



## Centurion University of Technology & Management

### MOODLE CONFIGURATION USING UBUNTU

This document is a step-by-step process of Moodle Configuration using Ubuntu to develop institutional MOODLE LMS.



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**TITLE :** CONFIGURING MOODLE SITE USING UBUNTU SERVER AND MAKING A USER FRIENDLY LMS SYSTEM FOR SUBJECT REGISTRATION AND MANY MORE

## **CENTURION UNIVERSITY OF TECHNOLOGY AND MANAGEMENT**

### **STEP 1 :** INSTALL UBUNTU

Server Edition amd64 Preferred

CLICK ON : <http://www.ubuntu.com/download>

### **STEP 2 :** INSTALL APACHE/MYSQL/PHP

Open up Terminal and install the following :

```
sudo apt-get update
```

```
sudo apt-get install apache2 mysql-client mysql-server php5
```

You'll see an interface like this :

```
ubuntu@ip-172-31-39-144: ~
Warning: Permanently added 'ec2-13-235-135-255.ap-south-1.compute.amazonaws.com,13.235.135.255' (ECDSA) to the list of known hosts.
Welcome to Ubuntu 20.04.4 LTS (GNU/Linux 5.13.0-1028-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Mon Jun 13 05:12:44 UTC 2022

System load:  0.08      Processes:      118
Usage of /:   19.4% of 7.58GB  Users logged in:  0
Memory usage: 2%        IPv4 address for eth0: 172.31.39.144
Swap usage:   0%

1 update can be applied immediately.
To see these additional updates run: apt list --upgradable

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.
```

```
ubuntu@ip-172-31-39-144: ~
Get:18 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/universe Translation-en [5124 kB]
Get:19 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/universe amd64 c-n-f Metadata [265 kB]
Get:20 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/multiverse amd64 Packages [144 kB]
Get:21 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/multiverse Translation-en [104 kB]
Get:22 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/multiverse amd64 c-n-f Metadata [9136 B]
Get:23 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 Packages [1888 kB]
Get:24 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main Translation-en [345 kB]
Get:25 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 c-n-f Metadata [15.6 kB]
Get:26 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/restricted amd64 Packages [1064 kB]
Get:27 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/restricted Translation-en [151 kB]
Get:28 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/restricted amd64 c-n-f Metadata [524 B]
Get:29 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/universe amd64 Packages [928 kB]
Get:30 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/universe Translation-en [208 kB]
Get:31 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/universe amd64 c-n-f Metadata [20.8 kB]
Get:32 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/multiverse amd64 Packages [24.4 kB]
Get:33 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/multiverse Translation-en [7336 B]
Get:34 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/multiverse amd64 c-n-f Metadata [596 B]
Get:35 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-backports/main amd64 Packages [44.5 kB]
Get:36 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-backports/main Translation-en [10.9 kB]
Get:37 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-backports/main amd64 c-n-f Metadata [980 B]
Get:38 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-backports/restricted amd64 c-n-f Metadata [116 B]
Get:39 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-backports/universe amd64 Packages [23.7 kB]
Get:40 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-backports/universe Translation-en [15.9 kB]
Get:41 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-backports/universe amd64 c-n-f Metadata [860 B]
Get:42 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-backports/multiverse amd64 c-n-f Metadata [116 B]
Fetched 23.2 MB in 5s (4479 kB/s)
Reading package lists... Done
ubuntu@ip-172-31-39-144:~$ sudo apt get full-upgrade
E: Invalid operation get
ubuntu@ip-172-31-39-144:~$
```

```
ubuntu@ip-172-31-39-144:/opt/moodle
0 upgraded, 83 newly installed, 0 to remove and 0 not upgraded.
Need to get 23.5 MB of archives.
After this operation, 90.4 MB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 fonts-droid-fallback all 1:6.0.1r16-1.1 [1895 kB]Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 poppler-data all 0.4
.0-2 [1475 kB]
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 libaspell15 amd64 0.60.8-1ubuntu0.1 [328 kB]
