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## **Cloud(AWS) Week 1 Task:**

- **❖ Prerequisites:** Create your free-tier AWS account.
- **❖ Task:** Deploy application in monolithic and microservices architecture.
- **❖ Description:** For monolithic : 1 EC2 instance, deploy wordpress and MYSQL on the same instances.  
For microservices: 2 EC2 instances, 1 for wordpress and 1 for MYSQL. Configure the necessary security group for the instances.  
EC2 instance type: t2-micro, AMI: ubuntu-\*.  
Create a welcome page in wordpress that will be the homepage.

-->>

### **1. Monolithic Architecture Deployment**

**Goal:** Deploy WordPress and MySQL on the same EC2 instance.

#### **Step 1: Launch an EC2 Instance**

1. **Login to AWS Management Console.**
2. Go to the **EC2 Dashboard** and click **Launch Instance**.
3. **Choose AMI:** Select an Ubuntu AMI (e.g., ubuntu-20.04).
4. **Choose Instance Type:** Select t2.micro.
5. **Configure Instance Details:** Leave everything as default.
6. **Add Storage:** Use the default 8 GB storage or adjust based on your application requirements.
7. **Configure Security Group:**
  - Allow inbound HTTP traffic on port 80.
  - Allow inbound SSH traffic on port 22.
  - Allow inbound MySQL traffic on port 3306

Launch an instance | EC2 | ap-south-1

https://ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#LaunchInstances:

AWS Services Search [Option+S] Mumbai RahulSingh

Name and tags [Info](#)

Name  Add additional tags

▼ Application and OS Images (Amazon Machine Image) [Info](#)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Search our full catalog including 1000s of application and OS images

Recent [Quick Start](#)

Amazon Linux macOS Ubuntu Windows Red Hat SUSE Linux

Browse more AMIs Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Screenshot

Launch an instance | EC2 | ap-south-1

https://ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#LaunchInstances:

AWS Services Search [Option+S] Mumbai RahulSingh

Amazon Machine Image (AMI)

Ubuntu Server 24.04 LTS (HVM), SSD Volume Type Free tier eligible

ami-0522ab6e1ddcc7055 (64-bit (x86)) / ami-0000791bad66add5 (64-bit (Arm))  
Virtualization: hvm ENA enabled: true Root device type: ebs

Description  
Ubuntu Server 24.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).

Architecture AMI ID Verified provider

64-bit (x86) ami-0522ab6e1ddcc7055

▼ Instance type [Info](#) | [Get advice](#)

Instance type

t2.micro Free tier eligible

Family: t2 1 vCPU 1 GiB Memory Current generation: true  
On-Demand Linux base pricing: 0.0124 USD per Hour  
On-Demand Windows base pricing: 0.017 USD per Hour  
On-Demand RHEL base pricing: 0.0268 USD per Hour  
On-Demand SUSE base pricing: 0.0124 USD per Hour

All generations Compare instance types

Additional costs apply for AMIs with pre-installed software

Screenshot

[Launch an instance | EC2 | ap-south-1](https://ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#LaunchInstances)

Services Search [Option+S]

Key pair (login) [Info](#)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required [Info](#)

wordpress-test1 [Create new key pair](#)

Network settings [Info](#)

VPC - required [Info](#)

vpc-0de218d426a4307cb (default) [Edit](#)

Subnet [Info](#)

No preference [Create new subnet](#)

Auto-assign public IP [Info](#)

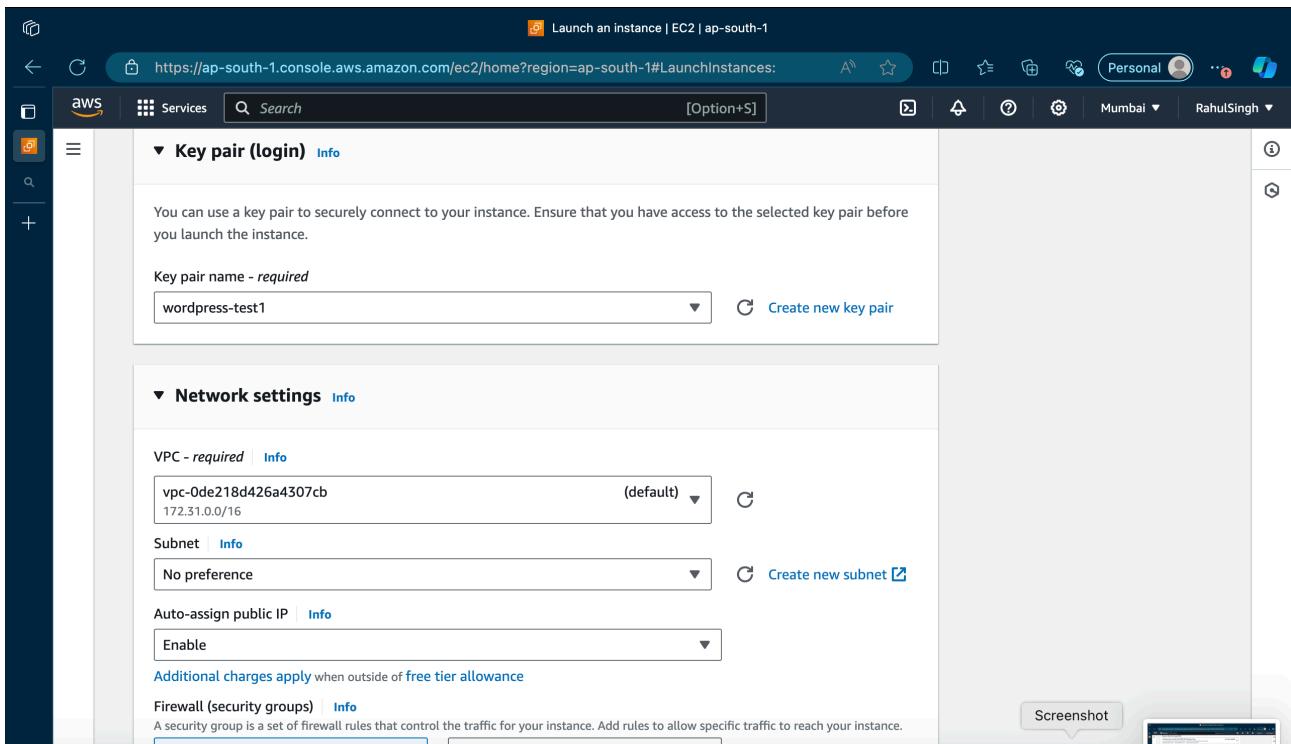
Enable [Edit](#)

Additional charges apply when outside of free tier allowance

Firewall (security groups) [Info](#)

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Screenshot



[Launch an instance | EC2 | ap-south-1](https://ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#LaunchInstances)

Services Search [Option+S]

Firewall (security groups) [Info](#)

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Create security group  Select existing security group

Security group name - required [Info](#)

launch-wizard-1 [Edit](#)

This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and \_~-/()#,@[]+=&;{}!\$\*

Description - required [Info](#)

launch-wizard-1 created 2024-09-07T10:02:49.353Z [Edit](#)

Inbound Security Group Rules

Security group rule 1 (TCP, 22, 0.0.0.0/0) [Remove](#)

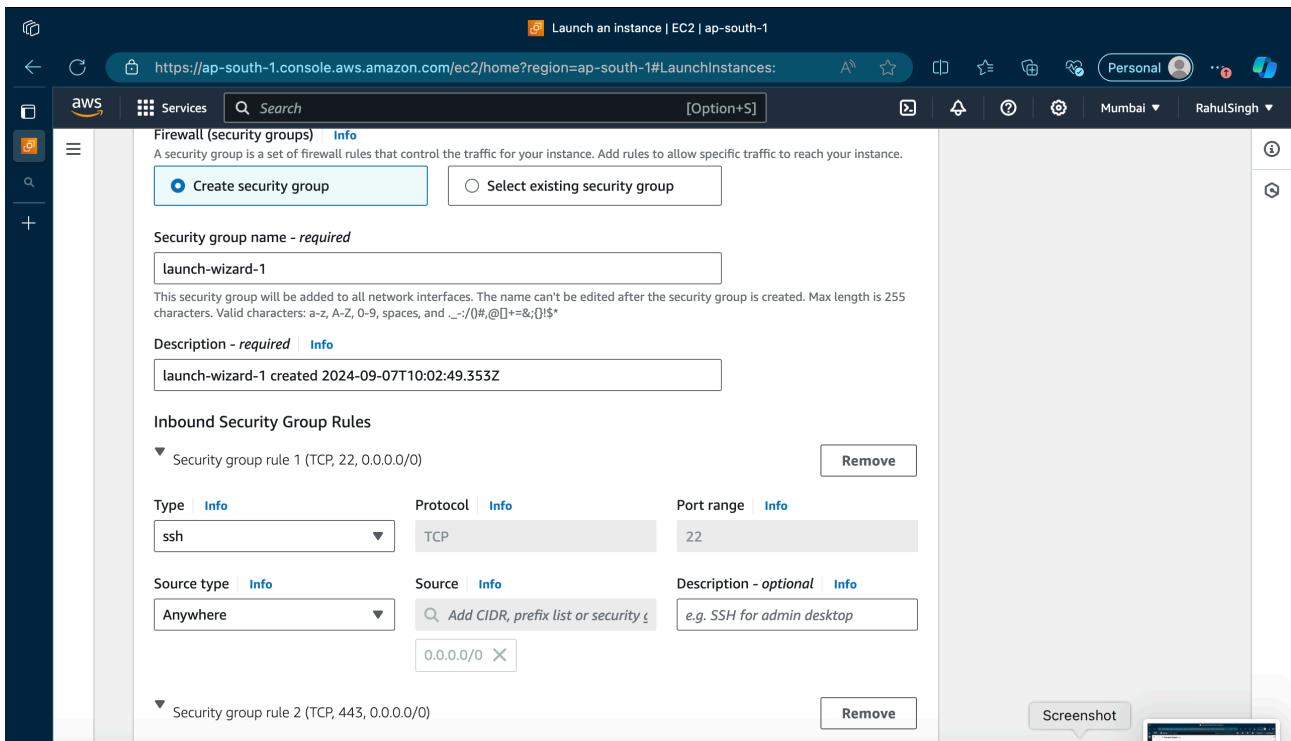
Type [Info](#): ssh [Edit](#) Protocol [Info](#): TCP [Edit](#) Port range [Info](#): 22 [Edit](#)

