

Report On

Deploy applications in monolithic and microservices architecture

Deployment of Monolithic Architecture

Prerequisites: Created free-tier Aws account

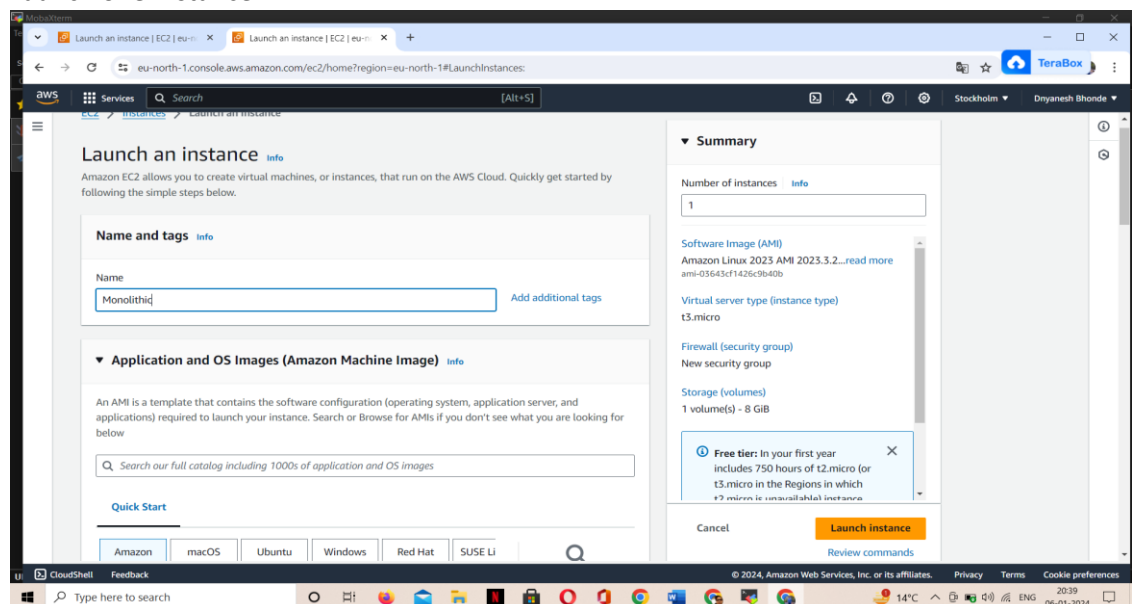
EC2 instance type: t3-micro, AMI: ubuntu-*

Step 1: Create an EC2 instance

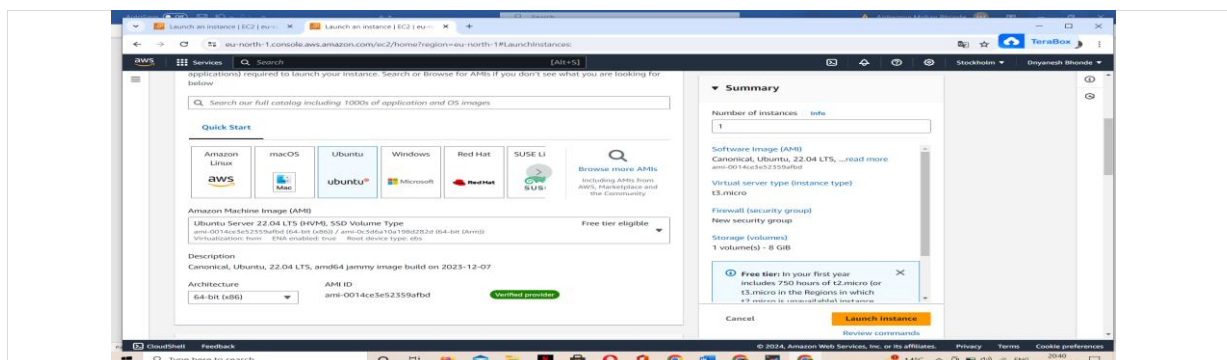
➤ Launch EC2 Instances:

Go to the Aws Management Console.

