

Write a bash script for apache and MySql DB restart when the site is not providing a 200 ok status and setup a cron for regular interval checks.

Setup wordpress site in local and then create a bash script.

## **What is wordpress?**

WordPress is a free, open source content management system (CMS) that is used for managing and publishing digital content. Easy to use and install as well as customizable to suit different types of websites.

## **Advantages of using WordPress**

- Easy to use and install
- No HTML Editing or FTP Software is Necessary
- Fast, Simple, and Customizable
- Offers Built in Blog Feature
- Easy to Install Plugins

## **Steps to Install WordPress on Ubuntu 22.04 using LAMP**

### **Prerequisites**

- An Ubuntu 22.04 server installed on your server.
- Valid domain name is pointed to your server IP.

```
growlt216@growlt216: /etc
GNU nano 6.2 hosts
127.0.0.1 localhost
127.0.1.1 growlt216
127.0.0.1 wp.mihir.com
#192.168.3.139 www.myfirstwebsite.com
# 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
#204.236.168.123 wp.mihir.popat
#184.72.49.29 wp.mihir.popat

[ Read 12 lines ]
^G Help      ^O Write Out ^W Where Is  ^K Cut       ^T Execute   ^C Location
^X Exit      ^R Read File ^\ Replace   ^U Paste     ^J Justify   ^_ Go To Line
```

- A root user or a user with sudo privileges.

## Step 1 - Update the System

Command :-

**Sudo apt-get update -y**

**Sudo apt-get upgrade -y**

## Step 2 - Install LAMP Server

Command :-

**Sudo apt install apache2 mariadb-server php php-curl php-gd php-mbstring php-xml php-xmlrpc php-soap libapache2-mod-php php-mysql -y**

```

growlt216@growlt216:~$ sudo apt install apache2 mariadb-server php php-curl php-gd php-mbstring php-xml php-xmllrpc php-soap libapache2-mod-php php-mysql -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
apache2 is already the newest version (2.4.52-1ubuntu4.4).
libapache2-mod-php is already the newest version (2:8.2+93+ubuntu22.04.1+deb.sury.org+2).
php is already the newest version (2:8.2+93+ubuntu22.04.1+deb.sury.org+2).
php-curl is already the newest version (2:8.2+93+ubuntu22.04.1+deb.sury.org+2).
php-gd is already the newest version (2:8.2+93+ubuntu22.04.1+deb.sury.org+2).
php-mbstring is already the newest version (2:8.2+93+ubuntu22.04.1+deb.sury.org+2).
php-mysql is already the newest version (2:8.2+93+ubuntu22.04.1+deb.sury.org+2).
php-soap is already the newest version (2:8.2+93+ubuntu22.04.1+deb.sury.org+2).
php-xml is already the newest version (2:8.2+93+ubuntu22.04.1+deb.sury.org+2).
php-xmllrpc is already the newest version (3:1.0.8-rc3-5+ubuntu22.04.1+deb.sury.org+1).
The following additional packages will be installed:
  galera-4 gawk libconfig-inifiles-perl libdaxctl1 libdbd-mysql-perl libdbi-perl libhtml-template-perl libmariadb3 libmysqlclient21 libndctl6 libpmem1 libterm-readkey-perl mariadb-client-10.6
  mariadb-client-core-10.6 mariadb-common mariadb-server-10.6 mariadb-server-core-10.6 mysql-common socat
Suggested packages:
  gawk-doc libnldb-perl libnet-daemon-perl libsql-statement-perl libipc-sharedcache-perl mariadb-test
The following NEW packages will be installed:
  galera-4 gawk libconfig-inifiles-perl libdaxctl1 libdbd-mysql-perl libdbi-perl libhtml-template-perl libmariadb3 libmysqlclient21 libndctl6 libpmem1 libterm-readkey-perl mariadb-client-10.6
  mariadb-client-core-10.6 mariadb-common mariadb-server mariadb-server-10.6 mariadb-server-core-10.6 mysql-common socat
0 upgraded, 20 newly installed, 0 to remove and 8 not upgraded.
Need to get 18.3 MB/18.4 MB of archives.
After this operation, 164 MB of additional disk space will be used.
Get:1 http://us.archive.ubuntu.com/ubuntu jammy/main amd64 gawk amd64 1:5.1.0-1build3 [447 kB]
Get:2 http://us.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 mariadb-common all 1:10.6.12-0ubuntu0.22.04.1 [16.4 kB]
Get:3 http://us.archive.ubuntu.com/ubuntu jammy/universe amd64 galera-4 amd64 26.4.9-1build1 [720 kB]
Get:4 http://us.archive.ubuntu.com/ubuntu jammy/main amd64 libdbi-perl amd64 1.643-3build3 [741 kB]
Get:5 http://us.archive.ubuntu.com/ubuntu jammy/main amd64 libconfig-inifiles-perl all 3.000003-1 [40.5 kB]
Get:6 http://us.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 libmariadb3 amd64 1:10.6.12-0ubuntu0.22.04.1 [173 kB]
Get:7 http://us.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 mariadb-client-core-10.6 amd64 1:10.6.12-0ubuntu0.22.04.1 [976 kB]
Get:8 http://us.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 mariadb-client-10.6 amd64 1:10.6.12-0ubuntu0.22.04.1 [1,545 kB]
Get:9 http://us.archive.ubuntu.com/ubuntu jammy/main amd64 libdaxctl1 amd64 72.1-1 [19.8 kB]
Get:10 http://us.archive.ubuntu.com/ubuntu jammy/main amd64 libndctl6 amd64 72.1-1 [57.7 kB]
Get:11 http://us.archive.ubuntu.com/ubuntu jammy/main amd64 libpmem1 amd64 1.11.1-3build1 [81.4 kB]
Get:12 http://us.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 mariadb-server-core-10.6 amd64 1:10.6.12-0ubuntu0.22.04.1 [7,633 kB]
Get:13 http://us.archive.ubuntu.com/ubuntu jammy/main amd64 socat amd64 1.7.4.1-3ubuntu4 [349 kB]
Get:14 http://us.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 mariadb-server-10.6 amd64 1:10.6.12-0ubuntu0.22.04.1 [4,081 kB]
Get:15 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libmysqlclient21 amd64 8.0.32-0ubuntu0.22.04.2 [1,299 kB]
Get:16 http://us.archive.ubuntu.com/ubuntu jammy/universe amd64 libdbd-mysql-perl amd64 4.050-5 [87.6 kB]
Get:17 http://us.archive.ubuntu.com/ubuntu jammy/main amd64 libterm-readkey-perl amd64 2.38-1build4 [25.2 kB]
Get:18 http://us.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 mariadb-server all 1:10.6.12-0ubuntu0.22.04.1 [11.8 kB]
Get:3 http://us.archive.ubuntu.com/ubuntu jammy/universe amd64 galera-4 amd64 26.4.9-1build1 [720 kB]
Fetched 18.3 MB in 17s (1,082 kB/s)
Preconfiguring packages ...
Selecting previously unselected package gawk.
(Reading database ... 283238 files and directories currently installed.)
Preparing to unpack .../00-gawk_1k3a5.1.0-1build3_amd64.deb ...
Unpacking gawk (1:5.1.0-1build3) ...
Selecting previously unselected package mysql-common.
Preparing to unpack .../01-mysql-common_5.8+1.0.8-all.deb ...

