Task: Deploy application in monolithic and microservices architecture

❖ Description:

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For monolithic : 1 EC2 instance, deploy wordpress and MYSQL on the same instances

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For microservices: 2 EC2 instance, 1 for wordpress and 1 for MYSQL

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Configure the necessary security group for the instances

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EC2 instance type: t2-micro, AMI: ubuntu-*

➢ For Monolithic :-

Launched one instance using AWS EC2 Service with Ubuntu-22.04 image and instance type t2.micro.

Deployment of WordPress and database will be in same instance.

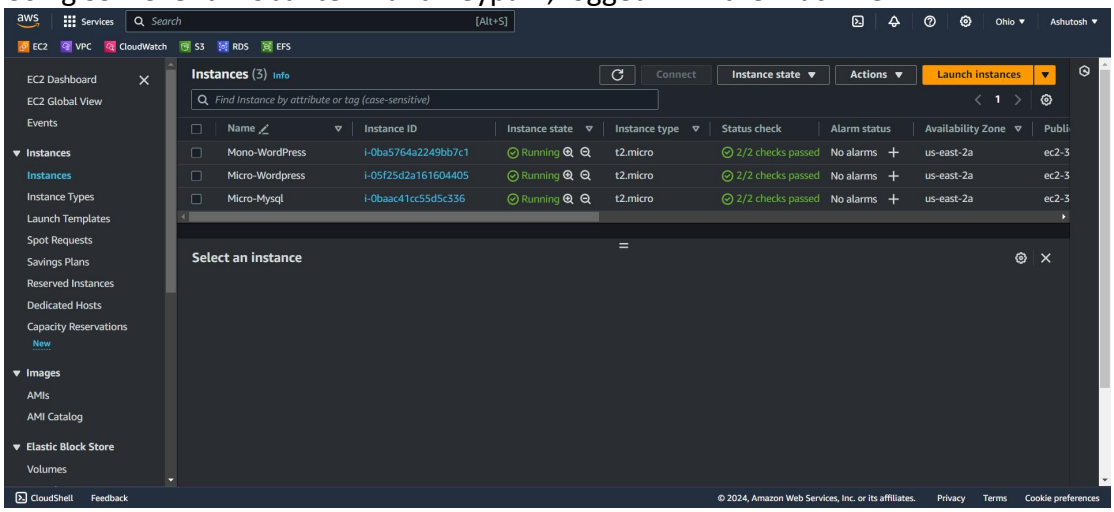
Using SSH Client MobaXterm and Keypair , logged-in in the machine.