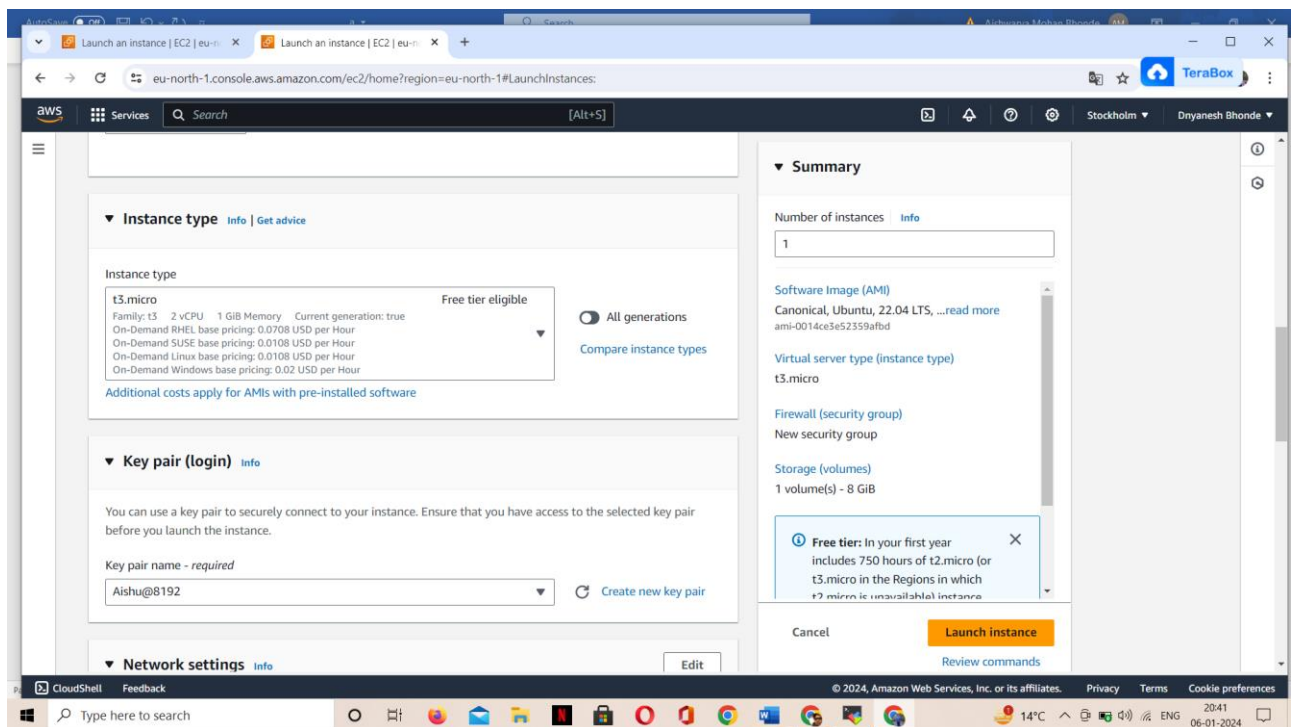
Launch one instance



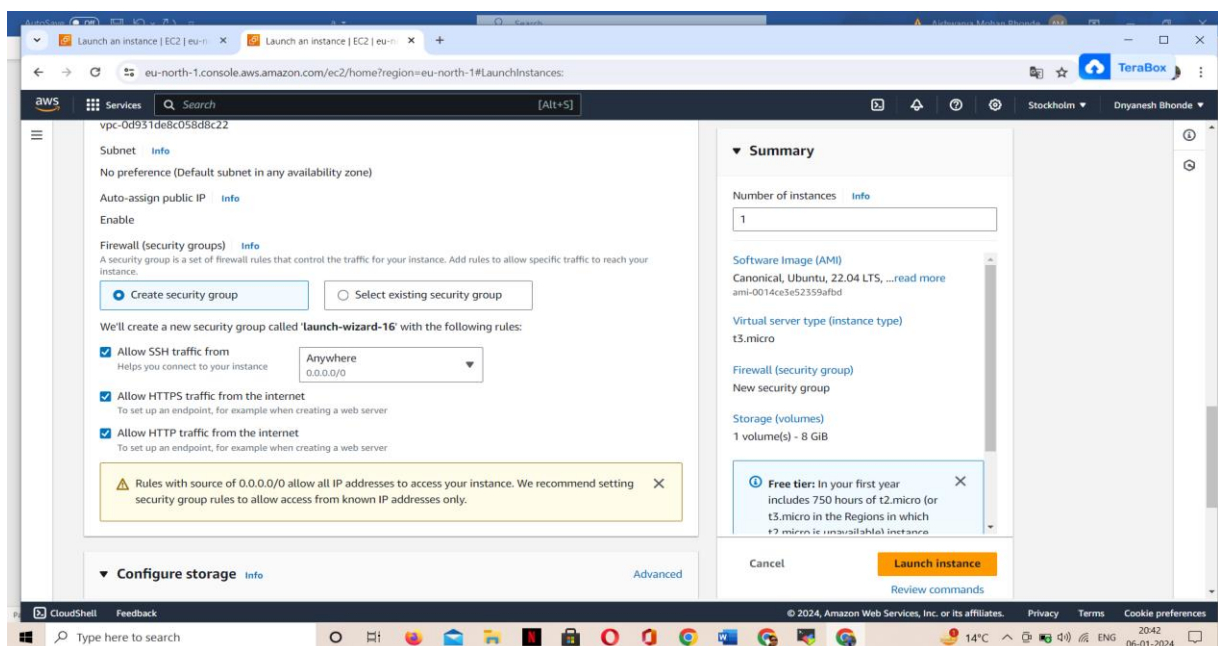
Select Ami: ubuntu



Select instance type:



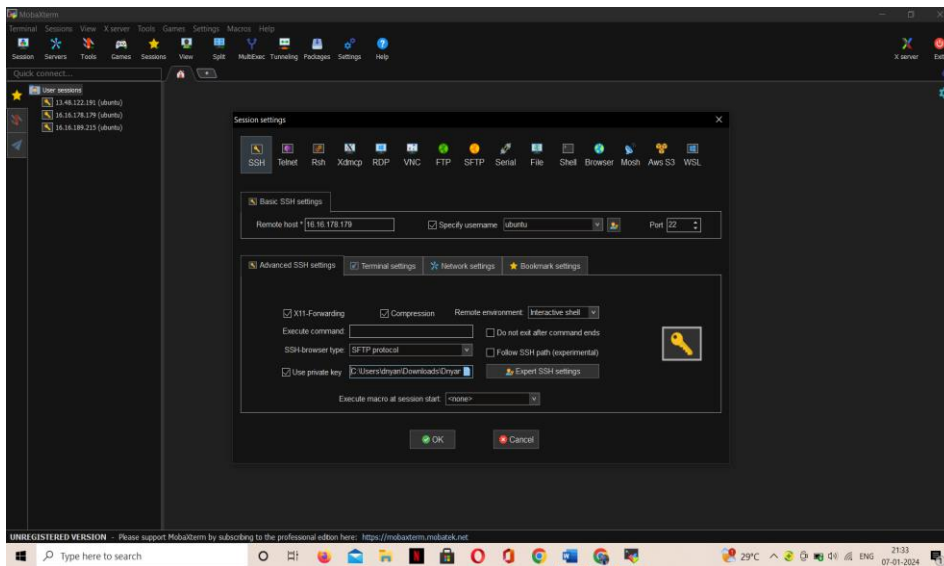
Configure Security Group:



Then Launch instances.

Step2: Connect to your EC2 instance

➤ Connect to your EC2 instance using SSH.



Step3: Install and Configure MySQL:

Update the system : `sudo apt update`

Install Mysql : `sudo apt install mysql-server`

Secure MySQL installation: `sudo mysql_secure_installation`

Create a MySQL database and user for WordPress.

