

Infotrixxs - Cloud AWS Intern

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Task 1: Monolithic:- 1 EC2 instance, deploying Wordpress and MySQL on the same instance

Steps:1

Login to aws account.

Create 1 instance

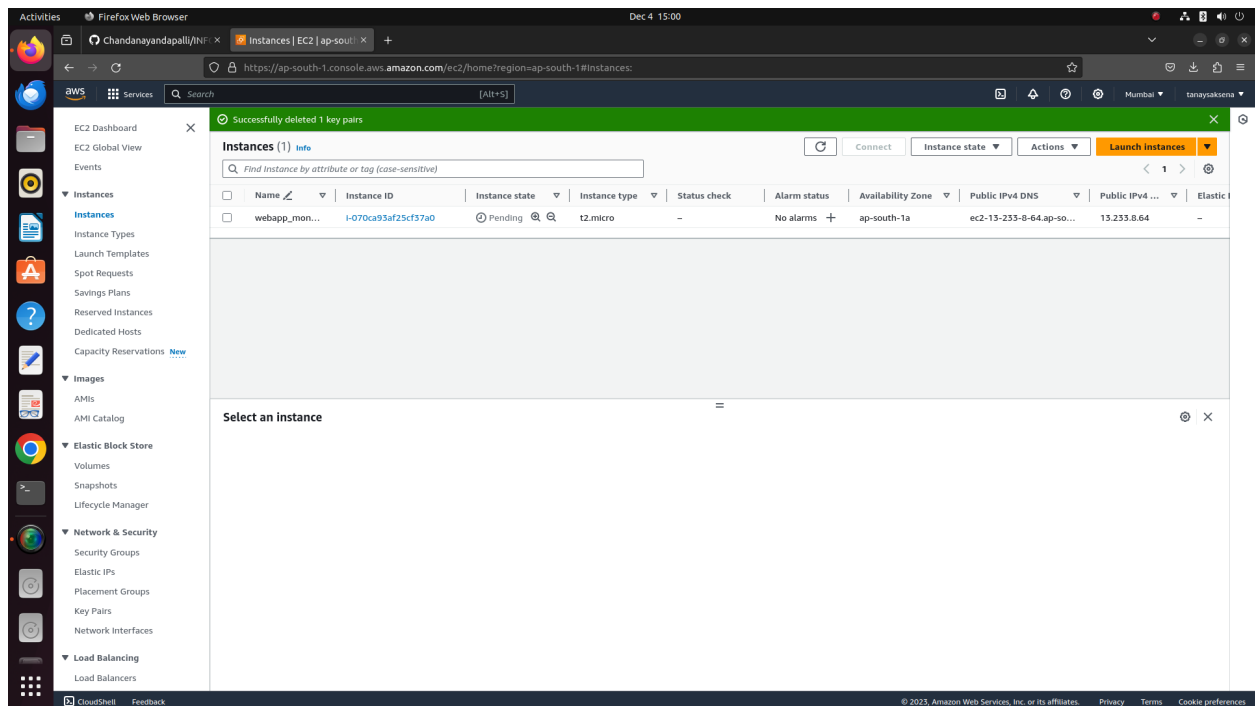
Instance Specifications

Name: webapp_mono

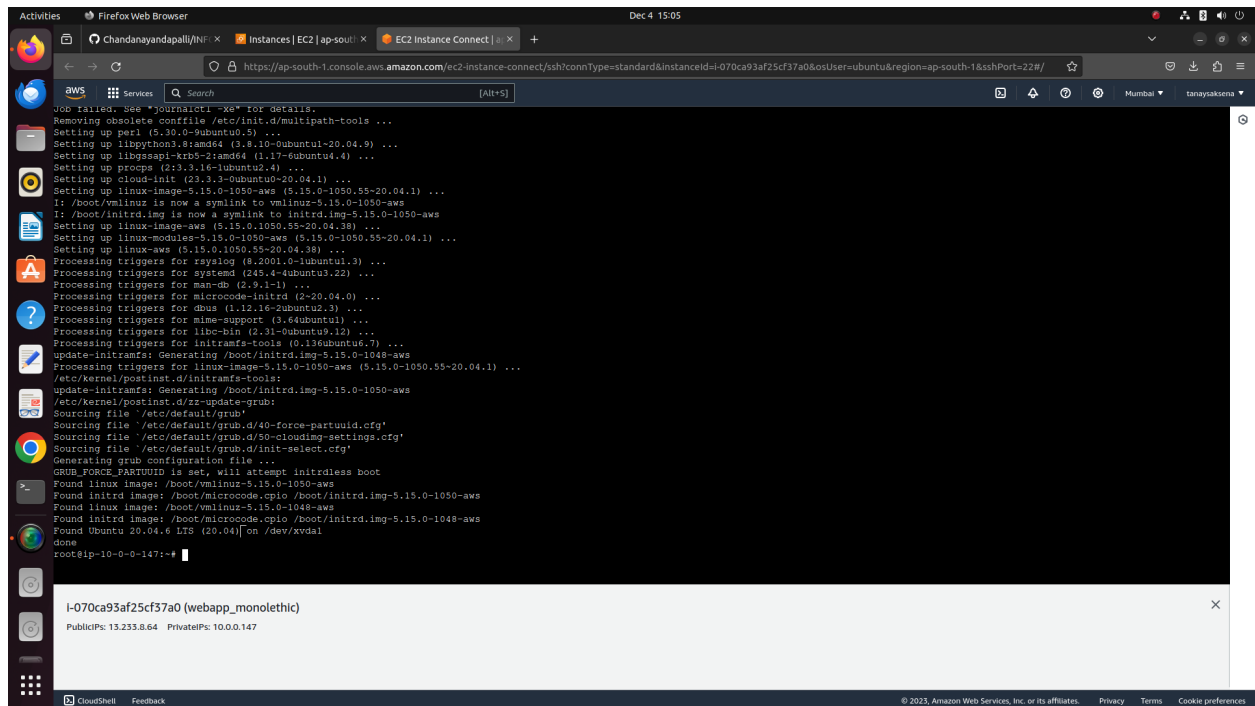
OS: Ubuntu

Instance Type: t2.micro

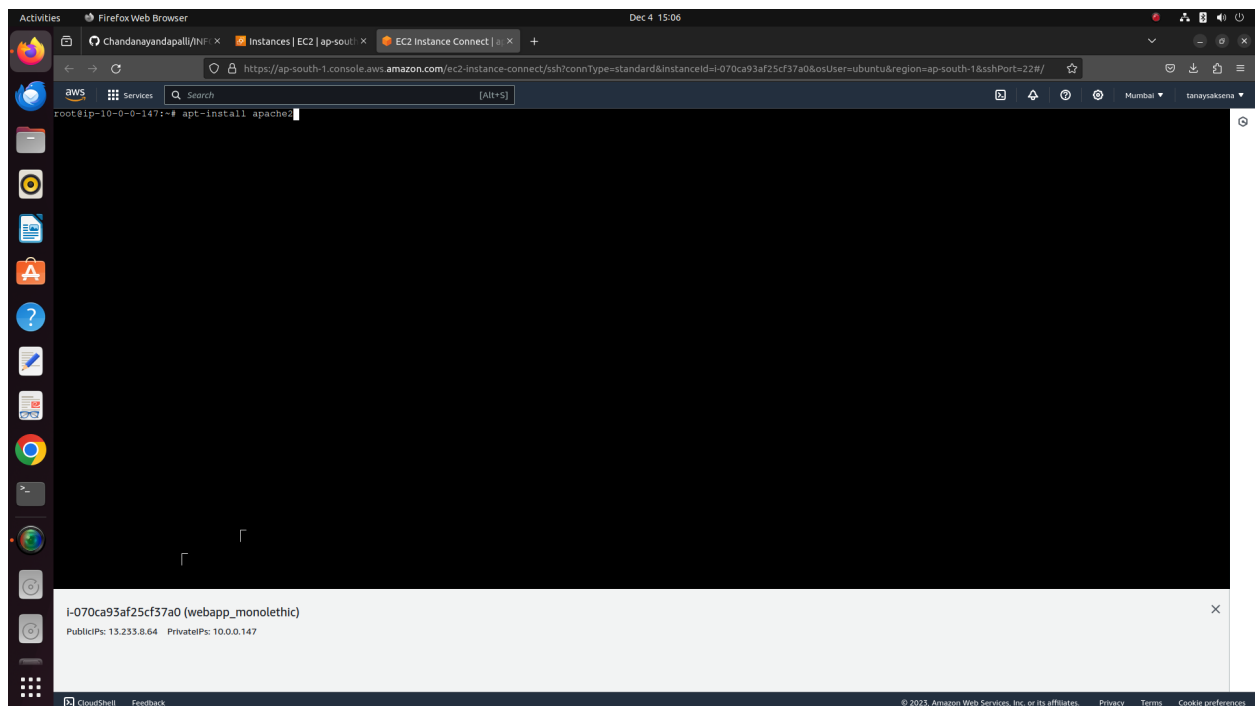
Instance is up & running



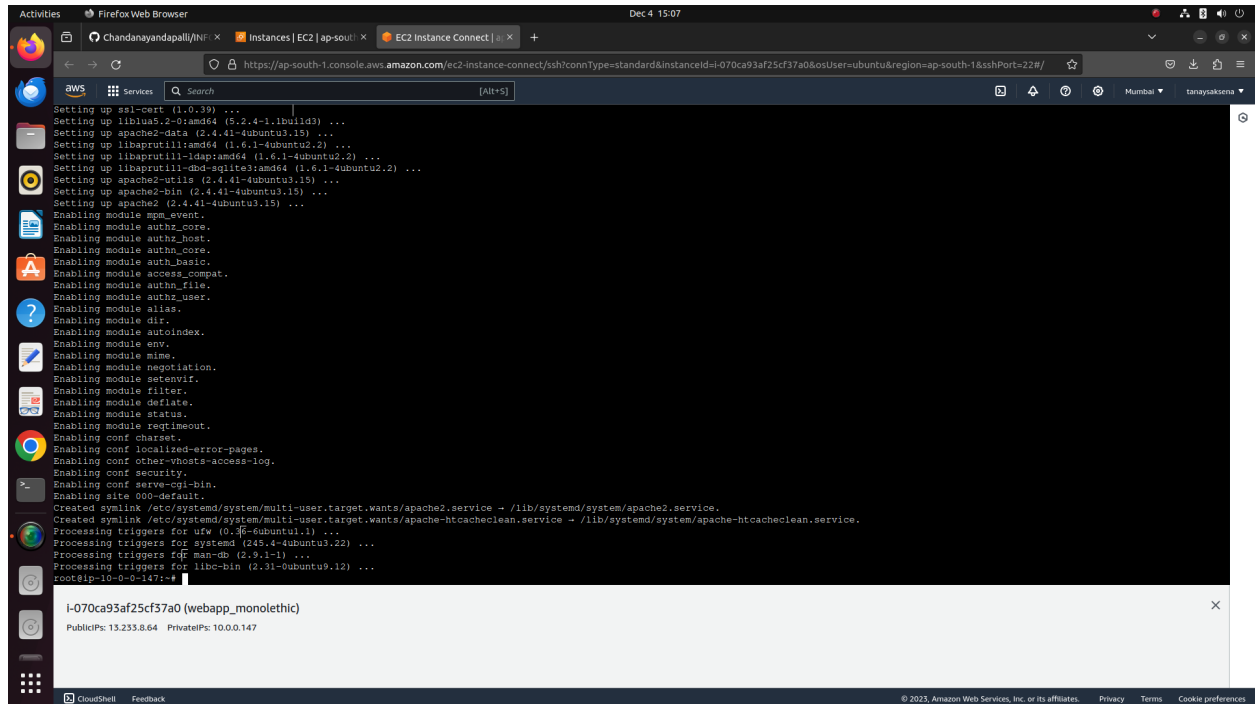
Connected to EC2 instance via SSH & Installing Update



Installing Apache2 server



Apache Installed



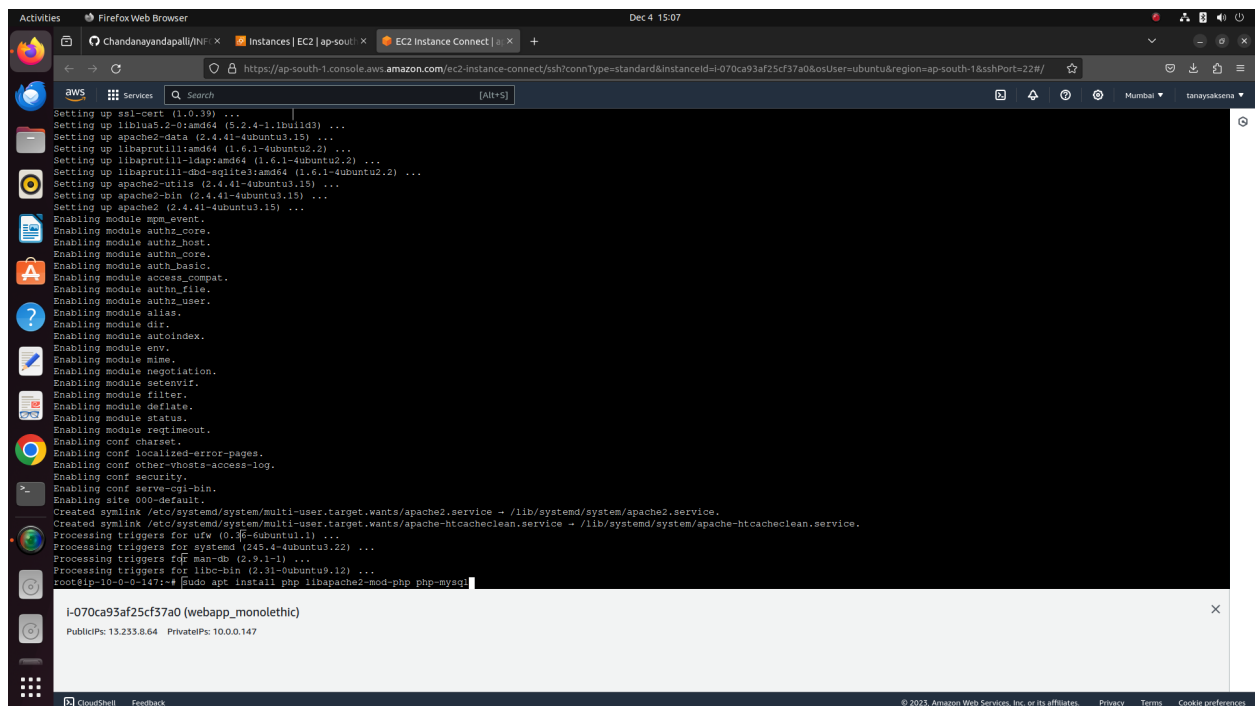
The screenshot shows the AWS Management Console interface for an EC2 instance named 'ap-south-1'. The 'Services' tab is selected, and the 'Instances' section is active. The 'EC2 Instance Connect' button is highlighted. The console displays the progress of the Apache installation on the instance. The output shows the following steps:

```
Setting up ssl-cert (1.0.39) ...
Setting up liblua5.2-0:amd64 (5.2.4-1.1build3) ...
Setting up apache2-data (2.4.41-4ubuntu3.15) ...
Setting up libaprutil1:amd64 (1.6.1-4ubuntu2.2) ...
Setting up libaprutil1-ldap:amd64 (1.6.1-4ubuntu2.2) ...
Setting up libaprutil1-dbd-sqlite3:amd64 (1.6.1-4ubuntu2.2) ...
