Hosting Wordpress Step-by-Step

Introduction

This project offers a detailed walkthrough for launching a WordPress website on a server with Apache as the web server and MariaDB as the database. It covers setting up the environment, installing necessary components, configuring WordPress, and completing the deployment to make the site accessible online. By following this guide, you can achieve a secure, scalable, and production-ready WordPress setup.

Prerequisites

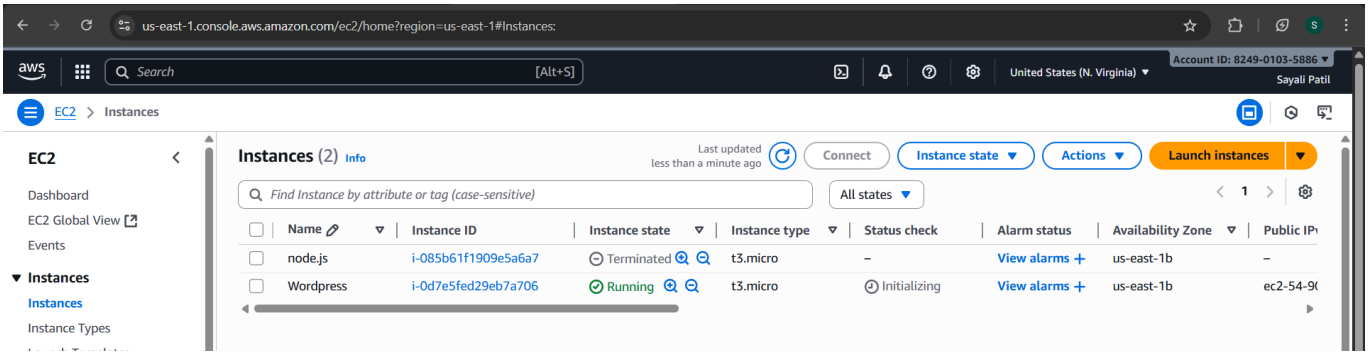
Before launching the WordPress website, confirm that the following are set up and operational:

- Linux Server – Amazon Linux operating system
- Web Server – Apache installed and actively running
- PHP – Including all necessary PHP extensions
- Database – MariaDB installed for managing WordPress data

