# LEMP Stack Setup on Ubuntu

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## Project Overview

This project involved setting up a LEMP stack (Linux, Nginx, MySQL, PHP) on an Ubuntu server. The goal was to:  
- Configure Nginx to serve a PHP application.  
- Set up a MySQL database and retrieve data dynamically via PHP.

## Steps Performed

### 1. System Update

Updated the Ubuntu server packages to ensure compatibility and security.

### 2. Nginx Installation

Installed and activated Nginx as the web server, then verified its status.

### 3. MySQL Setup

Installed MySQL, secured it with mysql\_secure\_installation, and created a test database with a dedicated user.

### 4. PHP Installation

Installed PHP-FPM and the MySQL extension to enable PHP-Nginx communication.

### 5. Nginx Configuration

Created a custom server block (projectLEMP) to host the site. Tested the configuration and disabled the default Nginx site.

### 6. PHP Testing

Created a phpinfo() page to confirm PHP processing, then removed it for security.

### 7. Database Integration

Designed a todo\_list table in MySQL. Wrote a PHP script to fetch and display data from the database in a browser.

## Conclusion

The project successfully demonstrated a functional LEMP stack, with Nginx serving dynamic PHP content linked to a MySQL database.

GitHub Repository: <https://bit.ly/4mlprtU>

LinkedIn Profile: <https://bit.ly/45C5pEs>