REPORT

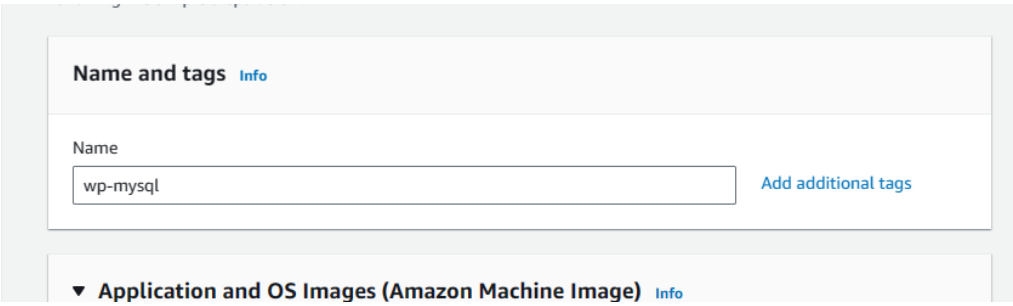
Monolithic Architecture:-

1.1 Create EC2 instance, deploy WordPress and MYSQL on the same instances

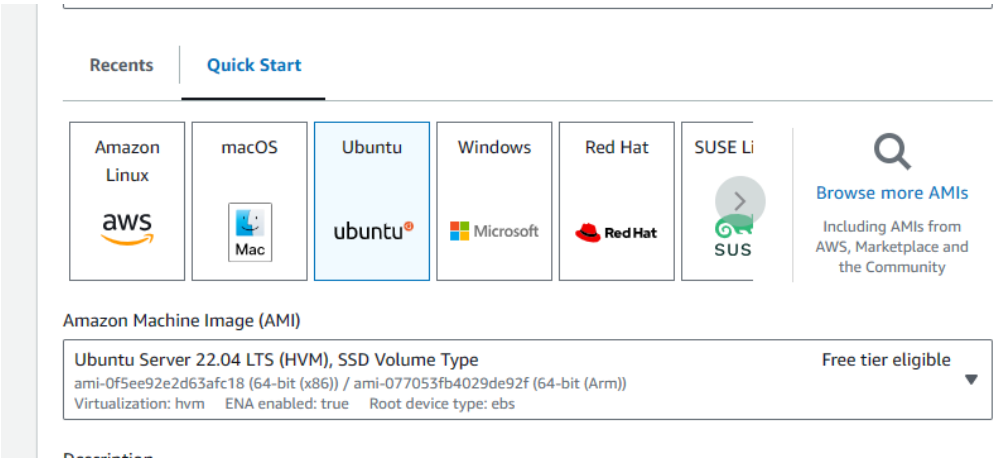
Step1: Create an Amazon ec2 free tier account https://console.aws.amazon.com

Step2: Go to EC2 Dashboard

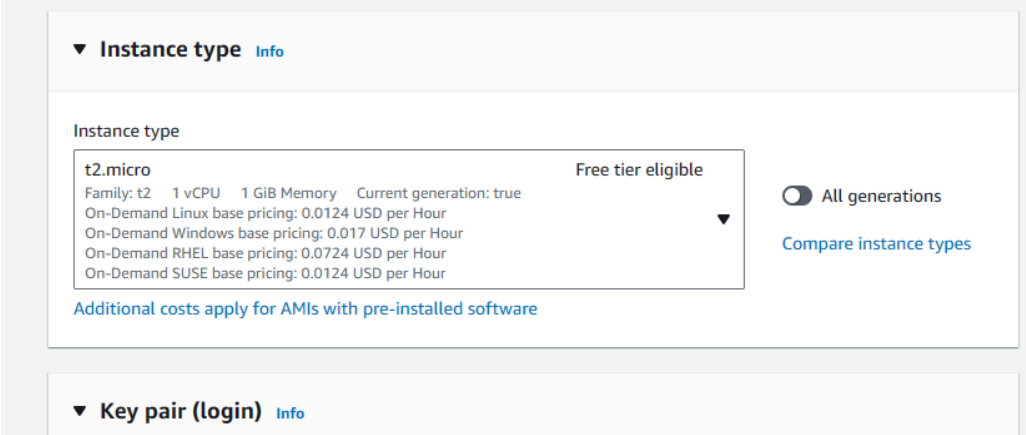
Step3: Launch t2.micro instance (Enter instance name and select linux image)