Get:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 emacs-common all 3.0.4 [14.9 kB]
Get:5 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 dictionaries-common all 1.28.1 [178 kB]
Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 aspell amd64 0.60.8-1ubuntu0.1 [88.4 kB]
Get:7 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 aspell-en all 2018.04.16-0-1 [299 kB]
Get:8 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 clamav-base all 0.103.6+dfsg-0ubuntu0.20.04.1 [78.8 kB]
Get:9 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 libftm1 amd64 0.13-4 [57.0 kB]
Get:10 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 libclamav9 amd64 0.103.6+dfsg-0ubuntu0.20.04.1 [836 kB]
Get:11 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 clamav-freshclam amd64 0.103.6+dfsg-0ubuntu0.20.04.1 [67.2 kB]
Get:12 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 clamav amd64 0.103.6+dfsg-0ubuntu0.20.04.1 [127 kB]
Get:13 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 fonts-dejavu-core all 2.37-1 [1041 kB]
Get:14 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 fonts-liberation all 1:1.07.4-11 [822 kB]
Get:15 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 fontconfig-config all 2.13.1-2ubuntu3 [28.8 kB]
Get:16 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 libfontconfig1 amd64 2.13.1-2ubuntu3 [114 kB]
Get:17 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 fontconfig amd64 2.13.1-2ubuntu3 [171 kB]
Get:18 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 fonts-noto-mono all 20200323-1build1-ubuntu20.04.1 [80.6 kB]
Get:19 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 fonts-urw-base35 all 20170801.1-3 [6333 kB]
Get:20 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 libgs9-common all 9.50-dfsg-5ubuntu4.5 [681 kB]
Get:21 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 libavahi-common-data amd64 0.7-4ubuntu7.1 [21.4 kB]
Get:22 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 libavahi-common3 amd64 0.7-4ubuntu7.1 [21.7 kB]
Get:23 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 libavahi-client3 amd64 0.7-4ubuntu7.1 [25.5 kB]
Get:24 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 libcups2 amd64 2.3.1-9ubuntu1.2 [233 kB]Get:25 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 libidn11 amd64 1.33
-2.2ubuntu2 [46.2 kB]
Get:26 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 libijs-0.35 amd64 0.35-15 [15.7 kB]
Get:27 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 libjbig2dec0 amd64 0.18-1ubuntu1 [60.0 kB]
Get:28 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 libjpeg-turbo8 amd64 2.0.3-0ubuntu1.20.04.1 [117 kB]
Get:29 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 libjpeg8 amd64 8c-2ubuntu8 [2194 B]
Get:30 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 liblcms2-2 amd64 2.9-4 [140 kB]
Get:31 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 libopenjp2-7 amd64 2.3.1-1ubuntu4.20.04.1 [141 kB]
Get:32 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 libpaper1 amd64 1:1.128 [11.0 kB]
Get:33 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 libbig0 amd64 2.1-3-1build1 [26.7 kB]
Get:34 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 libwebp6 amd64 0.6.1-2ubuntu0.20.04.1 [185 kB]
Get:35 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 libtiff5 amd64 4.1.0+git191117-2ubuntu0.20.04.3 [162 kB]
Get:36 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 libgs9 amd64 9.50-dfsg-5ubuntu4.5 [2172 kB]
Get:37 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 ghostscript amd64 9.50-dfsg-5ubuntu4.5 [51.8 kB]
Get:38 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/universe amd64 libann0 amd64 1.1.2+doc-3build1 [26.0 kB]
Get:39 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/universe amd64 libcdt5 amd64 2.42.2-3build2 [18.7 kB]
Get:40 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/universe amd64 libgraph6 amd64 2.42.2-3build2 [41.3 kB]
Get:41 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 libxpm4 amd64 1:3.5.12-1 [34.0 kB]
Get:42 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 libgd3 amd64 2.2.5-5.2ubuntu2.1 [118 kB]Get:43 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/universe amd64 libgts-0.7-5 am
d64 0.7.6+docs12130-4 [150 kB]
Get:44 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 libpixman-1-0 amd64 0.38.4-0ubuntu1 [227 kB]
Get:45 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 libxcb-render0 amd64 1.14-2 [14.8 kB]
```

