


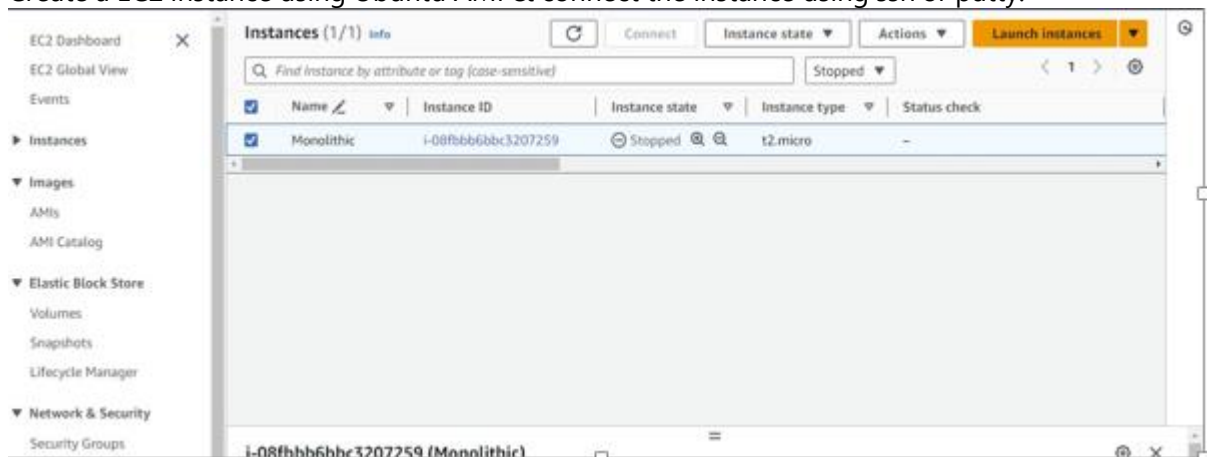
- Prerequisites: Make sure you have a free-tier AWS account set up.

Task-1: Implement the deploy of WordPress and MySQL applications within a Monolithic architecture.

 Description: In this tutorial, we'll set up a monolithic architecture using an EC2 instance on AWS. Our goal is to deploy WordPress and MYSQL on the same EC2 instance and create a welcome page like WELCOME TO TECHPLEMENT! in WordPress.

Steps:-

1. Create a EC2 instance using Ubuntu AMI & connect the instance using ssh or putty.



2. Sudo su –

```

aws  Services  Search  [Alt+S]
VPC  EC2  S3  IAM  Elastic Container Registry
Welcome to Ubuntu 24.04 LTS (GNU/Linux 6.8.0-1009-aws x86_64)

* Documentation:  https://help.ubuntu.com
* Management:    https://landscape.canonical.com
* Support:        https://ubuntu.com/pro

System information as of Tue Aug  6 07:18:21 UTC 2024

System load:  0.12          Processes:      105
Usage of /:   22.7% of 6.71GB Users logged in:  0
Memory usage: 20%          IPv4 address for enX0: 172.31.123.126
Swap usage:   0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-23-126:~$ sudo -s
i-0120e48b8320ff14f (Monolithic)

```

3. apt update –y

```

ubuntu@ip-172-31-23-126:~$ sudo -s
root@ip-172-31-23-126:/home/ubuntu# apt update -y
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]
Get:6 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [265 kB]
Get:7 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [63.1 kB]
Get:8 http://security.ubuntu.com/ubuntu noble-security/main amd64 c-n-f Metadata [3632 B]
Get:9 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [246 kB]
Get:10 http://security.ubuntu.com/ubuntu noble-security/universe Translation-en [106 kB]
Get:11 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [8632 B]
Get:12 http://security.ubuntu.com/ubuntu noble-security/universe amd64 c-n-f Metadata [9164 B]
Get:13 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [208 kB]
59% [11 Components-amd64 store 0 B] [5 Packages 15.0 MB/15.0 MB 100%] [13 Packages 208 kB/208 kB 100%]

