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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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Registrar, CUTM

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

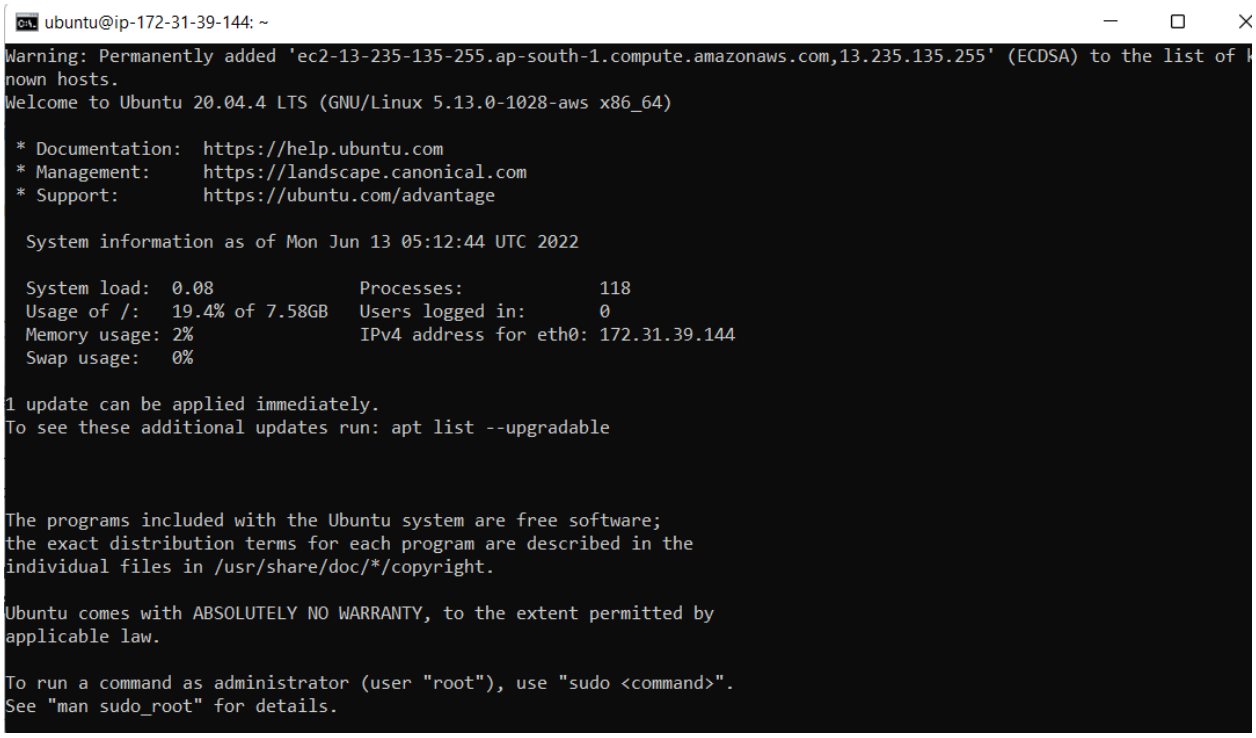
STEP 2 : INSTALL APACHE/MYSQL/PHP

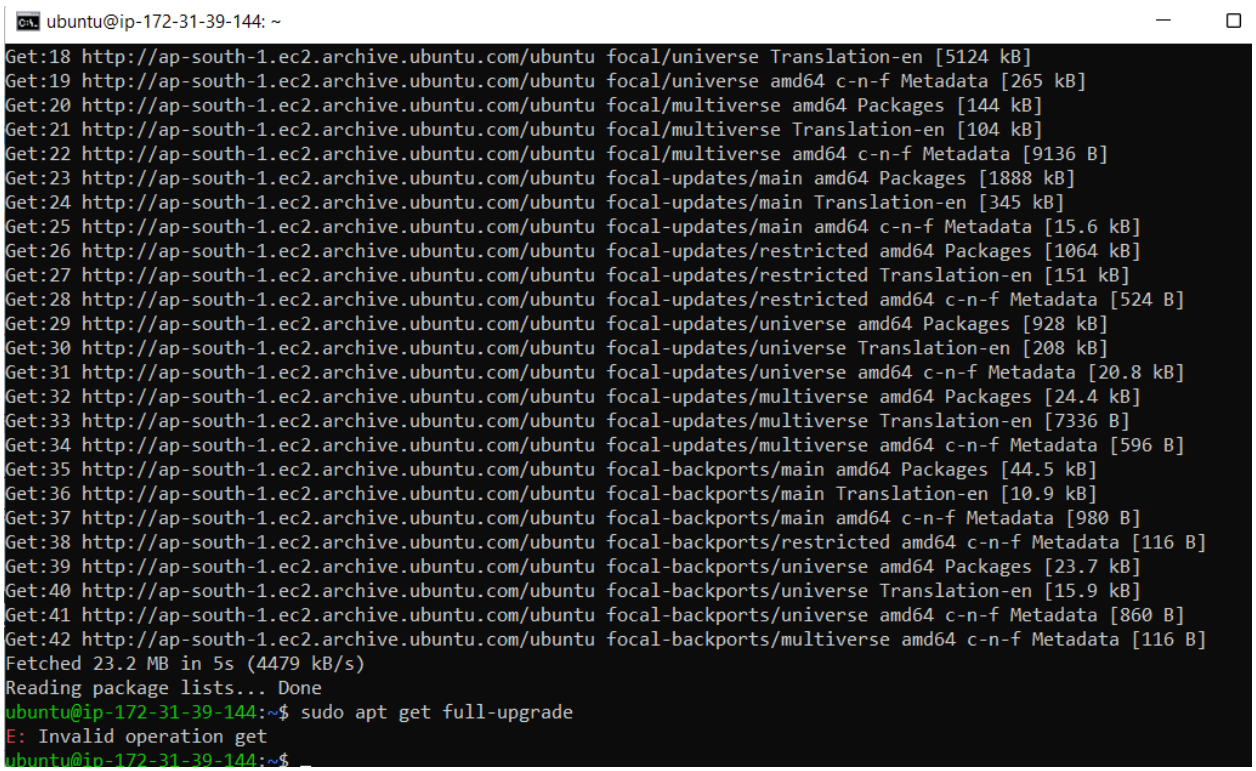
Open up Terminal and install the following :