```

After installing the LAMP server, start and enable the Apache service using the following command.

```
systemctl start apache2
```

```
systemctl enable apache2
```

```

growlt216@growlt216:~$ systemctl start apache2
growlt216@growlt216:~$ systemctl enable apache2
Synchronizing state of apache2.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable apache2
growlt216@growlt216:~$

```

## Step 3 - Create WordPress Database

Command :-

**mysql\_secure\_installation**

```
growlt216@growlt216:~$ sudo mysql_secure_installation

NOTE: RUNNING ALL PARTS OF THIS SCRIPT IS RECOMMENDED FOR ALL MariaDB
SERVERS IN PRODUCTION USE! PLEASE READ EACH STEP CAREFULLY!

In order to log into MariaDB to secure it, we'll need the current
password for the root user. If you've just installed MariaDB, and
haven't set the root password yet, you should just press enter here.

Enter current password for root (enter for none):
OK, successfully used password, moving on...

Setting the root password or using the unix_socket ensures that nobody
can log into the MariaDB root user without the proper authorisation.

You already have your root account protected, so you can safely answer 'n'.

Switch to unix_socket authentication [Y/n] n
... skipping.

You already have your root account protected, so you can safely answer 'n'.

Change the root password? [Y/n] y
New password:
Re-enter new password:
Password updated successfully!
Reloading privilege tables..
... Success!

By default, a MariaDB installation has an anonymous user, allowing anyone
to log into MariaDB without having to have a user account created for
them. This is intended only for testing, and to make the installation
go a bit smoother. You should remove them before moving into a
production environment.

Remove anonymous users? [Y/n] y
... Success!

Normally, root should only be allowed to connect from 'localhost'. This
ensures that someone cannot guess at the root password from the network.

Disallow root login remotely? [Y/n] y
... Success!

By default, MariaDB comes with a database named 'test' that anyone can
access. This is also intended only for testing, and should be removed
before moving into a production environment.

Remove test database and access to it? [Y/n] y
- Dropping test database...
```

```
... Success!
- Removing privileges on test database...
... Success!

Reloading the privilege tables will ensure that all changes made so far
will take effect immediately.

Reload privilege tables now? [Y/n] y
... Success!

Cleaning up...

All done! If you've completed all of the above steps, your MariaDB
installation should now be secure.

Thanks for using MariaDB!
growlt216@growlt216:~$
```

**And Answer all the question like this**

Enter current password for root (enter for none): Press ENTER

Set root password? [Y/n]: Y

New password: Set-your-new-password

Re-enter new password: Set-your-new-password

Remove anonymous users? [Y/n] Y

Disallow root login remotely? [Y/n] Y

Remove test database and access to it? [Y/n] Y

Reload privilege tables now? [Y/n] Y

log in to the MariaDB shell using the following command:

`mysql -u root -p`

```
growlt216@growlt216:~$ mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 49
Server version: 10.6.12-MariaDB-0ubuntu0.22.04.1 Ubuntu 22.04

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

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

MariaDB [(none)]> CREATE DATABASE wordpress;
Query OK, 1 row affected (0.001 sec)

MariaDB [(none)]> CREATE USER 'wordpress'@'localhost' IDENTIFIED BY '1234';
Query OK, 0 rows affected (0.003 sec)

MariaDB [(none)]> GRANT ALL PRIVILEGES ON wordpress.* TO 'wordpress'@'localhost';
Query OK, 0 rows affected (0.003 sec)

MariaDB [(none)]> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.001 sec)

MariaDB [(none)]> EXIT;
Bye
growlt216@growlt216:~$
```

After log in, create a wordpress database and user with the following command.

```
CREATE DATABASE wordpress;
```

```
CREATE USER 'wordpress'@'localhost' IDENTIFIED BY '1234';
```

Next, grant all the privileges to the wordpress database with the following command.

```
GRANT ALL PRIVILEGES ON wordpress.* TO 'wordpress'@'localhost';
```

Then, flush the privileges and exit from the MariaDB shell with the following command.

```
FLUSH PRIVILEGES;
```

```
EXIT;
```

#### **Step 4 - Downlaod WordPress**

Now, change your directory to the Apache website directory and download the latest version of WordPress with the following command.

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

```
wget http://wordpress.org/latest.tar.gz
```

```
growlt216@growlt216:~$ cd /var/www/html
growlt216@growlt216:/var/www/html$ wget http://wordpress.org/latest.tar.gz
--2023-03-23 12:16:18-- http://wordpress.org/latest.tar.gz
Resolving wordpress.org (wordpress.org)... 198.143.164.252
Connecting to wordpress.org (wordpress.org)|198.143.164.252|:80... connected.
HTTP request sent, awaiting response... 301 Moved Permanently
Location: https://wordpress.org/latest.tar.gz [following]
--2023-03-23 12:16:19-- https://wordpress.org/latest.tar.gz
Connecting to wordpress.org (wordpress.org)|198.143.164.252|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 22751086 (22M) [application/octet-stream]
Saving to: 'latest.tar.gz'

latest.tar.gz          100%[=====] 21.70M  6.93MB/s  in 3.3s

2023-03-23 12:16:23 (6.51 MB/s) - 'latest.tar.gz' saved [22751086/22751086]

growlt216@growlt216:/var/www/html$
```