```

4. apt install mysql-server -y

```

ubuntu@ip-172-31-23-126:/home/ubuntu# apt install mysql-server
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libbcgi-fast-perl libbcgi-pm-perl libclone-perl libencode-locale-perl libevent-pthreads-2.1-7t64 libfcgi-bin libfcgi-perl libfcgi
  libhtml-parser-perl libhtml-tagset-perl libhtml-template-perl libhttp-date-perl libhttp-message-perl libio-html-perl
  liblwp-mediatypes-perl libmecab2 libprotobuf-lite32t64 libtimedate-perl liburi-perl mecab-ipadic mecab-ipadic-utf8 mecab-util
  mysql-client-8.0 mysql-client-core-8.0 mysql-common mysql-server-8.0 mysql-server-core-8.0
Suggested packages:
  libdata-dump-perl libipc-sharedcache-perl libio-compress-brotli-perl libbusiness-isbn-perl libregexp-ipv6-perl libwww-perl mai
  tinyca
The following NEW packages will be installed:
  libbcgi-fast-perl libbcgi-pm-perl libclone-perl libencode-locale-perl libevent-pthreads-2.1-7t64 libfcgi-bin libfcgi-perl libfcgi
  libhtml-parser-perl libhtml-tagset-perl libhtml-template-perl libhttp-date-perl libhttp-message-perl libio-html-perl
  liblwp-mediatypes-perl libmecab2 libprotobuf-lite32t64 libtimedate-perl liburi-perl mecab-ipadic mecab-ipadic-utf8 mecab-util
  mysql-client-8.0 mysql-client-core-8.0 mysql-common mysql-server mysql-server-8.0 mysql-server-core-8.0
0 upgraded, 28 newly installed, 0 to remove and 0 not upgraded.
Need to get 29.6 MB of archives.
After this operation, 242 MB of additional disk space will be used.
Do you want to continue? [Y/n] Y

```

5. sudo mysql
6. CREATE DATABASE wordpress;
7. CREATE USER 'sanjay'@'localhost' IDENTIFIED BY 'test@123';
8. GRANT ALL PRIVILEGES ON wordpress.* TO 'sanjay'@'localhost';
9. FLUSH PRIVILEGES;
10. EXIT;

```

root@ip-172-31-23-126:/home/ubuntu# sudo mysql
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.39-0ubuntu0.24.04.1 (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> create database wordpress;
Query OK, 1 row affected (0.02 sec)

mysql> create user 'wordpress'@'localhost' identified by 'wordpress@123';
Query OK, 0 rows affected (0.02 sec)

mysql> grant all privileges on wordpress.* to 'wordpress'@'localhost';
Query OK, 0 rows affected (0.01 sec)

mysql> flush privileges;
Query OK, 0 rows affected (0.00 sec)

mysql> exit
Bye
root@ip-172-31-23-126:/home/ubuntu#

```

11. apt install apache2 php php-mysql libapache2-mod-php -y

```
root@ip-172-31-23-126:/home/ubuntu# apt install apache2 mysql-server php php-mysql libapache2-mod-php -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
mysql-server is already the newest version (8.0.39-0ubuntu0.24.04.1).
The following additional packages will be installed:
  apache2-bin apache2-data apache2-utils libapache2-mod-php8.3 libapr1t64 libaprutil1-dbd-sqlite3 libaprutil1-ldap libaprutil1t64
  liblua5.4-0 php-common php8.3 php8.3-cli php8.3-common php8.3-mysql php8.3-opcache php8.3-readline ssl-cert
Suggested packages:
  apache2-doc apache2-suexec-pristine | apache2-suexec-custom www-browser php-pear
The following NEW packages will be installed:
  apache2 apache2-bin apache2-data apache2-utils libapache2-mod-php libapache2-mod-php8.3 libapr1t64 libaprutil1-dbd-sqlite3
  libaprutil1-ldap libaprutil1t64 liblua5.4-0 php php-common php-mysql php8.3 php8.3-cli php8.3-common php8.3-mysql php8.3-opcache
  php8.3-readline ssl-cert
```

12. cd /tmp

```
root@ip-172-31-23-126:/home/ubuntu# cd /tmp/
root@ip-172-31-23-126:/tmp# wget https://wordpress.org/latest.tar.gz
https://wordpress.org/latest.tar.gz: Unsupported scheme.
root@ip-172-31-23-126:/tmp# wget https://wordpress.org/latest.tar.gz
--2024-08-06 07:30:11-- https://wordpress.org/latest.tar.gz
Resolving wordpress.org (wordpress.org)... 198.143.164.252
Connecting to wordpress.org (wordpress.org)|198.143.164.252|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 24637199 (23M) [application/octet-stream]
Saving to: 'latest.tar.gz'

latest.tar.gz           100%[=====>] 23.50M  23.7MB/s   in 1.0s

2024-08-06 07:30:12 (23.7 MB/s) - 'latest.tar.gz' saved [24637199/24637199]

root@ip-172-31-23-126:/tmp# tar -xvf latest.tar.gz
```

