AWS EC2 LAMP Stack Deployment with Apache on Custom Port and MySQL Database Restoration via phpMyAdmin

– ASWIN VTK –

✅ TASK OVERVIEW (what we will do)

1. Create an EC2 instance with Ubuntu Operating system.
2. Install Apache2, mysql, PHP and phpmyadmin.
3. Web Server apache should run on port 6397.
4. Web server running ports should be publicly accessible.
5. Restore the given mysql backup using phpmyadmin, the database name should be "testmysql".

🟢 STEP 1: Create EC2 Instance (Ubuntu)

In AWS Console

- **AMI**: Ubuntu Server 22.04 / 24.04
- **Instance type**: t2.micro
- **Key pair**: Create or select
- **Security Group**:
  - SSH → Port **22** → My IP
  - ✅ HTTP Custom → Port **6397** → **0.0.0.0/0**

🟢 STEP 2: Connect to EC2 - Update system

```
ssh -i key.pem ubuntu@<EC2_PUBLIC_IP>
sudo apt update && sudo apt upgrade -y
```

🟢 STEP 3: Install Apache, MySQL, PHP

```
sudo apt install -y apache2 mysql-server php libapache2-mod-php
php-mysql php-cli php-curl php-zip php-gd php-mbstring php-xml
php-bcmath
```

Enable Apache

```
sudo systemctl enable apache2
sudo systemctl start apache2
```

🟢 STEP 4: Change Apache Port to 6397

Edit Apache ports config

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

Change: Listen 80

To: Listen 6397

Edit default site config

```
sudo nano /etc/apache2/sites-av\ailable/000-default.conf
```

Change: <VirtualHost *:80>

To: <VirtualHost *:6397>

Restart Apache

```
sudo systemctl restart apache2
```

🟢 STEP 5: Allow Port 6397 in Firewall

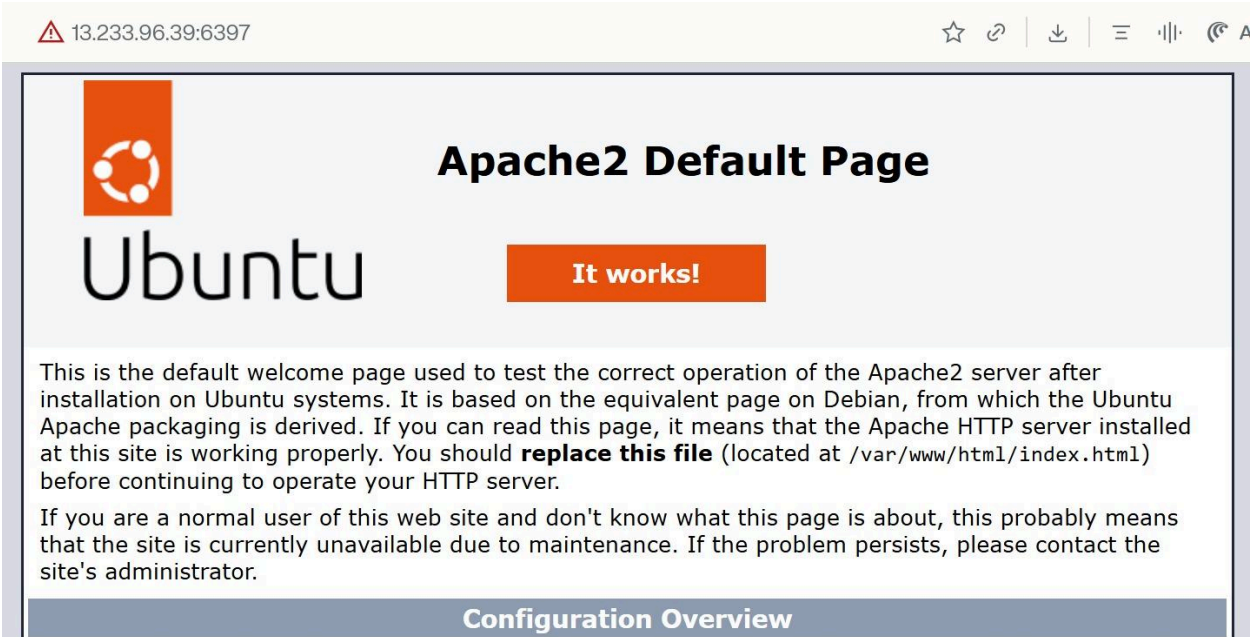
```
sudo ufw allow 6397

sudo ufw reload
```