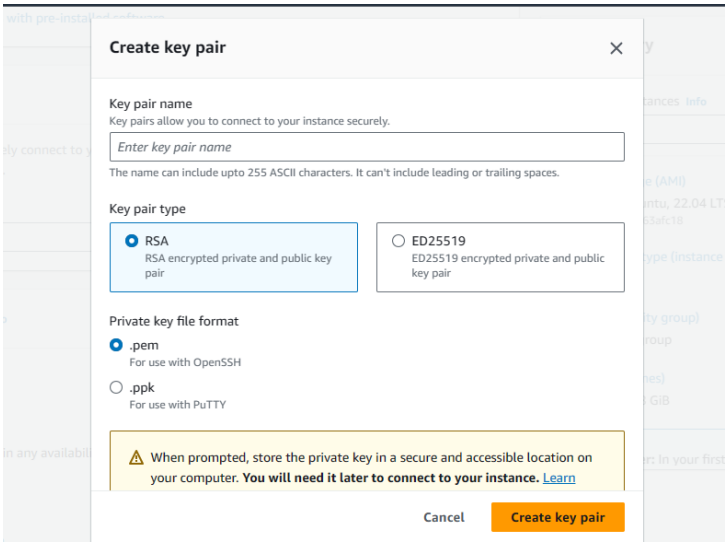
Linux Image:-



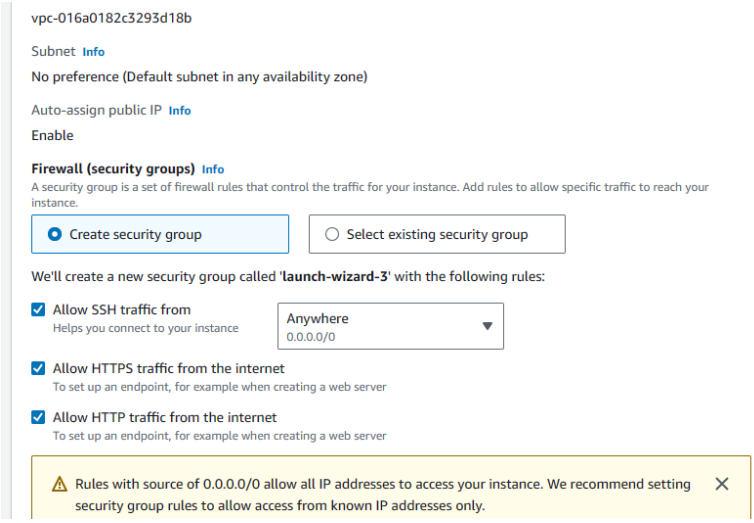
Step4: Make Sure the instance type is ec2 t2.micro



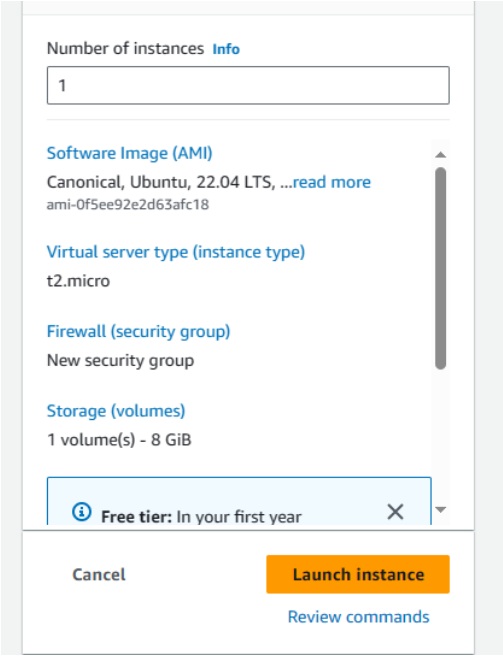
Step5: Create Private key



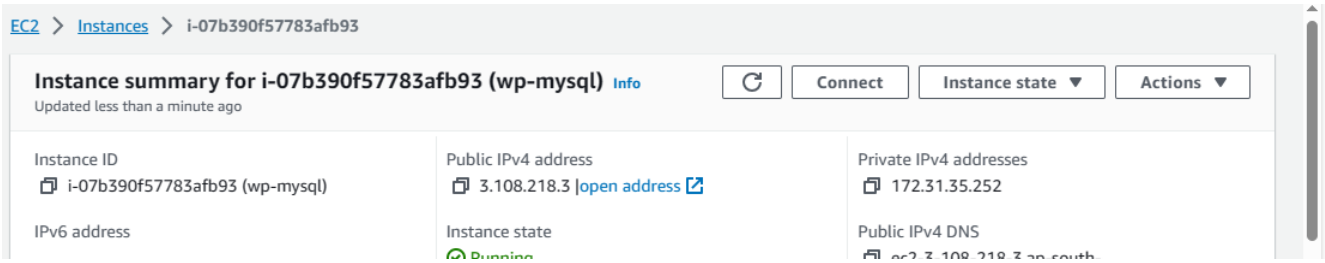
Step6: Create Security group with following rules