13. wget <https://wordpress.org/latest.tar.gz>

```
root@ip-172-31-23-126:/home/ubuntu# cd /tmp/
root@ip-172-31-23-126:/tmp# wget https://wordpress.org/latest.tar.gz
https://wordpress.org/latest.tar.gz: Unsupported scheme.
root@ip-172-31-23-126:/tmp# wget https://wordpress.org/latest.tar.gz
--2024-08-06 07:30:11-- https://wordpress.org/latest.tar.gz
Resolving wordpress.org (wordpress.org)... 198.143.164.252
Connecting to wordpress.org (wordpress.org)|198.143.164.252|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 24637199 (23M) [application/octet-stream]
Saving to: 'latest.tar.gz'

latest.tar.gz           100%[=====>] 23.50M  23.7MB/s   in 1.0s

2024-08-06 07:30:12 (23.7 MB/s) - 'latest.tar.gz' saved [24637199/24637199]

root@ip-172-31-23-126:/tmp# tar -xvf latest.tar.gz
```

14. tar -xvf latest.tar.gz

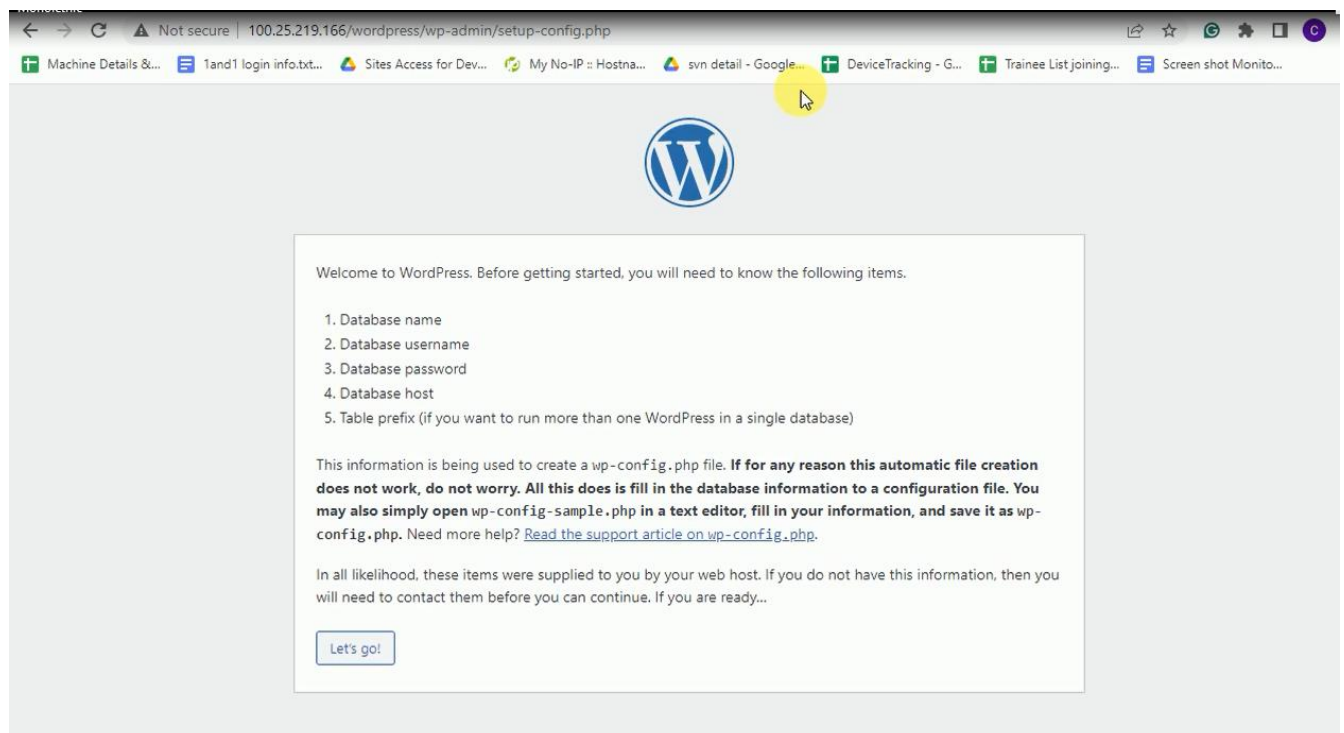
15. mv wordpress /var/www/html

16. `chown -R www-data:www-data /var/www/html/wordpress`
17. `chmod -R 755 /var/www/html/wordpress`
18. `cd /var/www/html`
19. `ls`
20. `sudo systemctl status apache2`
21. `sudo systemctl restart apache2`

```
root@ip-172-31-23-126:/tmp# mv /wordpress /var/www/html/
mv: cannot stat '/wordpress': No such file or directory
root@ip-172-31-23-126:/tmp# mv wordpress /var/www/html/
root@ip-172-31-23-126:/tmp# chmod -R 777 /var/www/html/wordpress/
root@ip-172-31-23-126:/tmp# cd /var/www/html/
root@ip-172-31-23-126:/var/www/html# ls
index.html
root@ip-172-31-23-126:/var/www/html# sudo systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/apache2.service; enabled; preset: enabled)
   Active: active (running) since Tue 2024-08-06 07:28:55 UTC; 3min 54s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Process: 21964 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
  Main PID: 21968 (apache2)
    Tasks: 6 (limit: 1130)
   Memory: 10.8M (peak: 11.1M)
      CPU: 61ms
   CGroup: /system.slice/apache2.service
           └─21968 /usr/sbin/apache2 -k start
             └─21971 /usr/sbin/apache2 -k start
               └─21972 /usr/sbin/apache2 -k start
                 └─21973 /usr/sbin/apache2 -k start
                   └─21974 /usr/sbin/apache2 -k start
                     └─21975 /usr/sbin/apache2 -k start

Aug 06 07:28:55 ip-172-31-23-126 systemd[1]: Starting apache2.service - The Apache HTTP Server...
Aug 06 07:28:55 ip-172-31-23-126 systemd[1]: Started apache2.service - The Apache HTTP Server.
root@ip-172-31-23-126:/var/www/html# sudo systemctl restart apache2