Source type [Info](#): Anywhere [Edit](#) Description - optional [Info](#): e.g. SSH for admin desktop [Edit](#)

0.0.0.0/0 [Edit](#)

Security group rule 2 (TCP, 443, 0.0.0.0/0) [Remove](#)

Screenshot



Launch an instance | EC2 | ap-south-1

https://ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#LaunchInstances:

Personal Mumbai RahulSingh

Services Search [Option+S]

Security group rule 2 (TCP, 443, 0.0.0.0/0)

Type: HTTPS | Protocol: TCP | Port range: 443

Source type: Anywhere | Description - optional: e.g. SSH for admin desktop

Security group rule 3 (TCP, 80, 0.0.0.0/0)

Type: HTTP | Protocol: TCP | Port range: 80

Source type: Anywhere | Description - optional: e.g. SSH for admin desktop

Security group rule 4 (TCP, 3306, 0.0.0.0/0)

Type: MYSQL/Aurora | Protocol: TCP | Port range: 3306

Screenshot

Launch an instance | EC2 | ap-south-1

https://ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#LaunchInstances:

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Services Search [Option+S]

MySQL/Aurora | TCP | 3306

Anywhere | Add CIDR, prefix list or security group | e.g. SSH for admin desktop

0.0.0.0/0 X

⚠ Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only. X

Add security group rule

Configure storage Advanced

1x 8 GiB gp3 Root volume (Not encrypted)

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage X

Add new volume Screenshot

Advanced

The screenshot shows the AWS EC2 Instances page. On the left, there's a sidebar with links like EC2 Dashboard, EC2 Global View, Events, Instances (selected), Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, Images, AMIs, AMI Catalog, and Elastic Block Store. The main area shows 'Instances (1/2) Info' with a search bar and a 'Launch instances' button. Two instances are listed: 'worpress' (terminated, instance ID i-U4ACYUE5ZZU5/5UCb) and 'newwordpress' (running, instance ID i-045fd43b78a2902ec). The 'newwordpress' instance details are expanded, showing its Public IPv4 address (65.0.138.231), Private IPv4 addresses (172.31.10.216), and Public IPv4 DNS (ec2-65-0-138-231.compute.amazonaws.com).

## Step 2: Connect EC2 instance and install LAMP stack(in bash)

1. Install Apache:

```
sudo apt install apache2 -y
```

Check if Apache is running by visiting the public IP of the instance in the browser by using public ip of your instance.

2. Install MySQL:

```
sudo apt install mysql-server -y
```

```
sudo mysql_secure_installation (fill the require step by 'y' and '0')
```

3. Install PHP and Required Modules:

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

4. Restart Apache:

```
sudo systemctl restart apache2
```

EC2 Instance Connect

https://ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instan...

AWS Services Search [Option+S]

```
ubuntu@ip-172-31-10-216:~$ sudo apt install apache2 -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  apache2-bin apache2-data apache2-utils libapr1t64 libaprutil1-dbd-sqlite3 libaprutil1-ldap libaprutil1t64 liblua5.4-0 ssl-cert
Suggested packages:
  apache2-doc apache2-suexec-pristine | apache2-suexec-custom www-browser
The following NEW packages will be installed:
  apache2 apache2-bin apache2-data apache2-utils libapr1t64 libaprutil1-dbd-sqlite3 libaprutil1-ldap libaprutil1t64 liblua5.4-0
  ssl-cert
0 upgraded, 10 newly installed, 0 to remove and 8 not upgraded.
Need to get 2083 kB of archives.
After this operation, 8094 kB of additional disk space will be used.
Get:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libapr1t64 amd64 1.7.2-3.1build2 [107 kB]
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libaprutil1t64 amd64 1.6.3-1.lubuntu7 [91.9 kB]
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libaprutil1-dbd-sqlite3 amd64 1.6.3-1.lubuntu7 [11.2 kB]
Get:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libaprutil1-ldap amd64 1.6.3-1.lubuntu7 [9116 B]
Get:5 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 liblua5.4-0 amd64 5.4.6-3build2 [166 kB]
Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2-bin amd64 2.4.58-1ubuntu8.4 [1329 kB]
Get:7 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2-data all 2.4.58-1ubuntu8.4 [163 kB]
Get:8 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2-utils amd64 2.4.58-1ubuntu8.4 [97.1 kB]
Get:9 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2 amd64 2.4.58-1ubuntu8.4 [90.2 kB]
Get:10 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 ssl-cert all 1.1.2ubuntu1 [17.8 kB]
Fetched 2083 kB in 0s (8500 kB/s)
Preconfiguring packages ...
Selecting previously unselected package libapr1t64:amd64.
(Reading database ... 98397 files and directories currently installed.)
Preparing to unpack .../0-libapr1t64 1.7.2-3.1build2 amd64.deb ...
i-045fd43b78a2902ec (newwordpress)
PublicIPs: 65.0.138.231 PrivateIPs: 172.31.10.216
```

Screenshot

Apache2 Ubuntu Default Page: It works

Not Secure | http://65.0.138.231

# Apache2 Default Page



**It works!**

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should **replace this file** (located at /var/www/html/index.html) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

### Configuration Overview

Ubuntu's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Ubuntu tools. The configuration system is **fully documented** in `/usr/share/doc/apache2/README.Debian.gz`. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the `manual` if the `apache2-doc` package was installed on this server.

The configuration layout for an Apache2 web server installation on Ubuntu systems is as follows:

```
/etc/apache2/
|-- apache2.conf
|   '-- ports.conf
|-- mods-enabled
|   '-- *.load
|   '-- *.conf
|-- conf-enabled
|   '-- *.conf
|-- sites-enabled
```

Screenshot

## Step 3: Install and Configure WordPress

### 1. Download WordPress

```
cd /var/www/html  
sudo wget https://wordpress.org/latest.tar.gz  
sudo tar -xvzf latest.tar.gz  
sudo mv wordpress/* .  
sudo rm -rf wordpress latest.tar.gz
```

### 2. Set Permissions:

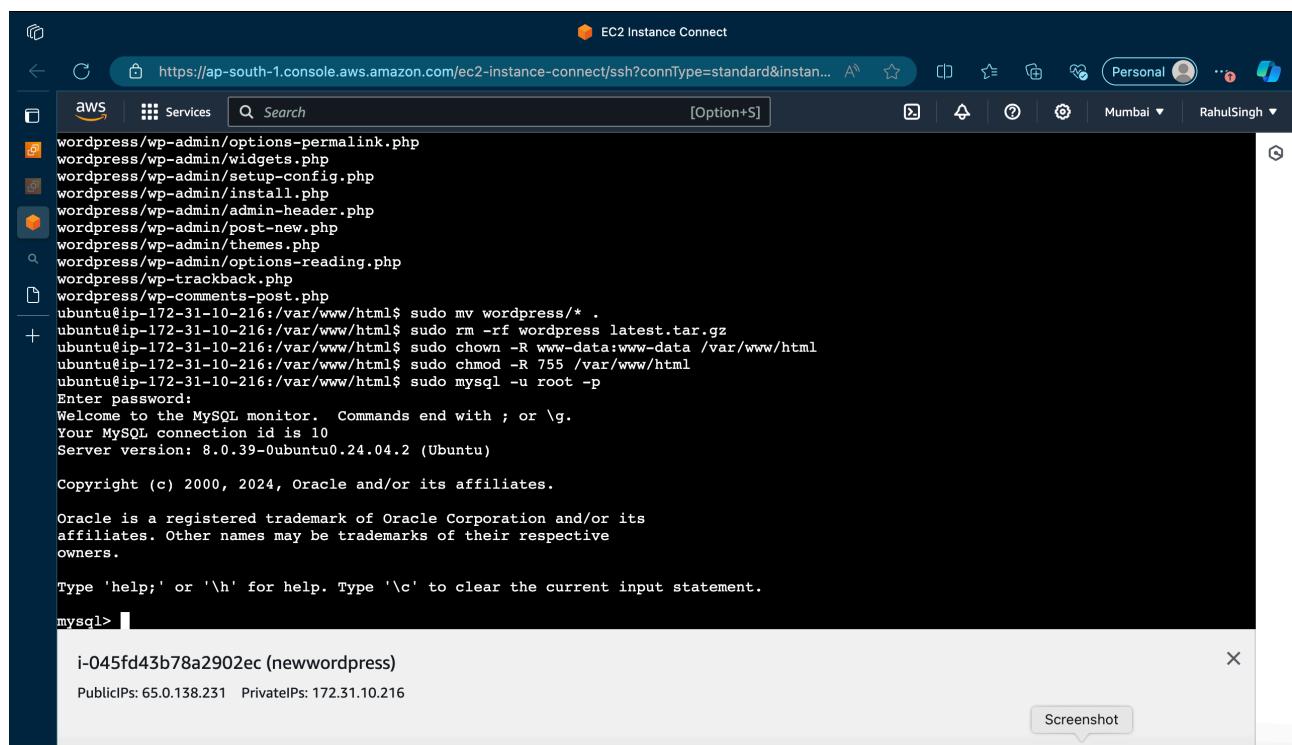
```
sudo chown -R www-data:www-data /var/www/html  
sudo chmod -R 755 /var/www/html
```