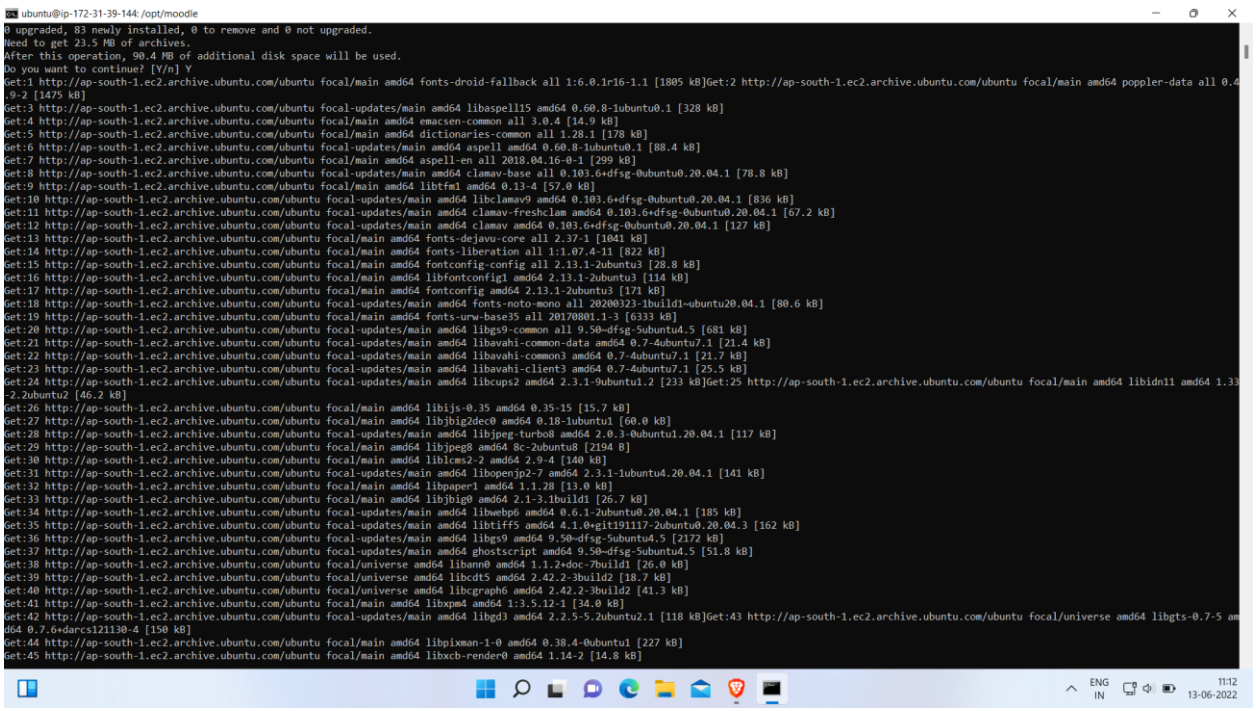
```
sudo apt-get update
```

```
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 k
nown 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:~$