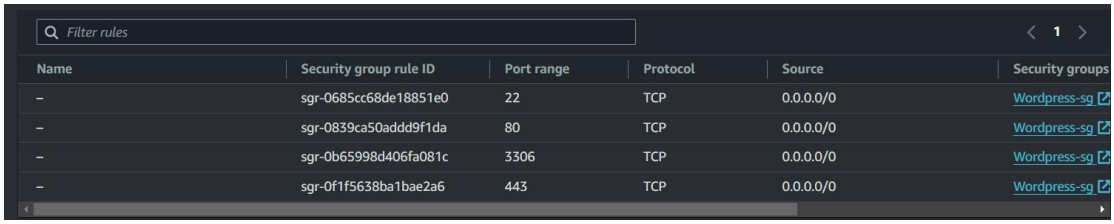
➢ For Microservice :-

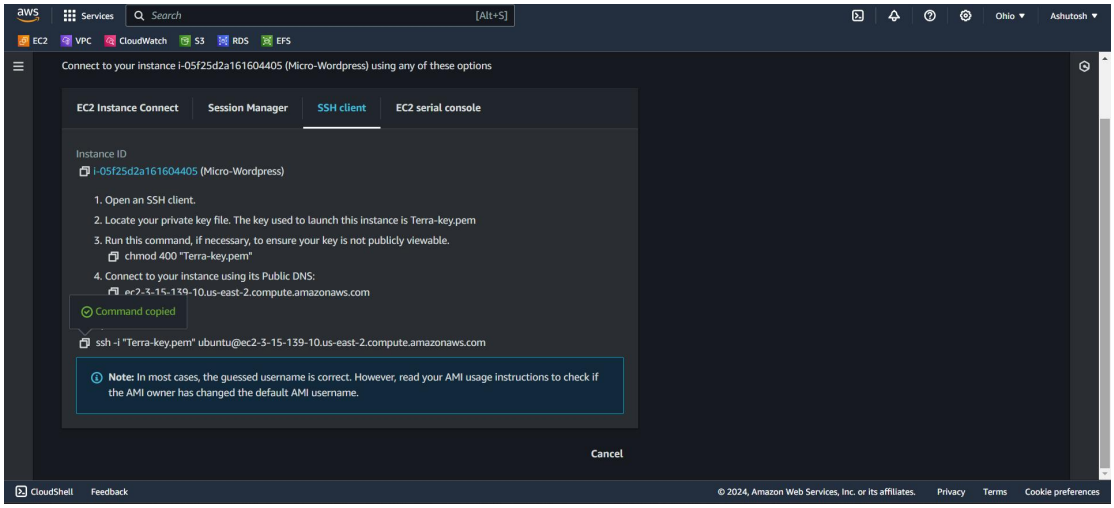
Launched two instances using AWS EC2 Service with Ubuntu-22.04 image and instance type t2.micro.

One for WordPress deployment and other for mysql database.

Using SSH Client MobaXterm and Keypair , logged-in in the machine







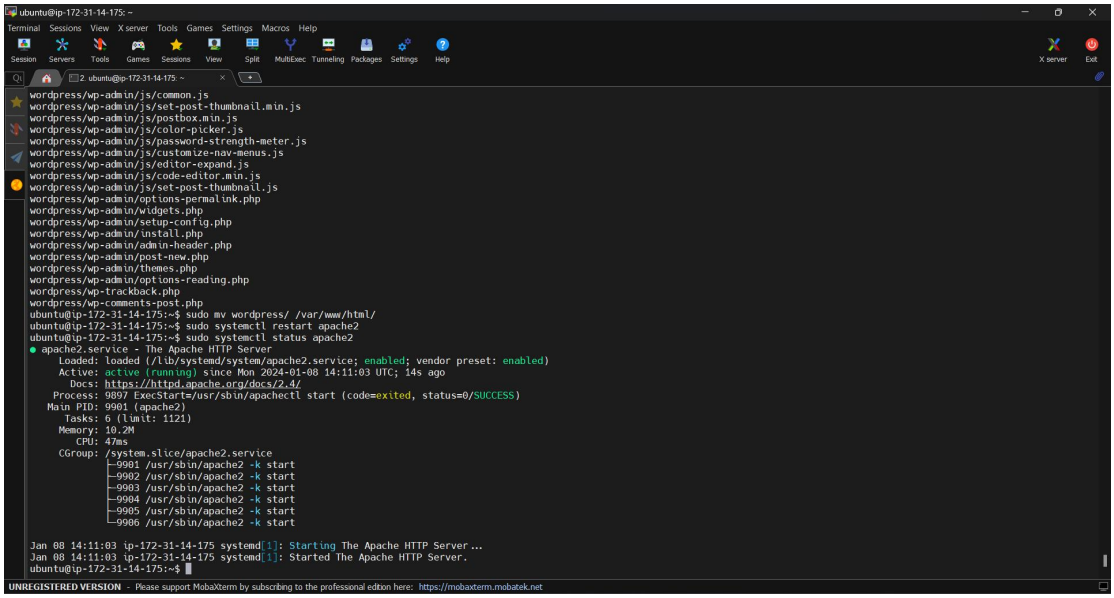
◆ Commands for Setup of Apache2 and PHP:-

- Install Apache server on Ubuntu

```
sudo apt install apache2
```

- Install php runtime and php mysql connector

```
sudo apt install php libapache2-mod-php php-mysql
```