### 3. Create a MySQL Database and User for WordPress:

```
sudo mysql -u root -p (password of mysql will be 'root')
```

Inside the MySQL prompt:

```
CREATE DATABASE wordpress;  
CREATE USER 'wpuser'@'localhost' IDENTIFIED BY 'admin@123';  
GRANT ALL PRIVILEGES ON wordpress.* TO 'wpuser'@'localhost';  
FLUSH PRIVILEGES;  
EXIT;
```



The screenshot shows a terminal window titled "EC2 Instance Connect" connected to an AWS instance. The terminal displays the command-line process for installing WordPress. It starts with navigating to the /var/www/html directory, downloading the latest WordPress tarball, extracting it, moving the contents to the current directory, and finally removing the tarball. Then, it sets the ownership and permissions of the directory to www-data:www-data and 755. Finally, it opens a MySQL shell as root and creates a new user 'wpuser' with password 'admin@123', grants all privileges on the 'wordpress' database to this user, and flushes the privileges. At the bottom of the terminal, there is a message about Oracle being a registered trademark of Oracle Corporation.

```
cd /var/www/html  
sudo wget https://wordpress.org/latest.tar.gz  
sudo tar -xvzf latest.tar.gz  
sudo mv wordpress/* .  
sudo rm -rf wordpress latest.tar.gz  
  
ubuntu@ip-172-31-10-216:/var/www/html$ sudo mv wordpress/* .  
ubuntu@ip-172-31-10-216:/var/www/html$ sudo rm -rf wordpress latest.tar.gz  
ubuntu@ip-172-31-10-216:/var/www/html$ sudo chown -R www-data:www-data /var/www/html  
ubuntu@ip-172-31-10-216:/var/www/html$ sudo chmod -R 755 /var/www/html  
ubuntu@ip-172-31-10-216:/var/www/html$ sudo mysql -u root -p  
Enter password:  
Welcome to the MySQL monitor. Commands end with ; or \g.  
Your MySQL connection id is 10  
Server version: 8.0.39-0ubuntu0.24.04.2 (Ubuntu)  
  
Copyright (c) 2000, 2024, 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>   
  
i-045fd43b78a2902ec (newwordpress)  
PublicIPs: 65.0.138.231 PrivateIPs: 172.31.10.216
```

The screenshot shows a terminal window titled 'MySQL monitor' within the AWS EC2 Instance Connect interface. The session starts with a password prompt and displays MySQL connection details. It then shows the creation of a database named 'wordpress', a user 'wpuser' with password 'admin@123', and grants all privileges on the 'wordpress' database to the user. Finally, it flushes the privileges and exits. The terminal window has a dark background with white text. At the bottom, it shows the instance ID 'i-045fd43b78a2902ec', its public IP '65.0.138.231', and private IP '172.31.10.216'. A 'Screenshot' button is visible in the bottom right corner.

```
Enter password:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 10
Server version: 8.0.39-Ubuntu0.24.04.2 (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 (0.06 sec)

mysql> CREATE USER 'wpuser'@'localhost' IDENTIFIED BY 'admin@123'
-> ;
Query OK, 0 rows affected (0.06 sec)

mysql> GRANT ALL PRIVILEGES ON wordpress.* TO 'wpuser'@'localhost';
Query OK, 0 rows affected (0.01 sec)

mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.00 sec)

mysql> EXIT;
Bye
ubuntu@ip-172-31-10-216:/var/www/html$
```

#### 4. Verify Apache Configuration:

(Ensure WordPress files are correctly placed in /var/www/html:)

Check Apache Configuration File:

```
sudo nano /etc/apache2/sites-available/000-default.conf
```

Ensure the DocumentRoot directive points to /var/www/html:-“ DocumentRoot /var/www/html ” if it is there then save and exit.

Restart Apache to Apply Changes:

```
sudo systemctl restart apache2
```

#### 5. Check Apache's Directory Index:

Ensure that Apache is set to serve index files (like index.php):

remove index.html file as it will point to this file instead of index.php:

```
sudo rm index.html
```

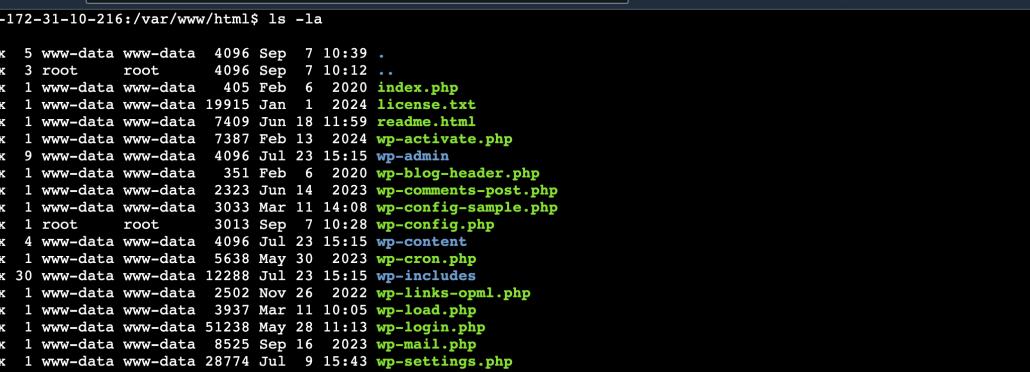
EC2 Instance Connect

https://ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard... [Option+S]

Services Search Mumbai RahulSingh

```
aws Services Search [Option+S] Mumbai RahulSingh

license.txt wp-admin wp-config-sample.php wp-cron.php wp-load.php wp-settings.php xmlrpc.php
ubuntu@ip-172-31-10-216:/var/www/html$ ls -la
total 256
drwxr-xr-x  5 www-data www-data 4096 Sep  7 10:28 .
drwxr-xr-x  3 root    root    4096 Sep  7 10:12 ..
-rwxr-xr-x  1 www-data www-data 1061 Sep  7 10:12 index.html
-rwxr-xr-x  1 www-data www-data 405 Feb  6 2020 index.php
-rwxr-xr-x  1 www-data www-data 19915 Jan  1 2024 license.txt
-rwxr-xr-x  1 www-data www-data 7409 Jun 18 11:59 readme.html
-rwxr-xr-x  1 www-data www-data 7387 Feb 13 2024 wp-activate.php
drwxr-xr-x  9 www-data www-data 4096 Jul 23 15:15 wp-admin
-rwxr-xr-x  1 www-data www-data 351 Feb  6 2020 wp-blog-header.php
-rwxr-xr-x  1 www-data www-data 2323 Jun 14 2023 wp-comments-post.php
-rwxr-xr-x  1 www-data www-data 3033 Mar 11 14:08 wp-config-sample.php
-rwxr-xr-x  1 root    root    3013 Sep  7 10:28 wp-config.php
drwxr-xr-x  4 www-data www-data 4096 Jul 23 15:15 wp-content
-rwxr-xr-x  1 www-data www-data 5638 May 30 2023 wp-cron.php
drwxr-xr-x 30 www-data www-data 12288 Jul 23 15:15 wp-includes
-rwxr-xr-x  1 www-data www-data 2502 Nov 26 2022 wp-links-opml.php
-rwxr-xr-x  1 www-data www-data 3937 Mar 11 10:05 wp-load.php
-rwxr-xr-x  1 www-data www-data 51238 May 28 11:13 wp-login.php
-rwxr-xr-x  1 www-data www-data 8525 Sep 16 2023 wp-mail.php
-rwxr-xr-x  1 www-data www-data 28774 Jul  9 15:43 wp-settings.php
-rwxr-xr-x  1 www-data www-data 34385 Jun 19 2023 wp-signup.php
-rwxr-xr-x  1 www-data www-data 4885 Jun 22 2023 wp-trackback.php
-rwxr-xr-x  1 www-data www-data 3246 Mar  2 2024 xmlrpc.php
ubuntu@ip-172-31-10-216:/var/www/html$ sudo rm index.html
ubuntu@ip-172-31-10-216:/var/www/html$ ls -la
total 244
```