Setting up apache2-utils (2.4.41-4ubuntu3.15) ...
Setting up apache2-bin (2.4.41-4ubuntu3.15) ...
Setting up apache2 (2.4.41-4ubuntu3.15) ...
Enabling module mpm_event.
Enabling module authz_core.
Enabling module authz_host.
Enabling module authn_core.
Enabling module auth_basic.
Enabling module access_compat.
Enabling module authn_file.
Enabling module authz_user.
Enabling module alias.
Enabling module dir.
Enabling module autoindex.
Enabling module env.
Enabling module mime.
Enabling module negotiation.
Enabling module setenvif.
Enabling module filter.
Enabling module deflate.
Enabling module status.
Enabling module reqtimeout.
Enabling conf charset.
Enabling conf localized-error-pages.
Enabling conf other-vhosts-access-log.
Enabling conf security.
Enabling conf serve-cgi-bin.
Enabling site 000-default.
Created symlink /etc/systemd/system/multi-user.target.wants/apache2.service → /lib/systemd/system/apache2.service.
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.service → /lib/systemd/system/apache-htcacheclean.service.
Processing triggers for ufw (0.36-6ubuntu1.1) ...
Processing triggers for systemd (245.4-4ubuntu3.22) ...
Processing triggers for fdft-man-db (2.9.1-1) ...
Processing triggers for libc-bin (2.31-0ubuntu9.12) ...
root@ip-10-0-0-147:~#
```