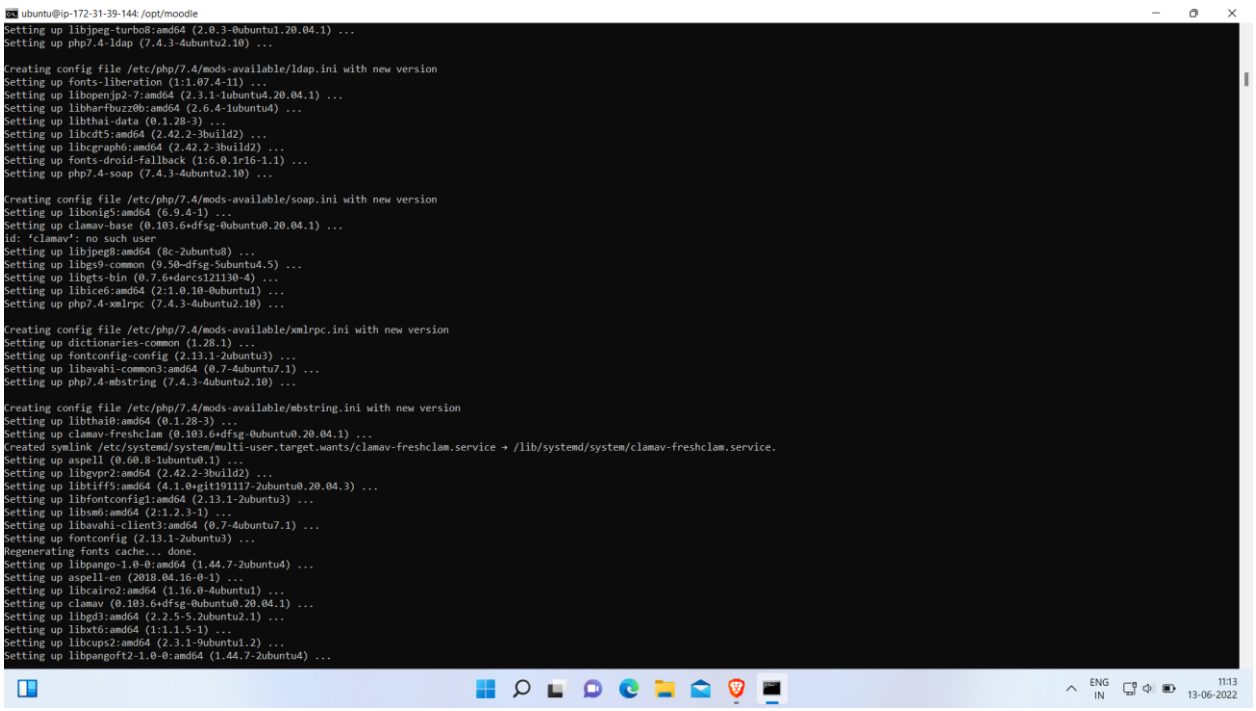
STEP 3 : INSTALL ADDITIONAL SOFTWARE

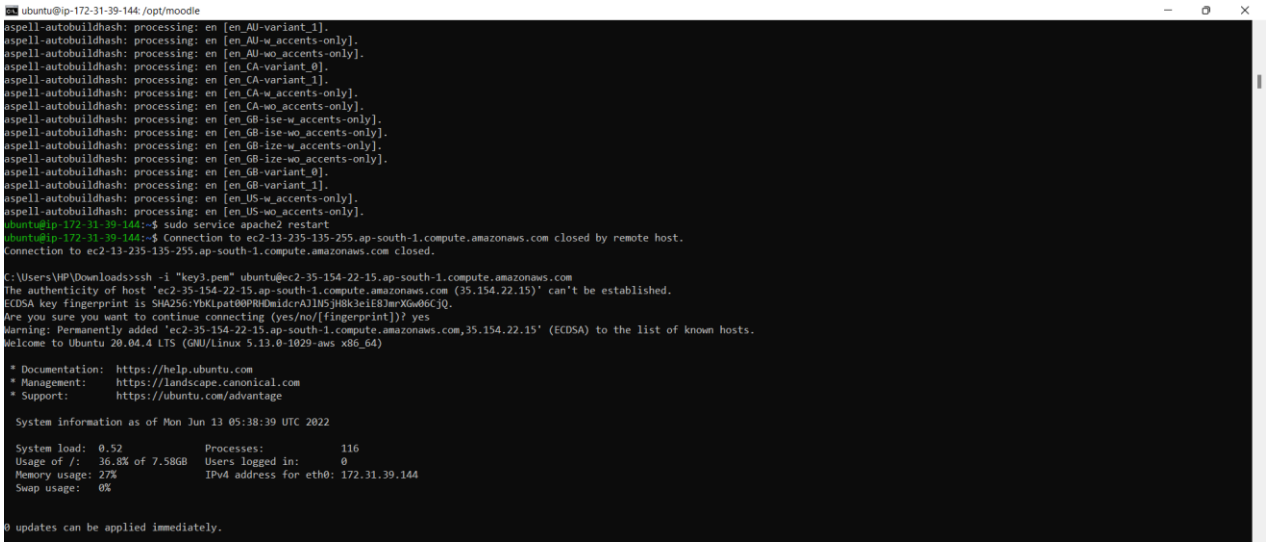
Just type the following commands on your terminal .