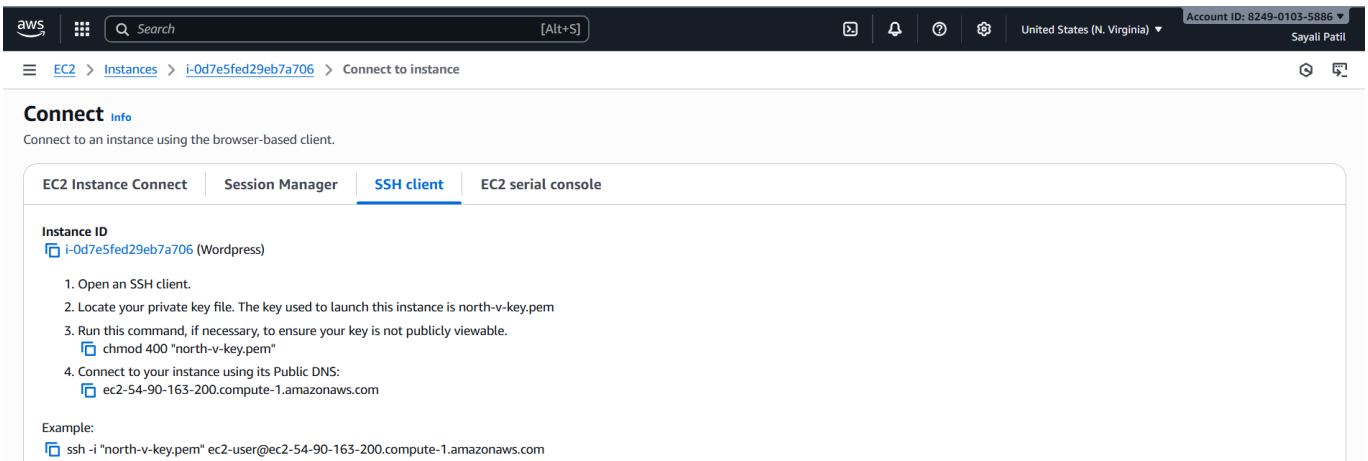
Step-by-Step Setup

Step 1: Launch an EC2 Instance and Connect Securely via SSH

1. Launch EC2 Instance



2. Copy SSH Command

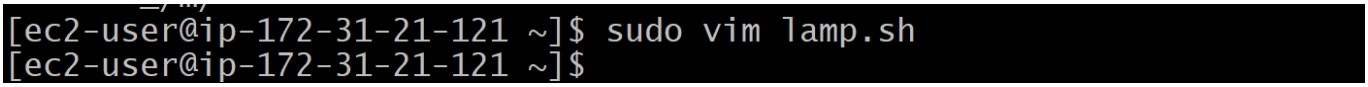


3. Paste it on Git bash terminal

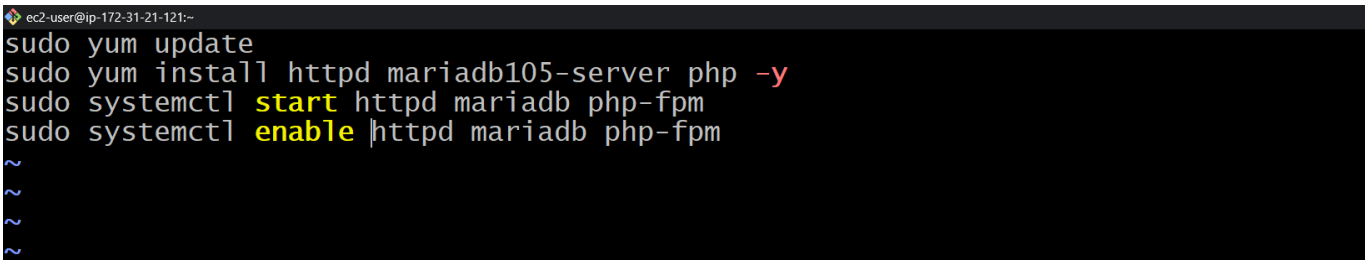
Step 2: Automating the Installation of the LAMP Stack on an AWS EC2 Instance

1. Create a lamp.sh file

   #sudo vim lamp.sh



2. Insert the script to install Apache, MySQL, and PHP on the system.



3. Open and run the file.

```
[ec2-user@ip-172-31-21-121 ~]$ sudo bash lamp.sh
Amazon Linux 2023 Kernel Livepatch repository                200 kB/s |  23 kB     00:00
Dependencies resolved.
Nothing to do.
Complete!
Last metadata expiration check: 0:00:02 ago on Fri Sep 19 15:50:57 2025.
Dependencies resolved.
================================================================================
 Package                        Arch    Version                      Repository    Size
================================================================================
Installing:
 httpd                          x86_64  2.4.65-1.amzn2023.0.1        amazonlinux   47 k
 mariadb105-server              x86_64  3:10.5.29-1.amzn2023.0.1     amazonlinux   10 M
 php8.4                         x86_64  8.4.10-1.amzn2023.0.1        amazonlinux   17 k
Installing dependencies:
 apr                            x86_64  1.7.5-1.amzn2023.0.4         amazonlinux  129 k
 apr-util                       x86_64  1.6.3-1.amzn2023.0.1         amazonlinux   98 k
 generic-logos-httpd            noarch  18.0.0-12.amzn2023.0.3       amazonlinux   19 k
 httpd-core                     x86_64  2.4.65-1.amzn2023.0.1        amazonlinux  1.4 M
 httpd-filesystem               noarch  2.4.65-1.amzn2023.0.1        amazonlinux   13 k
 httpd-tools                    x86_64  2.4.65-1.amzn2023.0.1        amazonlinux   81 k
 libbrotli                      x86_64  1.0.9-4.amzn2023.0.2         amazonlinux  315 k
 libsodium                      x86_64  1.0.19-4.amzn2023            amazonlinux  176 k
 libxslt                        x86_64  1.1.43-1.amzn2023.0.2        amazonlinux  183 k
 mailcap                        noarch  2.1.49-3.amzn2023.0.3        amazonlinux   33 k
 mariadb-connector-c            x86_64  3.3.10-1.amzn2023.0.1        amazonlinux  211 k
 mariadb-connector-c-config     noarch  3.3.10-1.amzn2023.0.1        amazonlinux  9.9 k
 mariadb105                     x86_64  3:10.5.29-1.amzn2023.0.1     amazonlinux  1.5 M
 mariadb105-common              x86_64  3:10.5.29-1.amzn2023.0.1     amazonlinux   28 k
 mariadb105-errmsg              x86_64  3:10.5.29-1.amzn2023.0.1     amazonlinux  212 k
 mysql-selinux                  noarch  1.0.4-2.amzn2023.0.3         amazonlinux   36 k
 nginx-filesystem               noarch  1:1.28.0-1.amzn2023.0.2      amazonlinux  9.6 k
 perl-B                         x86_64  1.80-477.amzn2023.0.7        amazonlinux  177 k
 perl-DBD-MariaDB               x86_64  1.22-1.amzn2023.0.4          amazonlinux  153 k
```