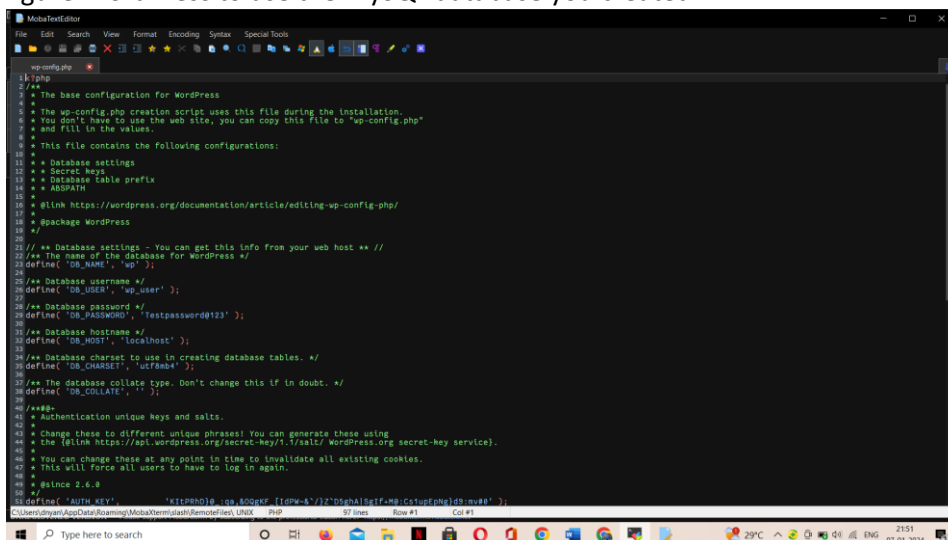
Step4: Install and configure wordpress:

Install Apache web server: `sudo apt install apache2`

Install PHP and required modules: `sudo apt install php libapache2-mod-php php-mysql`

Download and extract WordPress: `wget https://wordpress.org/latest.tar.gz && tar -zxvf latest.tar.gz -C /var/www/html/`

Configure WordPress to use the MySQL database you created.



Step5: Configure Apache for WordPress:

Enable Apache rewrite module: `sudo a2enmod rewrite`

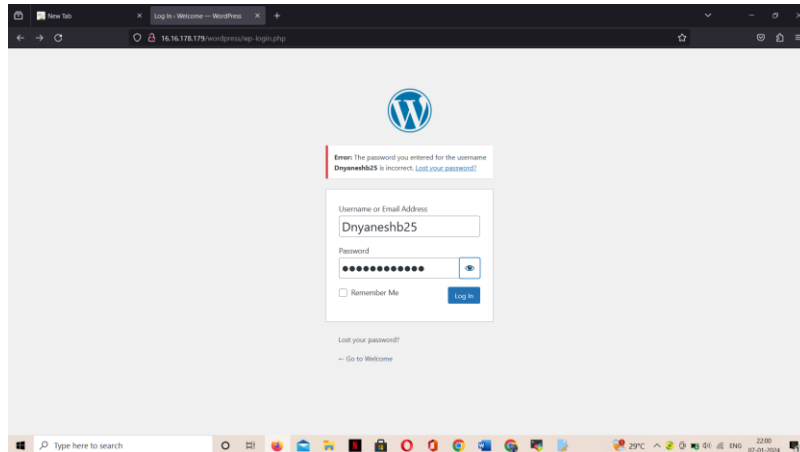
Configure Apache to allow .htaccess overrides: Edit the Apache config file: `sudo nano /etc/apache2/sites-available/000-default.conf`

Add the following inside the <VirtualHost> block:

Restart Apache: `sudo service apache2 restart`.

Step6: Create a Welcome Page:

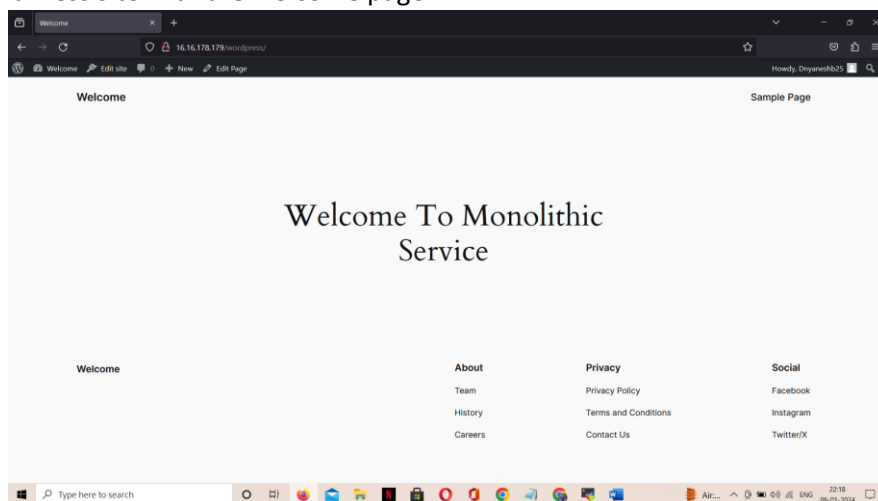
- Log in to the WordPress admin panel and create a new page that will serve as your homepage.