```
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

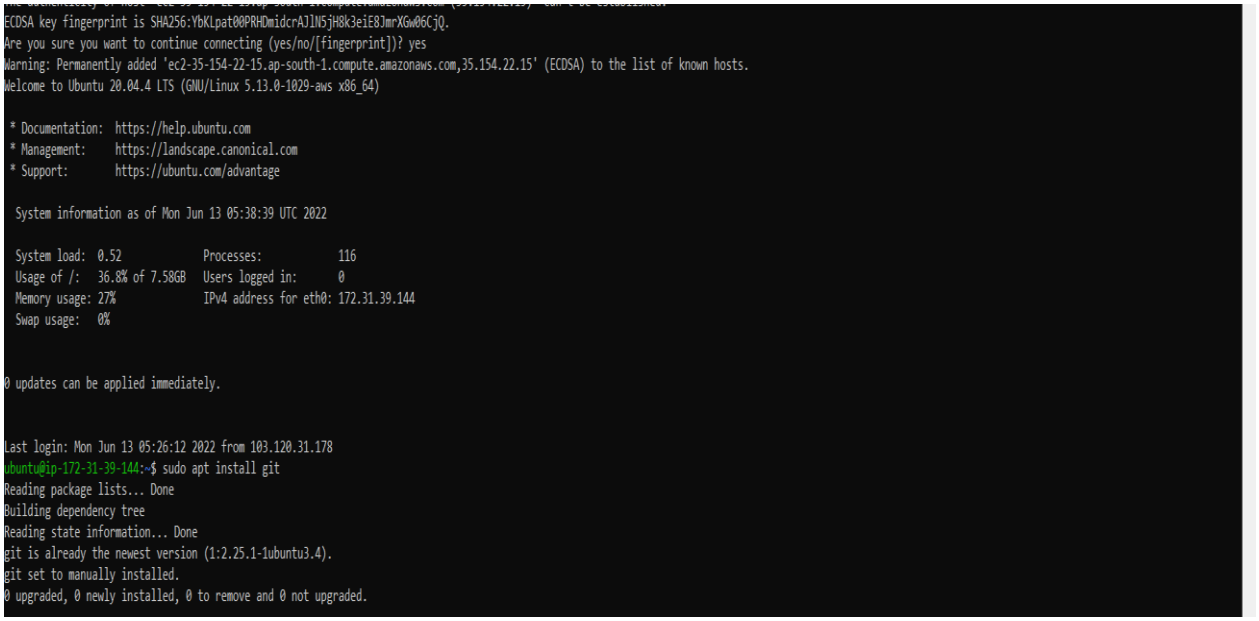
```
sudo service apache2 restart
```





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

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



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 :

STEP 5 : COPY LOCAL REPOSITORY TO /var/www

Copy these following steps into the terminal.