Step 3: Downloading and Setting Up WordPress

1. Go to the html file

   #cd /var/www/html/

2. Download Wordpress

   #sudo wget https://wordpress.org/latest.tar.gz

3. Extract the archive

   #sudo tar -xvzf latest.tar.gz

```
[ec2-user@ip-172-31-21-121 ~]$ cd /var/www/html/
[ec2-user@ip-172-31-21-121 html]$ sudo wget https://wordpress.org/latest.tar.gz
--2025-09-19 15:53:47--  https://wordpress.org/latest.tar.gz
Resolving wordpress.org (wordpress.org)... 198.143.164.252, 2607:f978:5:8002::c68f:a4fc
Connecting to wordpress.org (wordpress.org)|198.143.164.252|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 26925441 (26M) [application/octet-stream]
Saving to: 'latest.tar.gz'

latest.tar.gz               100%[=========================================>]  25.68M  75.7MB/s    in 0.3s

2025-09-19 15:53:47 (75.7 MB/s) - 'latest.tar.gz' saved [26925441/26925441]

[ec2-user@ip-172-31-21-121 html]$ ls
latest.tar.gz
[ec2-user@ip-172-31-21-121 html]$ sudo tar -xvzf latest.tar.gz
wordpress/
wordpress/index.php
wordpress/license.txt
wordpress/readme.html
wordpress/wp-activate.php
wordpress/wp-admin/
wordpress/wp-admin/about.php
wordpress/wp-admin/admin-ajax.php
wordpress/wp-admin/admin-footer.php
```

Step 4: Remove latest.tar.gz

#sudo rm -rf latest.tar.gz

```
[ec2-user@ip-172-31-21-121 html]$ ls
latest.tar.gz  wordpress
[ec2-user@ip-172-31-21-121 html]$ sudo rm -rf latest.tar.gz
[ec2-user@ip-172-31-21-121 html]$ ls
wordpress
[ec2-user@ip-172-31-21-121 html]$
```

Step 5: Go to the wordpress folder

#cd wordpress/

```
[ec2-user@ip-172-31-21-121 html]$ cd wordpress/
[ec2-user@ip-172-31-21-121 wordpress]$ ls
index.php    wp-activate.php     wp-comments-post.php  wp-cron.php        wp-load.php   wp-settings.php   xmlrpc.php
license.txt  wp-admin            wp-config-sample.php  wp-includes        wp-login.php  wp-signup.php
readme.html  wp-blog-header.php  wp-content            wp-links-opml.php  wp-mail.php   wp-trackback.php
[ec2-user@ip-172-31-21-121 wordpress]$
```

Step 6: Create a Database for WordPress

1. Create Username and Password

   #sudo mysql

   #alter user root@localhost identified by 'root';

```
[ec2-user@ip-172-31-21-121 wordpress]$ sudo mysql
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 3
Server version: 10.5.29-MariaDB MariaDB Server

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)]> alter user root@localhost identified by 'root';
Query OK, 0 rows affected (0.002 sec)
```

2. Login to Mysql (mariadb 105-server)

   #sudo mysql -u root -p

```
[ec2-user@ip-172-31-21-121 wordpress]$ sudo mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 30
Server version: 10.5.29-MariaDB MariaDB Server

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)]>
```

3. Create & Show Database

   #create database wordpressdb;

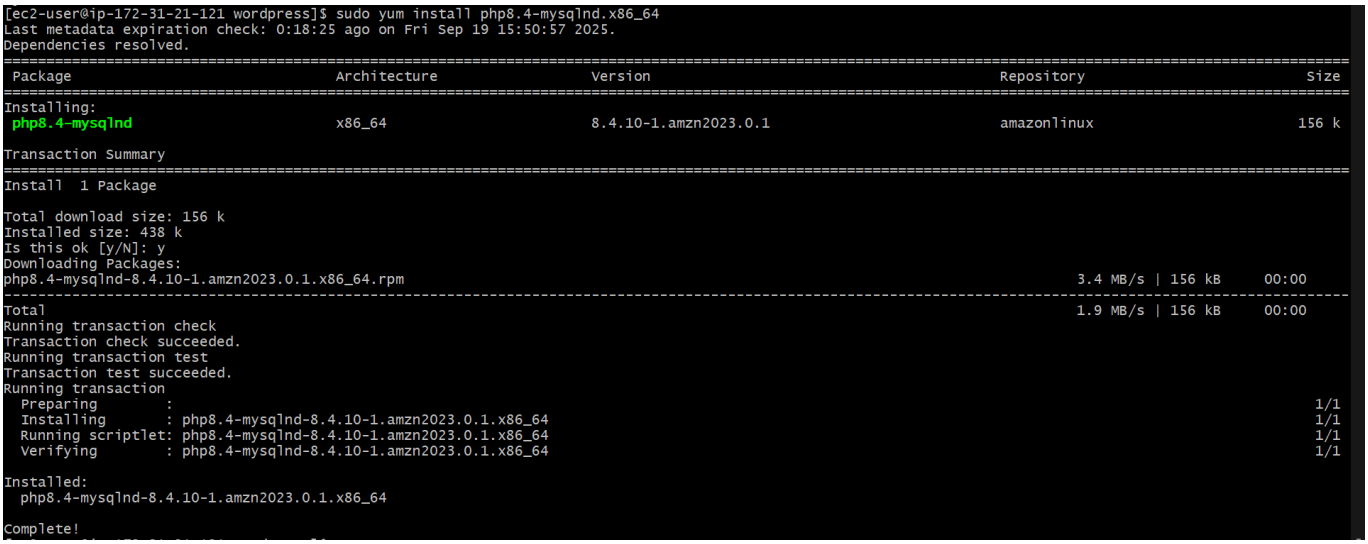
   #show databases;

```
MariaDB [(none)]> create database wordpressdb;
Query OK, 1 row affected (0.000 sec)

MariaDB [(none)]> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| mysql              |
| performance_schema |
| wordpressdb        |
+--------------------+
4 rows in set (0.002 sec)
```