ubuntu@ip-172-31-10-216:~\$ ls -la

```
total 244
drwxr-xr-x  5 www-data www-data  4096 Sep  7 10:39 .
drwxr-xr-x  3 root     root      4096 Sep  7 10:12 ..
-rwxr-xr-x  1 www-data www-data  405 Feb  6 2020 index.php
-rwxr-xr-x  1 www-data www-data 19915 Jan  1 2024 license.txt
-rwxr-xr-x  1 www-data www-data 7409 Jun 18 11:59 readme.html
-rwxr-xr-x  1 www-data www-data 7387 Feb 13 2024 wp-activate.php
drwxr-xr-x  9 www-data www-data 4096 Jul 23 15:15 wp-admin
-rwxr-xr-x  1 www-data www-data 351 Feb  6 2020 wp-blog-header.php
-rwxr-xr-x  1 www-data www-data 2323 Jun 14 2023 wp-comments-post.php
-rwxr-xr-x  1 www-data www-data 3033 Mar 11 14:08 wp-config-sample.php
-rwxr-xr-x  1 root     root      3013 Sep  7 10:28 wp-config.php
drwxr-xr-x  4 www-data www-data 4096 Jul 23 15:15 wp-content
-rwxr-xr-x  1 www-data www-data 5638 May 30 2023 wp-cron.php
drwxr-xr-x 30 www-data www-data 12288 Jul 23 15:15 wp-includes
-rwxr-xr-x  1 www-data www-data 2502 Nov 26 2022 wp-links-opml.php
-rwxr-xr-x  1 www-data www-data 3937 Mar 11 10:05 wp-load.php
-rwxr-xr-x  1 www-data www-data 51238 May 28 11:13 wp-login.php
-rwxr-xr-x  1 www-data www-data 8525 Sep 16 2023 wp-mail.php
-rwxr-xr-x  1 www-data www-data 28774 Jul  9 15:43 wp-settings.php
-rwxr-xr-x  1 www-data www-data 34385 Jun 19 2023 wp-signup.php
-rwxr-xr-x  1 www-data www-data 4885 Jun 22 2023 wp-trackback.php
-rwxr-xr-x  1 www-data www-data 3246 Mar  2 2024 xmlrpc.php
```

ubuntu@ip-172-31-10-216:~\$ sudo nano /etc/apache2/sites-available/000-default.conf

ubuntu@ip-172-31-10-216:~\$ sudo systemctl restart apache2

ubuntu@ip-172-31-10-216:~\$ sudo nano /etc/apache2/apache2.conf

ubuntu@ip-172-31-10-216:~\$ sudo systemctl restart apache2

ubuntu@ip-172-31-10-216:~\$

Open Apache Configuration File:

```
sudo nano /etc/apache2/apache2.conf
```

Ensure DirectoryIndex Includes index.php: Look for the DirectoryIndex directive and make sure it includes index.php like this “DirectoryIndex index.php index.html

” If not then add it at the end of the file.Click save and exit

Restart Apache Again:

```
sudo systemctl restart apache2
```

## 6. Configure WordPress:

Copy the sample configuration file:

```
sudo cp wp-config-sample.php wp-config.php
```

Edit the wp-config.php file to add the database details using :

```
sudo nano wp-config.php
```

Modify the following lines:

```
define('DB_NAME', 'wordpress');
define('DB_USER', 'wpuser');
define('DB_PASSWORD', 'admin@123');
define('DB_HOST', 'localhost');
```

Restart Apache Again:

```
sudo systemctl restart apache2
```

The screenshot shows a terminal window titled "GNU nano 7.2" displaying the contents of the wp-config.php file. The file contains database configuration settings for WordPress, including the database name ('wordpress'), user ('wpuser'), password ('admin@123'), host ('localhost'), charset ('utf8'), collate (''), and authentication keys (''). The terminal interface includes standard nano key bindings at the bottom.

```
// ** Database settings - You can get this info from your web host ** //
/** The name of the database for WordPress */
define( 'DB_NAME', 'wordpress' );

/** Database username */
define( 'DB_USER', 'wpuser' );

/** Database password */
define( 'DB_PASSWORD', 'admin@123' );

/** Database hostname */
define( 'DB_HOST', 'localhost' );

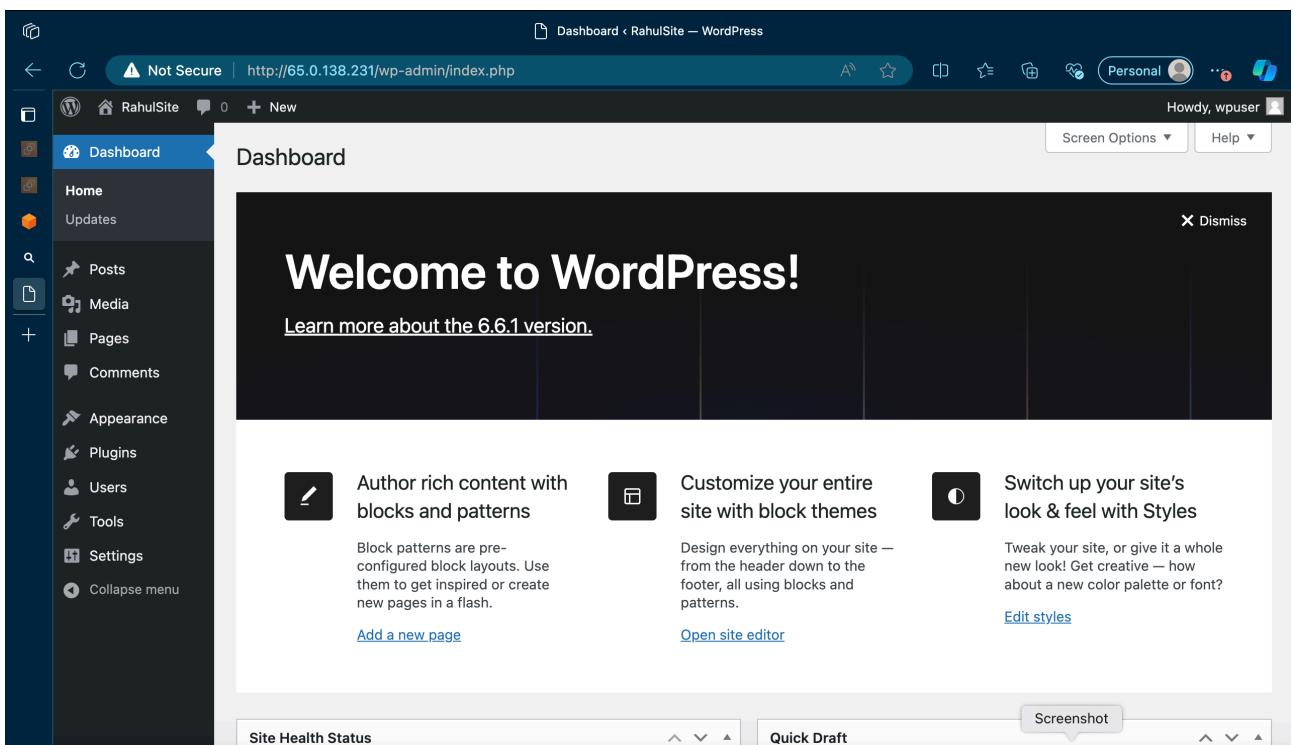
/** Database charset to use in creating database tables. */
define( 'DB_CHARSET', 'utf8' );

/** The database collate type. Don't change this if in doubt. */
define( 'DB_COLLATE', '' );

/**#@+
 * Authentication unique keys and salts.
 *
 * Change these to different unique phrases! You can generate these using
 */
define( 'AUTH_KEY',         'i-045fd43b78a2902ec (newwordpress)' );
define( 'SECURE_AUTH_KEY',   'Public IPs: 65.0.138.231' );
define( 'NONCE_KEY',        'Private IPs: 172.31.10.216' );
define( 'AUTH_SALT',        'wpuser' );
define( 'SECURE_AUTH_SALT', 'RahulSingh' );
define( 'NONCE_SALT',       'RahulSite' );
define( 'LOGGED_IN_SALT',   'RahulSingh' );
define( 'REFERRER_SALT',    'RahulSite' );
define( 'COOKIE_SALT',      'RahulSingh' );

```

**Step 4: Visit the public ip address of instance in you browser and you can see Wordpress. Set up username, password, email, then click save and login. Now you can see the welcome page of Wordpress.**