- Set this page as the homepage in WordPress settings

Step7: Access WordPress:

- Open your web browser and navigate to the public IP of your EC2 instance. You should see your WordPress site with the welcome page.



Deployment of Microservice Architecture

Prerequisites: Created free-tier Aws account

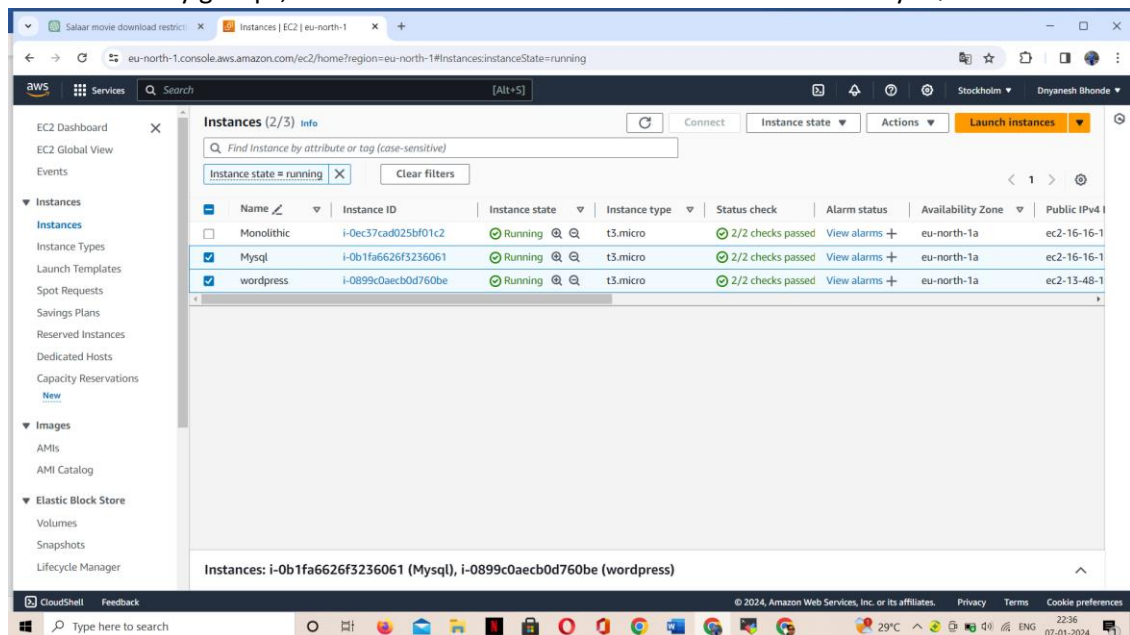
EC2 instance type: t3-micro, AMI: ubuntu-*

Step1: EC2 Instance Setup:

- Launch two EC2 instances using the t3-micro instance type with the Ubuntu AMI.
One for Wordpress and other for Mysql

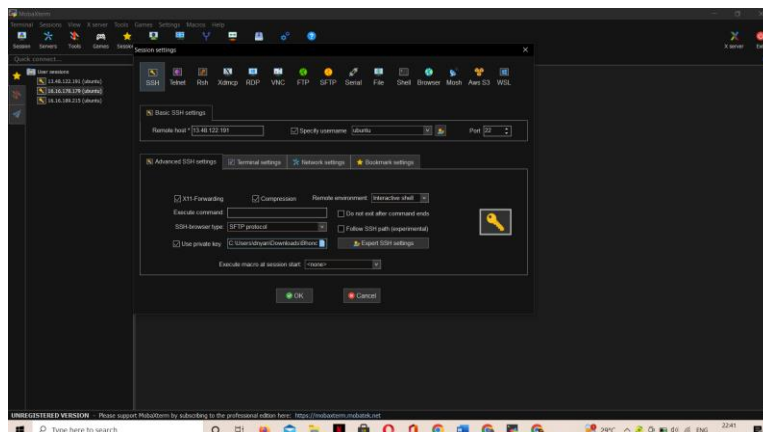
Step2: Security Groups:

- Create two security groups, one for the WordPress instance and one for the MySQL instance.