🟢 STEP 6: Test Apache

Open browser:

http://EC2_PUBLIC_IP:6397



🟢 STEP 7: Install phpMyAdmin

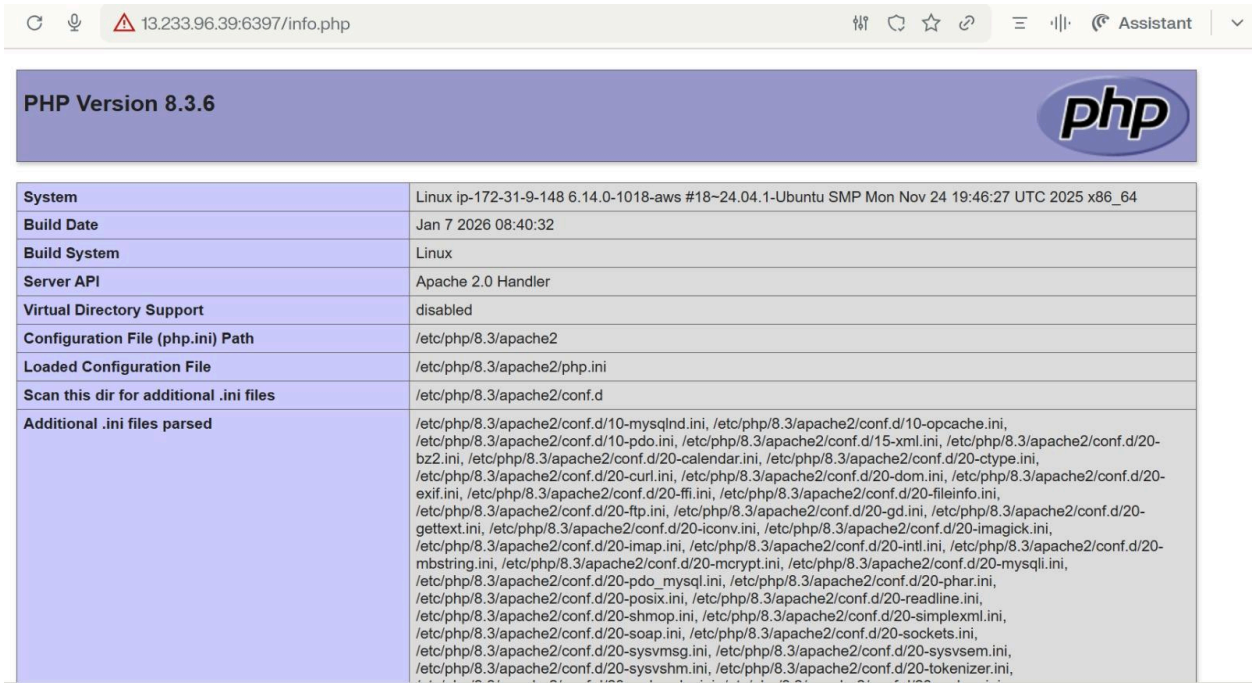
```
sudo apt install -y phpmyadmin
```

When prompted:

- Web server → **apache2**
- Database config → **Yes**
- Set phpMyAdmin password

Enable phpMyAdmin in Apache

```
sudo ln -s /usr/share/phpmyadmin /var/www/html/phpmyadmin
sudo systemctl restart apache2
```



