 your_domain
emmanuel@webserver:~$ sudo nginx -t
nginx: [emerg] open() "/etc/nginx/sites-enabled/192.168.0.9" failed (2: No such
file or directory) in /etc/nginx/nginx.conf:62
nginx: configuration file /etc/nginx/nginx.conf test failed
emmanuel@webserver:~$ sudo ls -ltr /etc/nginx/sites-enabled/
total 0
lrwxrwxrwx 1 root root 34 Dec 22 18:34 default -> /etc/nginx/sites-available/de
fault
lrwxrwxrwx 1 root root 27 Dec 24 11:33 sites-available -> /etc/nginx/sites-avai
lable/
lrwxrwxrwx 1 root root 33 Dec 24 11:33 fuspec -> /etc/nginx/sites-available/fus
pec
lrwxrwxrwx 1 root root 38 Dec 24 11:48 192.168.0.9 -> /etc/nginx/sites-availabl
e/192.168.0.9
emmanuel@webserver:~$ sudo rm /etc/nginx/sites-enabled/sites-available/192.168.
0.9
[sudo] password for emmanuel:
rm: cannot remove '/etc/nginx/sites-enabled/sites-available/192.168.0.9': No su
ch file or directory
emmanuel@webserver:~$ cd etc
bash: cd: etc: No such file or directory

```

```

emmanuel@webserver:~$ cd /
emmanuel@webserver:/$ cd etc
emmanuel@webserver:/etc$ cd nginx
emmanuel@webserver:/etc/nginx$ cd sites-enabled
emmanuel@webserver:/etc/nginx/sites-enabled$ ls -ltr
total 0
lrwxrwxrwx 1 root root 34 Dec 22 18:34 default -> /etc/nginx/sites-available/de
fault
lrwxrwxrwx 1 root root 27 Dec 24 11:33 sites-available -> /etc/nginx/sites-avai
lable/
lrwxrwxrwx 1 root root 33 Dec 24 11:33 fuspec -> /etc/nginx/sites-available/fus
pec
lrwxrwxrwx 1 root root 38 Dec 24 11:48 192.168.0.9 -> /etc/nginx/sites-availabl
e/192.168.0.9
emmanuel@webserver:/etc/nginx/sites-enabled$ █

```

```

emmanuel@webserver:/etc/nginx/sites-enabled$ rm fuspec
rm: cannot remove 'fuspec': Permission denied
emmanuel@webserver:/etc/nginx/sites-enabled$ sudo rm fuspec
emmanuel@webserver:/etc/nginx/sites-enabled$ ls -ltr
total 0
lrwxrwxrwx 1 root root 34 Dec 22 18:34 default -> /etc/nginx/sites-available/default
lrwxrwxrwx 1 root root 27 Dec 24 11:33 sites-available -> /etc/nginx/sites-available/
lrwxrwxrwx 1 root root 38 Dec 24 11:48 192.168.0.9 -> /etc/nginx/sites-available/192.168.0.9
emmanuel@webserver:/etc/nginx/sites-enabled$ sudo rm 192.168.0.9
emmanuel@webserver:/etc/nginx/sites-enabled$ ls -ltr
total 0
lrwxrwxrwx 1 root root 34 Dec 22 18:34 default -> /etc/nginx/sites-available/default
lrwxrwxrwx 1 root root 27 Dec 24 11:33 sites-available -> /etc/nginx/sites-available/
emmanuel@webserver:/etc/nginx/sites-enabled$ sudo rm sites-available
emmanuel@webserver:/etc/nginx/sites-enabled$ ls -ltr
total 0
lrwxrwxrwx 1 root root 34 Dec 22 18:34 default -> /etc/nginx/sites-available/default
emmanuel@webserver:/etc/nginx/sites-enabled$ █

```

