

Universal LAMP Server Setup on Ubuntu with PHP 8.2

Step 1: Update System

- Run: `sudo apt update && sudo apt upgrade -y`

Step 2: Install Apache

- Install: `sudo apt install apache2 -y`
- Enable & Start: `sudo systemctl enable apache2 && sudo systemctl start apache2`

Step 3: Install MySQL and Create Admin User

- Install: `sudo apt install mysql-server -y`
- Secure: `sudo mysql_secure_installation`
- Create Admin User:
`sudo mysql -e "CREATE USER 'admin'@'localhost' IDENTIFIED BY 'admin@123';"`
`sudo mysql -e "GRANT ALL PRIVILEGES ON *.* TO 'admin'@'localhost' WITH GRANT OPTION;"`
`sudo mysql -e "FLUSH PRIVILEGES;"`

Step 4: Install PHP 8.2

- Add Repository: `sudo add-apt-repository ppa:ondrej/php -y && sudo apt update`
- Install PHP: `sudo apt install php8.2 libapache2-mod-php8.2 php8.2-mysql php8.2-cli php8.2-curl php8.2-zip php8.2-gd php8.2-mbstring php8.2-xml php8.2-pear php8.2-bcmath unzip -y`
- Restart Apache: `sudo systemctl restart apache2`

Step 5: Install phpMyAdmin

- Install: `sudo apt install phpmyadmin -y`

Step 6: Configure Apache for phpMyAdmin

- Link to Apache: `sudo ln -s /usr/share/phpmyadmin /var/www/html/phpmyadmin`
- Restart Apache: `sudo systemctl restart apache2`

Step 7: Set Correct Permissions

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

Step 8: Configure Apache for Universal DocumentRoot

- Edit config: `sudo nano /etc/apache2/sites-available/000-default.conf`
- Set DocumentRoot:
`<VirtualHost *:80>`
`ServerAdmin webmaster@localhost`
`DocumentRoot /var/www/html`
`<Directory /var/www/html>`
`AllowOverride All`

Require all granted

</Directory>

ErrorLog \${APACHE_LOG_DIR}/error.log

CustomLog \${APACHE_LOG_DIR}/access.log combined

</VirtualHost>

- Enable mod_rewrite: sudo a2enmod rewrite
- Restart Apache: sudo systemctl restart apache2

Step 9: Verify Installation

- Open <http://your-server-ip/>
- Create test PHP file:
echo "<?php phpinfo(); ?>" | sudo tee /var/www/html/info.php
- Visit <http://your-server-ip/info.php>
- Access phpMyAdmin: <http://your-server-ip/phpmyadmin/>

LAMP Server with PHP 8.2 and MySQL admin is now set up!