## Adding an Ubuntu Linux Server with Moodle ELO to Your Network

To add an Ubuntu Linux server with Moodle ELO installed and configured to your network, follow these general steps:

### 1. **Server Preparation**

* **Install Ubuntu Server**: Download and install Ubuntu Server on the computer or virtual machine you wish to use as your Moodle server.
* **Network Configuration**: Configure the network settings so the server can communicate with other devices on your network, including the router and switches.

### 2. **Install Prerequisites**

Ensure the server has the necessary software prerequisites to run Moodle, typically PHP, MySQL or MariaDB, and Apache. Install the required packages using the apt package manager:

bash

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sudo apt update

sudo apt install apache2 mysql-server php libapache2-mod-php php-mysql

### 3. **Database Configuration**

Create a database and a MySQL user for Moodle:

bash

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sudo mysql

sql

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CREATE DATABASE moodle;

CREATE USER 'moodleuser'@'localhost' IDENTIFIED BY 'your\_password';

GRANT ALL ON moodle.\* TO 'moodleuser'@'localhost' IDENTIFIED BY 'your\_password' WITH GRANT OPTION;

FLUSH PRIVILEGES;

EXIT;

### 4. **Moodle Installation**

Download and extract the Moodle archive into Apache’s web directory:

bash

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sudo wget -q -O - https://download.moodle.org/download.php/direct/stable310/moodle-latest-310.tgz | sudo tar -xz -C /var/www/html

### 5. **Moodle Configuration**

Navigate to the Moodle directory and set the appropriate permissions:

bash

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sudo chown -R www-data:www-data /var/www/html/moodle

sudo chmod -R 755 /var/www/html/moodle

### 6. **Web Interface Configuration**

Open a web browser and go to your server’s IP address. Follow the Moodle installation instructions, providing the required information, including database details.

### 7. **Firewall Configuration**

Ensure your server’s firewall allows HTTP traffic (port 80) so Moodle can be accessed from other devices on your network:

bash

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sudo ufw allow 80/tcp

sudo ufw enable

### 8. **Configuration Backup**

Once Moodle is installed and configured correctly, regularly back up your database and Moodle files to prevent data loss.

### Summary

Following these steps will help you add a configured Moodle server to your network. Make sure to adhere to security best practices to protect your server and data.

### Diagram

Here's a visual summary of the process:

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1. Server Preparation

- Install Ubuntu Server

- Configure network settings

2. Install Prerequisites

- Update system and install packages

sudo apt update

sudo apt install apache2 mysql-server php libapache2-mod-php php-mysql

3. Database Configuration

- Create database and user

sudo mysql

CREATE DATABASE moodle;

CREATE USER 'moodleuser'@'localhost' IDENTIFIED BY 'your\_password';

GRANT ALL ON moodle.\* TO 'moodleuser'@'localhost' IDENTIFIED BY 'your\_password' WITH GRANT OPTION;

FLUSH PRIVILEGES;

EXIT;

4. Moodle Installation

- Download and extract Moodle

sudo wget -q -O - https://download.moodle.org/download.php/direct/stable310/moodle-latest-310.tgz | sudo tar -xz -C /var/www/html

5. Moodle Configuration

- Set permissions

sudo chown -R www-data:www-data /var/www/html/moodle

sudo chmod -R 755 /var/www/html/moodle

6. Web Interface Configuration

- Open browser and complete setup

7. Firewall Configuration

- Allow HTTP traffic

sudo ufw allow 80/tcp

sudo ufw enable

8. Configuration Backup

- Regular backups

By following this guide, you can efficiently set up a Moodle server on your network, ready for educational purposes or other needs.