Once the WordPress is downloaded, extract the downloaded file with the following command.

```
tar -xvzf latest.tar.gz
```

```

growlt216@growlt216:~$ cd /var/www/html
growlt216@growlt216:/var/www/html$ wget http://wordpress.org/latest.tar.gz
--2023-03-23 12:16:18-- http://wordpress.org/latest.tar.gz
Resolving wordpress.org (wordpress.org)... 198.143.164.252
Connecting to wordpress.org (wordpress.org)|198.143.164.252|:80... connected.
HTTP request sent, awaiting response... 301 Moved Permanently
Location: https://wordpress.org/latest.tar.gz [following]
--2023-03-23 12:16:19-- https://wordpress.org/latest.tar.gz
Connecting to wordpress.org (wordpress.org)|198.143.164.252|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 22751086 (22M) [application/octet-stream]
Saving to: 'latest.tar.gz'

latest.tar.gz                               100%[=====] 21.70M  6.93MB/s   in 3.3s

2023-03-23 12:16:23 (6.51 MB/s) - 'latest.tar.gz' saved [22751086/22751086]

growlt216@growlt216:/var/www/html$ tar -xvzf latest.tar.gz
wordpress/
wordpress/xmlrpc.php
wordpress/wp-blog-header.php
wordpress/readme.html
wordpress/wp-signup.php
wordpress/index.php
wordpress/wp-cron.php
wordpress/wp-config-sample.php
wordpress/wp-login.php
wordpress/wp-settings.php
wordpress/license.txt
wordpress/wp-content/
wordpress/wp-content/themes/
wordpress/wp-content/themes/twentytwentythree/
wordpress/wp-content/themes/twentytwentythree/theme.json
wordpress/wp-content/themes/twentytwentythree/parts/
wordpress/wp-content/themes/twentytwentythree/parts/footer.html
wordpress/wp-content/themes/twentytwentythree/parts/comments.html
wordpress/wp-content/themes/twentytwentythree/parts/header.html
wordpress/wp-content/themes/twentytwentythree/parts/post-meta.html
wordpress/wp-content/themes/twentytwentythree/patterns/
wordpress/wp-content/themes/twentytwentythree/patterns/hidden-404.php
wordpress/wp-content/themes/twentytwentythree/patterns/post-meta.php
wordpress/wp-content/themes/twentytwentythree/patterns/hidden-no-results.php
wordpress/wp-content/themes/twentytwentythree/patterns/call-to-action.php
wordpress/wp-content/themes/twentytwentythree/patterns/footer-default.php
wordpress/wp-content/themes/twentytwentythree/patterns/hidden-comments.php
wordpress/wp-content/themes/twentytwentythree/styles/

```

Next, change the directory to the WordPress directory and rename the default configuration file.

```
cd wordpress
```

```
mv wp-config-sample.php wp-config.php
```



```

wordpress/wp-admin/widgets.php
wordpress/wp-admin/setup-config.php
wordpress/wp-admin/install.php
wordpress/wp-admin/admin-header.php
wordpress/wp-admin/post-new.php
wordpress/wp-admin/themes.php
wordpress/wp-admin/options-reading.php
wordpress/wp-trackback.php
wordpress/wp-comments-post.php
growlt216@growlt216: /var/www/html$ cd wordpress
growlt216@growlt216: /var/www/html/wordpress$ mv wp-config-sample.php wp-config.php
growlt216@growlt216: /var/www/html/wordpress$ nano wp-config.php
growlt216@growlt216: /var/www/html/wordpress$ chown -R www-data:www-data /var/www/html/wordpress
chown: changing ownership of '/var/www/html/wordpress/wp-signup.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/wrapper.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/LICENSE.txt': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/class.akismet-rest-api.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/_inc/img/logo-a-2x.png': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/_inc/img/logo-full-2x.png': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/_inc/img/': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/_inc/akismet-frontend.js': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/_inc/akismet.css': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/_inc/akismet.js': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/_inc/': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/class.akismet.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/class.akismet-cli.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/views/setup.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/views/stats.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/views/connect-jp.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/views/start.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/views/notice.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/views/predefined.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/views/enter.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/views/config.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/views/title.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/views/activate.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/views/get.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/views/': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/.htaccess': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/readme.txt': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/class.akismet-admin.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/changelog.txt': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/index.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/class.akismet-widget.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/akismet.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/akismet/': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-content/plugins/hello.php': Operation not permitted

```

Then, edit the WordPress configuration file and define your database settings.

## nano wp-config.php

```

define( 'DB_NAME', 'wordpress' );

/** Database username */
define( 'DB_USER', 'wordpress' );

/** Database password */
define( 'DB_PASSWORD', '1234' );

/** Database hostname */
define( 'DB_HOST', 'localhost' );

/** Database charset to use in creating database tables. */
define( 'DB_CHARSET', 'utf8' );

/** The database collate type. Don't change this if in doubt. */
define( 'DB_COLLATE', '' );

```

```
define( 'DB_NAME', 'wordpress' );
```

```
/** Database username */
```

```
define( 'DB_USER', 'wordpress' );
```

```

/** Database password */

define( 'DB_PASSWORD', '1234' );

/** Database hostname */

define( 'DB_HOST', 'localhost' );