Step 7: Install Connector

```
#sudo yum install php8.4-mysqlnd.x86_64
```

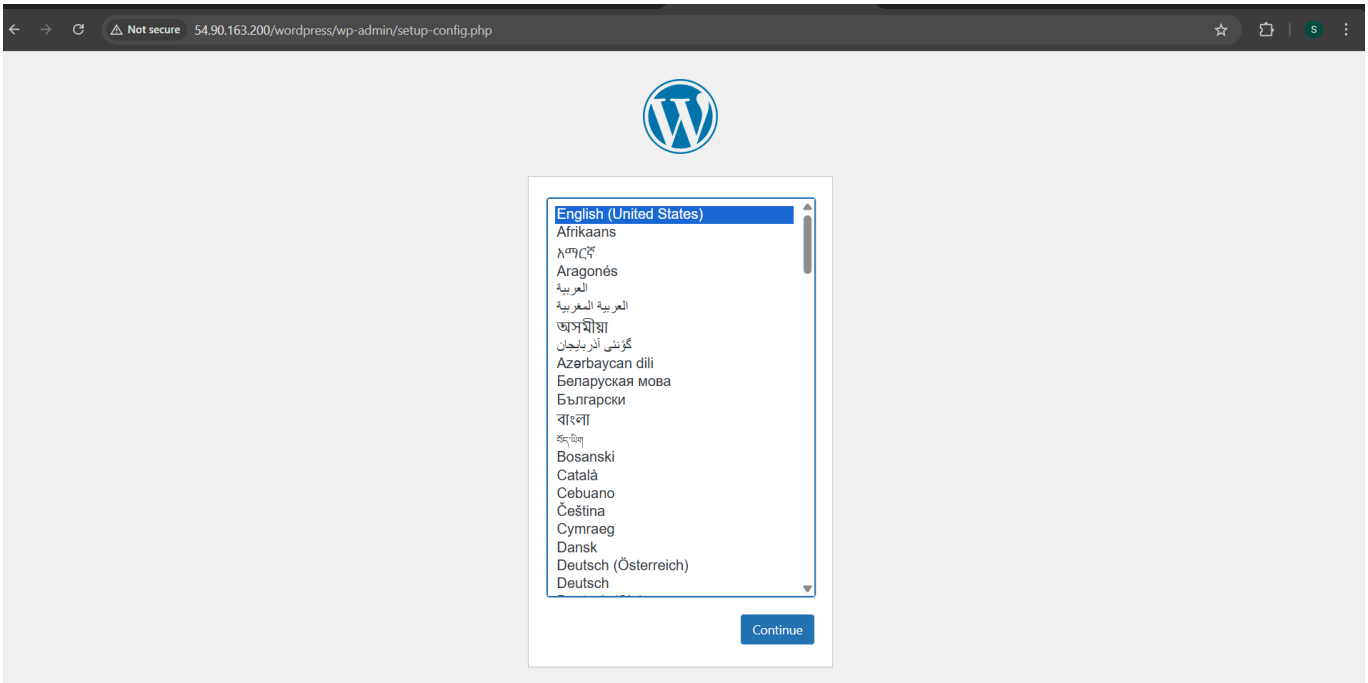


Step 8: Change ownership of the files

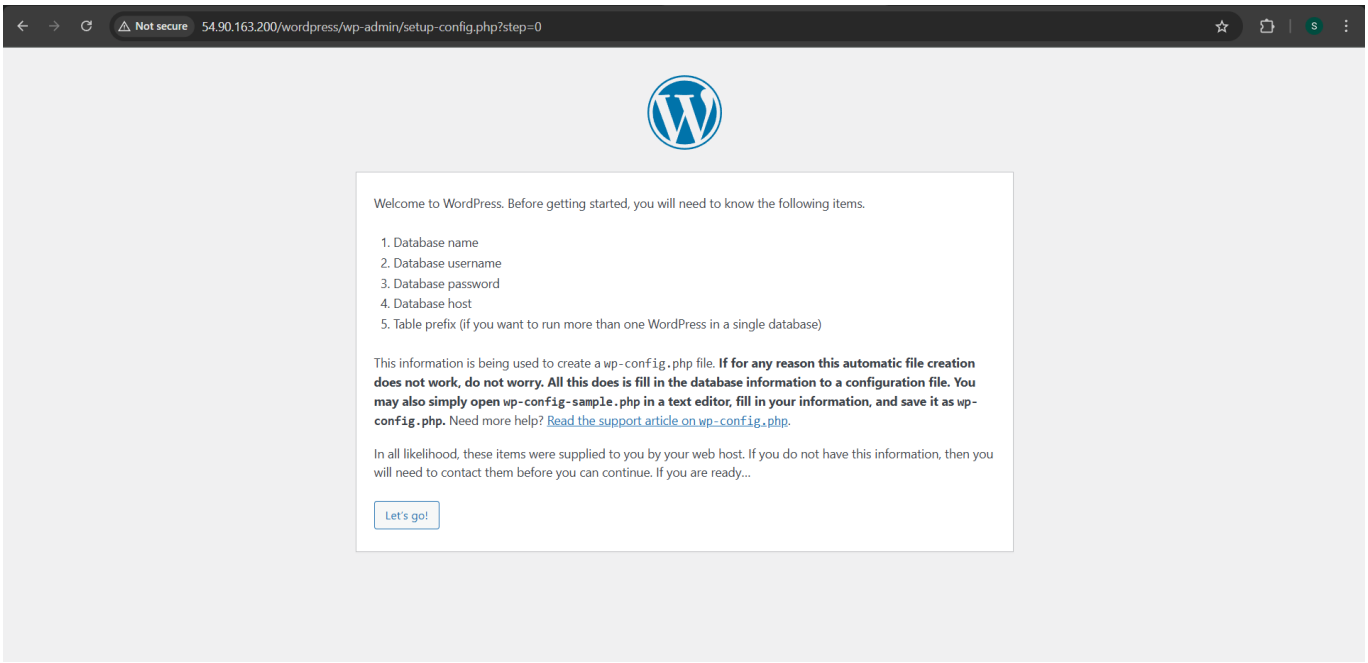