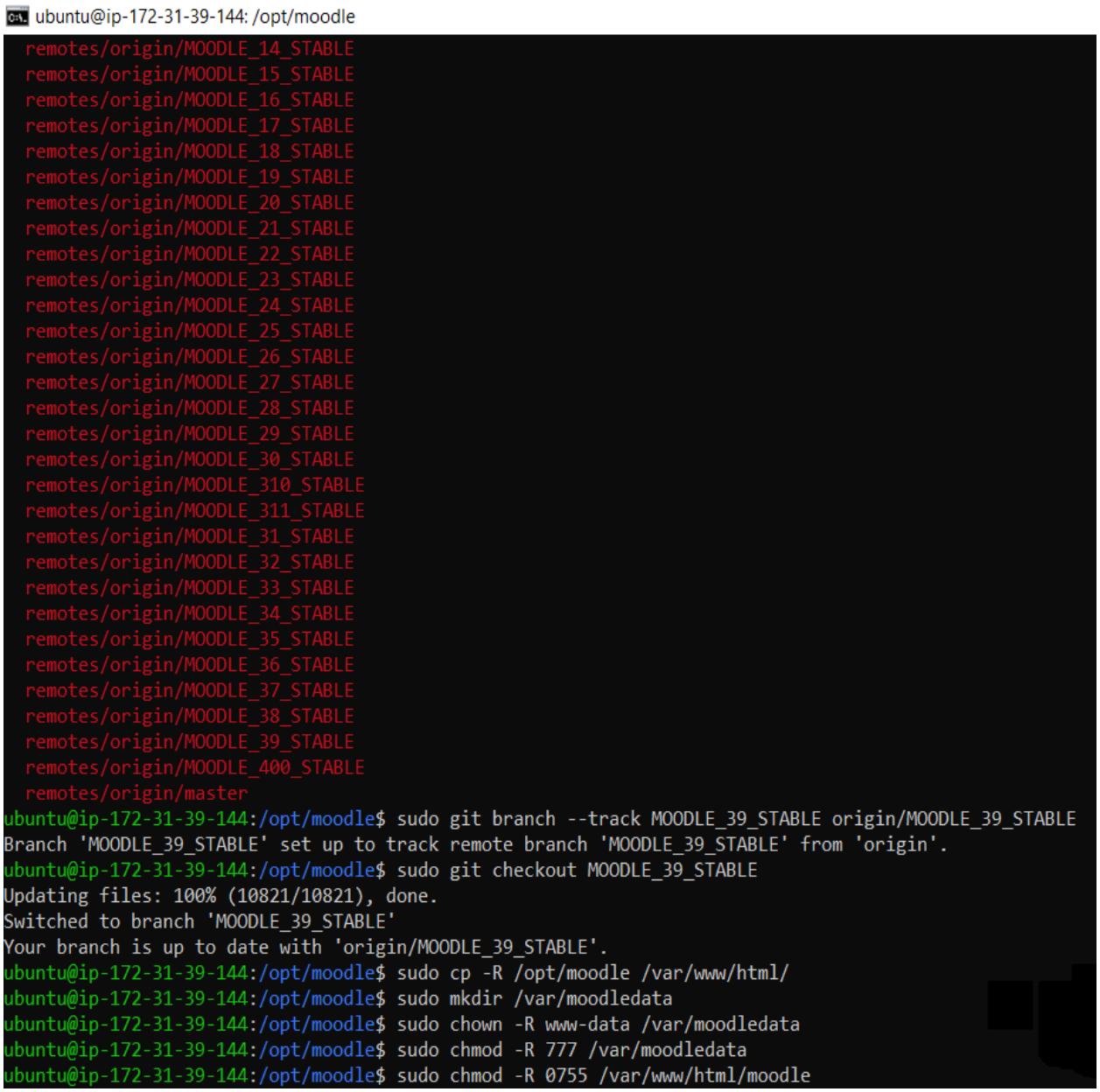
```
sudo cp -R /opt/moodle /var/www/
```