```

**Save and close the file then change the ownership and permission of the WordPress directory.**

**chown -R www-data:www-data /var/www/html/wordpress**

**chmod -R 775 /var/www/html/wordpress**

```

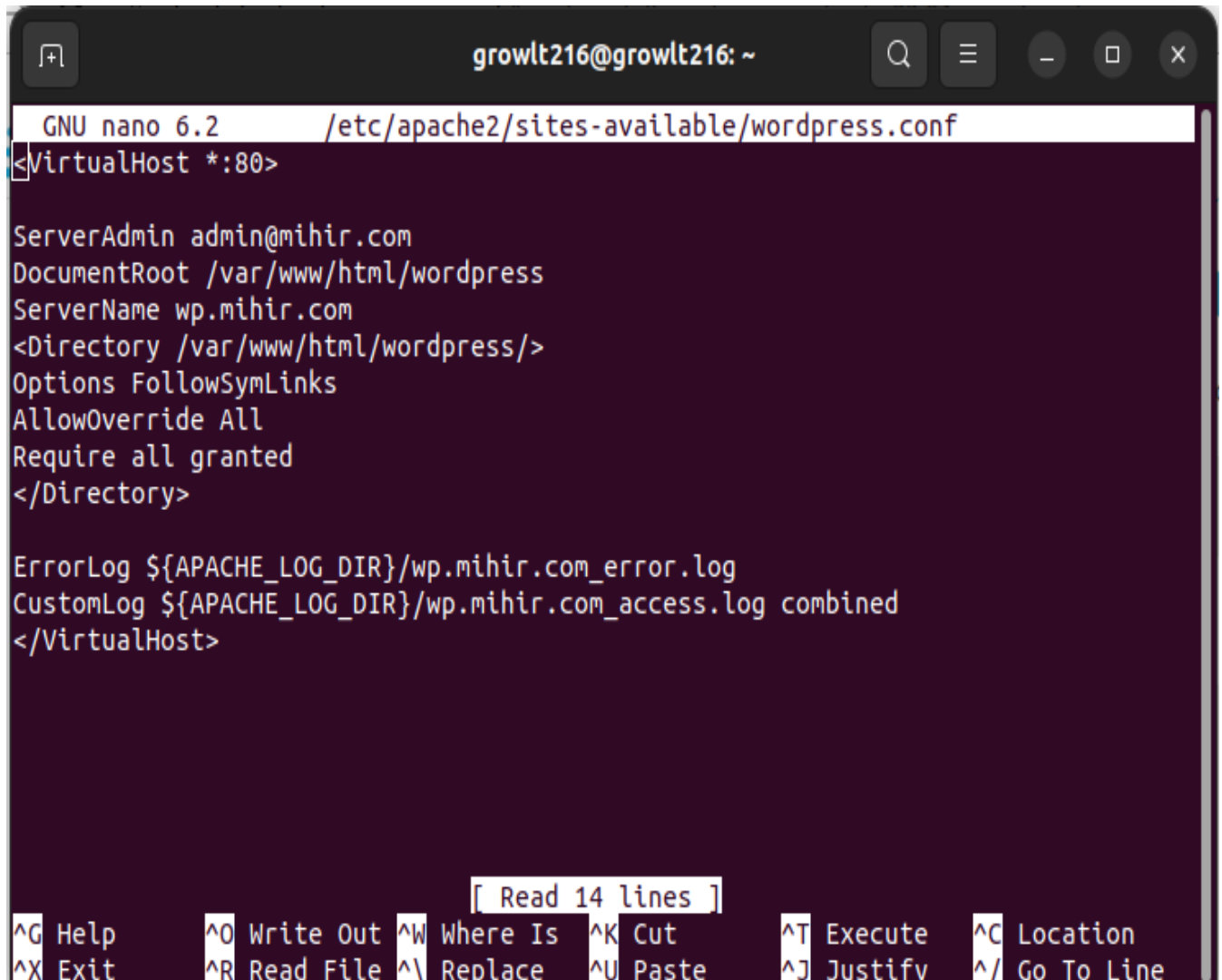
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/resize-2x.gif': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/menu-vs.png': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/post-formats.png': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/no.png': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/loading.gif': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/bubble-bg.gif': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/align-right-2x.png': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/wordpress-logo.png': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/mask.png': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/list.png': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/resize.gif': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/wpspin_light-2x.gif': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/xlt-2x.gif': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/wordpress-logo.svg': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/align-none-2x.png': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/arrows-2x.png': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/w-logo-blue.png': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/media-button.png': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/sort.gif': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/media-button-video.gif': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/align-left-2x.png': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/media-button-2x.png': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/yes.png': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/freedom-1.svg': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/xlt.gif': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/align-right.png': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/about-texture.png': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/about-header-about.svg': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/media-button-other.gif': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/privacy.svg': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images/menu.png': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/images': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/admin-post.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/site-health.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/options-permalink.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/authorize-application.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin/options-media.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-admin': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-config.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-load.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/index.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress/wp-blog-header.php': Operation not permitted
chown: changing ownership of '/var/www/html/wordpress': Operation not permitted
growlt216@growlt216: /var/www/html/wordpress$ sudo chown -R www-data:www-data /var/www/html/wordpress
growlt216@growlt216: /var/www/html/wordpress$ sudo chmod -R 775 /var/www/html/wordpress
growlt216@growlt216: /var/www/html/wordpress$

```

## Step 5 - Create Apache Virtual Host for WordPress

you need to create an Apache virtual host configuration file for WordPress. You can create it with the following command.

nano /etc/apache2/sites-available/wordpress.conf



```
GNU nano 6.2 /etc/apache2/sites-available/wordpress.conf
<VirtualHost *:80>

ServerAdmin admin@mihir.com
DocumentRoot /var/www/html/wordpress
ServerName wp.mihir.com
<Directory /var/www/html/wordpress/>
Options FollowSymLinks
AllowOverride All
Require all granted
</Directory>

ErrorLog ${APACHE_LOG_DIR}/wp.mihir.com_error.log
CustomLog ${APACHE_LOG_DIR}/wp.mihir.com_access.log combined
</VirtualHost>

[ Read 14 lines ]
^G Help      ^O Write Out ^W Where Is  ^K Cut       ^T Execute   ^C Location
^X Exit      ^R Read File ^\ Replace   ^U Paste     ^J Justify   ^_ Go To Line
```

<VirtualHost \*:80>

ServerAdmin admin@yourdomain.com

DocumentRoot /var/www/html/wordpress

ServerName wp.yourdomain.com

<Directory /var/www/html/wordpress/>

Options FollowSymLinks

AllowOverride All

Require all granted

</Directory>

ErrorLog \${APACHE\_LOG\_DIR}/yourdomain\_error.log

CustomLog \${APACHE\_LOG\_DIR}/yourdomain\_access.log combined

</VirtualHost>

Save the file then activate the Apache virtual host and rewrite module using the following command.

a2ensite wordpress.conf

a2enmod rewrite

```
growlt216@growlt216:~$ sudo nano /etc/apache2/sites-available/wordpress.conf
growlt216@growlt216:~$ sudo a2enmod rewrite
Enabling module rewrite.
To activate the new configuration, you need to run:
  systemctl restart apache2
growlt216@growlt216:~$ sudo apache2ctl configtest
AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 127.0.1.1. Set the 'ServerName' directive globally to suppress this message
Syntax OK
growlt216@growlt216:~$
```

Next, restart the Apache service to apply the configuration changes.

systemctl restart apache2

To check the Apache service status, run the following command.