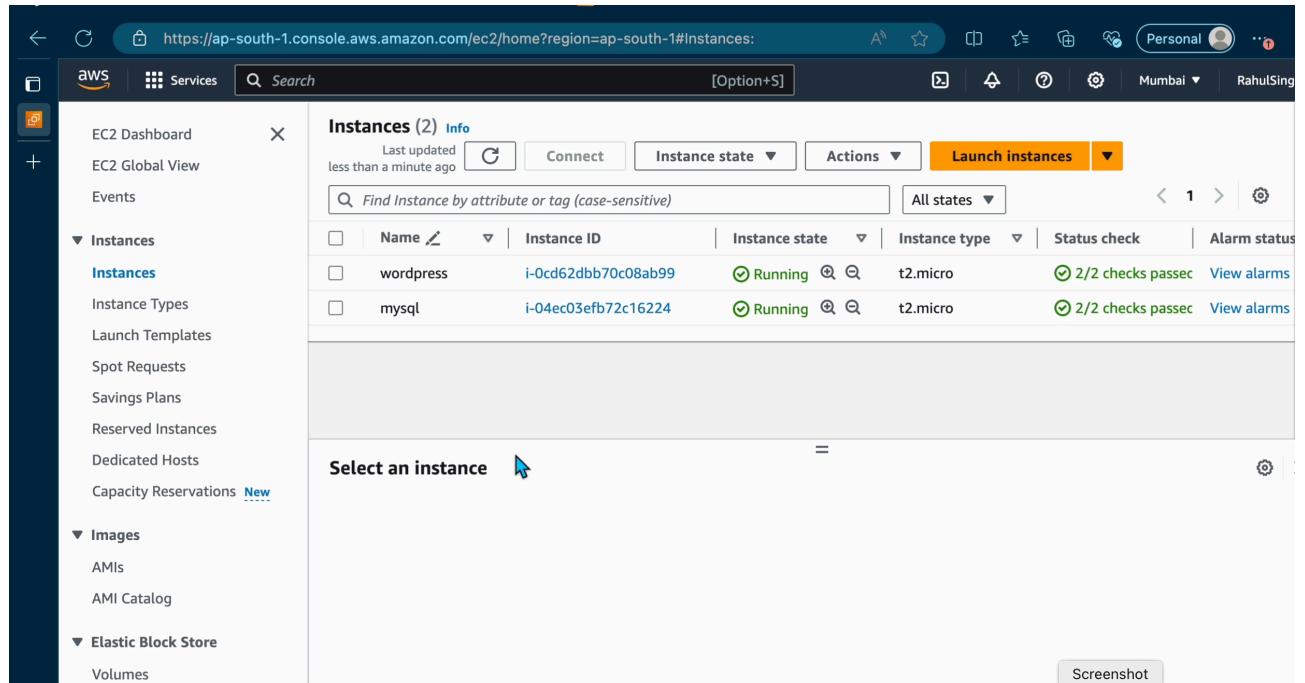


## 2. Microservices Architecture Deployment

**Goal:** Deploy WordPress on one EC2 instance and MySQL on another EC2 instance.

### Step 1: Launch Two EC2 Instances

- **Instance 1 (WordPress):**
  - Follow the same steps as the Monolithic setup to launch a t2.micro EC2 instance with Ubuntu AMI.
- **Instance 2 (MySQL):**
  - Launch another t2.micro EC2 instance with Ubuntu AMI.



The screenshot shows the AWS EC2 Instances page. The left sidebar has 'Instances' selected under 'Instances'. The main area displays two instances:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status
wordpress	i-0cd62dbb70c08ab99	Running	t2.micro	2/2 checks passed	<a href="#">View alarms</a>
mysql	i-04ec03efb72c16224	Running	t2.micro	2/2 checks passed	<a href="#">View alarms</a>

### Step 2: Configure Security Groups

#### MySQL Instance Security Group:

- Allow inbound SSH traffic on port 22.
- Allow inbound MySQL traffic on port 3306 from the WordPress instance's private IP.

**Edit inbound rules** Info

Inbound rules control the incoming traffic that's allowed to reach the instance.

Security group rule ID	Type	Protocol	Port range	Source	Description - optional
sgr-053ca9c23e083ac1e	SSH	TCP	22	Cu... ▾	0.0.0.0/0 X
-	MySQL/Aurora	TCP	3306	Cu... ▾	172.31.6.111/: X 172.31.6.111/32 X

**Add rule**

⚠️ Rules with source of 0.0.0.0/0 or ::/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

## WordPress Instance Security Group:

- Allow inbound HTTP traffic on port 80.
- Allow inbound SSH traffic on port 22.
- Allow inbound MySQL traffic from the MySQL instance's private IP on port 3306.

**Inbound rules** Info

Inbound rules control the incoming traffic that's allowed to reach the instance.

Security group rule ID	Type	Protocol	Port range	Source	Description - optional
sgr-07c68049a407e2e67	SSH	TCP	22	Cu... ▾	0.0.0.0/0 X
sgr-08a2a982da1cd7b7c	HTTP	TCP	80	Cu... ▾	0.0.0.0/0 X
-	MySQL/Aurora	TCP	3306	Cu... ▾	172.31.3.106/: X 172.31.3.106/32 X

**Add rule**

⚠️ Rules with source of 0.0.0.0/0 or ::/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

## Step 3: Set Up the MySQL Instance

Install MySQL:

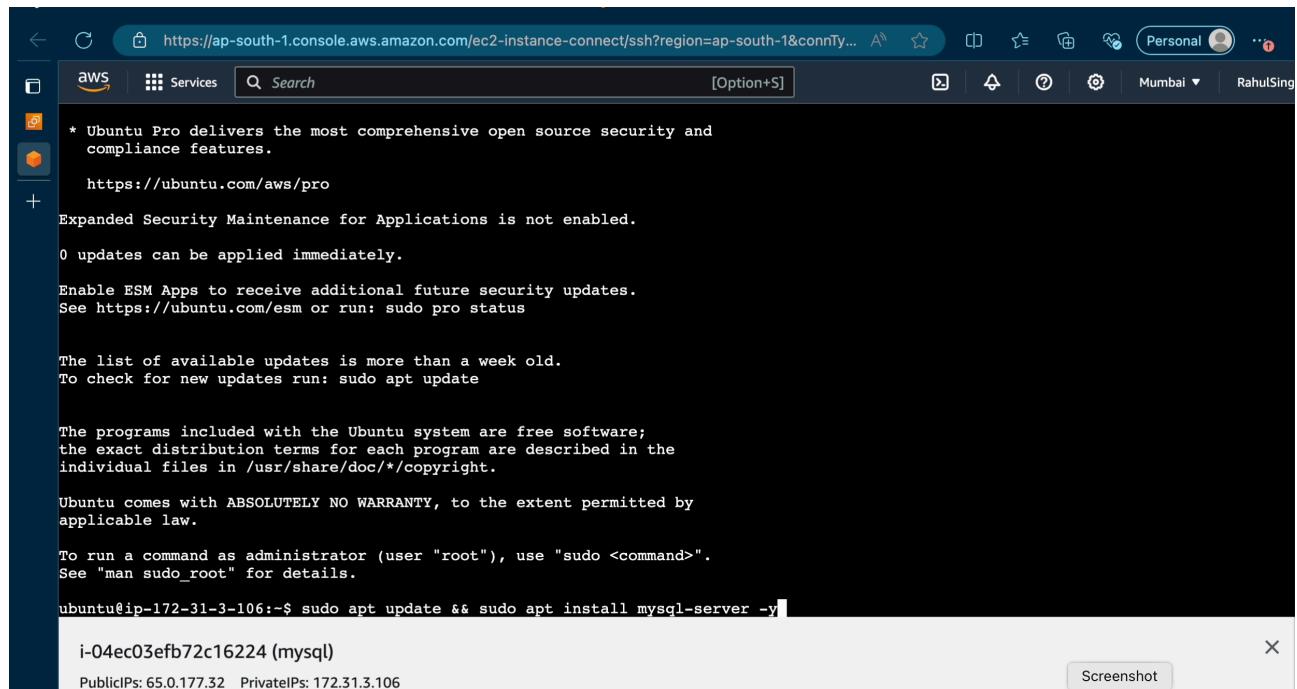
```
sudo apt update && sudo apt install mysql-server -y  
sudo mysql_secure_installation
```

Create a MySQL Database and User for WordPress:

```
sudo mysql -u root -p
```

Inside the MySQL prompt:

```
CREATE DATABASE wordpress;  
CREATE USER 'wpuser'@'172.31.6.111' IDENTIFIED BY 'yourpassword';  
GRANT ALL PRIVILEGES ON wordpress.* TO 'wpuser'@'172.31.6.111';  
FLUSH PRIVILEGES;  
EXIT;
```



The screenshot shows a terminal window on an AWS EC2 instance. The user has run the command `sudo apt update && sudo apt install mysql-server -y`. The output shows the MySQL server being installed and the secure installation script running. The user is prompted to set a password for the root account. The terminal also displays the MySQL prompt, indicating successful installation.

```
* Ubuntu Pro delivers the most comprehensive open source security and compliance features.  
https://ubuntu.com/aws/pro  
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-172-31-3-106:~$ sudo apt update && sudo apt install mysql-server -y  
i-04ec03efb72c16224 (mysql)  
Public IPs: 65.0.177.32 Private IPs: 172.31.3.106
```

```
Enter password:  
Welcome to the MySQL monitor. Commands end with ; or \g.  
Your MySQL connection id is 10  
Server version: 8.0.39-0ubuntu0.24.04.2 (Ubuntu)  
+ Copyright (c) 2000, 2024, 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> CREATE DATABASE wordpress;  
Query OK, 1 row affected (0.01 sec)  
mysql> CREATE USER 'wpuser'@'172.31.6.111' IDENTIFIED BY 'admin@123'  
-> ;  
Query OK, 0 rows affected (0.02 sec)  
mysql> GRANT ALL PRIVILEGES ON wordpress.* TO 'wpuser'@'172.31.6.111';  
Query OK, 0 rows affected (0.01 sec)  
mysql> FLUSH PRIVILEGES;  
Query OK, 0 rows affected (0.01 sec)  
mysql> EXIT;  
Bye  
ubuntu@ip-172-31-3-106:~$ i-04ec03efb72c16224 (mysql)  
PublicIPs: 65.0.177.32 PrivateIPs: 172.31.3.106
```