System	Linux ip-172-31-9-148 6.14.0-1018-aws #18~24.04.1-Ubuntu SMP Mon Nov 24 19:46:27 UTC 2025 x86_64
Build Date	Jan 7 2026 08:40:32
Build System	Linux
Server API	Apache 2.0 Handler
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/etc/php/8.3/apache2
Loaded Configuration File	/etc/php/8.3/apache2/php.ini
Scan this dir for additional .ini files	/etc/php/8.3/apache2/conf.d
Additional .ini files parsed	/etc/php/8.3/apache2/conf.d/10-mysqlnd.ini, /etc/php/8.3/apache2/conf.d/10-opcache.ini, /etc/php/8.3/apache2/conf.d/10-pdo.ini, /etc/php/8.3/apache2/conf.d/15-xml.ini, /etc/php/8.3/apache2/conf.d/20-bz2.ini, /etc/php/8.3/apache2/conf.d/20-calendar.ini, /etc/php/8.3/apache2/conf.d/20-ctype.ini, /etc/php/8.3/apache2/conf.d/20-curl.ini, /etc/php/8.3/apache2/conf.d/20-dom.ini, /etc/php/8.3/apache2/conf.d/20-exif.ini, /etc/php/8.3/apache2/conf.d/20-ffi.ini, /etc/php/8.3/apache2/conf.d/20-fileinfo.ini, /etc/php/8.3/apache2/conf.d/20-ftp.ini, /etc/php/8.3/apache2/conf.d/20-gd.ini, /etc/php/8.3/apache2/conf.d/20-gettext.ini, /etc/php/8.3/apache2/conf.d/20-iconv.ini, /etc/php/8.3/apache2/conf.d/20-imagick.ini, /etc/php/8.3/apache2/conf.d/20-imap.ini, /etc/php/8.3/apache2/conf.d/20-intl.ini, /etc/php/8.3/apache2/conf.d/20-mbstring.ini, /etc/php/8.3/apache2/conf.d/20-mcrypt.ini, /etc/php/8.3/apache2/conf.d/20-mysqli.ini, /etc/php/8.3/apache2/conf.d/20-pdo_mysql.ini, /etc/php/8.3/apache2/conf.d/20-phar.ini, /etc/php/8.3/apache2/conf.d/20-posix.ini, /etc/php/8.3/apache2/conf.d/20-readline.ini, /etc/php/8.3/apache2/conf.d/20-shmop.ini, /etc/php/8.3/apache2/conf.d/20-simplexml.ini, /etc/php/8.3/apache2/conf.d/20-soap.ini, /etc/php/8.3/apache2/conf.d/20-sockets.ini, /etc/php/8.3/apache2/conf.d/20-sysvmsg.ini, /etc/php/8.3/apache2/conf.d/20-sysvsem.ini, /etc/php/8.3/apache2/conf.d/20-sysvshm.ini, /etc/php/8.3/apache2/conf.d/20-tokenizer.ini,

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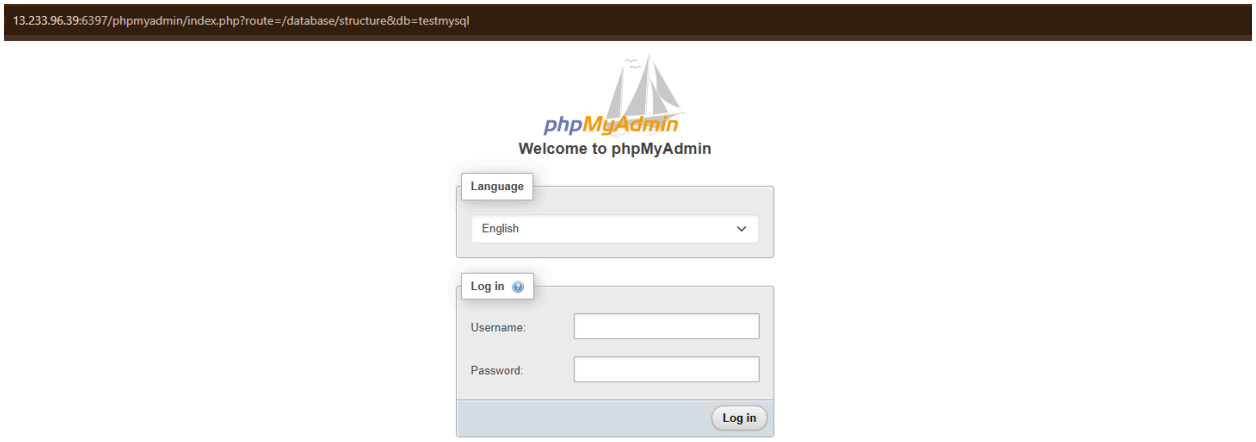
🟢 STEP 8: Create Database `testmysql`

```
sudo mysql
CREATE DATABASE testmysql;
EXIT;
```