systemctl status apache2

```
Activities Terminal Mar 23 12:37 growlt216@growlt216: /var/www/html/wordpress

RX errors 0 dropped 0 overruns 0 frame 0
TX packets 0 bytes 0 (0.0 B)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
device interrupt 16 memory 0xae300000-ae320000

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
inet 127.0.0.1 netmask 255.0.0.0
inet6 ::1 prefixlen 128 scopeid 0x10<host>
loop txqueuelen 1000 (Local Loopback)
RX packets 134652 bytes 38626993 (38.6 MB)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 134652 bytes 38626993 (38.6 MB)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

wlp0s20f3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
inet 192.168.3.110 netmask 255.255.240.0 broadcast 192.168.15.255
inet6 fe80::e82d:b28f:2650:1356 prefixlen 64 scopeid 0x20<link>
ether a0:59:50:7e:99:06 txqueuelen 1000 (Ethernet)
RX packets 461329 bytes 530589287 (530.5 MB)
RX errors 0 dropped 2696 overruns 0 frame 0
TX packets 158486 bytes 38321148 (38.3 MB)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

growlt216@growlt216:/etc$ sudo nano hosts
growlt216@growlt216:/etc$ sudo nano hosts
growlt216@growlt216:/etc$ cd ../
growlt216@growlt216:/var/www/html$ cd wordpress
growlt216@growlt216:/var/www/html/wordpress$ nano /etc/apache2/sites-available/wordpress.conf
growlt216@growlt216:/var/www/html/wordpress$ sudo nano /etc/apache2/sites-available/wordpress.conf
growlt216@growlt216:/var/www/html/wordpress$ a2ensite wordpress.conf
Enabling site wordpress.
Could not create /etc/apache2/sites-enabled/wordpress.conf: Permission denied
growlt216@growlt216:/var/www/html/wordpress$ a2enmod rewrite
Module rewrite already enabled
growlt216@growlt216:/var/www/html/wordpress$ systemctl restart apache2
growlt216@growlt216:/var/www/html/wordpress$ systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: active (running) since Thu 2023-03-23 12:36:48 IST; 6s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Process: 42086 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
  Main PID: 42142 (apache2)
    Tasks: 6 (limit: 18728)
   Memory: 72.6M
        CPU: 197ms
   CGroup: /system.slice/apache2.service
           └─42142 /usr/sbin/apache2 -k start
             └─42143 /usr/sbin/apache2 -k start
               └─42144 /usr/sbin/apache2 -k start
                 └─42145 /usr/sbin/apache2 -k start
                   └─42146 /usr/sbin/apache2 -k start
                     └─42147 /usr/sbin/apache2 -k start

Mar 23 12:36:29 growlt216 systemd[1]: Starting The Apache HTTP Server...
Mar 23 12:36:29 growlt216 apachectl[42086]: AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 127.0.0.1 instead; this will not work in a live environment.
```


```
Setting up php (8.2.4-1ubuntu2.1) ...
growlt216@growlt216:~$ php -v
PHP 8.2.4 (cli) (built: Mar 16 2023 14:34:48) (NTS)
Copyright (c) The PHP Group
Zend Engine v4.2.4, Copyright (c) Zend Technologies
    with Zend OPcache v8.2.4, Copyright (c), by Zend Technologies
    with Xdebug v3.2.0, Copyright (c) 2002-2022, by Derick Rethans
```

## Step 7 - Perform WordPress Web based Installation

Activities Google Chrome Mar 23 19:11

How To Remove MySQL C x Uninstall and Reinstall My x mysql - ERROR 1698 (2800 x WordPress › Installation x How to Install WordPress x

Not secure | wp.mihir.com/wp-admin/install.php?step=1



## Welcome

Welcome to the famous five-minute WordPress installation process! Just fill in the information below and you'll be on your way to using the most extendable and powerful personal publishing platform in the world.

## Information needed

Please provide the following information. Do not worry, you can always change these settings later.

**Site Title**

**Username**   
Usernames can have only alphanumeric characters, spaces, underscores, hyphens, periods, and the @ symbol.

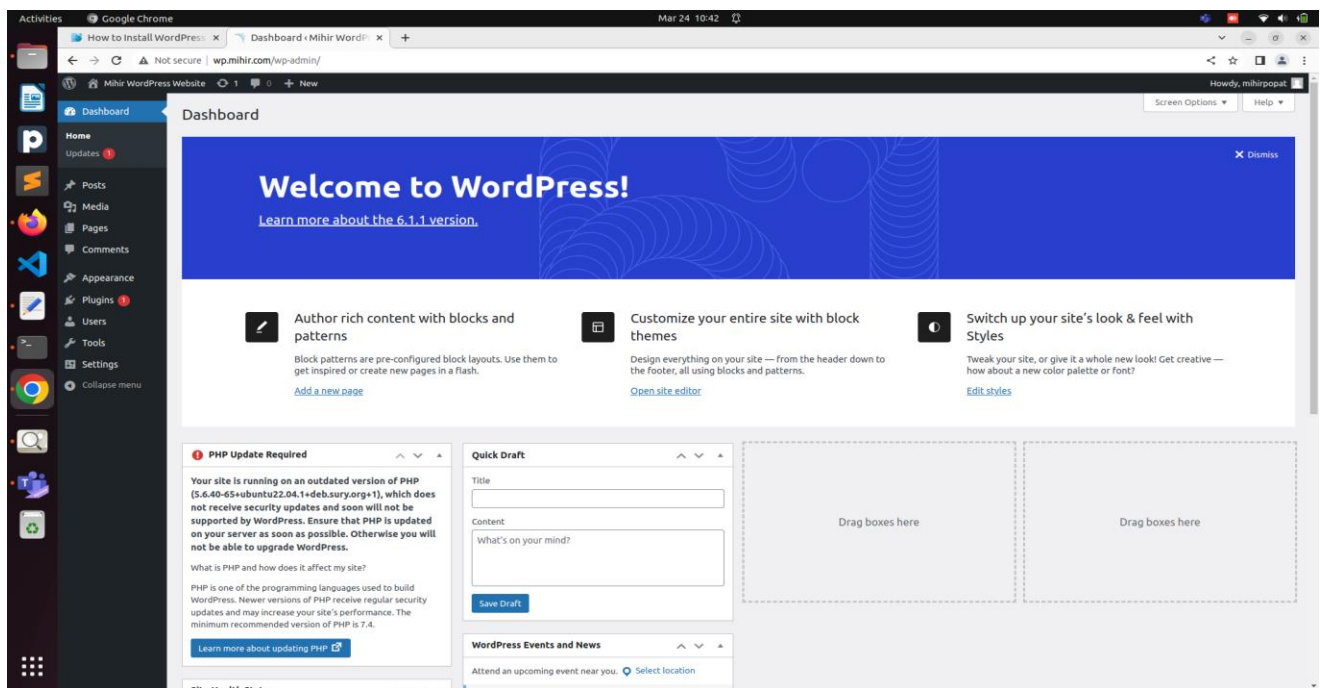
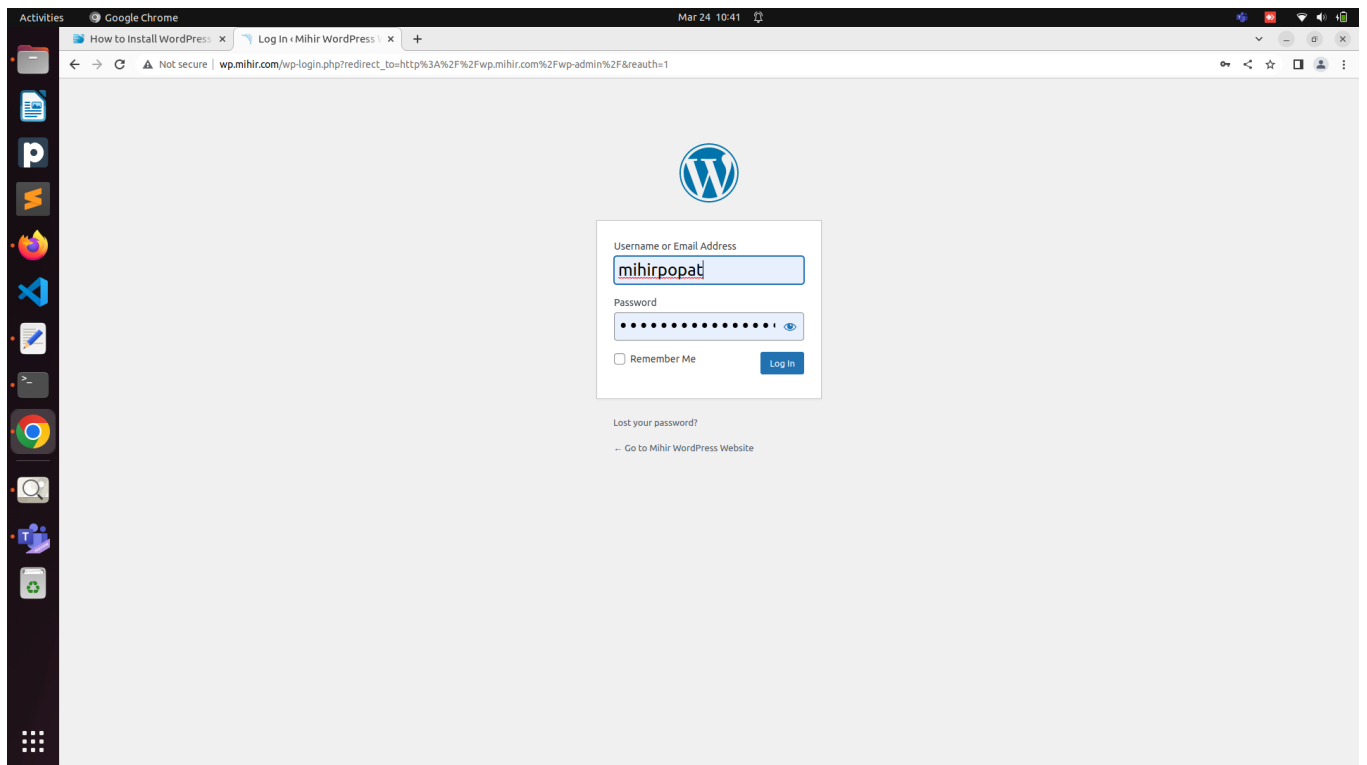
**Password**  [Hide](#)  
Strong