```

emmanuel@webserver:/etc/nginx/sites-enabled$ cd
emmanuel@webserver:~$ ls -ltr
total 36
drwxr-xr-x 2 emmanuel emmanuel 4096 Dec 22 17:05 Videos
drwxr-xr-x 2 emmanuel emmanuel 4096 Dec 22 17:05 Templates
drwxr-xr-x 2 emmanuel emmanuel 4096 Dec 22 17:05 Public
drwxr-xr-x 2 emmanuel emmanuel 4096 Dec 22 17:05 Pictures
drwxr-xr-x 2 emmanuel emmanuel 4096 Dec 22 17:05 Music
drwxr-xr-x 2 emmanuel emmanuel 4096 Dec 22 17:05 Downloads
drwxr-xr-x 2 emmanuel emmanuel 4096 Dec 22 17:05 Documents
drwxr-xr-x 2 emmanuel emmanuel 4096 Dec 22 17:05 Desktop
-rw-rw-r-- 1 emmanuel emmanuel 1431 Dec 24 12:12 :
emmanuel@webserver:~$ sudo ln -s /etc/nginx/sites-available/`your_domain` /etc/nginx/sites-enabled/
your_domain: command not found
emmanuel@webserver:~$ sudo nano /etc/nginx/sites-available/your_domain
emmanuel@webserver:~$ ls -lt var/www
ls: cannot access 'var/www': No such file or directory
emmanuel@webserver:~$ sudo ls -lt var/www
ls: cannot access 'var/www': No such file or directory
emmanuel@webserver:~$ sudo ls -lt var/www/your_domain
ls: cannot access 'var/www/your_domain': No such file or directory
emmanuel@webserver:~$ sudo cd var
sudo: cd: command not found
emmanuel@webserver:~$ sudo cd /var
sudo: cd: command not found
emmanuel@webserver:~$ sudo cp /etc/nginx/sites-enabled/your_domain /etc/nginx/sites-available/your_domain

```

```

emmanuel@webserver:~$ sudo mkdir /var/www/`your_domain`
your_domain: command not found
mkdir: cannot create directory '/var/www/': File exists
emmanuel@webserver:~$ sudo chown -R $USER:$USER /var/www/your_domain
emmanuel@webserver:~$ sudo nano /etc/nginx/sites-available/your_domain
emmanuel@webserver:~$ sudo ln -s /etc/nginx/sites-available/`your_domain` /etc/
nginx/sites-enabled/
your_domain: command not found
ln: failed to create symbolic link '/etc/nginx/sites-enabled/sites-available':
File exists
emmanuel@webserver:~$ sudo ls -ltr /etc/nginx/sites-enabled/
total 0
lrwxrwxrwx 1 root root 34 Dec 22 18:34 default -> /etc/nginx/sites-available/de
fault
lrwxrwxrwx 1 root root 27 Dec 24 13:29 sites-available -> /etc/nginx/sites-avai
lable/
emmanuel@webserver:~$ sudo nginx -t
nginx: [crit] pread() "/etc/nginx/sites-enabled/sites-available" failed (21: Is
a directory)
nginx: configuration file /etc/nginx/nginx.conf test failed
emmanuel@webserver:~$

```

```

emmanuel@webserver:~$ cd etc
emmanuel@webserver:/etc$ cd nginx
emmanuel@webserver:/etc/nginx$ cd sites-enabled
emmanuel@webserver:/etc/nginx/sites-enabled$ ls -lt
total 0
lrwxrwxrwx 1 root root 27 Dec 24 13:29 sites-available -> /etc/nginx/sites-avai
lable/
lrwxrwxrwx 1 root root 34 Dec 22 18:34 default -> /etc/nginx/sites-available/de
fault
emmanuel@webserver:/etc/nginx/sites-enabled$ rm sites-available
rm: cannot remove 'sites-available': Permission denied
emmanuel@webserver:/etc/nginx/sites-enabled$ sudo rm sites-available
[sudo] password for emmanuel:
emmanuel@webserver:/etc/nginx/sites-enabled$ ls -lt
total 0
lrwxrwxrwx 1 root root 34 Dec 22 18:34 default -> /etc/nginx/sites-available/de
fault
emmanuel@webserver:/etc/nginx/sites-enabled$ sudo ln -s /sites-available/your_d
omain
emmanuel@webserver:/etc/nginx/sites-enabled$ ls -lt
total 0
lrwxrwxrwx 1 root root 28 Dec 24 14:48 your_domain -> /sites-available/your_dom
ain
lrwxrwxrwx 1 root root 34 Dec 22 18:34 default -> /etc/nginx/sites-available/de
fault
emmanuel@webserver:/etc/nginx/sites-enabled$ cd
emmanuel@webserver:~$ sudo nginx -t
nginx: [crit] pread() "/etc/nginx/sites-enabled/your_domain" failed (2: No such
file or directory) in /etc/nginx/nginx.conf:62
Show Applications
nginx: configuration file /etc/nginx/nginx.conf test failed

```