### STEP 3 : INSTALL ADDITIONAL SOFTWARE

Just type the following commands on your terminal .

```
sudo apt-get install aspell graphviz php5-pspell php5-curl php5-gd php5-intl
php5-mysql php5-xmlrpc php5-ldap
```

Restart Apache so that the modules are loaded correctly

```
sudo service apache2 restart
```

```
ubuntu@ip-172-31-39-144:/opt/moodle
Setting up libjpeg-turbo0:amd64 (2.0.3-0ubuntu1.20.04.1) ...
Setting up php7.4-ldap (7.4.3-4ubuntu2.10) ...
Creating config file /etc/php/7.4/mods-available/ldap.ini with new version
Setting up fonts-liberation (1:1.07.4-11) ...
Setting up libopenjp2-7:amd64 (2.3.1-lubuntu4.20.04.1) ...
Setting up libharfbuzz0b:amd64 (2.6.4-1ubuntu4) ...
Setting up libthai-data (0.1.28-3) ...
Setting up libotf5:amd64 (2.42.2-3build2) ...
Setting up libcups0:amd64 (2.4.2-2ubuntu1) ...
Setting up fonts-droid-fallback (1:6.0.1r16-1.1) ...
Setting up php7.4-soap (7.4.3-4ubuntu2.10) ...
Creating config file /etc/php/7.4/mods-available/soap.ini with new version
Setting up libonig5:amd64 (6.9.4-1) ...
Setting up clamav-base (0.103.6+dfsg-0ubuntu0.20.04.1) ...
id: 'clamav': no such user
Setting up libjpeg8:amd64 (8c-2ubuntu8) ...
Setting up libgs9-common (9.50-0fsg-5ubuntu4.5) ...
Setting up libgs-bin (0:7.6+dfsg-2ubuntu3-4) ...
Setting up libice6:amd64 (2:1.0.10-0ubuntu1) ...
Setting up php7.4-xmllrpc (7.4.3-4ubuntu2.10) ...
Creating config file /etc/php/7.4/mods-available/xmllrpc.ini with new version
Setting up dictionaries-common (1.28.1) ...
Setting up fontconfig-config (2.13.1-2ubuntu3) ...
Setting up libavahi-common3:amd64 (0.7-4ubuntu7.1) ...
Setting up php7.4-xmlrpc (7.4.3-4ubuntu2.10) ...
Creating config file /etc/php/7.4/mods-available/xmlrpc.ini with new version
Setting up libthai0:amd64 (0.1.28-3) ...
Setting up clamav-freshclam (0.103.6+dfsg-0ubuntu0.20.04.1) ...
Created symlink /etc/systemd/system/multi-user.target.wants/clamav-freshclam.service → /lib/systemd/system/clamav-freshclam.service.
Setting up aspell (0.60.8-lubuntu0.1) ...
Setting up libgpr2:amd64 (2.42.2-3build2) ...
Setting up libtiff5:amd64 (4.1.0+git191117-2ubuntu0.20.04.3) ...
Setting up libfontconfig1:amd64 (2.13.1-2ubuntu3) ...
Setting up libs60:amd64 (2:1.2.3-1) ...
Setting up libavahi-client3:amd64 (0.7-4ubuntu7.1) ...
Setting up fontconfig (2.13.1-2ubuntu3) ...
Regenerating fonts cache... done.
Setting up libpango-1.0-0:amd64 (1.44.7-2ubuntu4) ...
Setting up aspell-en (2018.04.16-0-1) ...
Setting up libcairo2:amd64 (1.16.0-4ubuntu1) ...
Setting up clamav (0.103.6+dfsg-0ubuntu0.20.04.1) ...
Setting up libgd3:amd64 (2.2.5-5-2ubuntu2.1) ...
Setting up libx6:amd64 (1:1.5-1) ...
Setting up libcups2:amd64 (2.3.1-9ubuntu1.2) ...
Setting up libpangotf2-1.0-0:amd64 (1.44.7-2ubuntu4) ...
```

```
ubuntu@ip-172-31-39-144:/opt/moodle
aspell-autobuildhash: processing: en [en_AU-variant_1].
aspell-autobuildhash: processing: en [en_AU-w_accents-only].
aspell-autobuildhash: processing: en [en_AU-wo_accents-only].
aspell-autobuildhash: processing: en [en_CA-variant_0].
aspell-autobuildhash: processing: en [en_CA-variant_1].
aspell-autobuildhash: processing: en [en_CA-w_accents-only].
aspell-autobuildhash: processing: en [en_CA-wo_accents-only].
aspell-autobuildhash: processing: en [en_GB-ise-w_accents-only].
aspell-autobuildhash: processing: en [en_GB-ise-wo_accents-only].
aspell-autobuildhash: processing: en [en_GB-ize-w_accents-only].
aspell-autobuildhash: processing: en [en_GB-ize-wo_accents-only].
aspell-autobuildhash: processing: en [en_GB-variant_0].
aspell-autobuildhash: processing: en [en_GB-variant_1].
aspell-autobuildhash: processing: en [en_US-w_accents-only].
aspell-autobuildhash: processing: en [en_US-wo_accents-only].
ubuntu@ip-172-31-39-144:~$ sudo service apache2 restart
ubuntu@ip-172-31-39-144:~$ Connection to ec2-13-235-135-255.ap-south-1.compute.amazonaws.com closed by remote host.
Connection to ec2-13-235-135-255.ap-south-1.compute.amazonaws.com closed.

C:\Users\WP\Downloads>ssh -i "key3.pem" ubuntu@ec2-35-154-22-15.ap-south-1.compute.amazonaws.com
The authenticity of host 'ec2-35-154-22-15.ap-south-1.compute.amazonaws.com (35.154.22.15)' can't be established.
ECDSA key fingerprint is SHA256:YbK1pat00PRH0wIdcrA1lN5jH8k3eIE8jmxXGw06Cj0.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-35-154-22-15.ap-south-1.compute.amazonaws.com,35.154.22.15' (ECDSA) to the list of known hosts.
Welcome to Ubuntu 20.04.4 LTS (GNU/Linux 5.13.0-1029-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Mon Jun 13 05:38:39 UTC 2022

System load: 0.52          Processes: 116
Usage of /: 36.8% of 7.58GB Users logged in: 0
Memory usage: 27%        IPv4 address for eth0: 172.31.39.144
Swap usage: 0%

0 updates can be applied immediately.
```

We will be using Git to install/update the Moodle Core Application

```
sudo apt-get install git-core
```

```
ECDSA key fingerprint is SHA256:YbKLpat00PRHmidcrA1l15jH8k3eiE81mrXGw06Cj0.  
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes  
Warning: Permanently added 'ec2-35-154-22-15.ap-south-1.compute.amazonaws.com,35.154.22.15' (ECDSA) to the list of known hosts.  
Welcome to Ubuntu 20.04.4 LTS (GNU/Linux 5.13.0-1029-aws x86_64)  
  
* Documentation:  https://help.ubuntu.com  
* Management:    https://landscape.canonical.com  
* Support:       https://ubuntu.com/advantage  
  
System information as of Mon Jun 13 05:38:39 UTC 2022  
  
System load: 0.52          Processes:    116  
Usage of /:  36.8% of 7.58GB Users logged in: 0  
Memory usage: 27%        IPv4 address for eth0: 172.31.39.144  
Swap usage:  0%  
  
0 updates can be applied immediately.  
  
Last login: Mon Jun 13 05:26:12 2022 from 103.120.31.178  
ubuntu@ip-172-31-39-144:~$ sudo apt install git  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
git is already the newest version (1:2.25.1-1ubuntu3.4).  
git set to manually installed.  
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
```

#### **STEP 4 : DOWNLOAD MOODLE**

Setup your local repository and download Moodle, We will use /opt for the local repository.