The instance details are shown below the terminal output:

```
I-070ca93af25cf37a0 (webapp_monoethic)
PublicIPs: 13.233.8.64 PrivateIPs: 10.0.0.147
```

Installing PHP Dependencies and my sql connector



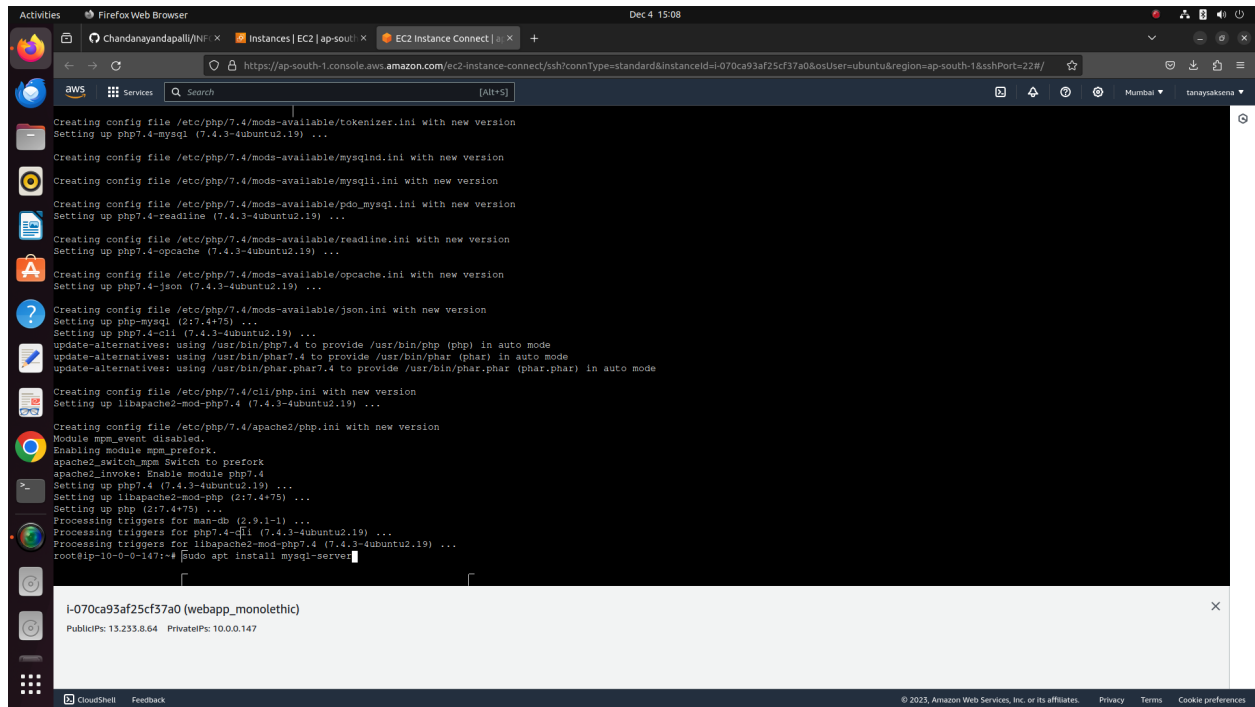
The screenshot shows the AWS Management Console interface for the same EC2 instance. The 'Services' tab is selected, and the 'Instances' section is active. The 'EC2 Instance Connect' button is highlighted. The console displays the progress of the PHP dependencies installation on the instance. The output shows the following steps:

```
Setting up ssl-cert (1.0.39) ...
Setting up liblua5.2-0:amd64 (5.2.4-1.1build3) ...
Setting up apache2-data (2.4.41-4ubuntu3.15) ...
Setting up libaprutil1:amd64 (1.6.1-4ubuntu2.2) ...
Setting up libaprutil1-ldap:amd64 (1.6.1-4ubuntu2.2) ...
Setting up libaprutil1-dbd-sqlite3:amd64 (1.6.1-4ubuntu2.2) ...
Setting up apache2-utils (2.4.41-4ubuntu3.15) ...
Setting up apache2-bin (2.4.41-4ubuntu3.15) ...
Setting up apache2 (2.4.41-4ubuntu3.15) ...
Enabling module mpm_event.
Enabling module authz_core.
Enabling module authz_host.
Enabling module authn_core.
Enabling module auth_basic.
Enabling module access_compat.
Enabling module authn_file.
Enabling module authz_user.
Enabling module alias.
Enabling module dir.
Enabling module autoindex.
Enabling module env.
Enabling module mime.
Enabling module negotiation.
Enabling module setenvif.
Enabling module filter.
Enabling module deflate.
Enabling module status.
Enabling module reqtimeout.
Enabling conf charset.
Enabling conf localized-error-pages.
Enabling conf other-vhosts-access-log.
Enabling conf security.
Enabling conf serve-cgi-bin.
Enabling site 000-default.
Created symlink /etc/systemd/system/multi-user.target.wants/apache2.service → /lib/systemd/system/apache2.service.
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.service → /lib/systemd/system/apache-htcacheclean.service.
Processing triggers for ufw (0.36-6ubuntu1.1) ...
Processing triggers for systemd (245.4-4ubuntu3.22) ...
Processing triggers for fdft-man-db (2.9.1-1) ...
Processing triggers for libc-bin (2.31-0ubuntu9.12) ...
root@ip-10-0-0-147:~# sudo apt install php libapache2-mod-php php-mysql
```

The instance details are shown below the terminal output:

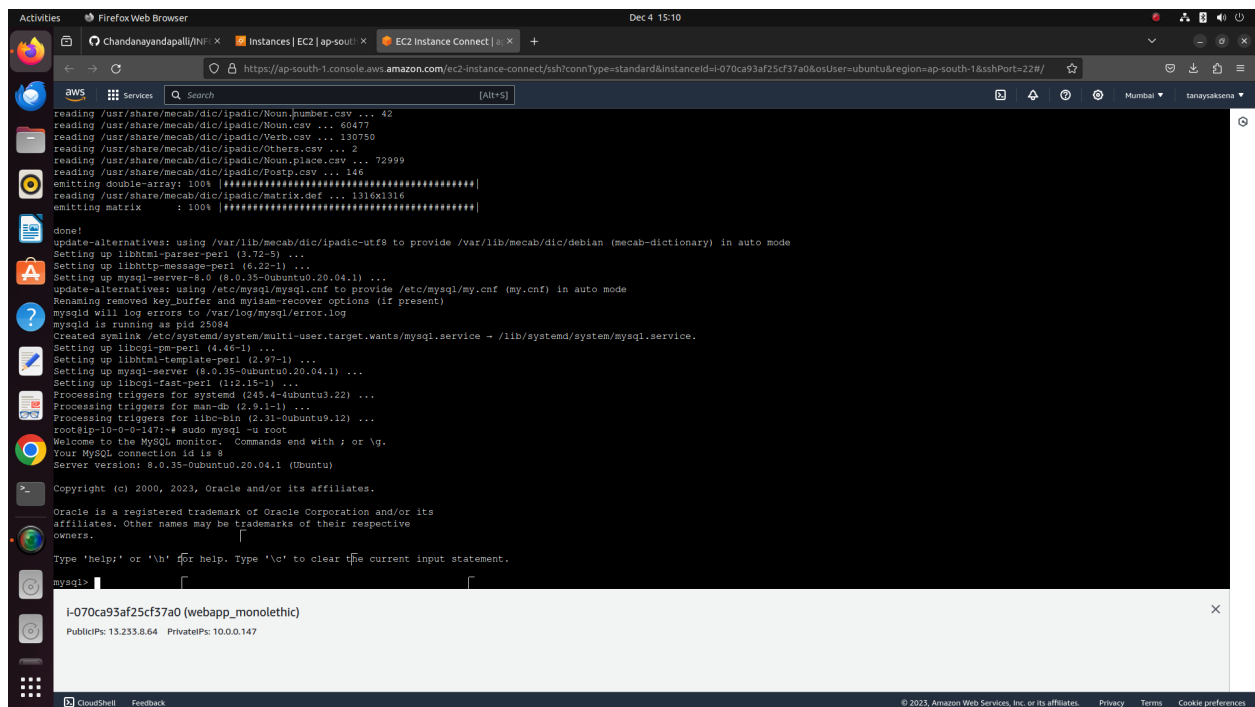
```
I-070ca93af25cf37a0 (webapp_monoethic)
PublicIPs: 13.233.8.64 PrivateIPs: 10.0.0.147
```