```

emmanuel@webserver:~$ sudo nano /etc/nginx/sites-available/your_domain
emmanuel@webserver:~$ sudo nginx -t
nginx: [emerg] open() "/etc/nginx/sites-enabled/your_domain" failed (2: No such
file or directory) in /etc/nginx/nginx.conf:62
nginx: configuration file /etc/nginx/nginx.conf test failed
emmanuel@webserver:~$ sudo nano /etc/nginx/sites-available/your_domain
emmanuel@webserver:~$
emmanuel@webserver:~$ sudo rm -rf /etc/nginx/sites-available/your_domain
emmanuel@webserver:~$ sudo nano /etc/nginx/sites-available/your_domain
emmanuel@webserver:~$ sudo ls -ltr /etc/nginx/sites-available
total 4
-rw-r--r-- 1 root root 2416 Mar 26 2020 default
emmanuel@webserver:~$ sudo mkdir /var/www/fuspec
emmanuel@webserver:~$ sudo ls -ltr /etc/nginx/sites-available
total 4
-rw-r--r-- 1 root root 2416 Mar 26 2020 default
emmanuel@webserver:~$ ls -ltr /var/www/fuspec
total 0
emmanuel@webserver:~$ sudo chown -R $USER:$USER /var/www/fuspec
emmanuel@webserver:~$ sudo nano /etc/nginx/sites-available/fuspec

```

```

emmanuel@webserver:~$ sudo rm -rf /etc/nginx/sites-enabled/your_domain
emmanuel@webserver:~$ sudo nginx -t
nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
nginx: configuration file /etc/nginx/nginx.conf test is successful
emmanuel@webserver:~$

```

I had to remove the first line from the configuration below to get me through

```

/etc/nginx/sites-available/`your_domain`

```

```

server {
    listen 80;
    server_name `your_domain` www.`your_domain`;
    root /var/www/`your_domain`;

    index index.html index.htm index.php;

    location / {
        try_files $uri $uri/ =404;
    }

    location ~ /\.php$ {
        include snippets/fastcgi-php.conf;
        fastcgi_pass unix:/var/run/php/php7.4-fpm.sock;
    }