```
#sudo chown -R apache:apache wordpress/
```

Step 9: Copy the Public IP and Paste it in browser.

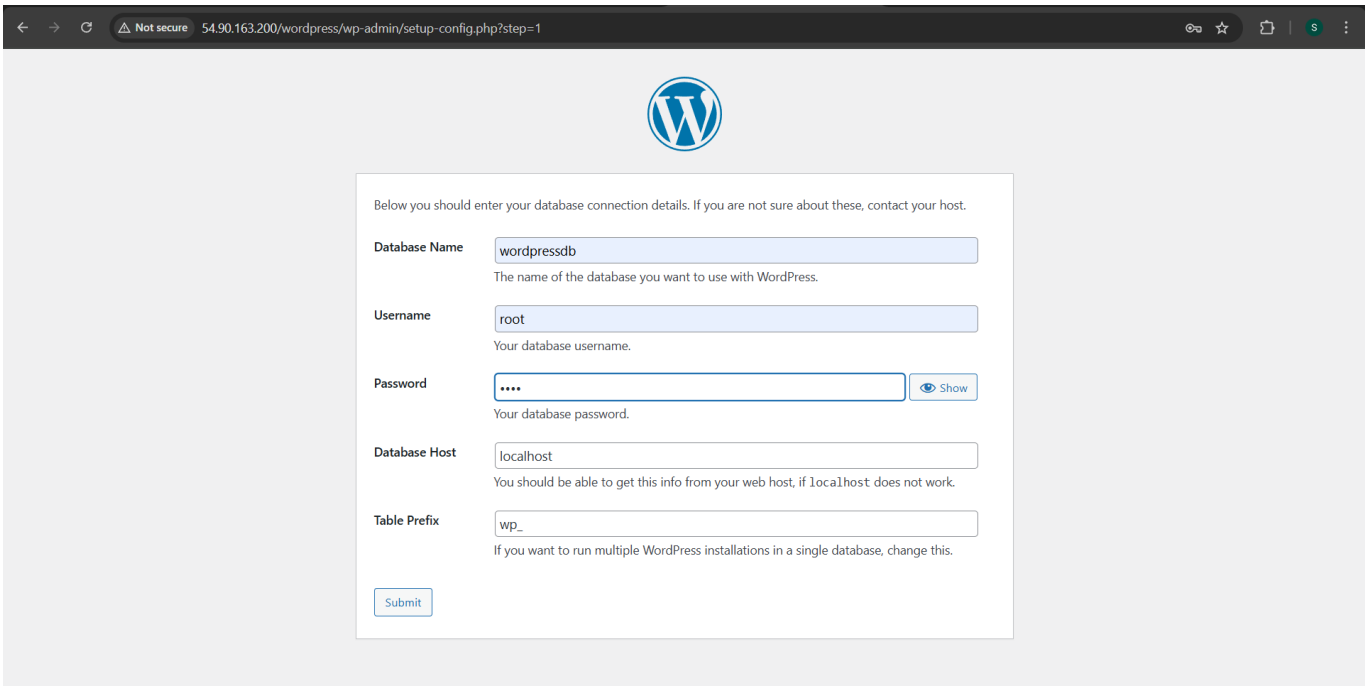
1. Hit Pubilc IP on Browser
2. Click on continue