root@ip-172-31-23-126:/var/www/html#
```

After successfully installed we are trying to login wordpress page using server public ip





Below you should enter your database connection details. If you are not sure about these, contact your host.

Database Name
The name of the database you want to use with WordPress.

Username
Your database username.

Password [Hide](#)
Your database password.

Database Host
You should be able to get this info from your web host, if localhost does not work.

Table Prefix
If you want to run multiple WordPress installations in a single database, change this.

[Submit](#)



All right, sparky! You've made it through this part of the installation. WordPress can now communicate with your database. If you are ready, time now to...

[Run the installation](#)



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](#)
Weak

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

Confirm Password ☒ Confirm use of weak password

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.

← → ↻ ⚠ Not secure | 100.25.219.166/wordpress/wp-admin/install.php?step=2

Machine Details &... 1and1 login info.txt... Sites Access for Dev... My No-IP :: Hostna... svn detail - Google...




Success!

WordPress has been installed. Thank you, and enjoy!

Username wordpress

Password Your chosen password.



 Save password?

Username


Password [Hide](#)

[Save](#) [Never](#)

You can use saved passwords on any device. They're saved to [Google Password Manager](#) for mchirag.narola@gmail.com.

← → ↻ ⚠ Not secure | 100.25.219.166/wordpress/wp-login.php 🔑 📄 ☆ 🗨 🛠 📱 🌐

Machine Details &... 1and1 login info.txt... Sites Access for Dev... My No-IP :: Hostna... svn detail - Google... DeviceTracking - G... Trainee List joining... Screen shot Monito...



Username or Email Address

wordpress

Password

••••••••••

☐ Remember Me


Log In

Lost your password?

→ Go to Welcome to the techplement

← → ↻ ⚠ Not secure | 100.25.219.166/wordpress/wp-admin/edit.php?post_type=page 🔑 📄 ☆ 🗨 🛠 📱 🌐

Machine Details &... 1and1 login info.txt... Sites Access for Dev... My No-IP :: Hostna... svn detail - Google... DeviceTracking - G... Trainee List joining... Screen shot Monito... »

 Welcome to the techplement 0 + New

Howdy, wordpress

Dashboard

Posts

Media

Pages

All Pages

Add New Page

Comments

Appearance

Plugins

Users

Tools

Settings

Collapse menu

Pages

Add New Page

All (2) | Published (1) | Draft (1)