    location ~ /\.ht {

```

```
        deny all;
    }
}
```

Also had to remove all the directories I had tried to use earlier from sites-available and sites-enabled folder to successfully link the new domain.

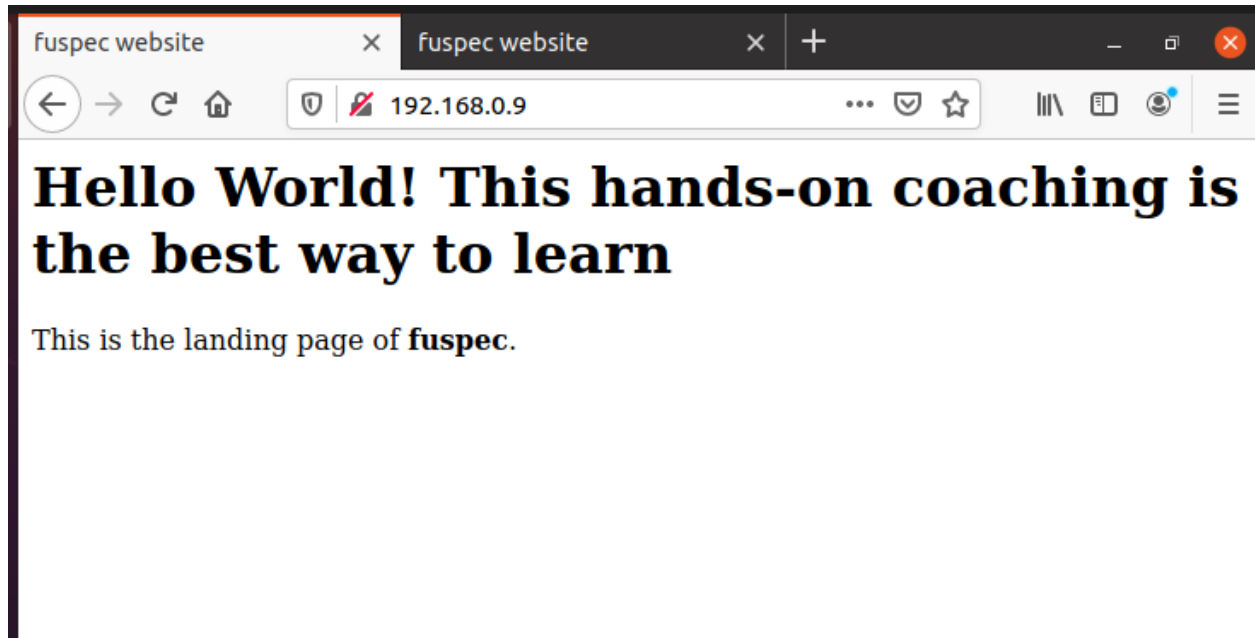
```
emmanuel@webserver:~$ sudo systemctl reload nginx
emmanuel@webserver:~$ sudo nano /var/www/fuspec/index.html
emmanuel@webserver:~$
```

```
emmanuel@webserver:~$ sudo rm /etc/nginx/sites-enabled/default
[sudo] password for emmanuel:
emmanuel@webserver:~$ sudo rm /etc/nginx/sites-enabled/default
rm: cannot remove '/etc/nginx/sites-enabled/default': No such file or directory
emmanuel@webserver:~$ sudo service nginx restart
emmanuel@webserver:~$
emmanuel@webserver:~$
```

The test page did not show up until I ran the following command

sudo rm /etc/nginx/sites-enabled/default

To disable the default server block file by removing the symbolic link



Step 5 –Testing PHP with Nginx

```
emmanuel@webserver:~$ nano /var/www/fuspec/info.php
```

fuspec website x PHP 7.4.3 - phpinfo() x +

127.0.0.1/info.php

PHP Version 7.4.3

System	Linux webserver 5.4.0-58-generic #64-Ubuntu SMP Wed Dec 9 01:42:03 UTC 2020
Build Date	Oct 6 2020 15:47:56
Server API	FPM/FastCGI
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/etc/php/7.4/fpm
Loaded Configuration File	/etc/php/7.4/fpm/php.ini
Scan this dir for additional .ini files	/etc/php/7.4/fpm/conf.d
Additional .ini files parsed	/etc/php/7.4/fpm/conf.d/10-mysqlnd.ini, /etc/php/7.4/fpm/conf.d/10-openssl.ini, /etc/php/7.4/fpm/conf.d/10-pdo.ini, /etc/php/7.4/fpm/conf.d/20-calendar.ini, /etc/php/7.4/fpm/conf.d/20-ctype.ini, /etc/php/7.4/fpm/conf.d/20-exif.ini, /etc/php/7.4/fpm/conf.d/20-ffi.ini, /etc/php/7.4/fpm/conf.d/20-fileinfo.ini, /etc/php/7.4/fpm/conf.d/20-ftp.ini, /etc/php/7.4/fpm/conf.d/20-gd.ini, /etc/php/7.4/fpm/conf.d/20-iconv.ini, /etc/php/7.4/fpm/conf.d/20-json.ini, /etc/php/7.4/fpm/conf.d/20-mbstring.ini, /etc/php/7.4/fpm/conf.d/20-mysql.ini, /etc/php/7.4/fpm/conf.d/20-mysqli.ini, /etc/php/7.4/fpm/conf.d/20-pdo_mysql.ini, /etc/php/7.4/fpm/conf.d/20-phar.ini, /etc/php/7.4/fpm/conf.d/20-posix.ini, /etc/php/7.4/fpm/conf.d/20-readline.ini, /etc/php/7.4/fpm/conf.d/20-sockets.ini, /etc/php/7.4/fpm/conf.d/20-sysvshm.ini, /etc/php/7.4/fpm/conf.d/20-tokenizer.ini
PHP API	20190902
PHP Extension	20190902