Installing MY SQL SERVER



```
Activities Firefox Web Browser Dec 4 15:08
https://ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-070ca93af25cf37a0&osUser=ubuntu&region=ap-south-1&sshPort=22#/?
AWS Services Search [Alt+S]
Creating config file /etc/php/7.4/mods-available/tokenizer.ini with new version
Setting up php7.4-mysql (7.4.3-4ubuntu2.19) ...
Creating config file /etc/php/7.4/mods-available/mysqli.ini with new version
Creating config file /etc/php/7.4/mods-available/pdo_mysqli.ini with new version
Setting up php7.4-readline (7.4.3-4ubuntu2.19) ...
Creating config file /etc/php/7.4/mods-available/readline.ini with new version
Setting up php7.4-opcache (7.4.3-4ubuntu2.19) ...
Creating config file /etc/php/7.4/mods-available/opcache.ini with new version
Setting up php7.4-json (7.4.3-4ubuntu2.19) ...
Creating config file /etc/php/7.4/mods-available/json.ini with new version
Setting up php-mysql (2:7.4+75) ...
Setting up php7.4-cgi (7.4.3-4ubuntu2.19) ...
update-alternatives: using /usr/bin/php7.4 to provide /usr/bin/php (php) in auto mode
update-alternatives: using /usr/bin/phar7.4 to provide /usr/bin/phar (phar) in auto mode
update-alternatives: using /usr/bin/phar.phar7.4 to provide /usr/bin/phar.phar (phar.phar) in auto mode
Creating config file /etc/php/7.4/cli/php.ini with new version
Setting up libapache2-mod-php7.4 (7.4.3-4ubuntu2.19) ...
Creating config file /etc/php/7.4/apache2/php.ini with new version
Module mpm_event disabled.
Enabling module mpm_prefork.
apache2_switch_mpm Switch to prefork
apache2_invoke: Enable module php7.4
Setting up php7.4 (7.4.3-4ubuntu2.19) ...
Setting up libapache2-mod-php (2:7.4+75) ...
Setting up php (2:7.4+75) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for php7.4-cli (7.4.3-4ubuntu2.19) ...
Processing triggers for libapache2-mod-php7.4 (7.4.3-4ubuntu2.19) ...
root@ip-10-0-0-147:~# [sudo apt install mysql-server]
i-070ca93af25cf37a0 (webapp_monoletic)
PublicIPs: 13.233.8.64 PrivateIPs: 10.0.0.147
```

Sql Server login



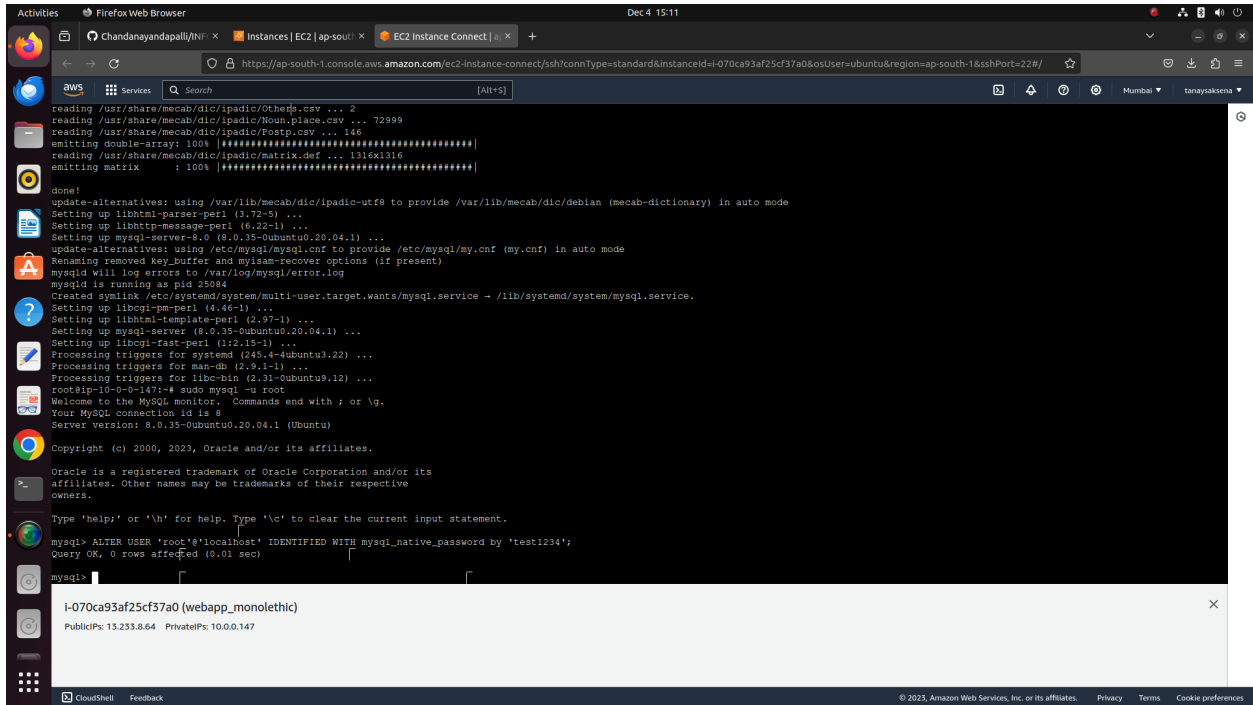
```
Activities Firefox Web Browser Dec 4 15:10
https://ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-070ca93af25cf37a0&osUser=ubuntu&region=ap-south-1&sshPort=22#/?
AWS Services Search [Alt+S]
reading /usr/share/mecab/dic/ipadic/Noun.jumber.csv ... 42
reading /usr/share/mecab/dic/ipadic/Noun.csv ... 60477
reading /usr/share/mecab/dic/ipadic/Verb.csv ... 130750
reading /usr/share/mecab/dic/ipadic/Others.csv ... 2
reading /usr/share/mecab/dic/ipadic/Noun.place.csv ... 72999
reading /usr/share/mecab/dic/ipadic/Postp.csv ... 146
emitting double-array: 100% |#####|
reading /usr/share/mecab/dic/ipadic/matrix.def ... 1316x1316
emitting matrix : 100% |#####|
done!
update-alternatives: using /var/lib/mecab/dic/ipadic-utf8 to provide /var/lib/mecab/dic/debian (mecab-dictionary) in auto mode
Setting up libhtml-parser-perl (2.72-9) ...
Setting up libhttp-message-perl (6.22-1) ...
Setting up mysql-server-8.0 (8.0.35-0ubuntu0.20.04.1) ...
update-alternatives: using /etc/mysql/mysql.cnf to provide /etc/mysql/my.cnf (my.cnf) in auto mode
Remaining removed key buffer and myisam-recover options (if present)
mysql will log errors to /var/log/mysql/error.log
mysqld is running as pid 25084
created symlink /etc/systemd/system/multi-user.target.wants/mysql.service - /lib/systemd/system/mysql.service.
Setting up libsql-pg-perl (4.46-1) ...
Setting up libhtml-template-perl (2.97-1) ...
Setting up mysql-server (8.0.35-0ubuntu0.20.04.1) ...
Setting up libsql-fast-perl (1:2.15-1) ...
Processing triggers for systemd (245.4-4ubuntu3.22) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for libc-bin (2.31-0ubuntu9.12) ...
root@ip-10-0-0-147:~# sudo mysql -u root
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.35-0ubuntu0.20.04.1 (Ubuntu)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql:
i-070ca93af25cf37a0 (webapp_monoletic)
PublicIPs: 13.233.8.64 PrivateIPs: 10.0.0.147
```