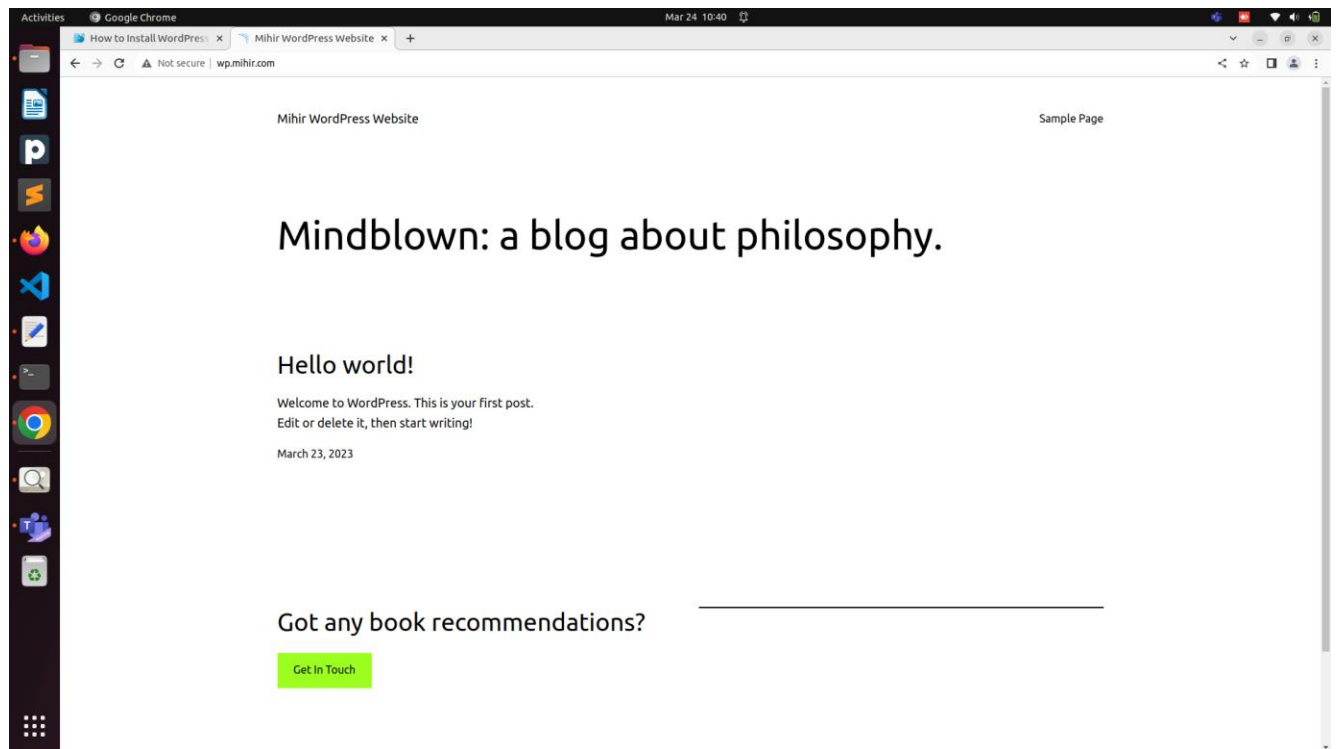
**Important:** You will need this password to log in. Please store it in a secure location.

**Your Email**   
Double-check your email address before continuing.

**Search engine visibility** ☐ Discourage search engines from indexing this site  
It is up to search engines to honor this request.

[Install WordPress](#)





Now create restart.sh file for automate restart apache server when status code is not 200



```
GNU nano 6.2                                restart.sh
#!/bin/bash

# Check if website is down
if ! curl -s --head --request GET http://wp.mihir.com | grep "200 OK" > /dev/null; then
    # Restart Apache service
    sudo service apache2 restart

    # Restart MySQL service
    sudo service mysql restart

    # Log the event
    echo "$(date): Apache and MySQL services were restarted" >> /var/log/website_check.log
fi
```

#!/bin/bash

# Check if website is down

if ! curl -s --head --request GET http://wp.mihir.com | grep "200 OK" > /dev/null; then