Configure MySQL to Accept Remote Connections:

**sudo nano /etc/mysql/mysql.conf.d/mysqld.cnf**

Find the line bind-address and change it to:

**bind-address = 0.0.0.0.** (Save and exit)

```
Enter password:  
Welcome to the MySQL monitor. Commands end with ; or \g.  
Your MySQL connection id is 10  
Server version: 8.0.39-0ubuntu0.24.04.2 (Ubuntu)  
+ Copyright (c) 2000, 2024, 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> CREATE DATABASE wordpress;  
Query OK, 1 row affected (0.01 sec)  
mysql> CREATE USER 'wpuser'@'172.31.6.111' IDENTIFIED BY 'admin@123'  
-> ;  
Query OK, 0 rows affected (0.02 sec)  
mysql> GRANT ALL PRIVILEGES ON wordpress.* TO 'wpuser'@'172.31.6.111';  
Query OK, 0 rows affected (0.01 sec)  
mysql> FLUSH PRIVILEGES;  
Query OK, 0 rows affected (0.01 sec)  
mysql> EXIT;  
Bye  
ubuntu@ip-172-31-3-106:~$ sudo nano /etc/mysql/mysql.conf.d/mysqld.cnf i-04ec03efb72c16224 (mysql)  
PublicIPs: 65.0.177.32 PrivateIPs: 172.31.3.106
```

```

GNU nano 7.2
/etc/mysql/mysql.conf.d/mysqld.cnf *

# * Basic Settings
#
user        = mysql
# pid-file   = /var/run/mysql/mysqld/mysqld.pid
# socket     = /var/run/mysql/mysqld/mysqld.sock
# port       = 3306
# datadir    = /var/lib/mysql

# If MySQL is running as a replication slave, this should be
# changed. Ref https://dev.mysql.com/doc/refman/8.0/en/server-system-variables.html#sysvar_tmpdir
# tmpdir      = /tmp

# Instead of skip-networking the default is now to listen only on
# localhost which is more compatible and is not less secure.
bind-address        = 0.0.0.0
mysqlx-bind-address = 127.0.0.1
#
# * Fine Tuning
#
key_buffer_size     = 16M
# max_allowed_packet = 64M
# thread_stack       = 256K

# thread cache size = -1
Save modified buffer?
Y Yes
N No          ^C Cancel

i-04ec03efb72c16224 (mysql)
Public IPs: 65.0.177.32 Private IPs: 172.31.3.106

```

Restart MySQL:

```
sudo systemctl restart mysql
```

## Step 4: Set Up the WordPress Instance

Instances (1/2)						
		Name		Instance ID	Instance state	Instance type
<input type="checkbox"/>	mysql	i-04ec03efb72c16224	<span>Running</span>	t2.micro	<span>2/2 checks passed</span>	
<input checked="" type="checkbox"/>	wordpress	i-0cd62dbb70c08ab99	<span>Running</span>	t2.micro	<span>2/2 checks passed</span>	

**i-0cd62dbb70c08ab99 (wordpress)**

- Details**
- Status and alarms**
- Monitoring**
- Security**
- Networking**
- Storage**
- Tags**

**Instance summary**

Instance ID: i-0cd62dbb70c08ab99 (wordpress)

Public IPv4 address: 13.201.22.67 | [open address](#)

IPv6 address: -

Instance state: Running

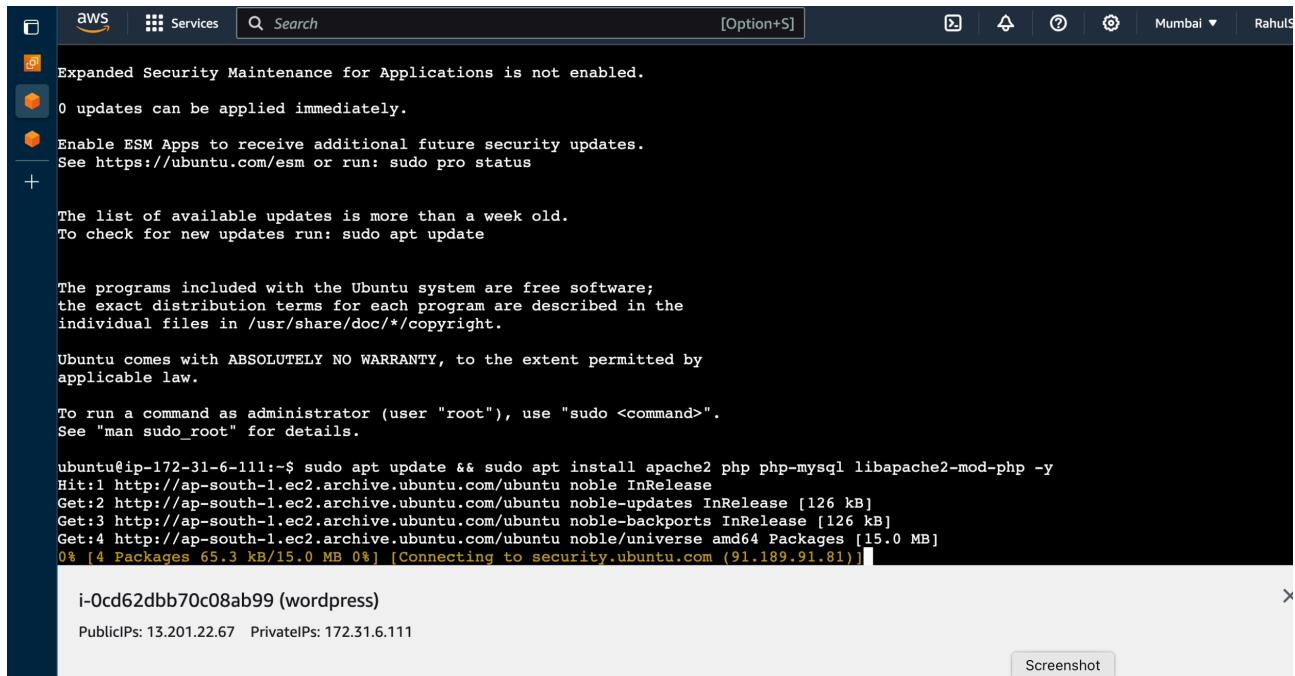
Private IPv4 address copied: 172.31.6.111

Public IPv4 DNS: 57.ap-south-...

Install Apache, PHP, and Required Modules:

```
sudo apt update && sudo apt install apache2 php php-mysql  
libapache2-mod-php -y
```

```
sudo systemctl restart apache2
```



The screenshot shows a terminal window with the following content:

```
aws Services Search [Option+S] Mumbai RahulS  
  
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-172-31-6-111:~$ sudo apt update && sudo apt install apache2 php php-mysql libapache2-mod-php -y  
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble InRelease  
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]  
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]  
Get:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]  
0% [4 Packages 65.3 kB/15.0 MB 0%] [Connecting to security.ubuntu.com (91.189.91.81)]  
  
i-0cd62dbb70c08ab99 (wordpress)  
PublicIPs: 13.201.22.67 PrivateIPs: 172.31.6.111  
Screenshot
```

## Step 5: Install and Configure WordPress

### 1. Download WordPress

```
cd /var/www/html  
sudo wget https://wordpress.org/latest.tar.gz  
sudo tar -xvzf latest.tar.gz  
sudo mv wordpress/* .  
sudo rm -rf wordpress latest.tar.gz
```

### 2. Set Permissions:

```
sudo chown -R www-data:www-data /var/www/html  
sudo chmod -R 755 /var/www/html
```

The screenshot shows a CloudWatch Metrics interface with a log stream for a WordPress application. The log entries detail the deployment process, including moving files from the root directory, extracting a tar archive, changing ownership, and setting permissions. The final log entry shows the directory listing of the deployed files.

```
aws Services Search [Option+S] Mumbai RahulS
wordpress/wp-admin/js/code-editor.js
wordpress/wp-admin/js/common.js
wordpress/wp-admin/js/set-post-thumbnail.min.js
wordpress/wp-admin/js/postbox.min.js
wordpress/wp-admin/js/color-picker.js
wordpress/wp-admin/js/password-strength-meter.js
wordpress/wp-admin/js/customize-nav-menus.js
+ wordpress/wp-admin/js/editor-expand.js
wordpress/wp-admin/js/code-editor.min.js
wordpress/wp-admin/js/set-post-thumbnail.js
wordpress/wp-admin/options-permalink.php
wordpress/wp-admin/widgets.php
wordpress/wp-admin/setup-config.php
wordpress/wp-admin/install.php
wordpress/wp-admin/admin-header.php
wordpress/wp-admin/post-new.php
wordpress/wp-admin/themes.php
wordpress/wp-admin/options-reading.php
wordpress/wp-trackback.php
wordpress/wp-comments-post.php
ubuntu@ip-172-31-6-111:/var/www/html$ sudo mv wordpress/* .
ubuntu@ip-172-31-6-111:/var/www/html$ sudo rm -rf wordpress latest.tar.gz
ubuntu@ip-172-31-6-111:/var/www/html$ sudo chown -R www-data:www-data /var/www/html
ubuntu@ip-172-31-6-111:/var/www/html$ sudo chmod -R 755 /var/www/html
ubuntu@ip-172-31-6-111:/var/www/html$ ls
index.html  readme.html  wp-blog-header.php  wp-content  wp-links-opml.php  wp-mail.php  wp-trackback.php
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
ubuntu@ip-172-31-6-111:/var/www/html$ i-0cd62dbb70c08ab99 (wordpress)
PublicIPs: 13.201.22.67  PrivateIPs: 172.31.6.111
Screenshot
```