🟢 STEP 9: Access phpMyAdmin

Open browser:

http://EC2_PUBLIC_IP:6397/phpmyadmin

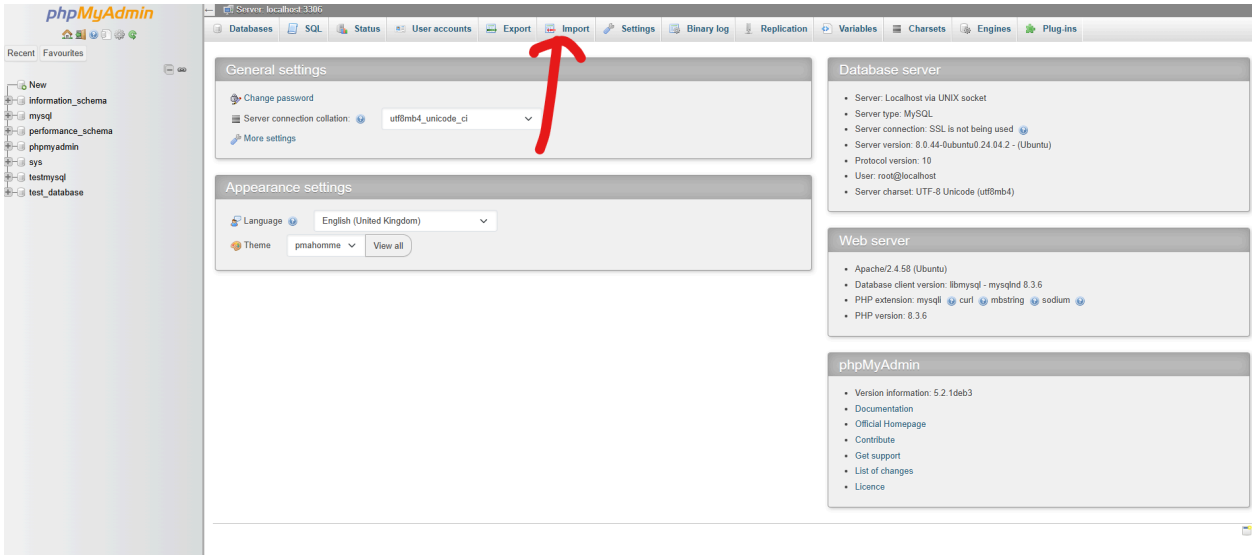


Login using:

- Username: `root`
- Password: (phpMyAdmin password or MySQL user)