Root user Password changed



The screenshot shows a terminal window connected to an AWS EC2 instance via EC2 Instance Connect. The terminal displays the output of a script that sets up MySQL on an Ubuntu system. The script includes commands for reading CSV files, setting up the MySQL server, and creating a symlink for the MySQL service. The terminal output shows the MySQL server starting successfully. The user then logs in as root and changes the root password to 'test1234'.

```
reading /usr/share/mecab/dic/ipadic/OtHeDe.csv ... 2
reading /usr/share/mecab/dic/ipadic/Noun.place.csv ... 72999
reading /usr/share/mecab/dic/ipadic/Postp.csv ... 146
emitting double-array: 100% |#####|
reading /usr/share/mecab/dic/ipadic/matrix.def ... 1316x1316
emitting matrix : 100% |#####|
done!
update-alternatives: using /var/lib/mecab/dic/ipadic-utf8 to provide /var/lib/mecab/dic/debian (mecab-dictionary) in auto mode
Setting up libhtml-parser-perl (3.72-5) ...
Setting up libhttp-message-perl (6.22-1) ...
Setting up mysql-server-8.0 (8.0.35-0ubuntu0.20.04.1) ...
update-alternatives: using /etc/mysql/mysql.cnf to provide /etc/mysql/my.cnf (my.cnf) in auto mode
Renaming removed key_buffer and myisam-recover options (if present)
mysql will log errors to /var/log/mysql/error.log
mysql is running as pid 2584
Created symlink /etc/systemd/system/multi-user.target.wants/mysql.service → /lib/systemd/system/mysql.service.
Setting up libioipm-perl (4.46-1) ...
Setting up libhtml-template-perl (2.97-1) ...
Setting up mysql-server (8.0.35-0ubuntu0.20.04.1) ...
Setting up libioip-fast-perl (1:2.15-1) ...
Processing triggers for systemd (245.4-4ubuntu3.22) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for libc-bin (2.31-0ubuntu9.12) ...
root@ip-10-0-0-147:~# sudo mysql -u root
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.35-0ubuntu0.20.04.1 (Ubuntu)

Copyright (c) 2000, 2023, Oracle and/or its affiliates.

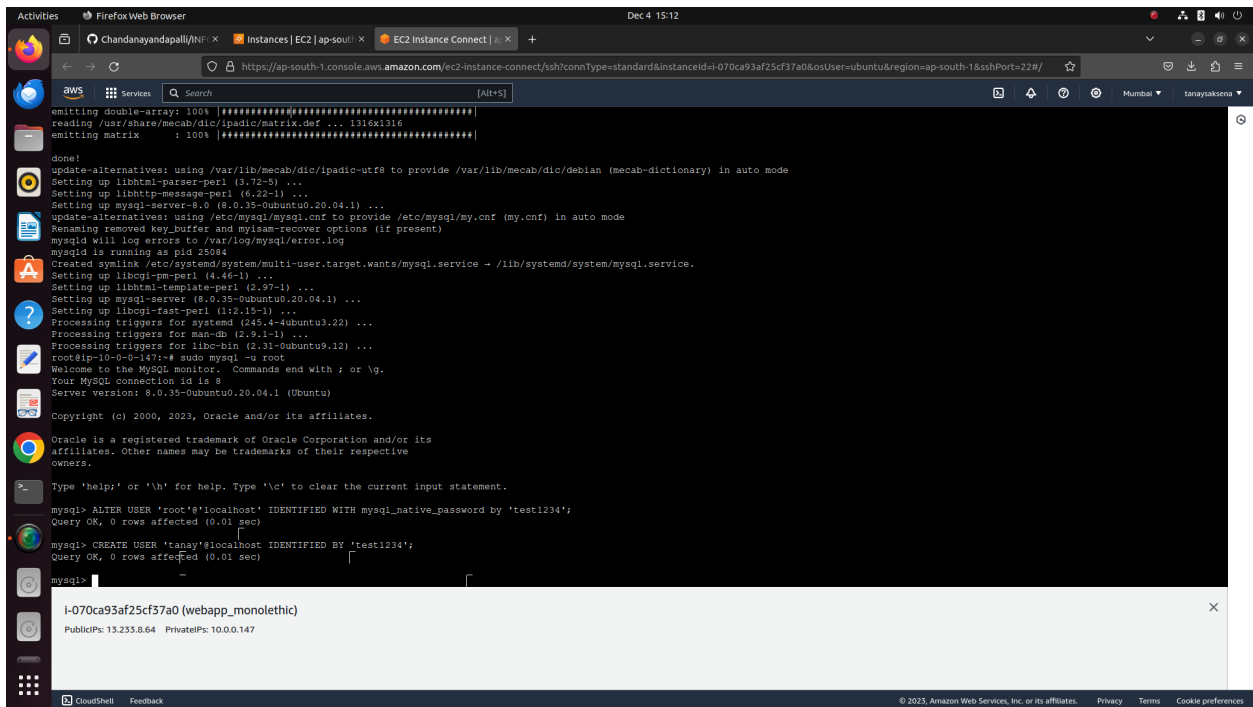
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owners.

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 'test1234';
Query OK, 0 rows affected (0.01 sec)

mysql>
```

New user created in my sql



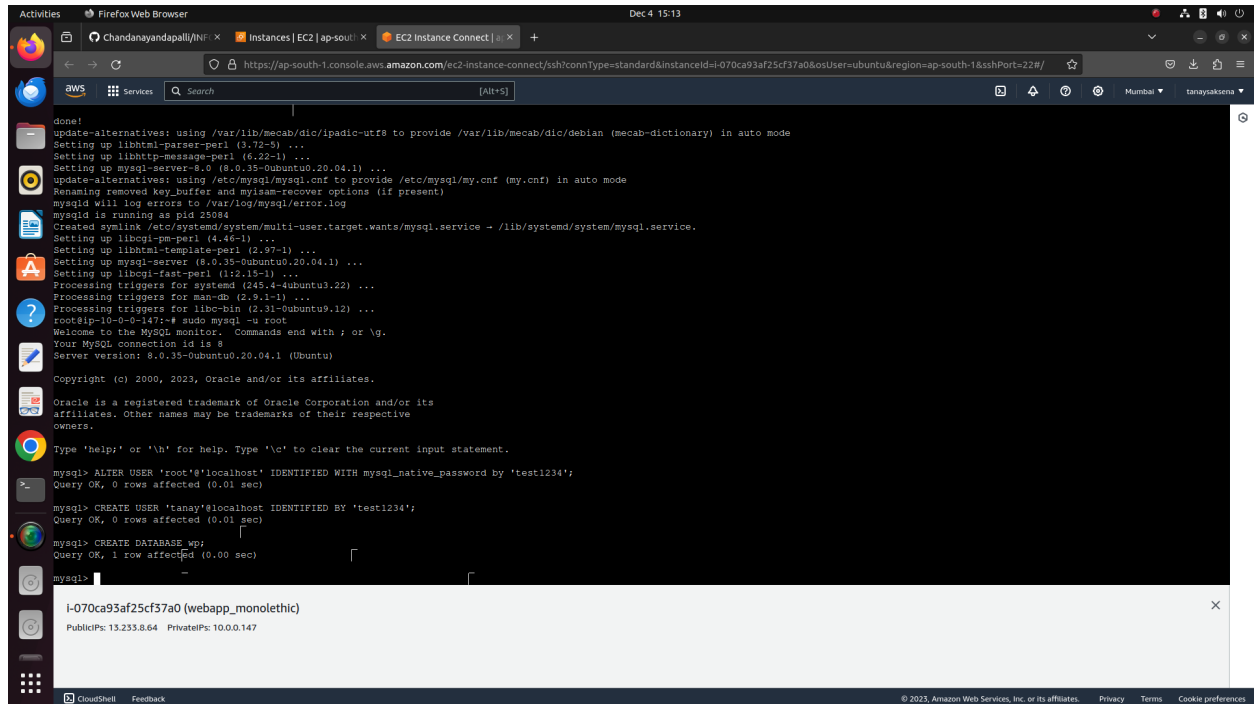
The screenshot shows the same terminal window as the previous one, but with additional commands executed. The user has created a new MySQL user named 'tanay' with the password 'test1234'.

```
mysql> ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password by 'test1234';
Query OK, 0 rows affected (0.01 sec)

mysql> CREATE USER 'tanay'@'localhost' IDENTIFIED BY 'test1234';
Query OK, 0 rows affected (0.01 sec)

mysql>
```