◆ Commands to download and move wordpress file in apache:-

- Download wordpress

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

- Unzip

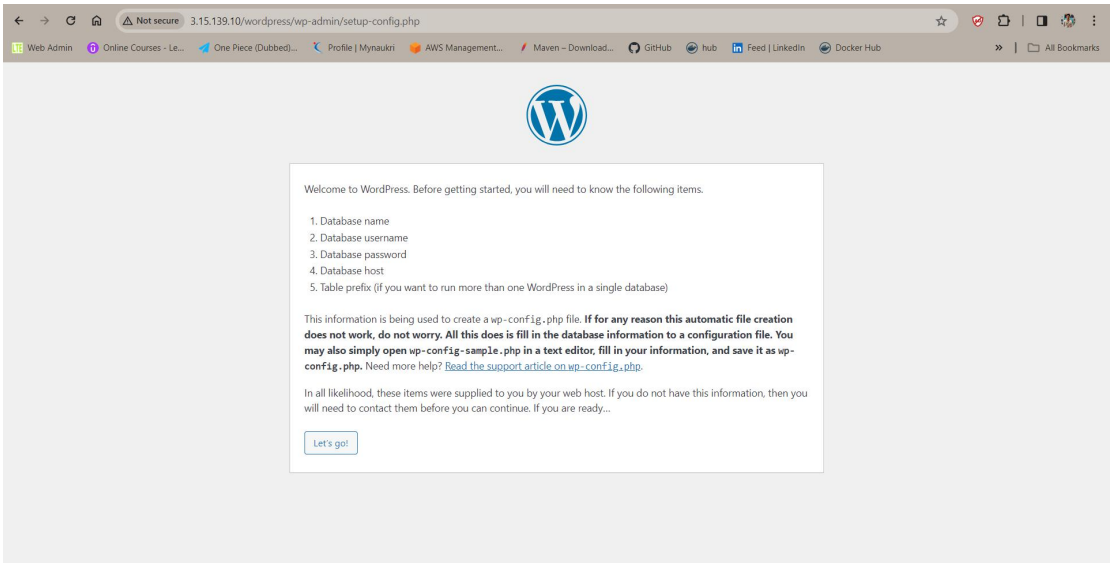
tar -xvf latest.tar.gz

- Move wordpress folder to apache document root

sudo mv wordpress/ /var/www/html

- Command to restart/reload apache server

sudo systemctl restart apache2



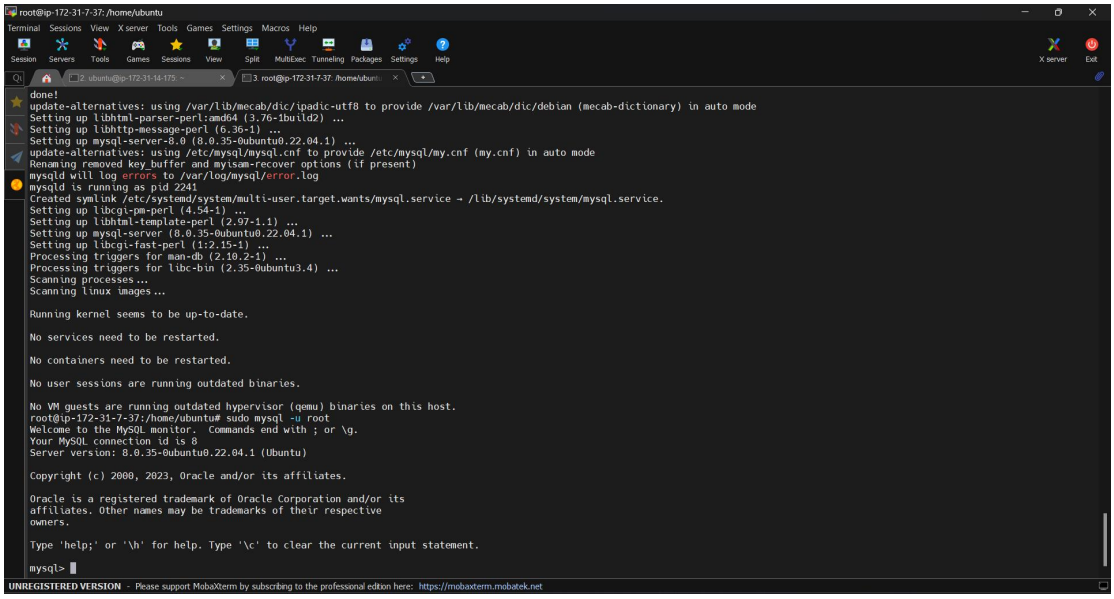
◆ Commands to install and configure Mysql:-

- Install MySQL server

sudo apt install mysql-server

- Login to MySQL server

sudo mysql -u root



- Change authentication plugin to mysql_native_password (change the password to something strong)

ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password by 'Testpassword@123';

- Create a new database user for wordpress (change the password to something strong)

CREATE USER 'wp_user'@localhost IDENTIFIED BY 'Testpassword@123';