Follow these steps :

```
cd /opt  
  
sudo git clone git://git.moodle.org/moodle.git  
  
cd moodle  
  
sudo git branch -a  
  
sudo git branch --track MOODLE_25_STABLE origin/MOODLE_25_STABLE  
  
sudo git checkout MOODLE_25_STABLE
```

You'll get an interface like this :

```
git is an easy-to-use version control system (1.7.2.1 Ubuntu 9.4).
git set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
ubuntu@ip-172-31-39-144:~$ cd /opt
ubuntu@ip-172-31-39-144:/opt$ sudo git clone git://git.moodle.org/moodle.git
Cloning into 'moodle'...
remote: Counting objects: 1303961, done.
remote: Compressing objects: 100% (3703/3703), done.
remote: Total 1303961 (delta 4370), reused 5695 (delta 3749)
Receiving objects: 100% (1303961/1303961), 439.24 MiB | 4.87 MiB/s, done.
Resolving deltas: 100% (974033/974033), done.
Updating files: 100% (24202/24202), done.
ubuntu@ip-172-31-39-144:/opt$ cd moodle
ubuntu@ip-172-31-39-144:/opt/moodle$ sudo git branch -a
* master
remotes/origin/HEAD -> origin/master
remotes/origin/MOODLE_13_STABLE
remotes/origin/MOODLE_14_STABLE
remotes/origin/MOODLE_15_STABLE
remotes/origin/MOODLE_16_STABLE
remotes/origin/MOODLE_17_STABLE
remotes/origin/MOODLE_18_STABLE
remotes/origin/MOODLE_19_STABLE
remotes/origin/MOODLE_20_STABLE
remotes/origin/MOODLE_21_STABLE
remotes/origin/MOODLE_22_STABLE
remotes/origin/MOODLE_23_STABLE
remotes/origin/MOODLE_24_STABLE
remotes/origin/MOODLE_25_STABLE
remotes/origin/MOODLE_26_STABLE
remotes/origin/MOODLE_27_STABLE
remotes/origin/MOODLE_28_STABLE
remotes/origin/MOODLE_29_STABLE
remotes/origin/MOODLE_30_STABLE
remotes/origin/MOODLE_310_STABLE
remotes/origin/MOODLE_311_STABLE
```

## STEP 5 : COPY LOCAL REPOSITORY TO /var/www

Copy these following steps into the terminal.

```
sudo cp -R /opt/moodle /var/www/
```

```
sudo mkdir /var/moodledata
```

```
sudo chown -R www-data /var/moodledata
```

```
sudo chmod -R 777 /var/moodledata
```

```
sudo chmod -R 0755 /var/www/moodle
```

```
ubuntu@ip-172-31-39-144: /opt/moodle
```

```
remotes/origin/MOODLE_14_STABLE
remotes/origin/MOODLE_15_STABLE
remotes/origin/MOODLE_16_STABLE
remotes/origin/MOODLE_17_STABLE
remotes/origin/MOODLE_18_STABLE
remotes/origin/MOODLE_19_STABLE
remotes/origin/MOODLE_20_STABLE
remotes/origin/MOODLE_21_STABLE
remotes/origin/MOODLE_22_STABLE
remotes/origin/MOODLE_23_STABLE
remotes/origin/MOODLE_24_STABLE
remotes/origin/MOODLE_25_STABLE
remotes/origin/MOODLE_26_STABLE
remotes/origin/MOODLE_27_STABLE
remotes/origin/MOODLE_28_STABLE
remotes/origin/MOODLE_29_STABLE
remotes/origin/MOODLE_30_STABLE
remotes/origin/MOODLE_310_STABLE
remotes/origin/MOODLE_311_STABLE
remotes/origin/MOODLE_31_STABLE
remotes/origin/MOODLE_32_STABLE
remotes/origin/MOODLE_33_STABLE
remotes/origin/MOODLE_34_STABLE
remotes/origin/MOODLE_35_STABLE
remotes/origin/MOODLE_36_STABLE
remotes/origin/MOODLE_37_STABLE
remotes/origin/MOODLE_38_STABLE
remotes/origin/MOODLE_39_STABLE
remotes/origin/MOODLE_400_STABLE
remotes/origin/master
ubuntu@ip-172-31-39-144:/opt/moodle$ sudo git branch --track MOODLE_39_STABLE origin/MOODLE_39_STABLE
Branch 'MOODLE_39_STABLE' set up to track remote branch 'MOODLE_39_STABLE' from 'origin'.
ubuntu@ip-172-31-39-144:/opt/moodle$ sudo git checkout MOODLE_39_STABLE
Updating files: 100% (10821/10821), done.
Switched to branch 'MOODLE_39_STABLE'
Your branch is up to date with 'origin/MOODLE_39_STABLE'.
ubuntu@ip-172-31-39-144:/opt/moodle$ sudo cp -R /opt/moodle /var/www/html/
ubuntu@ip-172-31-39-144:/opt/moodle$ sudo mkdir /var/moodledata
ubuntu@ip-172-31-39-144:/opt/moodle$ sudo chown -R www-data /var/moodledata
ubuntu@ip-172-31-39-144:/opt/moodle$ sudo chmod -R 777 /var/moodledata
ubuntu@ip-172-31-39-144:/opt/moodle$ sudo chmod -R 0755 /var/www/html/moodle
```