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

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

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

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



STEP 6 : SETUP MYSQL SERVER

First we need to change the default storage engine to innodb

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

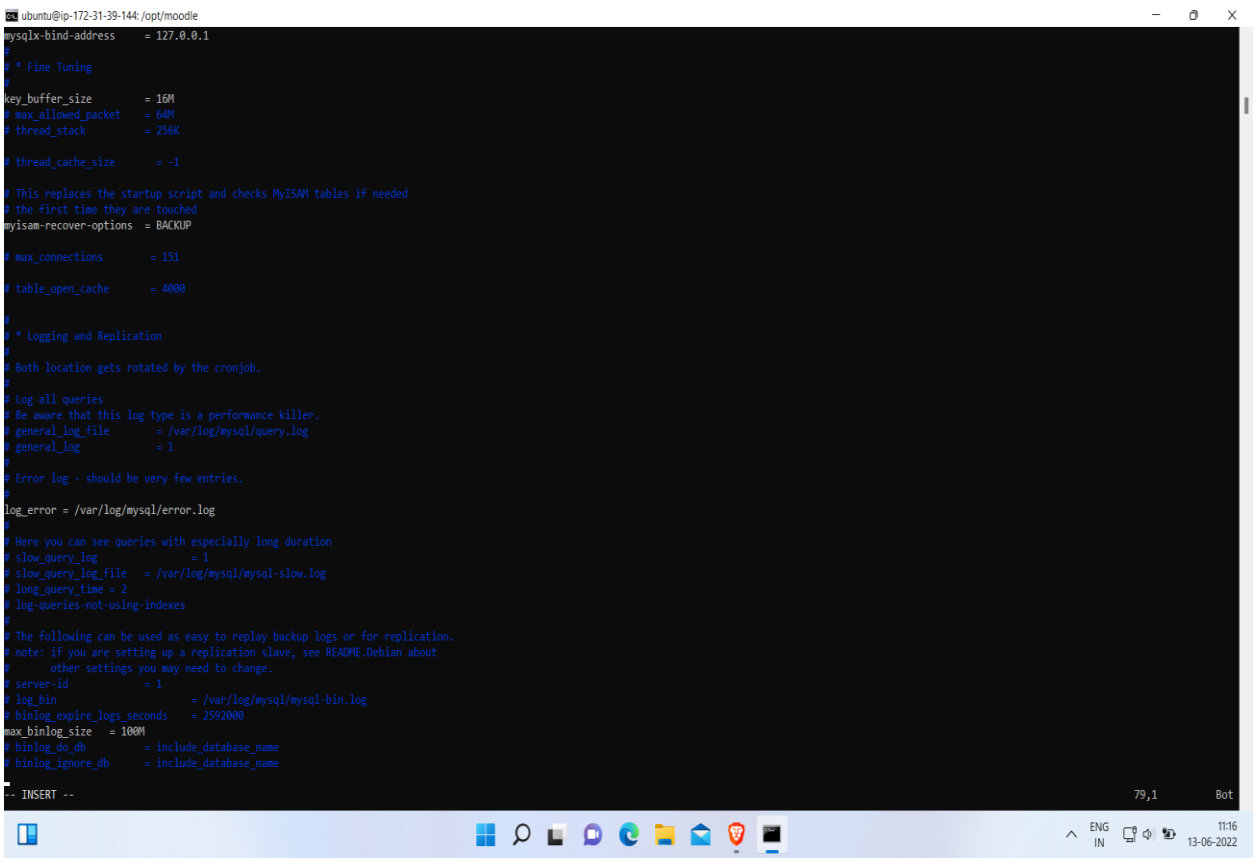