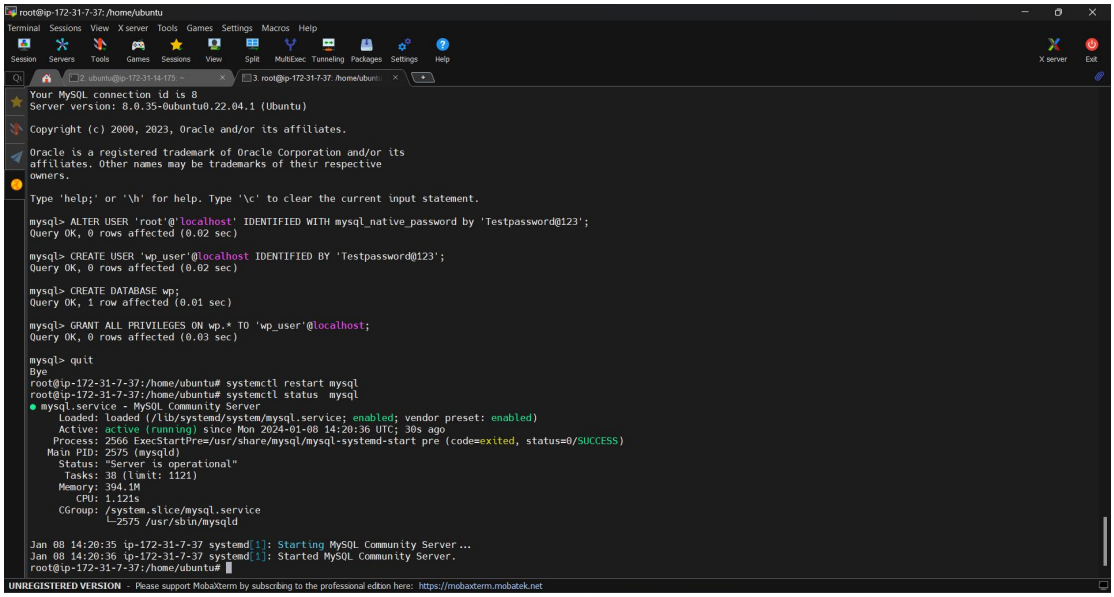
- Create a database for wordpress

CREATE DATABASE wp;

- Grant all privilges on the database 'wp' to the newly created user

GRANT ALL PRIVILEGES ON wp.* TO 'wp_user'@localhost;

■ Change the Username, Password and Database name accordingly.