Created Database



```
done!
update-alternatives: using /var/lib/mecab/dic/ipadic-utf8 to provide /var/lib/mecab/dic/debian (mecab-dictionary) in auto mode
Setting up libhtml-parser-perl (3.72-5) ...
Setting up libhttp-message-perl (6.22-1) ...
Setting up mysql-server-8.0 (8.0.35-0ubuntu0.20.04.1) ...
update-alternatives: using /etc/mysql/mysql.cnf to provide /etc/mysql/my.cnf (my.cnf) in auto mode
Renaming removed key_buffer and myisam-recover options (if present)
mysqld will log errors to /var/log/mysql/error.log
mysqld is running as pid 25084
Created symlink /etc/systemd/system/multi-user.target.wants/mysql.service → /lib/systemd/system/mysql.service.
Setting up libio-nonblock-perl (4.46-1) ...
Setting up libhtml-template-perl (2.97-1) ...
Setting up mysql-server (8.0.35-0ubuntu0.20.04.1) ...
Setting up libio-nonblock-perl (4.46-1) ...
Processing triggers for systemd (249.4-4ubuntu3.22) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for libc-bin (2.31-0ubuntu9.12) ...
root@ip-10-0-0-147:~# sudo mysql -u root
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.35-0ubuntu0.20.04.1 (Ubuntu)

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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 'test1234';
Query OK, 0 rows affected (0.01 sec)

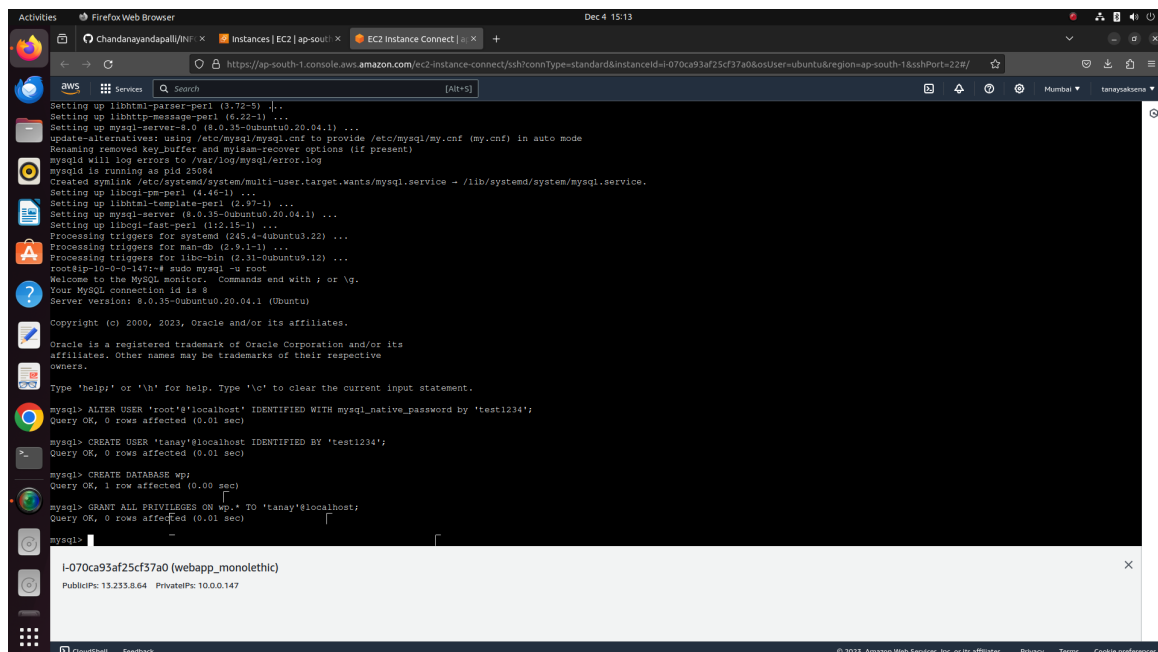
mysql> CREATE USER 'tanay'@'localhost' IDENTIFIED BY 'test1234';
Query OK, 0 rows affected (0.01 sec)

mysql> CREATE DATABASE wp;
Query OK, 1 row affected (0.00 sec)

mysql>
```

I-070ca93af25cf37a0 (webapp_monoethic)
PublicIPs: 13.233.8.64 PrivateIPs: 10.0.0.147

Granted all Privileges to new user



```
Setting up libhtml-parser-perl (3.72-5) ...
Setting up libhttp-message-perl (6.22-1) ...
Setting up mysql-server-8.0 (8.0.35-0ubuntu0.20.04.1) ...
update-alternatives: using /etc/mysql/mysql.cnf to provide /etc/mysql/my.cnf (my.cnf) in auto mode
Renaming removed key_buffer and myisam-recover options (if present)
mysqld will log errors to /var/log/mysql/error.log
mysqld is running as pid 25084
Created symlink /etc/systemd/system/multi-user.target.wants/mysql.service → /lib/systemd/system/mysql.service.
Setting up libio-nonblock-perl (4.46-1) ...
Setting up libhtml-template-perl (2.97-1) ...
Setting up mysql-server (8.0.35-0ubuntu0.20.04.1) ...
Setting up libio-nonblock-perl (4.46-1) ...
Processing triggers for systemd (249.4-4ubuntu3.22) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for libc-bin (2.31-0ubuntu9.12) ...
root@ip-10-0-0-147:~# sudo mysql -u root
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.35-0ubuntu0.20.04.1 (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> ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password by 'test1234';
Query OK, 0 rows affected (0.01 sec)

mysql> CREATE USER 'tanay'@'localhost' IDENTIFIED BY 'test1234';
Query OK, 0 rows affected (0.01 sec)

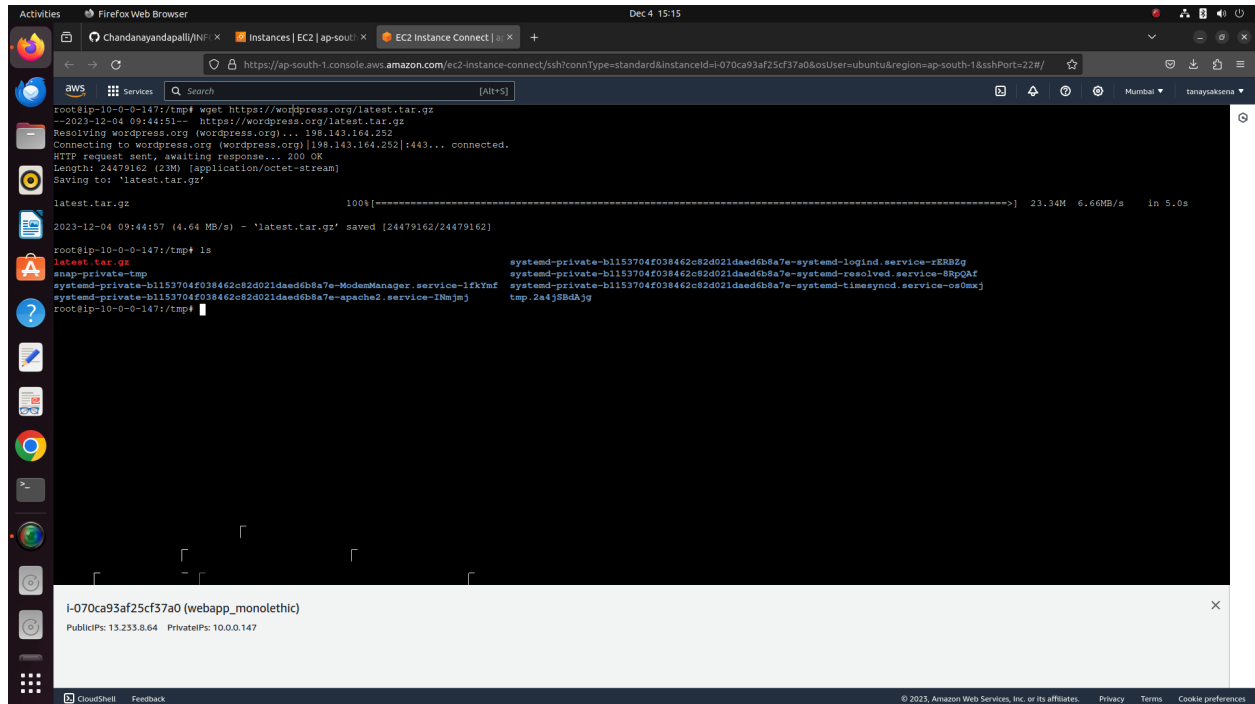
mysql> CREATE DATABASE wp;
Query OK, 1 row affected (0.00 sec)

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

mysql>
```