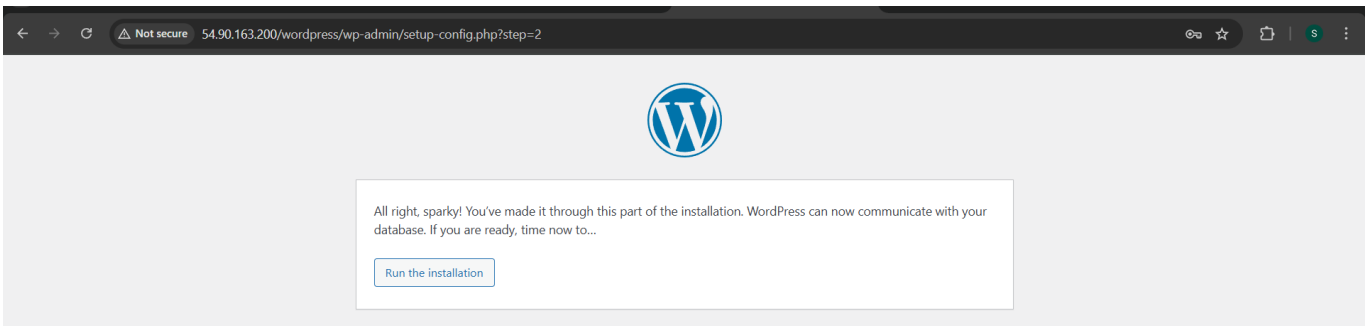
3. Click on Let's go



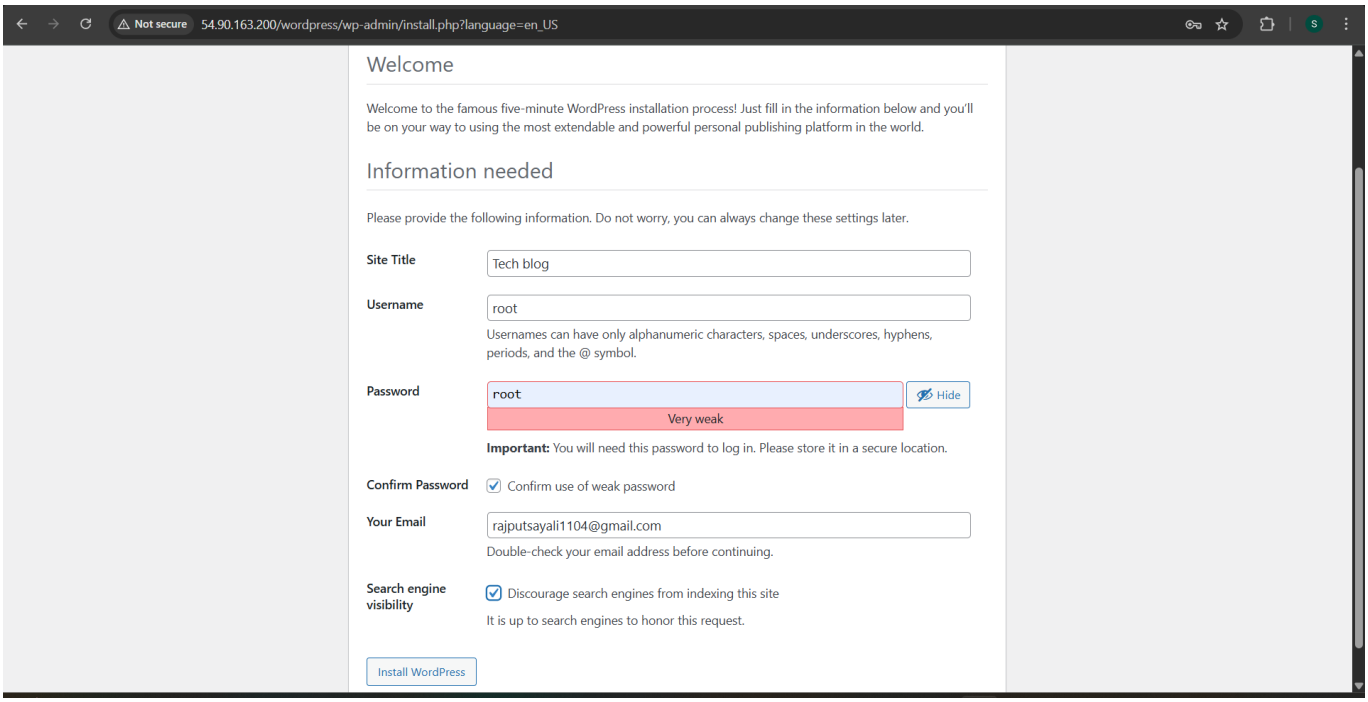
4. Fill all details and click on submit