## STEP 6 : SETUP MYSQL SERVER

First we need to change the default storage engine to innodb



```
sudo vi /etc/mysql/my.cnf
```

Scroll down to the [mysqld] section and under Basic Settings add the following line under the last statement

```
default-storage-engine = innodb
```

In order to save my.cnf using the editor, type the following in sequence which will save :w then close the editor :q

```
:w
```

```
:q
```

```
ubuntu@ip-172-31-39-144: /opt/moodle
mysqlx-bind-address = 127.0.0.1
#
# * Fine Tuning
#
key_buffer_size = 16M
# max_allowed_packet = 64M
# thread_stack = 256K
#
# thread_cache_size = -1
#
# This replaces the startup script and checks MyISAM tables if needed
# the first time they are touched
mysam-recover-options = BACKUP
#
# max_connections = 151
#
# table_open_cache = 4000
#
# * Logging and Replication
#
# Both location gets rotated by the cronjob.
#
# Log all queries
# Be aware that this log type is a performance killer.
# general_log_file = /var/log/mysql/query.log
# general_log = 1
#
# Error log - should be very few entries.
log_error = /var/log/mysql/error.log
#
# Here you can see queries with especially long duration
# slow_query_log = 1
# slow_query_log_file = /var/log/mysql/mysql-slow.log
# long_query_time = 2
# log-queries-not-using-indexes
#
# The following can be used as easy to replay backup logs or for replication.
# note: if you are setting up a replication slave, see README.Debian about
# other settings you may need to change.
# server-id = 1
# log_bin = /var/log/mysql/mysql-bin.log
# binlog_expire_logs_seconds = 2592000
max_binlog_size = 100M
# binlog_do_db = include_database_name
# binlog_ignore_db = include_database_name
-- INSERT --
```

Restart MySQL Server for changes to take affect

```
sudo service mysql restart
```

Now we need to create the Moodle MySQL User with the correct permissions

Use the password you created in step 1

```
mysql -u root -p
```

```
mysql>
```

```
CREATE DATABASE moodle DEFAULT CHARACTER SET utf8 COLLATE utf8_unicode_ci;
```

Where it says "moodledude" and "passwordformoodledude" you should change to the username and password of your choosing.

```
mysql>
```

```
GRANT SELECT,INSERT,UPDATE,DELETE,CREATE,CREATE TEMPORARY TABLES,DROP,INDEX,ALTER  
ON moodle.* TO moodledude@localhost IDENTIFIED BY 'passwordformoodledude';
```

```
mysql>
```

```
quit;
```

```
ubuntu@ip-172-31-39-144:/opt/moodle
remotes/origin/MOODLE_37_STABLE
remotes/origin/MOODLE_38_STABLE
remotes/origin/MOODLE_39_STABLE
remotes/origin/MOODLE_400_STABLE
remotes/origin/master
ubuntu@ip-172-31-39-144:/opt/moodle$ sudo git branch --track MOODLE_39_STABLE origin/MOODLE_39_STABLE
Branch 'MOODLE_39_STABLE' set up to track remote branch 'MOODLE_39_STABLE' from 'origin'.
ubuntu@ip-172-31-39-144:/opt/moodle$ sudo git checkout MOODLE_39_STABLE
Updating files: 100% (10821/10821), done.
Switched to branch 'MOODLE_39_STABLE'
Your branch is up to date with 'origin/MOODLE_39_STABLE'.
ubuntu@ip-172-31-39-144:/opt/moodle$ sudo cp -R /opt/moodle /var/www/html/
ubuntu@ip-172-31-39-144:/opt/moodle$ sudo mkdir /var/moodledata
ubuntu@ip-172-31-39-144:/opt/moodle$ sudo chown -R www-data /var/moodledata
ubuntu@ip-172-31-39-144:/opt/moodle$ sudo chmod -R 777 /var/moodledata
ubuntu@ip-172-31-39-144:/opt/moodle$ sudo chmod -R 0755 /var/www/html/moodle
ubuntu@ip-172-31-39-144:/opt/moodle$ sudo vi /etc/mysql/mysql.conf.d/mysqld.cnf
ubuntu@ip-172-31-39-144:/opt/moodle$ sudo service mysql restart
Job for mysql.service failed because the control process exited with error code.
See "systemctl status mysql.service" and "journalctl -xe" for details.
ubuntu@ip-172-31-39-144:/opt/moodle$ sudo vi /etc/mysql/mysql.conf.d/mysqld.cnf
ubuntu@ip-172-31-39-144:/opt/moodle$ sudo vi /etc/mysql/mysql.conf.d/mysqld.cnf
ubuntu@ip-172-31-39-144:/opt/moodle$ sudo service mysql restart
ubuntu@ip-172-31-39-144:/opt/moodle$ sudo mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.29-0ubuntu0.20.04.3 (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> CREATE DATABASE moodle DEFAULT CHARACTER SET utf8mb4 COLLATE utf8mb4_unicode_ci;
Query OK, 1 row affected (0.01 sec)

mysql> create user 'moodledude'@'localhost' IDENTIFIED BY 'P4sswordformoodledude11';
Query OK, 0 rows affected (0.03 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE,CREATE,CREATE TEMPORARY TABLES,DROP,INDEX,ALTER ON moodle.* TO 'moodledude'@'localhost';
Query OK, 0 rows affected (0.01 sec)

mysql> quit;
Bye
ubuntu@ip-172-31-39-144:/opt/moodle$
```

## STEP 7 : COMPLETE SETUP

- Note - If you are not comfortable using terminal to create the config.php file that needs to be created when going through the installer, you should temporarily make the webroot writable by doing the following:

```
sudo chmod -R 777 /var/www/moodle
```

After you have ran the installer and you have moodle setup, you NEED to revert permissions so that it is no longer writable using the below command.

```
sudo chmod -R 0755 /var/www/moodle
```

Open your browser and go to <http://IP.ADDRESS.OF.SERVER/moodle>

Follow the prompts selecting :

## Database Type

Choose: mysqli

### Installation

Database

Choose database driver

Moodle supports several types of database servers. Please contact server administrator if you do not know which type to use.