Scroll down to the [mysqld] section and under Basic Settings add the following line under the last statement

```
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
```



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;
```

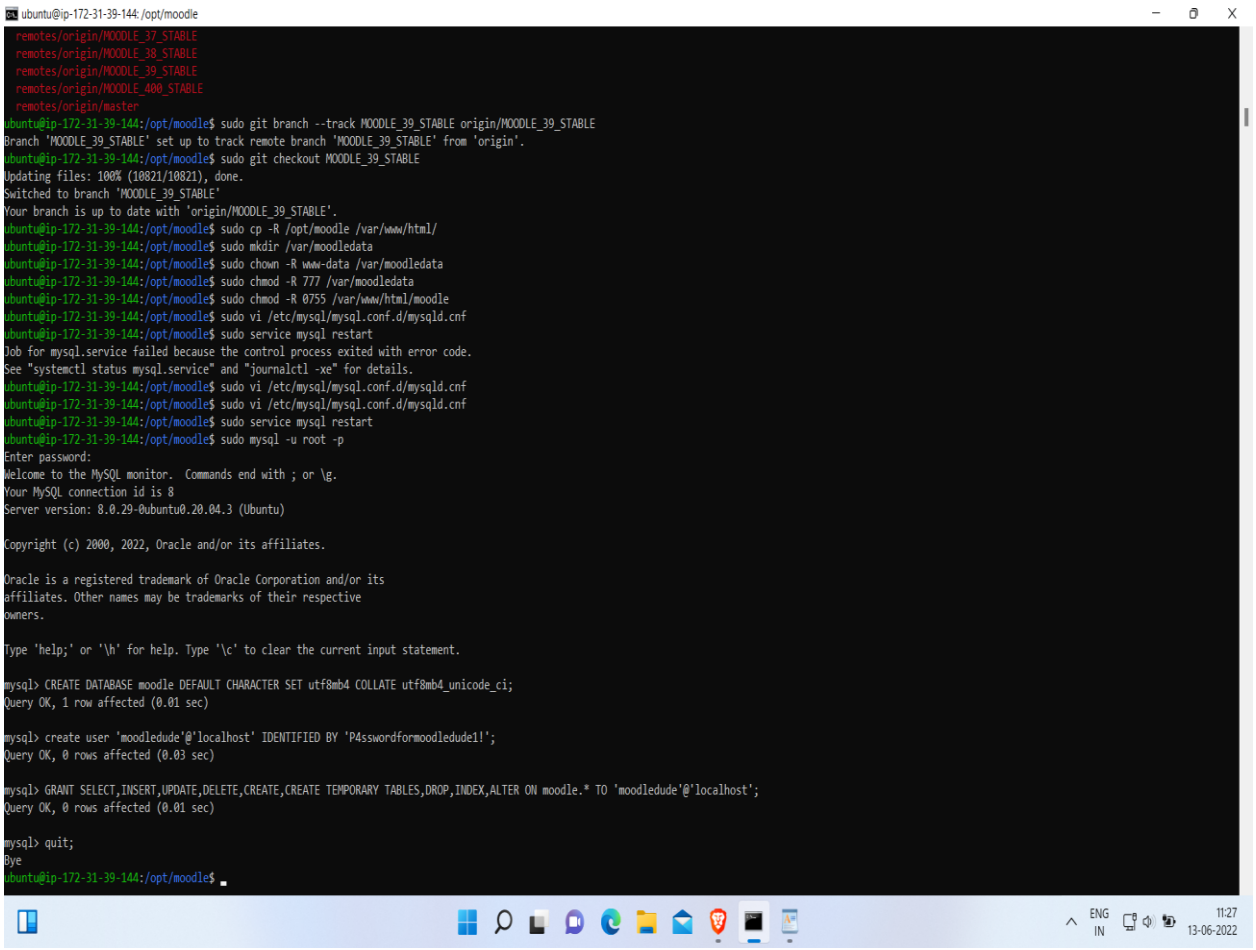
Where it says "moodledude" and "passwordformoodledude" you should change to the username and password of your choosing.

mysql>

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

mysql>