I-070ca93af25cf37a0 (webapp_monoethic)
PublicIPs: 13.233.8.64 PrivateIPs: 10.0.0.147

Download, unzip and copy wordpress to /var/www/html

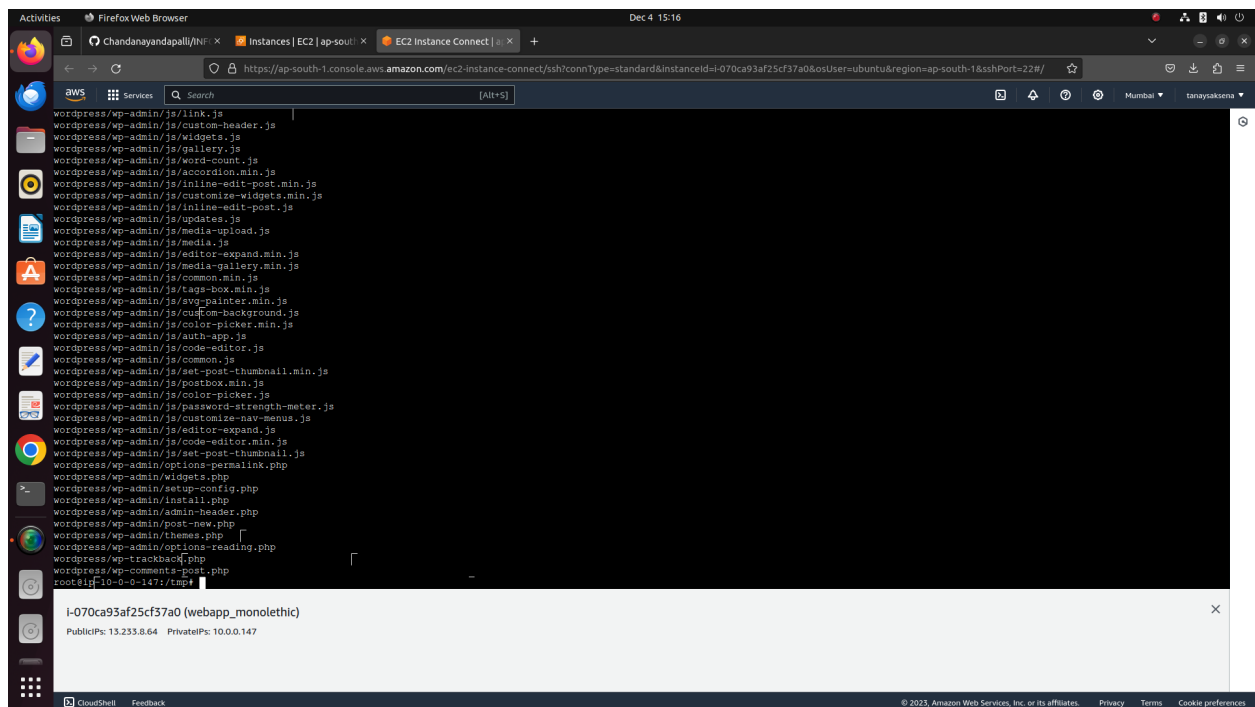


```
root@ip-10-0-0-147:/tmp# wget https://wordpress.org/latest.tar.gz
--2023-12-04 09:44:51-- https://wordpress.org/latest.tar.gz
Resolving wordpress.org (wordpress.org)... 198.143.164.252
Connecting to wordpress.org (wordpress.org)|198.143.164.252|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 24479162 (23M) [application/octet-stream]
Saving to: 'latest.tar.gz'

latest.tar.gz      100%[=====] 23.34M  6.66MB/s  in 5.0s

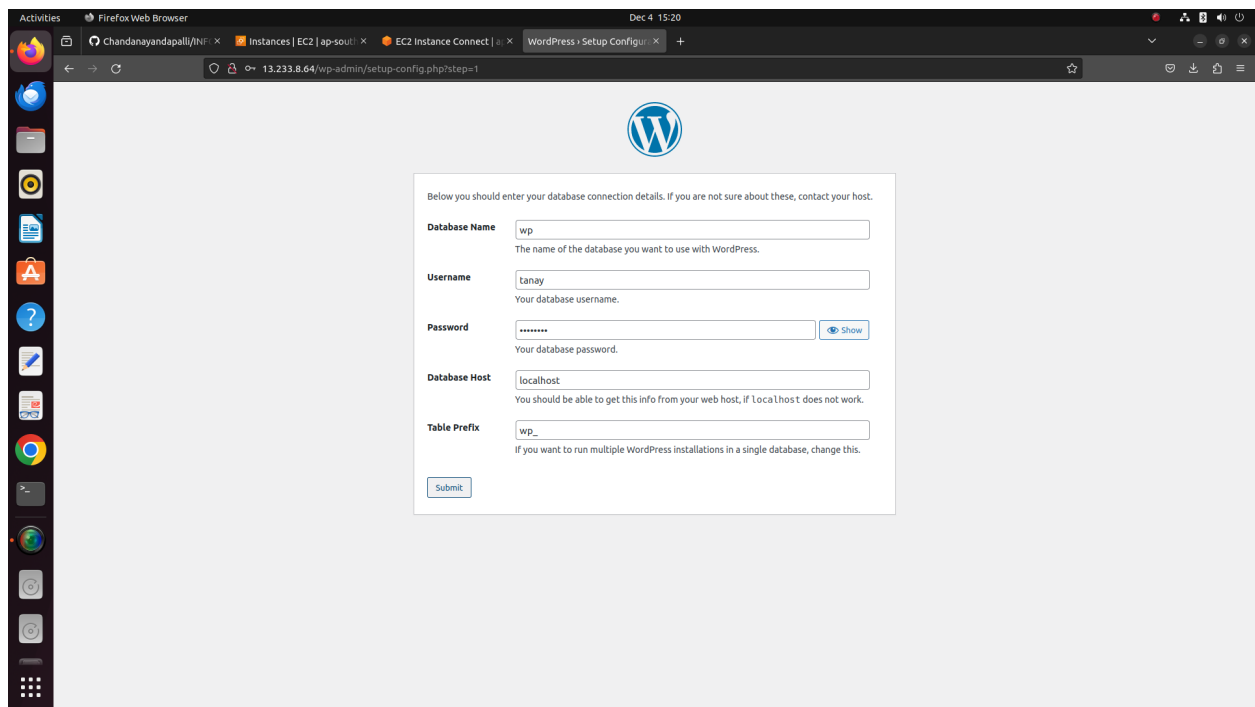
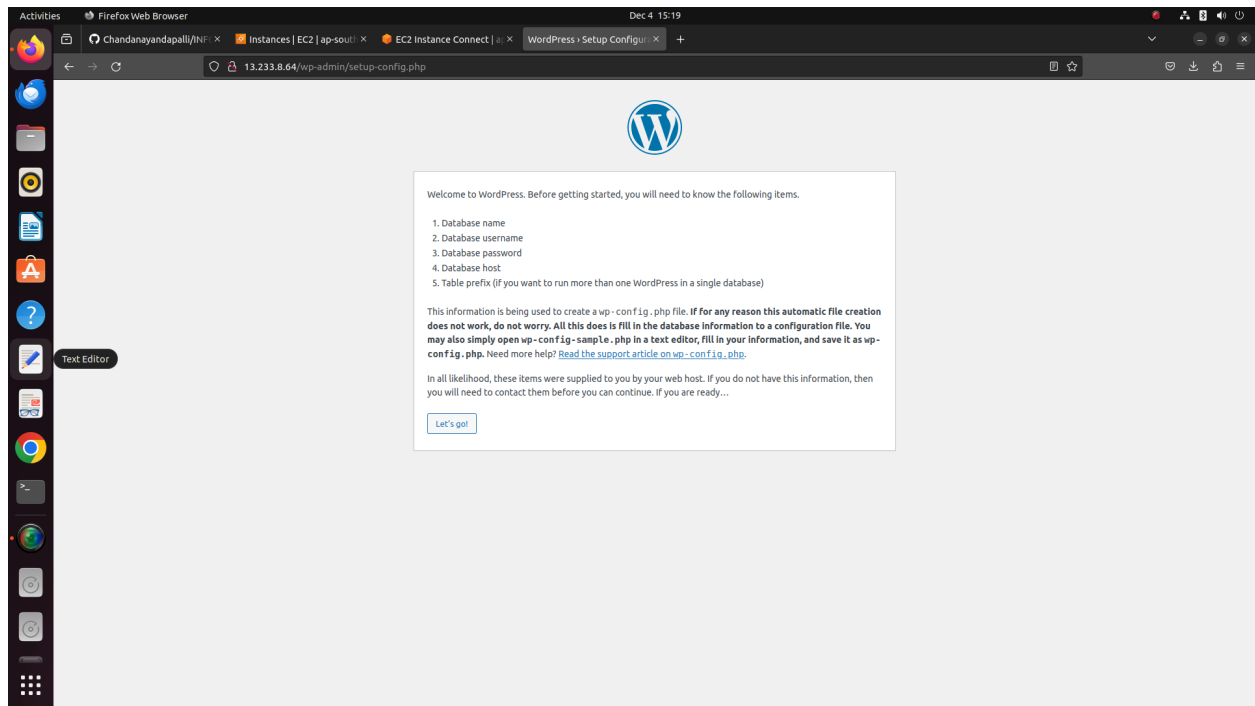
2023-12-04 09:44:57 (4.64 MB/s) - 'latest.tar.gz' saved [24479162/24479162]

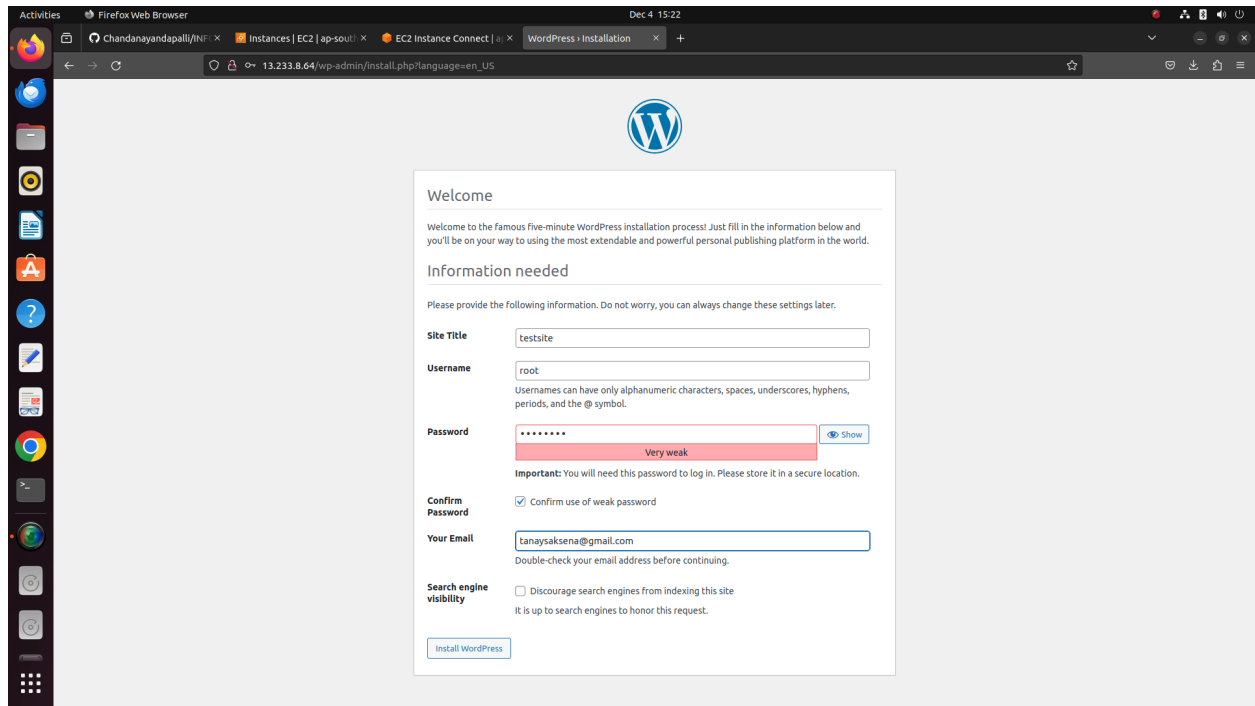
root@ip-10-0-0-147:/tmp# ls
latest.tar.gz
root@ip-10-0-0-147:/tmp# tar -xzf latest.tar.gz
systemd-private-b1153704f038462c82d021daed6b8a7e-systemd-logind.service-rERRg
systemd-private-b1153704f038462c82d021daed6b8a7e-systemd-resolved.service-EPpQf