Type

[< Previous](#) [Next >](#)



## Database Settings

Host server: localhost

Database: moodle

User: (the user you created when setting up the database)

Password: (the password for the user you created)

Tables Prefix: mdl\_

Database settings

Improved MySQL (native/mysqli)

The database is where most of the Moodle settings and data are stored and must be configured here.

The database name, username, and password are required fields; table prefix is optional.

The database name may contain only alphanumeric characters, dollar (\$) and underscore (\_).

If the database currently does not exist, and the user you specify has permission, Moodle will attempt to create a new database with the correct permissions and settings.

Database host

Database name

Database user

Database password

Tables prefix

Database port

Unix socket

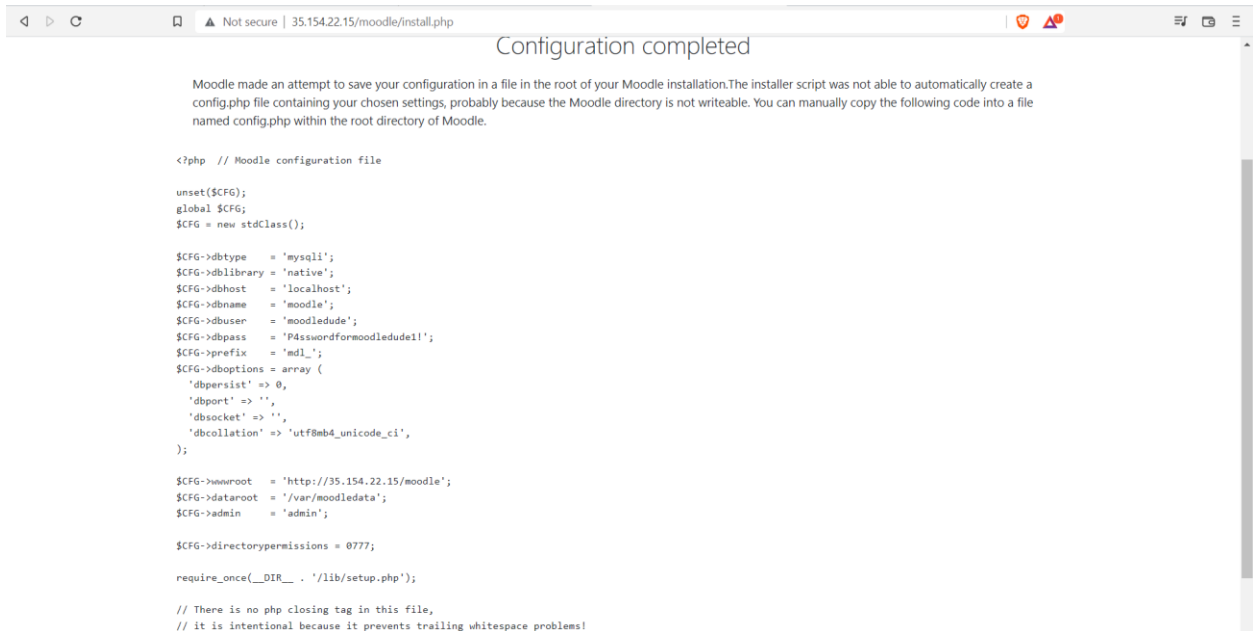
## Environment Checks

This will indicate if any elements required to run moodle haven't been installed.

Next next next...

follow prompts and confirm installation

# Installation Complete



```
<?php // Moodle configuration file

unset($CFG);
global $CFG;
$CFG = new stdClass();

$CFG->dbtype = 'mysql';
$CFG->dblibrary = 'native';
$CFG->dbhost = 'localhost';
$CFG->dbname = 'moodle';
$CFG->dbuser = 'moodledude';
$CFG->dbpass = 'P4sswordformoodledude1!';
$CFG->xprefix = 'mdl_';
$CFG->dboptions = array (
  'dbpersist' => 0,
  'dbport' => '',
  'dbsocket' => '',
  'dbcollation' => 'utf8mb4_unicode_ci',
);

$CFG->wwwroot = 'http://35.154.22.15/moodle';
$CFG->dataroot = '/var/moodledata';
$CFG->admin = 'admin';

$CFG->directorypermissions = 0777;

require_once(__DIR__ . '/lib/setup.php');

// There is no php closing tag in this file,
// it is intentional because it prevents trailing whitespace problems!
```

Congrats! You can now start using Moodle!

## System Paths After Installation

After installing Moodle you should set the system paths.