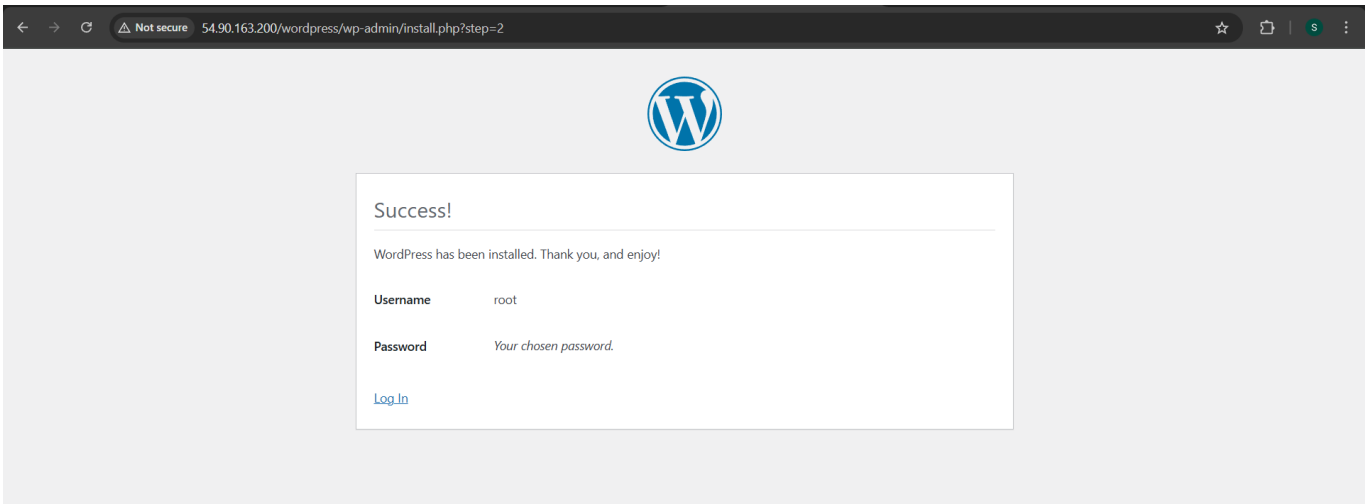
5. Run the Installation



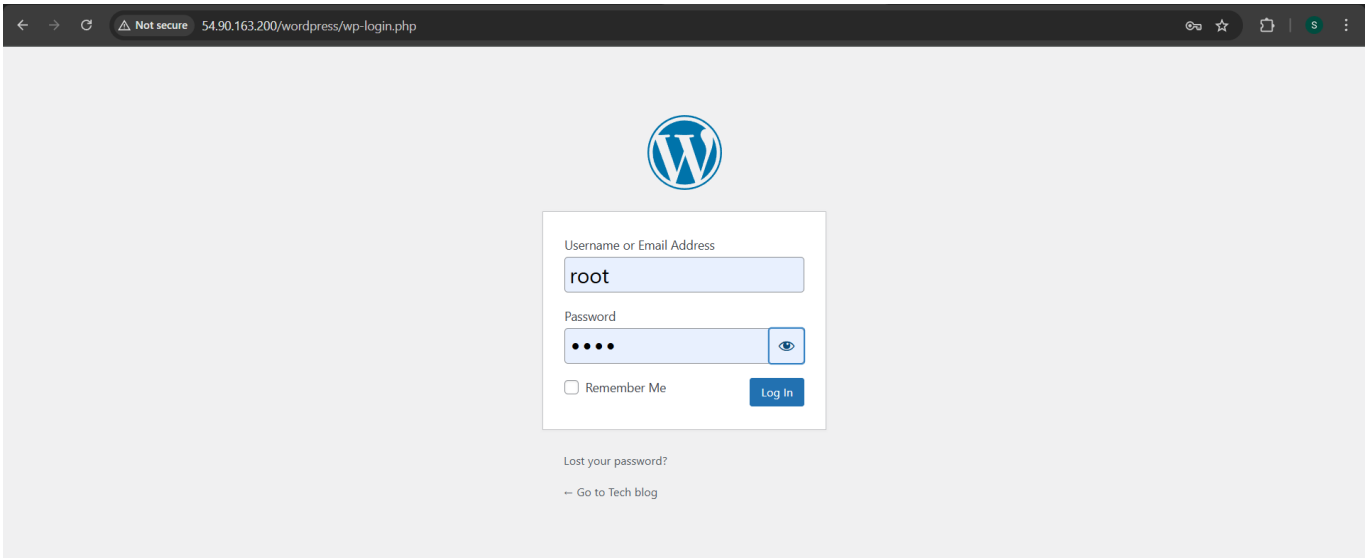
6. Fill up all information and click on install wordpress