Step7: Review Instance and Launch



Step8: Go to Instances, select your instance id and click on connect on top right corner



1.2 Installing WordPress and MySQL on same instance

These are linux terminal command to install packages in machine

Step1: apt update –y

Step2: apt upgrade –y

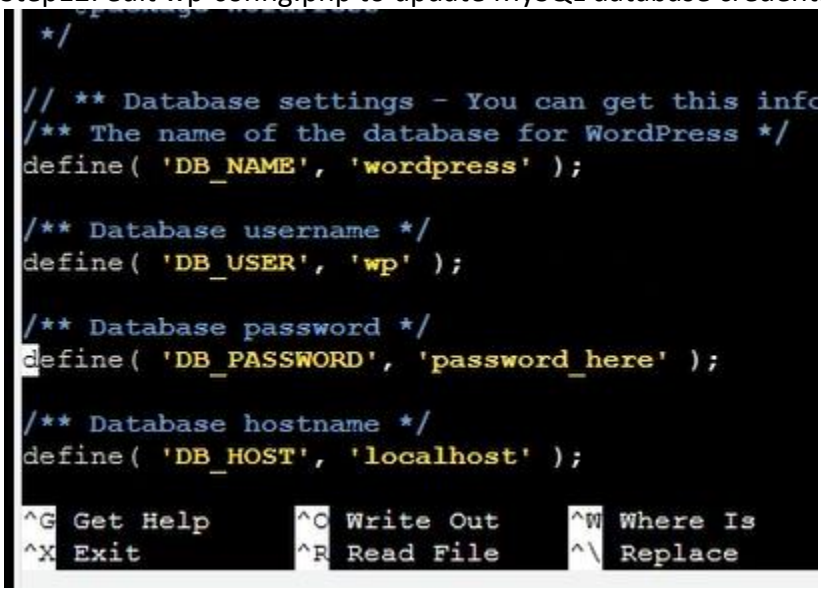
Step3: To install PHP and Apache, use following command:

```
sudo apt install apache2 \
        ghostscript \
        libapache2-mod-php \
        mysql-server \
        php \
        php-bcmath \
        php-curl \
        php-imagick \
        php-intl \
        php-json \
        php-mbstring \
        php-mysql \
        php-xml \
        php-zip –y
```

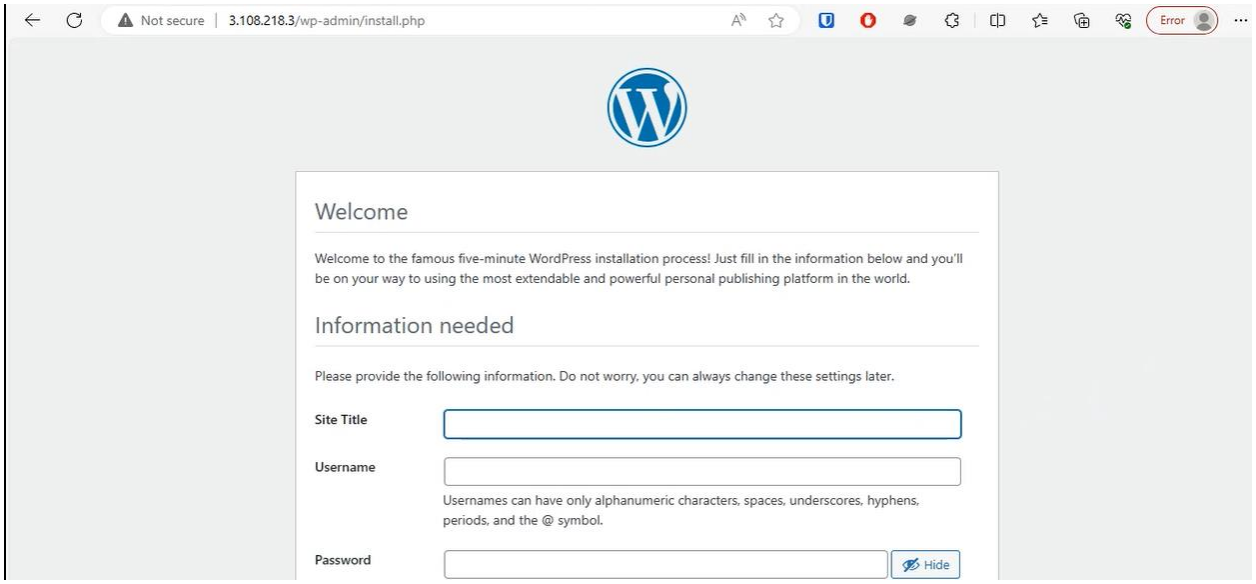
Step4: cd /var/www/html/
Step5: rm index.html
Step6: wget https://wordpress.org/latest.tar.gz
Step7: tar xvzf latest.tar.gz && mv wordpress/* .
Step8: rm latest.tar.gz
Step9: chown www-data:www-data /var/www/html
Step10: mv wp-config-sample.php wp-config.php
Step11: Configure Mysql Database
To configure WordPress, we need to create MySQL database. Let's do it!

```
sudo mysql -u root
mysql> CREATE DATABASE wordpress;
mysql> CREATE USER wordpress@localhost IDENTIFIED BY '<your-password>';
mysql> GRANT SELECT,INSERT,UPDATE,DELETE,CREATE,DROP,ALTER
   -> ON wordpress.*
   -> TO wordpress@localhost;
mysql> FLUSH PRIVILEGES;
mysql> quit
```