Navigate to Site Administration > Server > System Paths

Input the following;

Path to Du: /usr/bin/du

Path to Apsell: /usr/bin/aspell

Path to dot: /usr/bin/dot

Save Changes

# Installation

## Paths

### Confirm paths

**Web address**

The full address where Moodle will be accessed i.e. the address that users will enter into the address bar of their browser to access Moodle.

It is not possible to access Moodle using multiple addresses. If your site is accessible via multiple addresses then choose the easiest one and set up a permanent redirect for each of the other addresses.

If your site is accessible both from the Internet, and from an internal network (sometimes called an Intranet), then use the public address here.

If the current address is not correct, please change the URL in your browser's address bar and restart the installation.

**Moodle directory**

The full path to the directory containing the Moodle code.

**Data directory**

A directory where Moodle will store all file content uploaded by users.

This directory should be both readable and writeable by the web server user (usually 'www-data', 'nobody', or 'apache').

It must not be directly accessible over the web.

If the directory does not currently exist, the installation process will attempt to create it.

It is not possible to access Moodle using multiple addresses. If your site is accessible via multiple addresses then choose the easiest one and set up a permanent redirect for each of the other addresses.

If your site is accessible both from the Internet, and from an internal network (sometimes called an Intranet), then use the public address here.

If the current address is not correct, please change the URL in your browser's address bar and restart the installation.

**Moodle directory**

The full path to the directory containing the Moodle code.

**Data directory**

A directory where Moodle will store all file content uploaded by users.

This directory should be both readable and writeable by the web server user (usually 'www-data', 'nobody', or 'apache').

It must not be directly accessible over the web.

If the directory does not currently exist, the installation process will attempt to create it.

Web address	<input type="text" value="http://35.154.22.15/moodle"/>
Moodle directory	<input type="text" value="/var/www/html/moodle"/>
Data directory	<input type="text" value="/var/moodledata"/>

« Previous **Next** »





## Installation - Moodle 3.9.14+ (Build: 20220603)

Moodle 3.9.14+ (Build: 20220603)

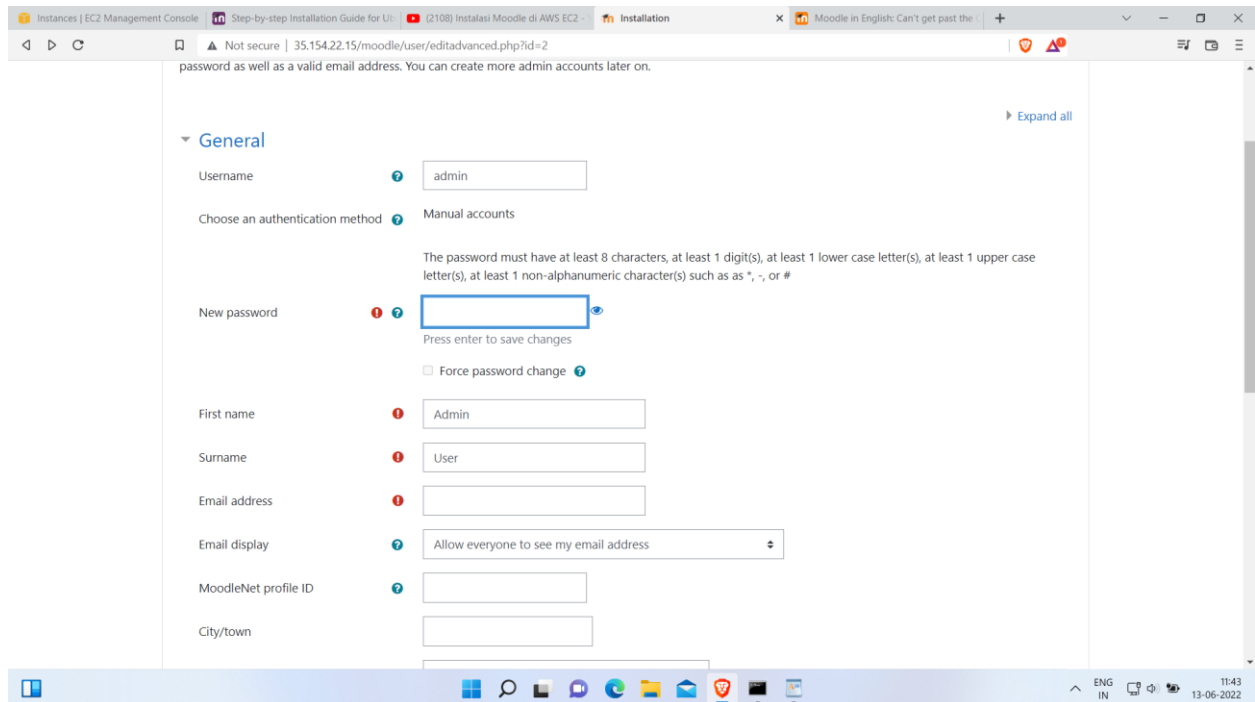
For information about this version of Moodle, please see the online [Release Notes](#)