### 3. Configure WordPress:

Copy the sample configuration file:

```
sudo cp wp-config-sample.php wp-config.php
```

Edit the wp-config.php file to add the database details using :

```
sudo nano wp-config.php
```

Modify the following lines:

```
define('DB_NAME', 'wordpress');
define('DB_USER', 'wpuser');
define('DB_PASSWORD', 'admin@123');
define('DB_HOST', 'localhost');
```

Restart Apache Again:

```
sudo systemctl restart apache2
```

```

aws Services Search [Option+S] Mumbai RahulS
ubuntu@ip-172-31-6-111:/var/www/html$ sudo cp /var/www/html/wp-config-sample.php /var/www/html/wp-config.php
ubuntu@ip-172-31-6-111:/var/www/html$ ls -la
total 256
drwxr-xr-x  5 www-data www-data  3246 Mar  2  2024 xmlrpc.php
-rw-r--r--  1 www-data www-data 4096 Sep  7 15:44 .
drwxr-xr-x  3 root    root   4096 Sep  7 15:26 ..
-rw-r--r--  1 www-data www-data 10671 Sep  7 15:27 index.html
-rw-r--r--  1 www-data www-data  405 Feb  6  2020 index.php
-rw-r--r--  1 www-data www-data 19915 Jan  1  2024 license.txt
-rw-r--r--  1 www-data www-data 7409 Jun 18 11:59 readme.html
-rw-r--r--  1 www-data www-data 7387 Feb 13  2024 wp-activate.php
drwxr-xr-x  9 www-data www-data 4096 Jul 23 15:15 wp-admin
-rw-r--r--  1 www-data www-data  351 Feb  6  2020 wp-blog-header.php
-rw-r--r--  1 www-data www-data 2323 Jun 14  2023 wp-comments-post.php
-rw-r--r--  1 www-data www-data 3033 Mar 11 14:08 wp-config-sample.php
-rw-r--r--  1 www-data www-data 3033 Sep  7 15:44 wp-config.php
drwxr-xr-x  4 www-data www-data 4096 Jul 23 15:15 wp-content
-rw-r--r--  1 www-data www-data 5638 May 30  2023 wp-cron.php
drwxr-xr-x 30 www-data www-data 12288 Jul 23 15:15 wp-includes
-rw-r--r--  1 www-data www-data 2502 Nov 26  2022 wp-links-opml.php
-rw-r--r--  1 www-data www-data 3937 Mar 11 10:05 wp-load.php
-rw-r--r--  1 www-data www-data 51238 May 28 11:13 wp-login.php
-rw-r--r--  1 www-data www-data 8525 Sep 16  2023 wp-mail.php
-rw-r--r--  1 www-data www-data 28774 Jul  9 15:43 wp-settings.php
-rw-r--r--  1 www-data www-data 34385 Jun 19  2023 wp-signup.php
-rw-r--r--  1 www-data www-data 4885 Jun 22  2023 wp-trackback.php
-rw-r--r--  1 www-data www-data 3246 Mar  2  2024 xmlrpc.php
ubuntu@ip-172-31-6-111:/var/www/html$ sudo cp wp-config-sample.php wp-config.php
ubuntu@ip-172-31-6-111:/var/www/html$ sudo nano wp-config.php

```

i-0cd62dbb70c08ab99 (wordpress)

PublicIPs: 13.201.22.67 PrivateIPs: 172.31.6.111

Screenshot

```

GNU nano 7.2
* * ABS PATH
wp-config.php *
* * @link https://developer.wordpress.org/advanced-administration/wordpress/wp-config/
* * @package WordPress
*/
// ** Database settings - You can get this info from your web host ** //
/** The name of the database for WordPress */
define( 'DB_NAME', 'wordpress' );

/** Database username */
define( 'DB_USER', 'wpuser' );

/** Database password */
define( 'DB_PASSWORD', 'admin@123' );

/** Database hostname */
define( 'DB_HOST', '172.31.3.106' );
/*
/** Database charset to use in creating database tables. */
define( 'DB_CHARSET', 'utf8' );

/** The database collate type. Don't change this if in doubt. */
define( 'DB_COLLATE', '' );

```

**Nano Editor Key Bindings:**

- ^G Help
- ^O Write Out
- ^W Where Is
- ^K Cut
- ^T Execute
- ^C Location
- M-U Undo
- M-A Set Mark
- ^X Exit
- ^R Read File
- ^V Replace
- ^U Paste
- ^J Justify
- ^/ Go To Line
- M-E Redo
- M-6 Copy

i-0cd62dbb70c08ab99 (wordpress)

PublicIPs: 13.201.22.67 PrivateIPs: 172.31.6.111

Screenshot

## 5. Check Apache's Directory Index:

Ensure that Apache is set to serve index files (like index.php):

remove index.html file as it will point to this file instead of index.php:

**sudo rm index.html**

```

aws Services Search [Option+S] Mumbai RahulS
-rwxr-xr-x 1 www-data www-data 34385 Jun 19 2023 wp-signup.php
-rwxr-xr-x 1 www-data www-data 4885 Jun 22 2023 wp-trackback.php
-rwxr-xr-x 1 www-data www-data 3246 Mar 2 2024 xmlrpc.php
ubuntu@ip-172-31-6-111:/var/www/html$ sudo rm index.html
ubuntu@ip-172-31-6-111:/var/www/html$ ls -la
total 244
drwxr-xr-x 5 www-data www-data 4096 Sep 7 15:55 .
drwxr-xr-x 3 root root 4096 Sep 7 15:26 ..
-rwxr-xr-x 1 www-data www-data 405 Feb 6 2020 index.php
-rwxr-xr-x 1 www-data www-data 19915 Jan 1 2024 license.txt
-rwxr-xr-x 1 www-data www-data 7409 Jun 18 11:59 readme.html
-rwxr-xr-x 1 www-data www-data 7387 Feb 13 2024 wp-activate.php
drwxr-xr-x 9 www-data www-data 4096 Jul 23 15:15 wp-admin
-rwxr-xr-x 1 www-data www-data 351 Feb 6 2020 wp-blog-header.php
-rwxr-xr-x 1 www-data www-data 2323 Jun 14 2023 wp-comments-post.php
-rwxr-xr-x 1 www-data www-data 3033 Mar 11 14:08 wp-config-sample.php
-rwxr-xr-x 1 root root 3016 Sep 7 15:48 wp-config.php
drwxr-xr-x 4 www-data www-data 4096 Jul 23 15:15 wp-content
-rwxr-xr-x 1 www-data www-data 5638 May 30 2023 wp-cron.php
drwxr-xr-x 30 www-data www-data 12288 Jul 23 15:15 wp-includes
-rwxr-xr-x 1 www-data www-data 2502 Nov 26 2022 wp-links-opml.php
-rwxr-xr-x 1 www-data www-data 3937 Mar 11 10:05 wp-load.php
-rwxr-xr-x 1 www-data www-data 51238 May 28 11:13 wp-login.php
-rwxr-xr-x 1 www-data www-data 8525 Sep 16 2023 wp-mail.php
-rwxr-xr-x 1 www-data www-data 28774 Jul 9 15:43 wp-settings.php
-rwxr-xr-x 1 www-data www-data 34385 Jun 19 2023 wp-signup.php
-rwxr-xr-x 1 www-data www-data 4885 Jun 22 2023 wp-trackback.php
-rwxr-xr-x 1 www-data www-data 3246 Mar 2 2024 xmlrpc.php
ubuntu@ip-172-31-6-111:/var/www/html$ i-0cd62dbb70c08ab99 (wordpress)
PublicIPs: 13.201.22.67 PrivateIPs: 172.31.6.111

```

Screenshot

## 6. Open Apache Configuration File:

```
sudo nano /etc/apache2/apache2.conf
```

Ensure DirectoryIndex Includes index.php: Look for the DirectoryIndex directive and make sure it includes index.php like this “DirectoryIndex index.php index.html”