```
emmanuel@webserver:~$ sudo rm /var/www/fuspec/info.php
```

Step 6 — Testing Database Connection from PHP

```
emmanuel@webserver:~$ sudo mysql
[sudo] password for emmanuel:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.22-0ubuntu0.20.04.3 (Ubuntu)

Copyright (c) 2000, 2020, Oracle and/or its affiliates. All rights reserved.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> █
```

```
mysql> CREATE USER 'example_user'@'%' IDENTIFIED WITH mysql_native_password BY  
'pass2020word2020';  
ERROR 1819 (HY000): Your password does not satisfy the current policy requireme  
nts
```

```
mysql> SHOW VARIABLES LIKE 'validate_password%';
```

Variable_name	Value
validate_password.check_user_name	ON
validate_password.dictionary_file	
validate_password.length	8
validate_password.mixed_case_count	1
validate_password.number_count	1
validate_password.policy	MEDIUM
validate_password.special_char_count	1

```
7 rows in set (0.21 sec)
```

```
mysql> CREATE USER 'example_user'@'%' IDENTIFIED WITH mysql_native_password BY  
'Password#2020';
```

```
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> GRANT ALL ON example_database.* TO 'example_user'@'%';
```

```
Query OK, 0 rows affected (0.06 sec)
```

```
mysql> █
```

```
emmanuel@webserver:~$ mysql -u example_user -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 13
Server version: 8.0.22-0ubuntu0.20.04.3 (Ubuntu)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> mysql> SHOW DATABASES;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that
corresponds to your MySQL server version for the right syntax to use near 'mys
ql> SHOW DATABASES' at line 1
mysql> SHOW DATABASES;
+-----+
| Database                |
+-----+
| example_database        |
| information_schema      |
+-----+
2 rows in set (0.05 sec)

mysql> █
```

```
mysql> CREATE TABLE example_database.todo_list (  
-> mysql>     item_id INT AUTO_INCREMENT,  
-> mysql>     content VARCHAR(255),  
-> mysql>     PRIMARY KEY(item_id)  
-> mysql> );  
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that  
corresponds to your MySQL server version for the right syntax to use near '>  
    item_id INT AUTO_INCREMENT,  
mysql>     content VARCHAR(255),  
mysql>     PR' at line 2  
mysql> sudo --version  
->  
-> /c  
-> \c  
mysql> /h  
->  
-> \h  
  
For information about MySQL products and services, visit:  
http://www.mysql.com/  
For developer information, including the MySQL Reference Manual, visit:  
http://dev.mysql.com/  
To buy MySQL Enterprise support, training, or other products, visit:  
https://shop.mysql.com/
```

```
mysql> CREATE TABLE example_database.todo_list (  
-> item_id INT AUTO_INCREMENT,  
-> content VARCHAR(255),  
-> PRIMARY KEY(item_id)  
-> );  
Query OK, 0 rows affected (0.09 sec)  
  
mysql> █
```

```
mysql> INSERT INTO example_database.todo_list (content) VALUES ("My first important item");
Query OK, 1 row affected (0.04 sec)

mysql> INSERT INTO example_database.todo_list (content) VALUES ("My second important item");
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO example_database.todo_list (content) VALUES ("My third important item");
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO example_database.todo_list (content) VALUES ("and this one more thingrtant item");
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> SELECT * FROM example_database.todo_list;
+-----+-----+
| item_id | content |
+-----+-----+
|      1 | My first important item |
|      2 | My second important item |
|      3 | My third important item |
|      4 | and this one more thingrtant item |
+-----+-----+
4 rows in set (0.00 sec)
```