### Server checks

Name	Information	Report	Plugin	Status
unicode		❗ must be installed and enabled		OK
database	mysql (8.0.29-0ubuntu0.20.04.3)	❗ version 5.6 is required and you are running 8.0.29.0.0.20.04.3		OK
php		❗ version 7.2.0 is required and you are running 7.4.3		OK
pcreunicode		❗ should be installed and enabled for best results		OK
php_extension	iconv	❗ must be installed and enabled		OK
php_extension	mbstring	❗ must be installed and enabled		OK
php_extension	curl	❗ must be installed and enabled		OK
php_extension	openssl	❗ must be installed and enabled		OK
php_extension	tokenizer	❗ should be installed and enabled for best results		OK
php_extension	xmlrpc	❗ should be installed and enabled for best results		OK
php_extension	soap	❗ should be installed and enabled for best results		OK
php_extension	ctype	❗ must be installed and enabled		OK

php_extension	mbstring	❗ must be installed and enabled		OK
php_extension	curl	❗ must be installed and enabled		OK
php_extension	openssl	❗ must be installed and enabled		OK
php_extension	tokenizer	❗ should be installed and enabled for best results		OK
php_extension	xmlrpc	❗ should be installed and enabled for best results		OK
php_extension	soap	❗ should be installed and enabled for best results		OK
php_extension	ctype	❗ must be installed and enabled		OK
php_extension	zip	❗ must be installed and enabled		OK
php_extension	zlib	❗ must be installed and enabled		OK
php_extension	gd	❗ must be installed and enabled		OK
php_extension	simplexml	❗ must be installed and enabled		OK
php_extension	spl	❗ must be installed and enabled		OK
php_extension	pcr	❗ must be installed and enabled		OK

## Final Steps :



password as well as a valid email address. You can create more admin accounts later on.

Expand all

**General**

Username

Choose an authentication method  Manual accounts

The password must have at least 8 characters, at least 1 digit(s), at least 1 lower case letter(s), at least 1 upper case letter(s), at least 1 non-alphanumeric character(s) such as \*, -, or #

New password

Press enter to save changes

Force password change

First name

Surname

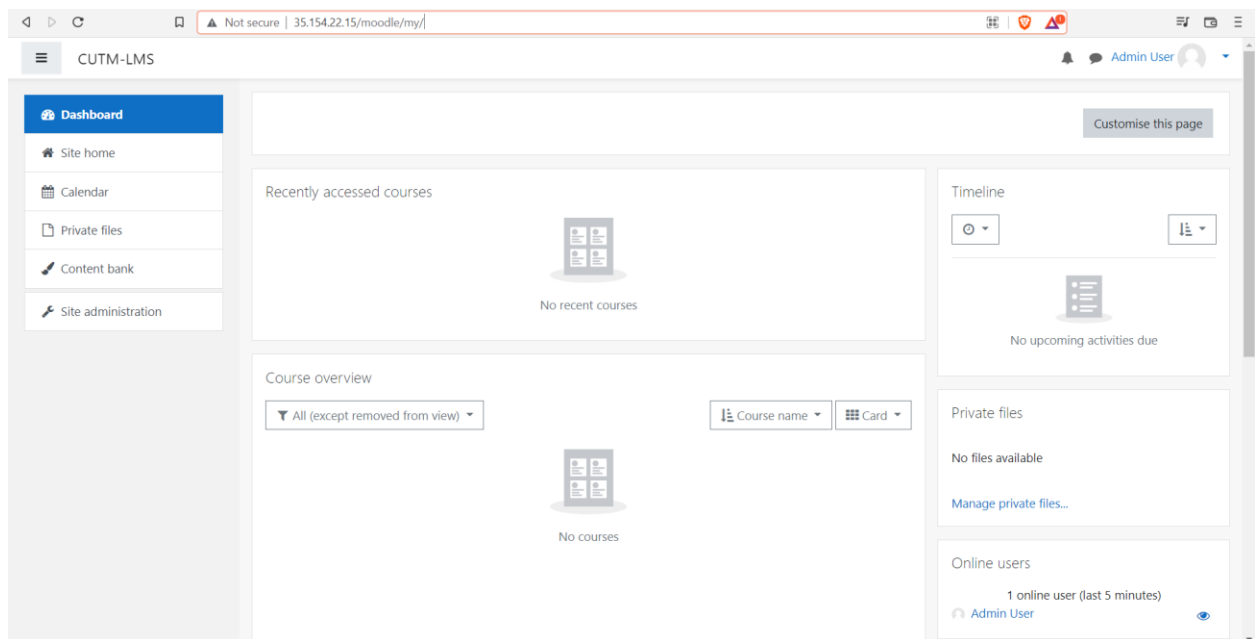
Email address

Email display

MoodleNet profile ID

City/town

## Now, You're good to go :



CUTM-LMS

Admin User

Customise this page

Recently accessed courses

No recent courses

Timeline

No upcoming activities due

Private files

No files available

Manage private files...

Course overview

All (except removed from view)

Course name

Card

No courses

Online users

1 online user (last 5 minutes)

Admin User

Not secure | 35.154.22.15/moodle/admin/index.php?cache=1

CUTM-LMS


Admin User

- Dashboard
- Site home
- Calendar
- Private files
- Content bank
- Site administration

Thank you for choosing Moodle!

We believe that software, especially educational tools, should always be open and free. We rely on our community to support and help us to continuously improve our LMS.

Support the work of our developers by making a [donation](#).



**Support the work of our developers** and help Moodle grow and improve. [Contribute today](#)

Moodle 3.9.14+ (Build: 20220603)  
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[Moodle Docs for this page](#)

You are logged in as Admin User (Log out)  
[Home](#)  
[Data retention summary](#)

Anita Patra

**Dr. Anita Patra**

**Registrar, CUTM**