Step3: WordPress Instance:

- Connect to the WordPress Instance using SSH:



- Install Apache, PHP, and WordPress using the command:
sudo apt update

```
sudo apt install apache2 php php-mysql mysql-client
sudo systemctl enable apache2
sudo systemctl start apache2
Download and configure WordPress
wget https://wordpress.org/latest.tar.gz
tar -zxvf latest.tar.gz
sudo mv wordpress/* /var/www/html
```

➤ Create a MySQL Database for WordPress:

```
CREATE DATABASE wordpress;
```

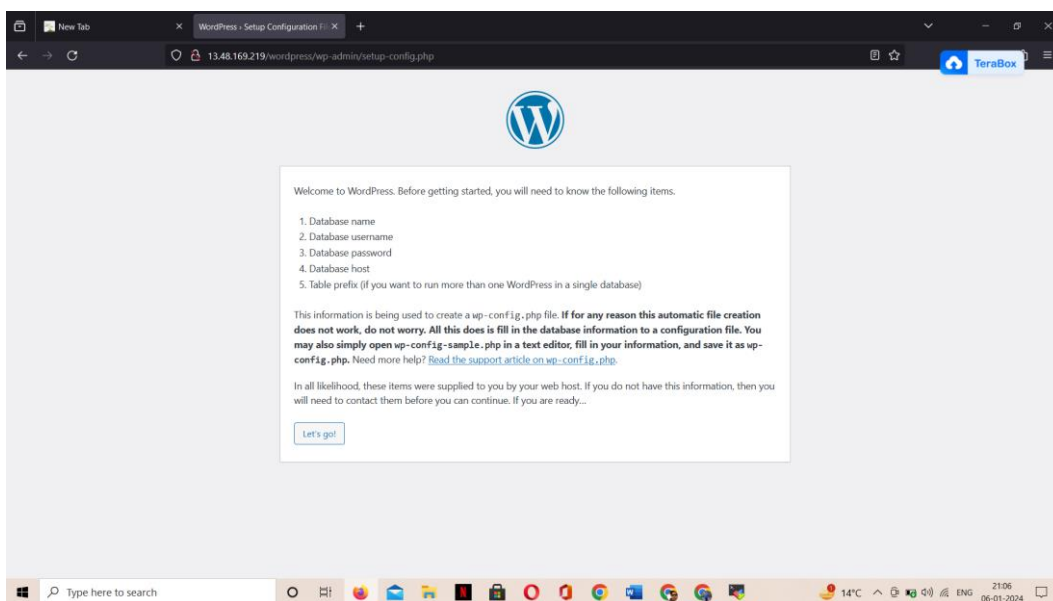
```
CREATE USER 'Dnyanesh'@'%' IDENTIFIED BY 'DnyaneshBhonde';
```

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

➤ Configure WordPress:

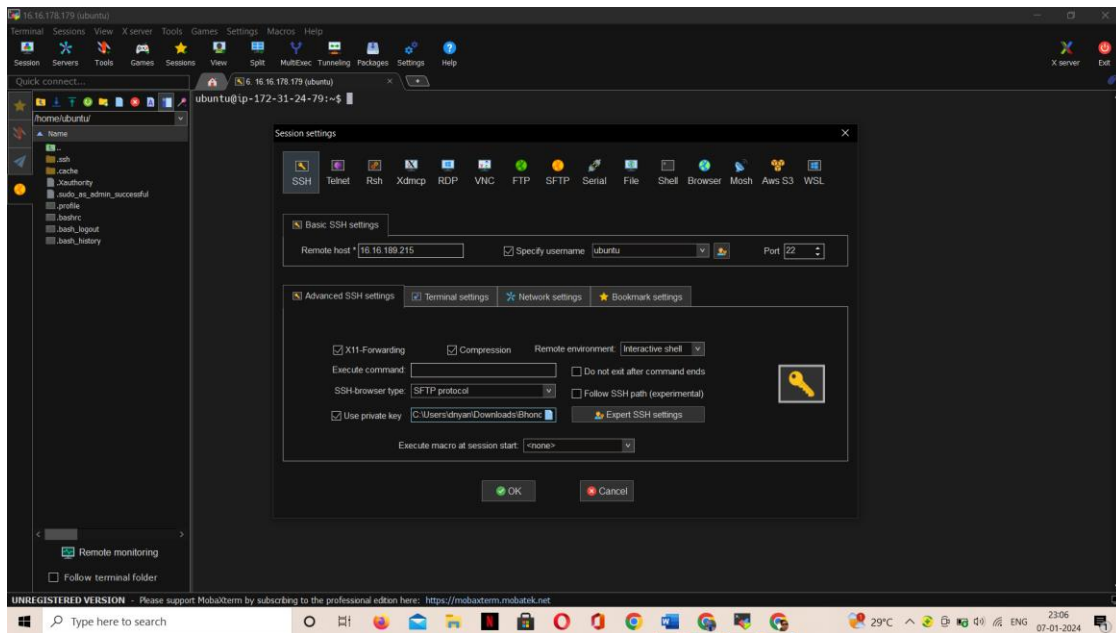
Open a web browser and navigate to the public IP of your WordPress.

Follow the WordPress installation process, providing the database information created in the Previous step.

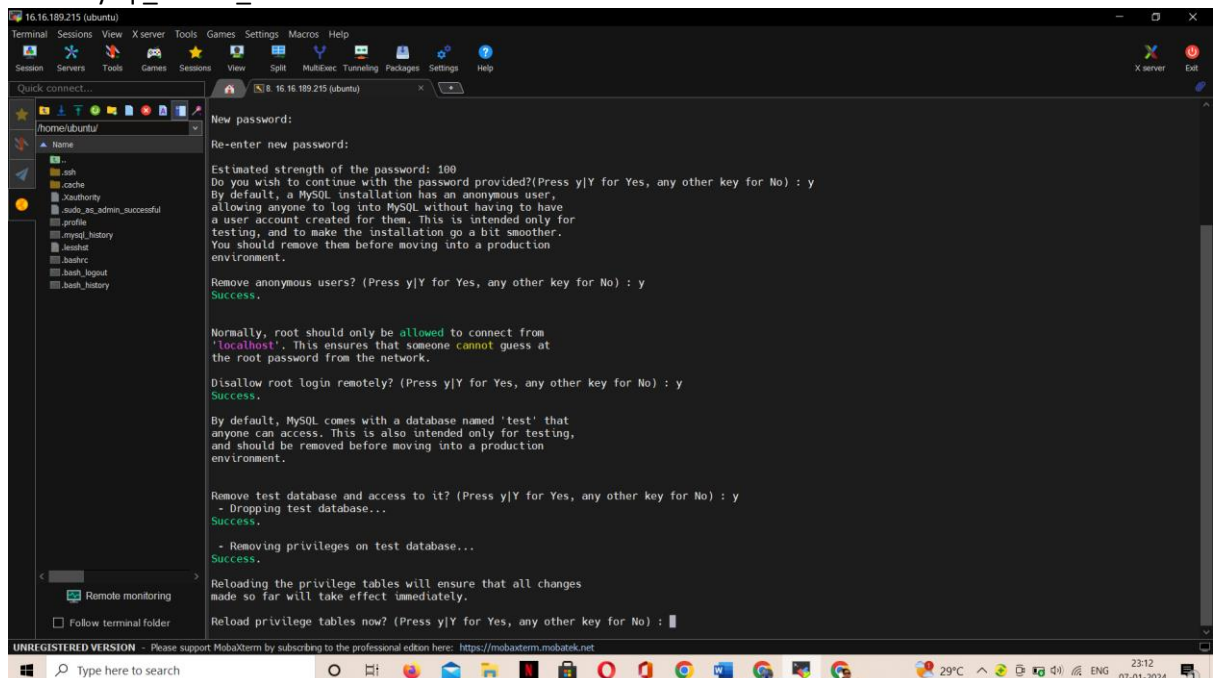


Step3: MySQL Instance:

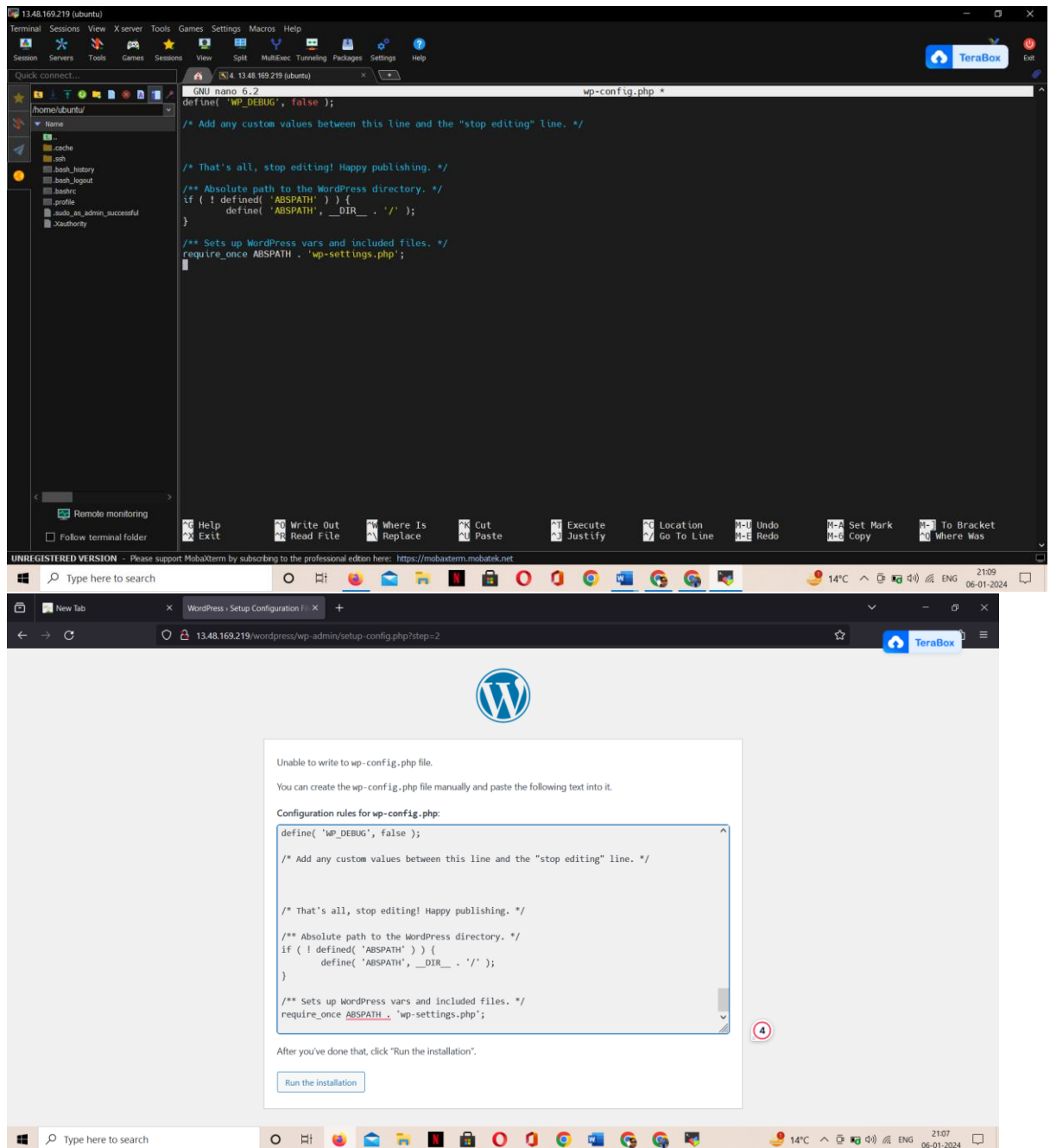
➤ Connect to the MySQL Instance:



- Install MySQL Server using command:
`sudo apt update`
`sudo apt install mysql-server`
`sudo systemctl enable mysql`
`sudo systemctl start mysql`
- Configure MySQL Security using command:
`sudo mysql_secure_installation`



- Edit the wp-config.php file in wordpress then Run the installation



- Open your web browser and navigate to the public IP of your wordpress EC2 instance.