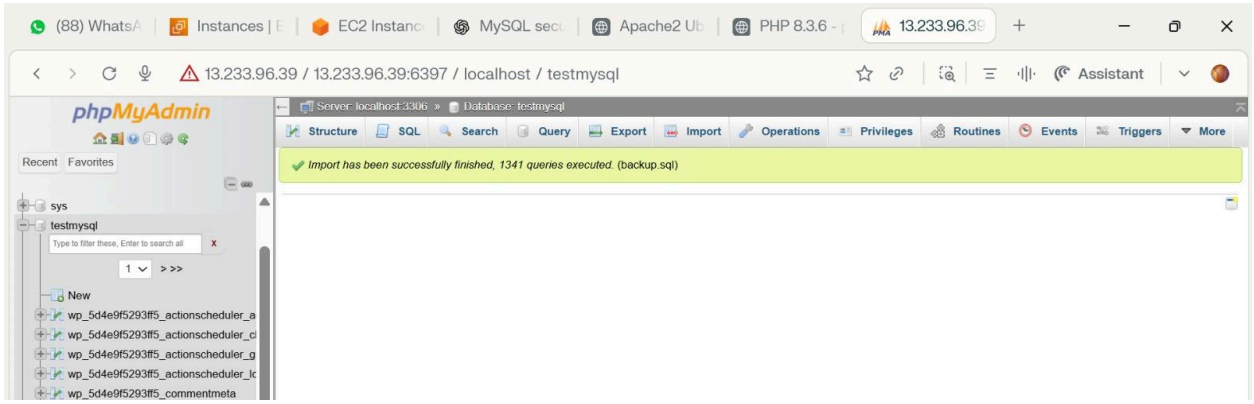
🟢 STEP 10: Restore MySQL Backup

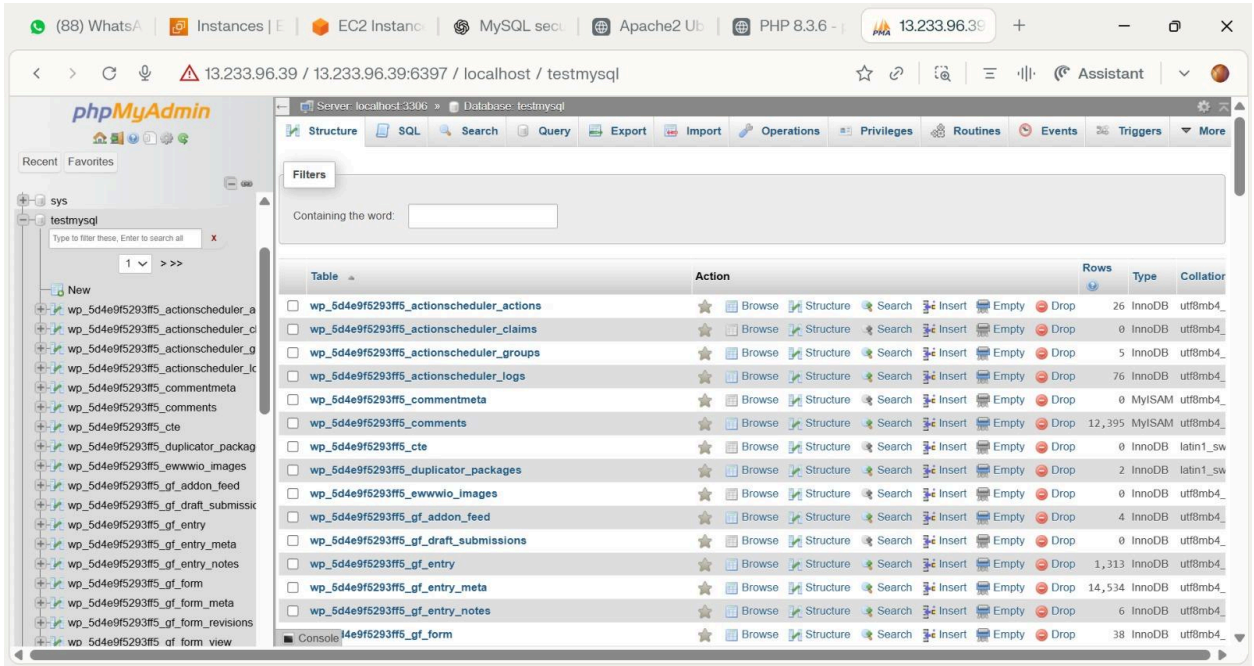
In phpMyAdmin:



1. Select database **`testmysql`**
2. Click **Import**
3. Choose your `.sql` backup file
4. Click **Go**

✅ Database restored successfully





❌ Common Error

Uploading sql a common error shown
“You probably tried to upload a file that is too large. Please refer to documentation for a workaround for this limit.”

It means PHP upload limits are too small for your MySQL backup file.

fix it properly so phpMyAdmin import works.

You probably tried to upload a file that is too large

- This is NOT a MySQL issue
- It is a PHP configuration limit

SOLUTION 1 : Increase PHP upload limits

- Step 1: Find your PHP version

```
php -v
```

You’ll see something like:
PHP 8.1.x

So config path will be: /etc/php/8.1/apache2/php.ini

- Step 2: Edit php.ini

```
sudo nano /etc/php/*/apache2/php.ini
```

Find and change these values:

upload_max_filesize = 256M
post_max_size = 256M
max_execution_time = 300
max_input_time = 300
memory_limit = 512M

SOLUTION 2 : Alternative

✔ No nano
✔ No need to find line
✔ Safe and fast

Open php.ini directly at needed lines:

```
sudo sed -i 's/upload_max_filesize = .*/upload_max_filesize = 256M/' /etc/php/*/apache2/php.ini
sudo sed -i 's/post_max_size = .*/post_max_size = 256M/' /etc/php/*/apache2/php.ini
sudo sed -i 's/max_execution_time = .*/max_execution_time = 300/' /etc/php/*/apache2/php.ini
sudo sed -i 's/max_input_time = .*/max_input_time = 300/' /etc/php/*/apache2/php.ini
sudo sed -i 's/memory_limit = .*/memory_limit = 512M/' /etc/php/*/apache2/php.ini
```

```
sudo systemctl restart apache2
```