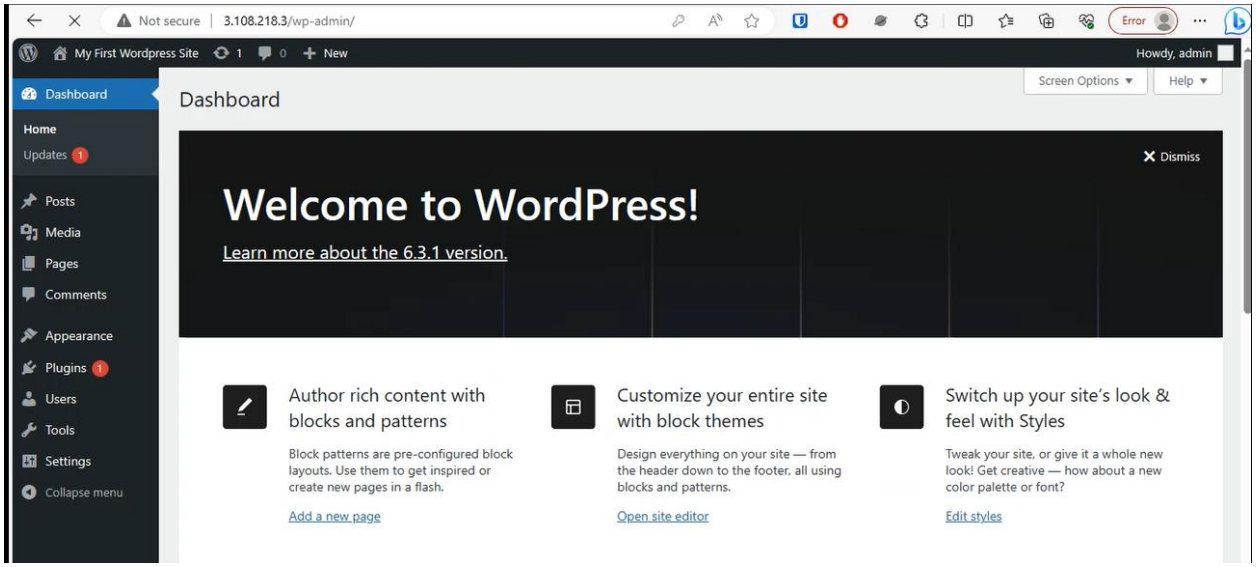
Step12: edit wp-config.php to update MySQL database credentials



Step13: Go to http://your-server-ip



Step14: Setup Wordpress and Click on Install



Successfully Installed Wordpress and MySQL Server on same instance.

Microservices

2.1 Create EC2 instance one for WordPress and one for MYSQL

Step1: Repeat 1.1 and create two instance with same type

Step2: Create instances with named as wp-server for wordpress server and another instance with names as mysql-server for remote mysql server.