” If not then add it at the end of the file.Click save and exit

```

aws Services Search [Option+S] Mumbai RahulS
-rwxr-xr-x 1 www-data www-data 3246 Mar 2 2024 xmlrpc.php
ubuntu@ip-172-31-6-111:/var/www/html$ sudo rm index.html
ubuntu@ip-172-31-6-111:/var/www/html$ ls -la
total 244
drwxr-xr-x 5 www-data www-data 4096 Sep 7 15:55 .
drwxr-xr-x 3 root root 4096 Sep 7 15:26 ..
-rwxr-xr-x 1 www-data www-data 405 Feb 6 2020 index.php
-rwxr-xr-x 1 www-data www-data 19915 Jan 1 2024 license.txt
-rwxr-xr-x 1 www-data www-data 7387 Feb 13 2024 wp-activate.php
drwxr-xr-x 9 www-data www-data 4096 Jul 23 15:15 wp-admin
-rwxr-xr-x 1 www-data www-data 351 Feb 6 2020 wp-blog-header.php
-rwxr-xr-x 1 www-data www-data 2323 Jun 14 2023 wp-comments-post.php
-rwxr-xr-x 1 www-data www-data 3033 Mar 11 14:08 wp-config-sample.php
-rwxr-xr-x 1 root root 3016 Sep 7 15:48 wp-config.php
drwxr-xr-x 4 www-data www-data 4096 Jul 23 15:15 wp-content
-rwxr-xr-x 1 www-data www-data 5638 May 30 2023 wp-cron.php
drwxr-xr-x 30 www-data www-data 12288 Jul 23 15:15 wp-includes
-rwxr-xr-x 1 www-data www-data 2502 Nov 26 2022 wp-links-opml.php
-rwxr-xr-x 1 www-data www-data 3937 Mar 11 10:05 wp-load.php
-rwxr-xr-x 1 www-data www-data 51238 May 28 11:13 wp-login.php
-rwxr-xr-x 1 www-data www-data 8525 Sep 16 2023 wp-mail.php
-rwxr-xr-x 1 www-data www-data 28774 Jul 9 15:43 wp-settings.php
-rwxr-xr-x 1 www-data www-data 34385 Jun 19 2023 wp-signup.php
-rwxr-xr-x 1 www-data www-data 4885 Jun 22 2023 wp-trackback.php
-rwxr-xr-x 1 www-data www-data 3246 Mar 2 2024 xmlrpc.php
ubuntu@ip-172-31-6-111:/var/www/html$ sudo nano /etc/apache2/sites-available/000-default.conf
ubuntu@ip-172-31-6-111:/var/www/html$ sudo systemctl restart apache2
ubuntu@ip-172-31-6-111:/var/www/html$ sudo nano /etc/apache2/apache2.conf

```

i-0cd62dbb70c08ab99 (wordpress)

PublicIPs: 13.201.22.67 PrivateIPs: 172.31.6.111

Screenshot

```

# These deviate from the Common Log Format definitions in that they use %o
# (the actual bytes sent including headers) instead of %b (the size of the
# requested file), because the latter makes it impossible to detect partial
# requests.
#
# Note that the use of %{X-Forwarded-For}i instead of %h is not recommended.
# Use mod_remoteip instead.
#
LogFormat "%v:%p %l %u %t \"%r\" %>s %o \"%{Referer}i\" \"%{User-Agent}i\"" vhost_combined
LogFormat "%h %l %u %t \"%r\" %>s %o \"%{Referer}i\" \"%{User-Agent}i\"" combined
LogFormat "%h %l %u %t \"%r\" %>s %o" common
LogFormat "%{Referer}i -> %U" referer
LogFormat "%{User-Agent}i" agent

# Include of directories ignores editors' and dpkg's backup files,
# see README.Debian for details.

# Include generic snippets of statements
IncludeOptional conf-enabled/*.conf

# Include the virtual host configurations:
IncludeOptional sites-enabled/*.conf

DirectoryIndex index.php index.html

```

i-0cd62dbb70c08ab99 (wordpress)  
Public IPs: 13.201.22.67 Private IPs: 172.31.6.111

**Restart Apache Again:**

**sudo systemctl restart apache2**

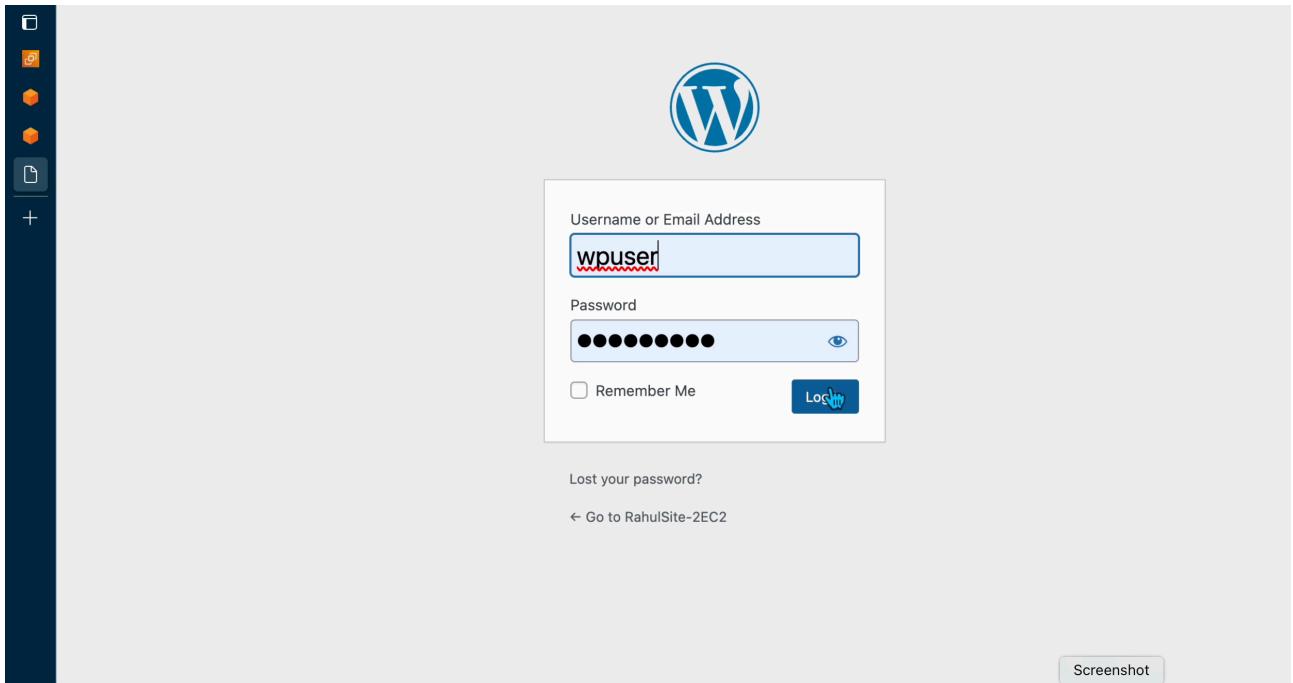
**Step 7: Visit the public ip address of Wordpress instance in your browser and you can see Wordpress. Set up username, password, email, then click save and login. Now you can see the welcome page of Wordpress.**

Welcome to the famous NYC Themes! WORDPRESS INSTALLATION PROCESS. USE THE BELOW INFORMATION TO GET STARTED.  
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	RahulSite-2EC2
Username	wpuser
Usernames can have only alphanumeric characters, spaces, underscores, hyphens, periods, and the @ symbol.	
Password	admin@123 <span style="color: red;">Weak</span> <span style="float: right;"><input type="button" value="Hide"/></span>
<b>Important:</b> You will need this password to log in. Please store it in a secure location.	
Confirm Password	<input checked="" type="checkbox"/> Confirm use of weak password
Your Email	rahulsingh.arp@gmail.com
Double-check your email address before continuing.	
Search engine visibility	<input type="checkbox"/> Discourage search engines from indexing this site It is up to search engines to honor this request.



This screenshot shows the WordPress dashboard. The top navigation bar includes the site name 'RahulSite-2EC2', user status 'Howdy,' and a 'Screenshot' button. The left sidebar has a dark theme with white icons and labels for 'Dashboard', 'Home', 'Updates', 'Posts', 'Media', 'Pages', 'Comments', 'Appearance', 'Plugins', 'Users', 'Tools', and 'Settings'. A 'Collapse menu' option is at the bottom. The main content area features a large 'Welcome to WordPress!' heading and a link to 'Learn more about the 6.6.1 version.' Below this are three cards: one about rich content with blocks and patterns, another about customizing with block themes, and a third about switching up site look & feel with styles. Each card includes a small icon, a title, a brief description, and a 'Read more' link. A 'Screenshot' button is located in the bottom right corner.

Howdy, wpus

RahulSite-2EC2 Edit site 0 + New

RahulSite-2EC2 Sample Page

A commitment to innovation and sustainability

Études is a pioneering firm that seamlessly merges creativity and functionality to redefine architectural excellence.

About us

Screenshot

A screenshot of a WordPress dashboard. On the left, there's a sidebar with icons for file management, media, and other site functions. The main area shows a sample page titled "RahulSite-2EC2". The page content includes a large heading "A commitment to innovation and sustainability", a descriptive paragraph about the company Études, and a "About us" button. Below the text is a photograph of a modern building's facade with a textured, ribbed pattern. A "Screenshot" button is visible in the bottom right corner of the image area.