```
mysql> DELETE FROM employees
-> \c
mysql> DELETE FROM todo_list
-> WHERE item_id = 4;
ERROR 1046 (3D000): No database selected
mysql> DELETE FROM example_database.todo_list
-> WHERE item_id = 4;
Query OK, 1 row affected (0.10 sec)

mysql> SELECT * FROM example_database.todo_list;
+-----+-----+
| item_id | content |
+-----+-----+
| 1 | My first important item |
| 2 | My second important item |
| 3 | My third important item |
+-----+-----+
3 rows in set (0.00 sec)

mysql> INSERT INTO example_database.todo_list (content) VALUES ("and this one more thingtrtant item");
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO example_database.todo_list (content) VALUES ("and this one more thingtrtant item");
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO example_database.todo_list (content) VALUES ("and this one more thing");
Query OK, 1 row affected (0.00 sec)
```

```
mysql> CREATE TABLE example_database.todo_list (
-> item_id INT AUTO_INCREMENT,
-> content VARCHAR(255),
-> PRIMARY KEY(item_id)
-> );
Query OK, 0 rows affected (2.04 sec)

mysql> INSERT INTO example_database.todo_list (content) VALUES ("My first important item");
Query OK, 1 row affected (0.02 sec)

mysql> INSERT INTO example_database.todo_list (content) VALUES ("My second important item");
Query OK, 1 row affected (0.03 sec)

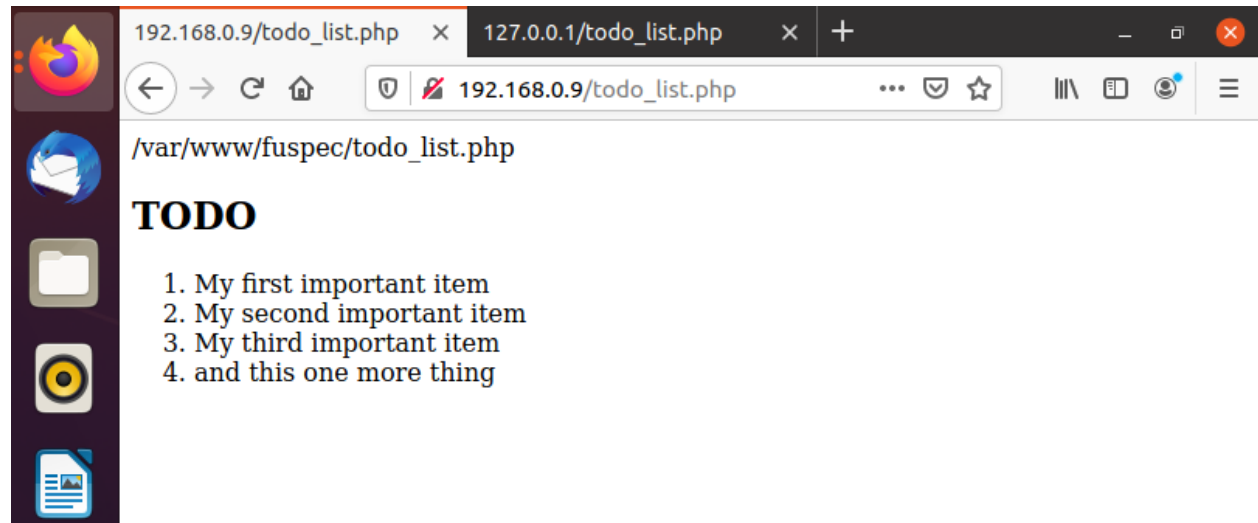
mysql> INSERT INTO example_database.todo_list (content) VALUES ("My third important item");
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO example_database.todo_list (content) VALUES ("and this one more thing");
Query OK, 1 row affected (0.00 sec)

mysql>
```

```
+-----+
| item_id | content |
+-----+
|      1 | My first important item |
|      2 | My second important item |
|      3 | My third important item |
|      4 | and this one more thing |
+-----+
4 rows in set (0.00 sec)

mysql>
```



The screenshot shows a web browser window with two tabs. The active tab is titled '192.168.0.9/todo_list.php'. The address bar shows the URL '192.168.0.9/todo_list.php'. The page content displays a TODO list application. The title of the page is 'TODO'. Below the title, there is a list of four items:

1. My first important item
2. My second important item
3. My third important item
4. and this one more thing

The browser's left sidebar shows icons for Firefox, a mail client, a file manager, a media player, and a document viewer.