2.2 Installing WordPress on Instance 1

Step1: apt update –y

Step2: apt upgrade –y

Step3: To install PHP and Apache, use following command:

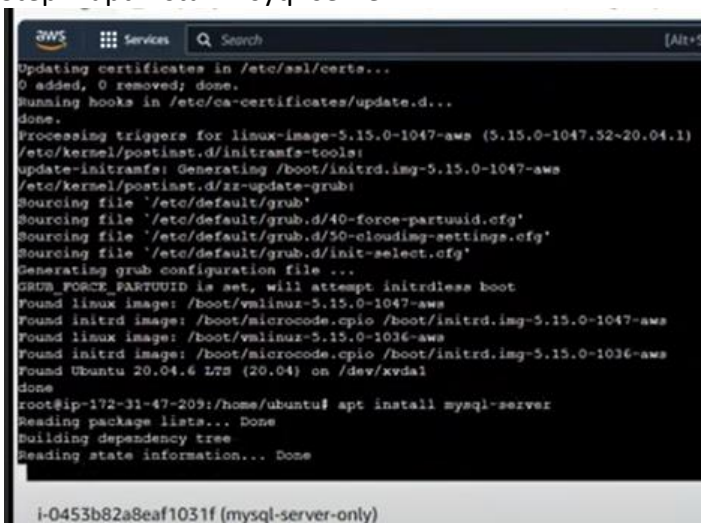
```
sudo apt install apache2 \
        ghostscript \
        libapache2-mod-php \
        php \
        php-bcmath \
        php-curl \
        php-imagick \
        php-intl \
        php-json \
        php-mbstring \
        php-mysql \
        php-xml \
        php-zip –y
```

Step4: cd /var/www/html/
Step5: rm index.html
Step6: wget https://wordpress.org/latest.tar.gz
Step7: tar xvzf latest.tar.gz && mv wordpress/* .
Step8: rm latest.tar.gz
Step9: chown www-data:www-data /var/www/html