Bulk actions

Apply

All dates

Filter

☐

Title

Author

🗨

Date

☐

Privacy Policy — Draft, Privacy Policy Page

wordpress

—

Last Modified
2024/08/06 at 7:34 am

☒

Sample Page

wordpress

—

Published
2024/08/06 at 7:34 am

☐

Title

Author

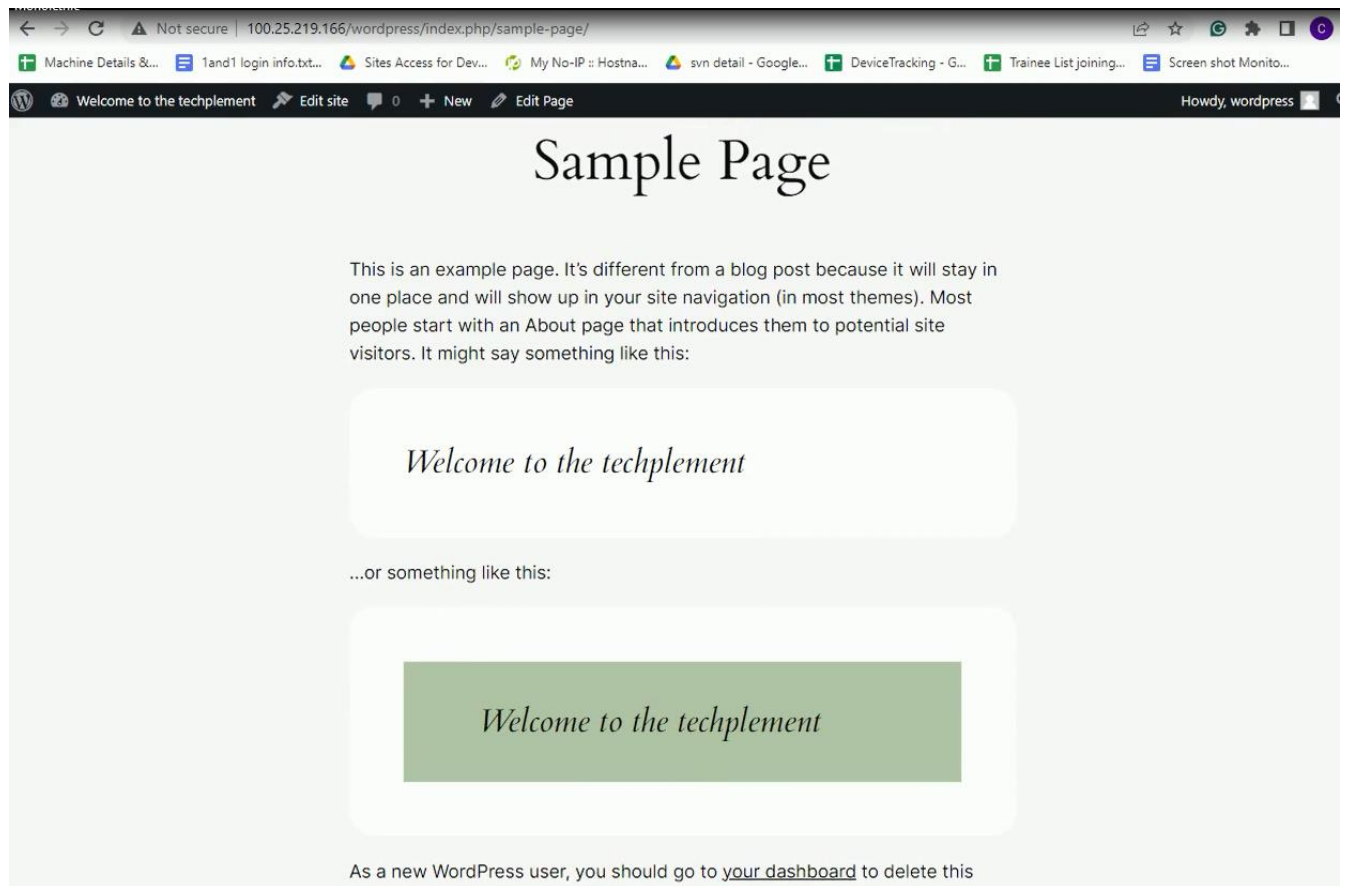
🗨

Date

Bulk actions

Apply

2 items



□ Reference Sources

1. [amazon.com - Tutorial: Deploy WordPress to an Amazon EC2 instance](https://aws.amazon.com/getting-started/tutorials/deploy-wordpress-on-aws/)
2. [awstip.com - Deploying WordPress on AWS EC2: A Beginner's Guide](https://www.awstip.com/deploying-wordpress-on-aws-ec2-a-beginners-guide/)
3. <https://www.linkedin.com/pulse/setting-up-wordpress-mysql-two-different-ec2-mohit-agarwal>