systemd-private-b1153704f038462c82d021daed6b8a7e-systemd-timesyncd.service-96mxj
root@ip-10-0-0-147:/tmp# cp -r wordpress /var/www/html
```



```
wordpress/wp-admin/js/link.js
wordpress/wp-admin/js/custom-header.js
wordpress/wp-admin/js/widgets.js
wordpress/wp-admin/js/gallery.js
wordpress/wp-admin/js/word-count.js
wordpress/wp-admin/js/accordion.min.js
wordpress/wp-admin/js/inline-edit-post.min.js
wordpress/wp-admin/js/customize-widgets.min.js
wordpress/wp-admin/js/inline-edit-post.js
wordpress/wp-admin/js/updates.js
wordpress/wp-admin/js/media-upload.js
wordpress/wp-admin/js/media.js
wordpress/wp-admin/js/editor-expand.min.js
wordpress/wp-admin/js/media-gallery.min.js
wordpress/wp-admin/js/common.min.js
wordpress/wp-admin/js/tags-box.min.js
wordpress/wp-admin/js/svg-painter.min.js
wordpress/wp-admin/js/custom-background.js
wordpress/wp-admin/js/color-picker.min.js
wordpress/wp-admin/js/auth-app.js
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
root@ip-10-0-0-147:/tmp#
```

Wordpress installation and Configure





Wordpress login and created new front page