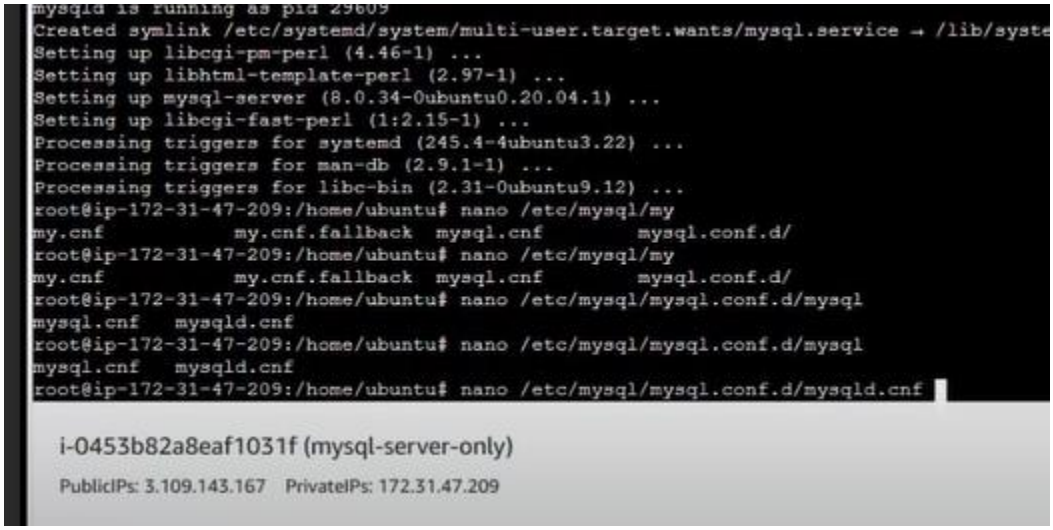
Successfully Installed WordPress

2.3 Installing Remote MySQL on Instance 2

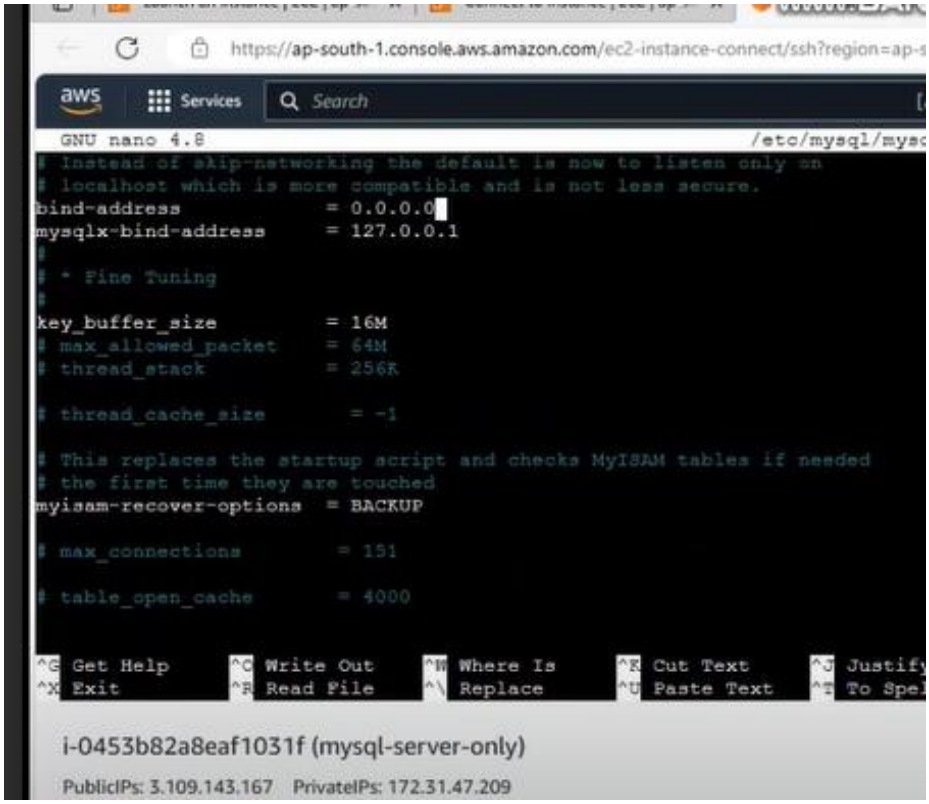
Step1: apt update –y && apt upgrade –y
Step2: apt install msyql-server



Step3: edit /etc/mysql/mysql.conf.d/mysqld.conf



Step4: Edit and update line **bind-address = 127.0.0.1** to **bind-address = 0.0.0.0**

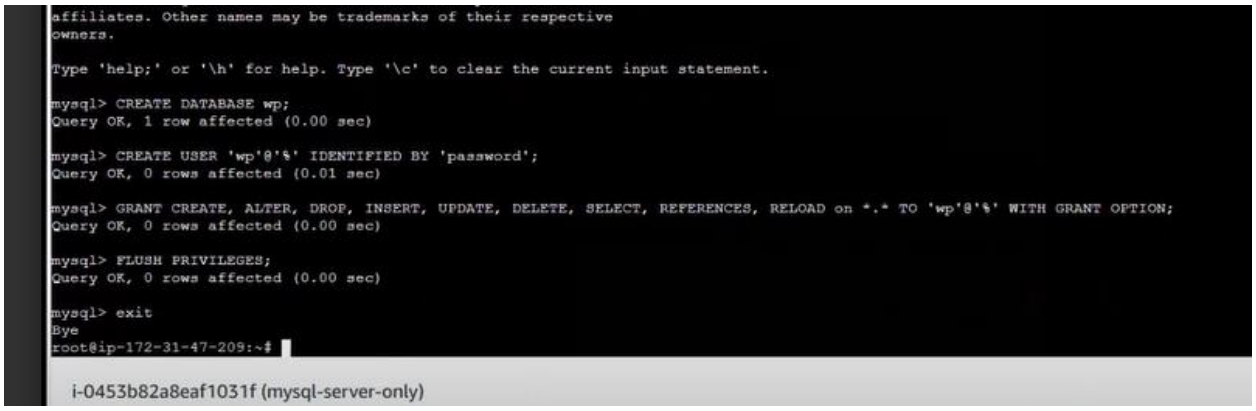


Step5: restart mysql server
Step6: service mysql restart

Step7: mysql_secure_installation

Step: Configure MySQL Database
To configure WordPress, we need to create MySQL database. Let's do it!

```
sudo mysql -u root
mysql> CREATE DATABASE wp;
mysql> CREATE USER wp@'%' IDENTIFIED BY 'password';
mysql> GRANT SELECT,INSERT,UPDATE,DELETE,CREATE,DROP,ALTER
   -> ON wp.*
   -> TO wp@'%';
mysql> FLUSH PRIVILEGES;
mysql> quit
```



Successfully configured MySQL server for remote login

COMPLETE VIDEO LINK:-
https://drive.google.com/file/d/1-F2q3P2i-8fo6MPMOnh2Z0OHVqSp2nOE/view?usp=sharing