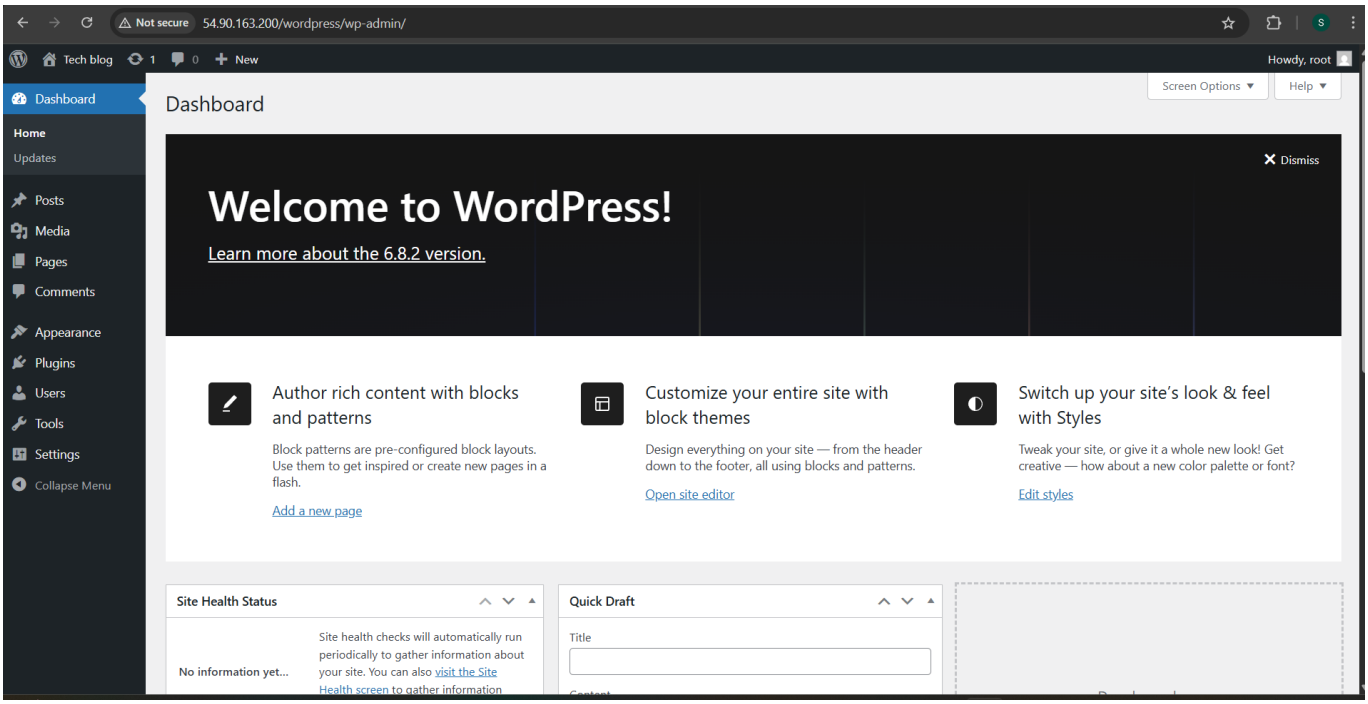
7. Login to wordpress



8. Click on Login



9. Deployment of WordPress was successfull.



10. A new table was automatically inserted into the database.

```
MariaDB [(none)]> use wordpressdb;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
MariaDB [wordpressdb]> show tables;
+-----------------------+
| Tables_in_wordpressdb |
+-----------------------+
| wp_commentmeta        |
| wp_comments           |
| wp_links              |
| wp_options            |
| wp_postmeta           |
| wp_posts              |
| wp_term_relationships |
| wp_term_taxonomy      |
| wp_termmeta           |
| wp_terms              |
| wp_usermeta           |
| wp_users              |
+-----------------------+
12 rows in set (0.000 sec)
```

Project Summary

This project involves deploying a WordPress website on a Linux-based server using Apache as the web server and MariaDB as the database. It covers the complete setup process, including downloading WordPress, configuring file permissions, setting up the database, and optimizing the server for production. The result is a secure, scalable, and fully functional WordPress site accessible to the public.