root@ip-172-31-7-37: /home/ubuntu
Your MySQL connection id is 8
Server version: 8.0.35-0ubuntu0.22.04.1 (Ubuntu)
Copyright (c) 2000, 2023, Oracle and/or its affiliates.
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> ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password by 'Testpassword@123';
Query OK, 0 rows affected (0.02 sec)
mysql> CREATE USER 'wp_user'@localhost IDENTIFIED BY 'Testpassword@123';
Query OK, 0 rows affected (0.02 sec)
mysql> CREATE DATABASE wp;
Query OK, 1 row affected (0.01 sec)
mysql> GRANT ALL PRIVILEGES ON wp.* TO 'wp_user'@localhost;
Query OK, 0 rows affected (0.03 sec)
mysql> quit
Bye
root@ip-172-31-7-37:/home/ubuntu# systemctl restart mysql
root@ip-172-31-7-37:/home/ubuntu# systemctl status mysql
mysql.service - MySQL Community Server
Loaded: loaded (/lib/systemd/system/mysql.service; enabled; vendor preset: enabled)
Active: active (running) since Mon 2024-01-08 14:20:36 UTC; 30s ago
Process: 2566 ExecStartPre=/usr/share/mysql/mysql-systemd-start pre (code=exited, status=0/SUCCESS)
Main PID: 2575 (mysqld)
Status: "Server is operational"
Tasks: 38 (limit: 1121)
Memory: 394.1M
CPU: 1.121s
CGroup: /system.slice/mysql.service
└2575 /usr/sbin/mysqld
Jan 08 14:20:35 ip-172-31-7-37 systemd[1]: Starting MySQL Community Server...
Jan 08 14:20:36 ip-172-31-7-37 systemd[1]: Started MySQL Community Server.
root@ip-172-31-7-37:/home/ubuntu#
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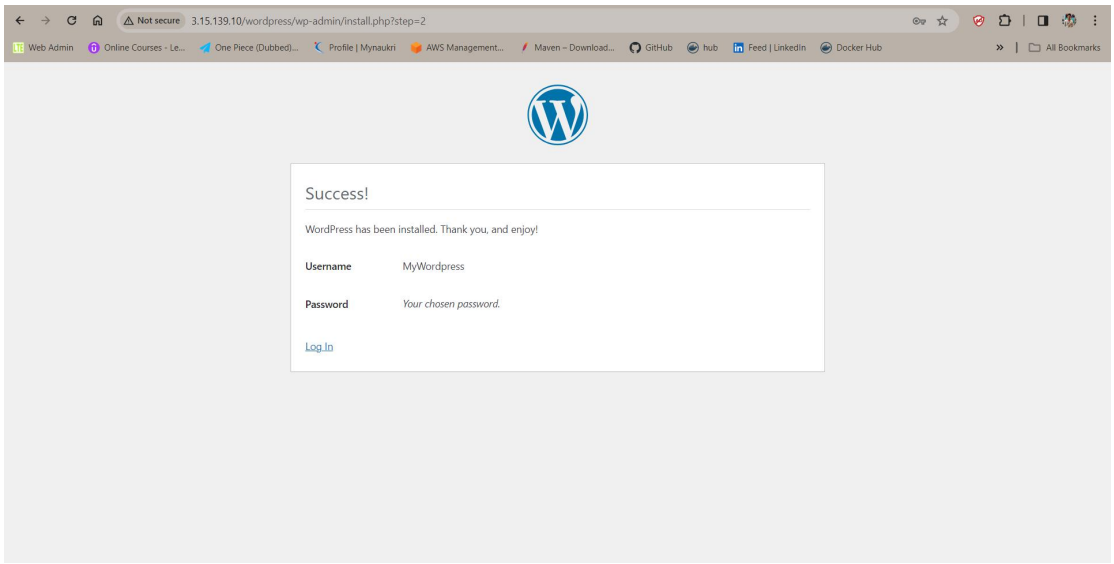
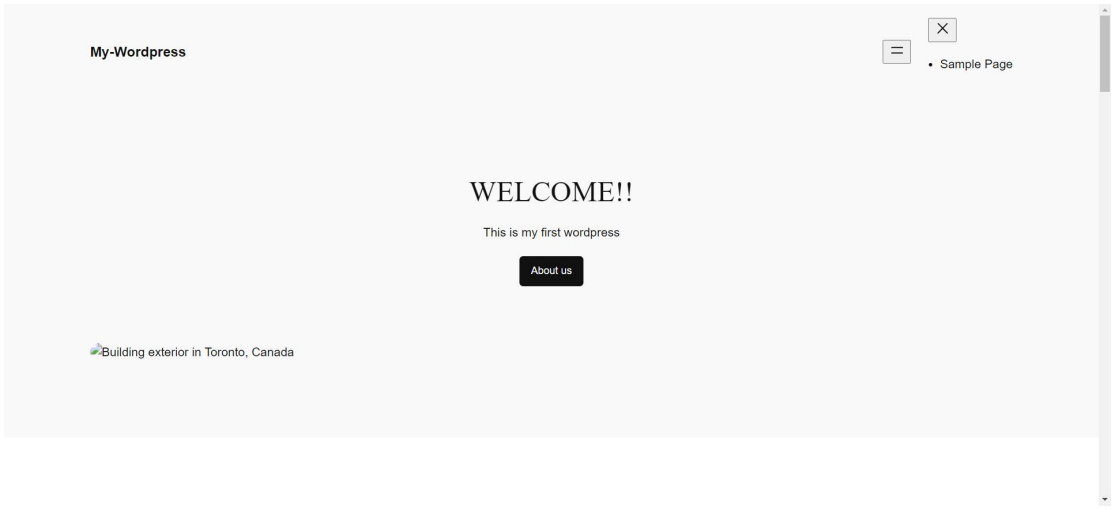

Not secure 3.15.139.10/wordpress/wp-admin/install.php?step=2
Success!
WordPress has been installed. Thank you, and enjoy!
Username MyWordpress
Password Your chosen password.
Log In


My-Wordpress
Sample Page
WELCOME!!
This is my first wordpress
About us
Building exterior in Toronto, Canada