# Restart Apache service

sudo service apache2 restart

# Restart MySQL service

sudo service mysql restart

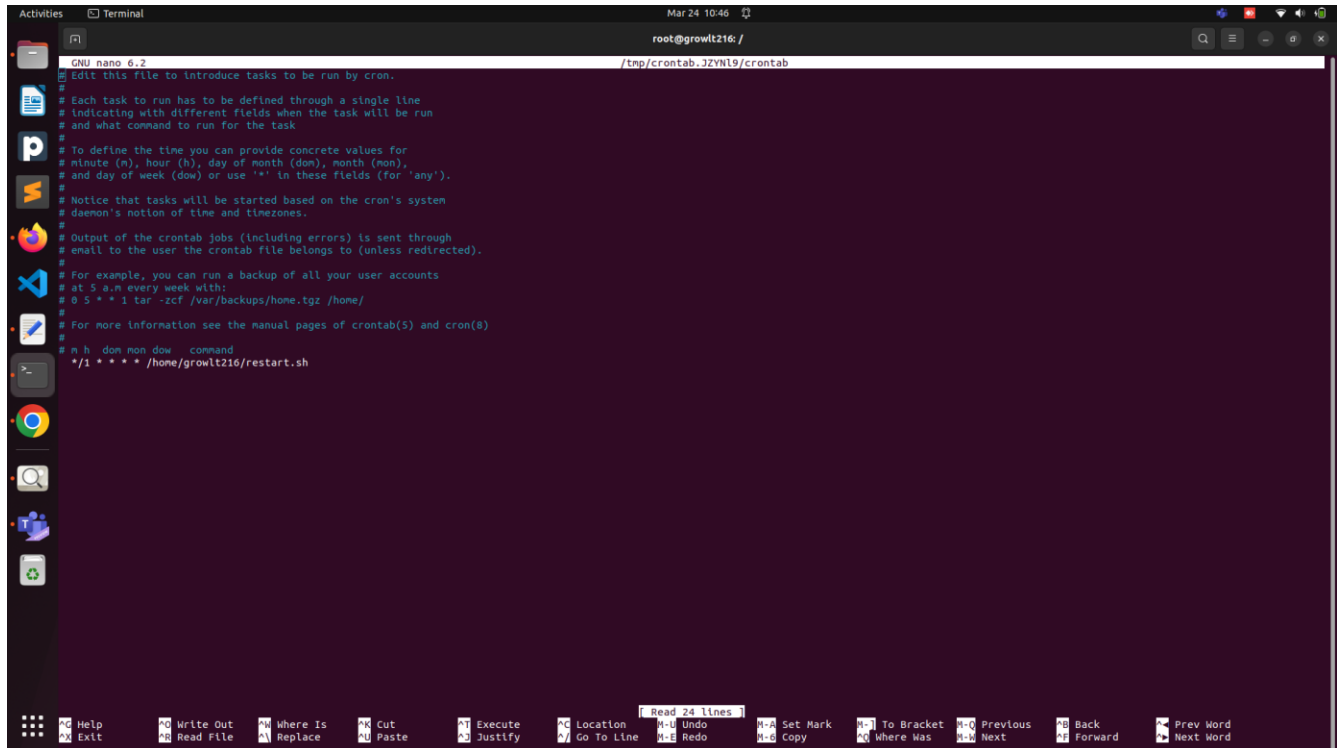
# Log the event

echo "\$(date): Apache and MySQL services were restarted" >> /var/log/website\_check.log

fi

Now make crone job for automate shell script to check for every one minute

For that write command `crontab -e`



The screenshot shows a terminal window with the nano text editor open, editing the crontab file. The file path is `/tmp/crontab.32Vn19/crontab`. The editor displays the standard nano header and a cron job entry: `* * * * * /home/growlt216/restart.sh`. The terminal window title is `Terminal` and the user is `root@growlt216: /`. The date and time are `Mar 24 10:46`. The nano editor's status bar at the bottom shows various keyboard shortcuts like `Ctrl+O` for Write Out, `Ctrl+X` for Exit, and `Ctrl+R` for Read File.

```
GNU nano 6.2 /tmp/crontab.32Vn19/crontab
# Edit this file to introduce tasks to be run by cron.
#
# Each task to run has to be defined through a single line
# indicating with different fields when the task will be run
# and what command to run for the task
#
# To define the time you can provide concrete values for
# minute (m), hour (h), day of month (dom), month (mon),
# and day of week (dow) or use '*' in these fields (for 'any').
#
# Notice that tasks will be started based on the cron's system
# daemon's notion of time and timezones.
#
# Output of the crontab jobs (including errors) is sent through
# email to the user the crontab file belongs to (unless redirected).
#
# For example, you can run a backup of all your user accounts
# at 5 a.m every week with:
# 0 5 * * 1 tar -zcf /var/backups/home.tgz /home/
#
# For more information see the manual pages of crontab(5) and cron(8)
#
# m h dom mon dow   command
*/1 * * * * /home/growlt216/restart.sh
```

And give path to shell script .

```
Activities Terminal Mar 24 11:06 growlt216@growlt216: /

growlt216@growlt216:~$ systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: active (running) since Fri 2023-03-24 09:56:06 IST; 1h 3min ago
     Docs: https://httpd.apache.org/docs/2.4/
   Process: 960 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
    Main PID: 1594 (apache2)
      Tasks: 29 (limit: 18728)
     Memory: 260.7M
        CPU: 30.851s
    CGroup: /system.slice/apache2.service
            └─1594 /usr/sbin/apache2 -k start
              1774 /usr/sbin/apache2 -k start
              1780 /usr/sbin/apache2 -k start
              1784 /usr/sbin/apache2 -k start
              1787 /usr/sbin/apache2 -k start
              1789 /usr/sbin/apache2 -k start
              6551 /usr/sbin/apache2 -k start
              8725 /usr/sbin/apache2 -k start

Mar 24 09:56:05 growlt216 systemd[1]: Starting The Apache HTTP Server...
Mar 24 09:56:06 growlt216 apachectl[988]: AH00558: apache2: could not reliably determine the server's fully qualified domain name, using 127.0.1.1. Set the 'ServerName' directive globally to suppress th
Mar 24 09:56:06 growlt216 systemd[1]: Started The Apache HTTP Server.

growlt216@growlt216:~$ systemctl stop apache2
growlt216@growlt216:~$ systemctl status apache2
○ apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: inactive (dead) since Fri 2023-03-24 11:00:07 IST; 2s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Process: 960 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
   Process: 18214 ExecStop=/usr/sbin/apachectl graceful-stop (code=exited, status=0/SUCCESS)
    Main PID: 1594 (code=exited, status=0/SUCCESS)
        CPU: 31.458s

Mar 24 11:00:07 growlt216 apache2[1780]: DIGEST-MD5 common mech free
Mar 24 11:00:07 growlt216 apache2[1774]: DIGEST-MD5 common mech free
Mar 24 11:00:07 growlt216 apache2[1784]: DIGEST-MD5 common mech free
Mar 24 11:00:07 growlt216 apache2[1789]: DIGEST-MD5 common mech free
Mar 24 11:00:07 growlt216 apache2[1787]: DIGEST-MD5 common mech free
Mar 24 11:00:07 growlt216 apache2[6551]: DIGEST-MD5 common mech free
Mar 24 11:00:07 growlt216 apache2[1594]: DIGEST-MD5 common mech free
Mar 24 11:00:07 growlt216 systemd[1]: apache2.service: Deactivated successfully.
Mar 24 11:00:07 growlt216 systemd[1]: Stopped The Apache HTTP Server.
Mar 24 11:00:07 growlt216 systemd[1]: apache2.service: Consumed 31.458s CPU time.
growlt216@growlt216:~$ systemctl status apache2
○ apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: inactive (dead) since Fri 2023-03-24 11:00:07 IST; 22s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Process: 960 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
   Process: 18214 ExecStop=/usr/sbin/apachectl graceful-stop (code=exited, status=0/SUCCESS)
    Main PID: 1594 (code=exited, status=0/SUCCESS)
        CPU: 31.458s

Mar 24 11:00:07 growlt216 apache2[1780]: DIGEST-MD5 common mech free
```

```
Activities Terminal Mar 24 11:06 growlt216@growlt216: /

Mar 24 11:00:07 growlt216 systemd[1]: Stopped The Apache HTTP Server.
Mar 24 11:00:07 growlt216 systemd[1]: apache2.service: Consumed 31.458s CPU time.
growlt216@growlt216:~$ systemctl status apache2
○ apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: inactive (dead) since Fri 2023-03-24 11:00:07 IST; 22s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Process: 960 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
   Process: 18214 ExecStop=/usr/sbin/apachectl graceful-stop (code=exited, status=0/SUCCESS)
    Main PID: 1594 (code=exited, status=0/SUCCESS)
        CPU: 31.458s

Mar 24 11:00:07 growlt216 apache2[1780]: DIGEST-MD5 common mech free
Mar 24 11:00:07 growlt216 apache2[1774]: DIGEST-MD5 common mech free
Mar 24 11:00:07 growlt216 apache2[1784]: DIGEST-MD5 common mech free
Mar 24 11:00:07 growlt216 apache2[1789]: DIGEST-MD5 common mech free
Mar 24 11:00:07 growlt216 apache2[1787]: DIGEST-MD5 common mech free
Mar 24 11:00:07 growlt216 apache2[6551]: DIGEST-MD5 common mech free
Mar 24 11:00:07 growlt216 apache2[1594]: DIGEST-MD5 common mech free
Mar 24 11:00:07 growlt216 systemd[1]: apache2.service: Deactivated successfully.
Mar 24 11:00:07 growlt216 systemd[1]: Stopped The Apache HTTP Server.
Mar 24 11:00:07 growlt216 systemd[1]: apache2.service: Consumed 31.458s CPU time.
growlt216@growlt216:~$ systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: activating (start) since Fri 2023-03-24 11:01:01 IST; 1s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Cntrl PID: 18346 (apachectl)
      Tasks: 2 (limit: 18728)
     Memory: 25.7M
        CPU: 37ms
    CGroup: /system.slice/apache2.service
            └─18346 /bin/sh /usr/sbin/apachectl start
              18349 /usr/sbin/apache2 -k start

Mar 24 11:01:01 growlt216 systemd[1]: Starting The Apache HTTP Server...
Mar 24 11:01:01 growlt216 apachectl[18349]: AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 127.0.1.1. Set the 'ServerName' directive globally to suppress
growlt216@growlt216:~$ systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: activating (start) since Fri 2023-03-24 11:01:01 IST; 10s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Cntrl PID: 18346 (apachectl)
      Tasks: 2 (limit: 18728)
     Memory: 25.7M
        CPU: 38ms
    CGroup: /system.slice/apache2.service
            └─18346 /bin/sh /usr/sbin/apachectl start
              18349 /usr/sbin/apache2 -k start

Mar 24 11:01:01 growlt216 systemd[1]: Starting The Apache HTTP Server...
Mar 24 11:01:01 growlt216 apachectl[18349]: AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 127.0.1.1. Set the 'ServerName' directive globally to suppress
growlt216@growlt216:~$ systemctl status apache2
● apache2.service - The Apache HTTP Server
```

```
Activities Terminal Mar 24 11:07 growlt216@growlt216: /

growlt216@growlt216:~$ systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: activating (start) since Fri 2023-03-24 11:01:01 IST; 1s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Cntrl PID: 18346 (apachectl)
     Tasks: 2 (limit: 18728)
    Memory: 25.7M
       CPU: 37ms
    CGroup: /system.slice/apache2.service
            └─18346 /bin/sh /usr/sbin/apachectl start
              └─18349 /usr/sbin/apache2 -k start

Mar 24 11:01:01 growlt216 systemd[1]: Starting The Apache HTTP Server...
Mar 24 11:01:01 growlt216 apachectl[18349]: AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 127.0.0.1. Set the 'ServerName' directive globally to suppress

growlt216@growlt216:~$ systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: activating (start) since Fri 2023-03-24 11:01:01 IST; 10s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Cntrl PID: 18346 (apachectl)
     Tasks: 2 (limit: 18728)
    Memory: 25.7M
       CPU: 38ms
    CGroup: /system.slice/apache2.service
            └─18346 /bin/sh /usr/sbin/apachectl start
              └─18349 /usr/sbin/apache2 -k start

Mar 24 11:01:01 growlt216 systemd[1]: Starting The Apache HTTP Server...
Mar 24 11:01:01 growlt216 apachectl[18349]: AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 127.0.0.1. Set the 'ServerName' directive globally to suppress

[lines 1-14/14 (END)]
growlt216@growlt216:~$ systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: active (running) since Fri 2023-03-24 11:01:17 IST; 5s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Process: 18346 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
   Main PID: 18374 (apache2)
     Tasks: 6 (limit: 18728)
    Memory: 68.2M
       CPU: 20ms
    CGroup: /system.slice/apache2.service
            └─18374 /usr/sbin/apache2 -k start
              └─18377 /usr/sbin/apache2 -k start
                └─18378 /usr/sbin/apache2 -k start
                  └─18379 /usr/sbin/apache2 -k start
                    └─18380 /usr/sbin/apache2 -k start
                      └─18381 /usr/sbin/apache2 -k start

Mar 24 11:01:01 growlt216 systemd[1]: Starting The Apache HTTP Server...
Mar 24 11:01:01 growlt216 apachectl[18349]: AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 127.0.0.1. Set the 'ServerName' directive globally to suppress
Mar 24 11:01:17 growlt216 systemd[1]: Started The Apache HTTP Server.

[lines 1-20/20 (END)]
growlt216@growlt216:~$
```