```
quit;
```



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.

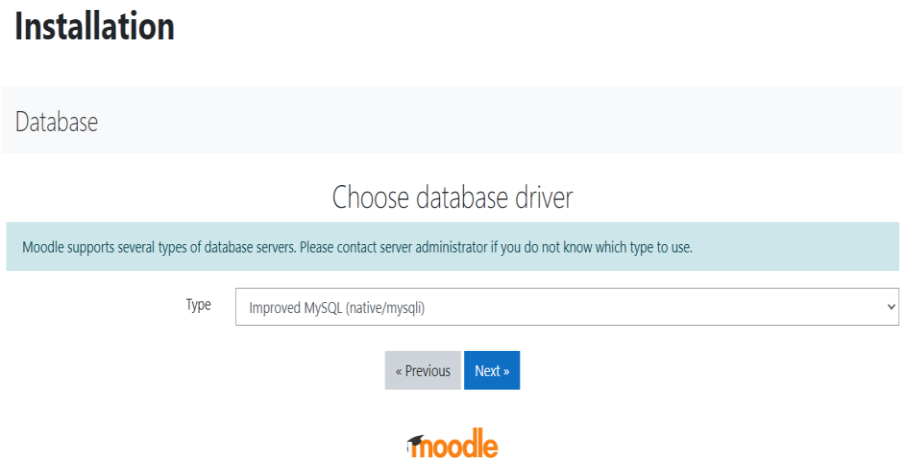
```
sudo chmod -R 0755 /var/www/moodle
```

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

Follow the prompts selecting :

Database Type

Choose: mysqli



Database Settings

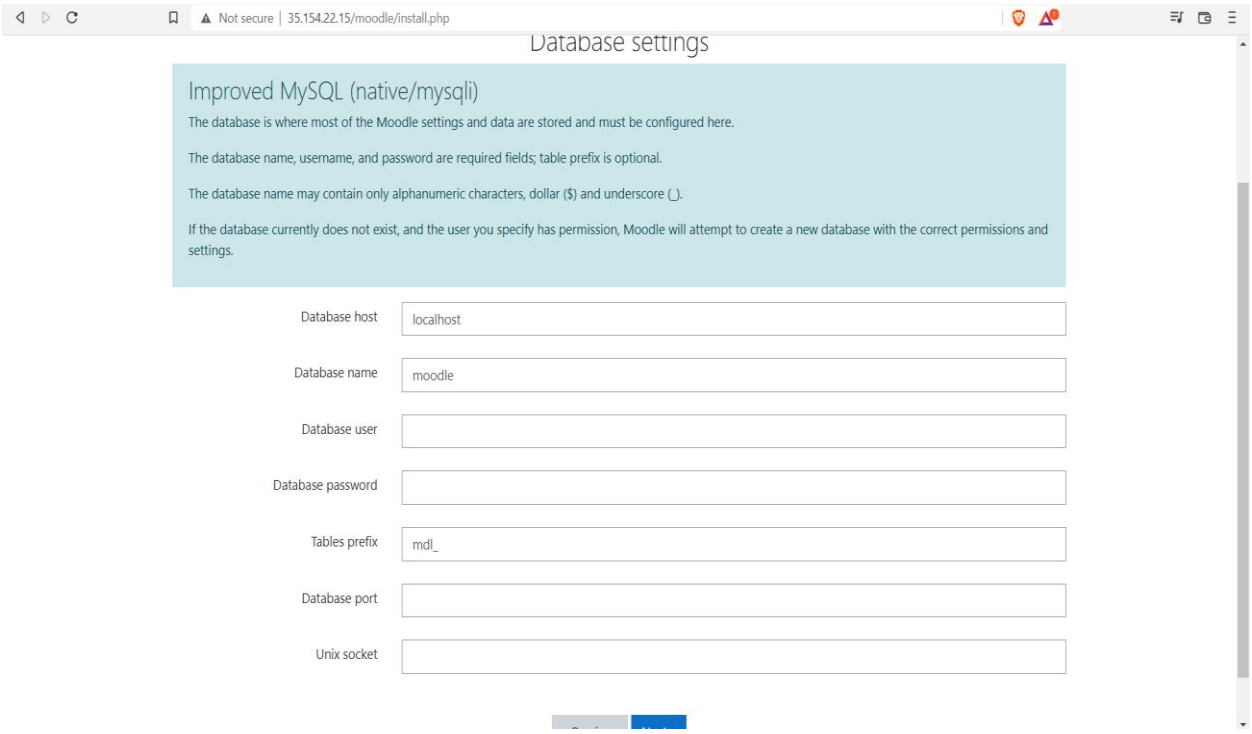
Host server: localhost

Database: moodle

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

Password: (the password for the user you created)

Tables Prefix: mdl_



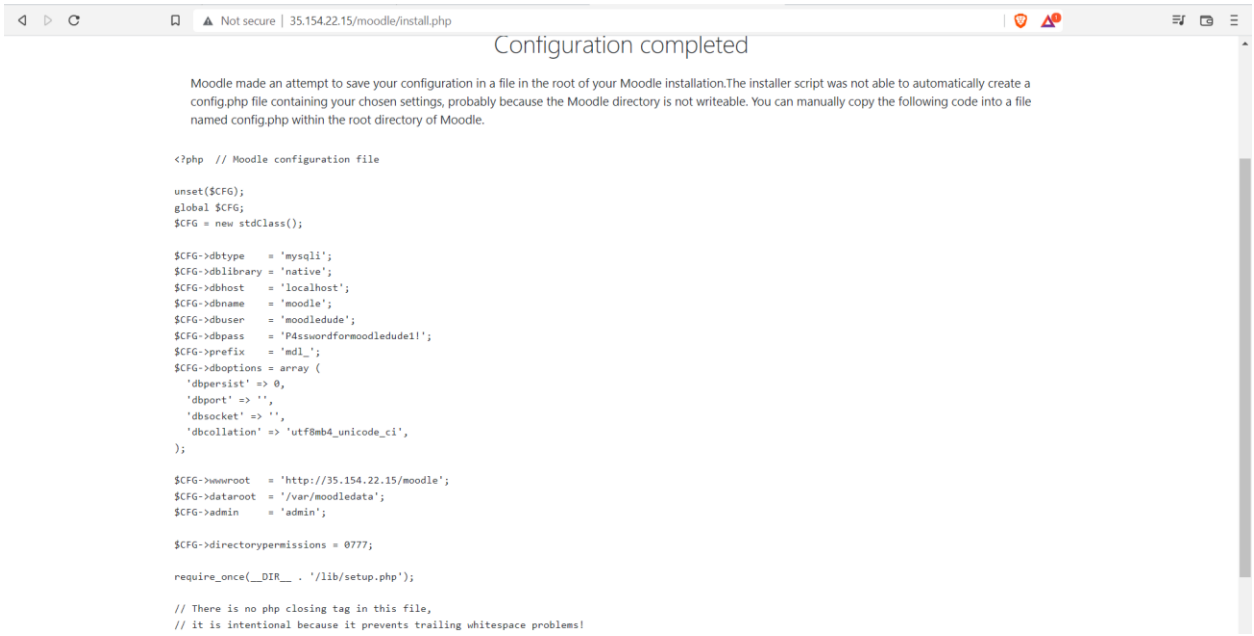
Environment Checks

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

Next next next...

follow prompts and confirm installation

Installation Complete



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

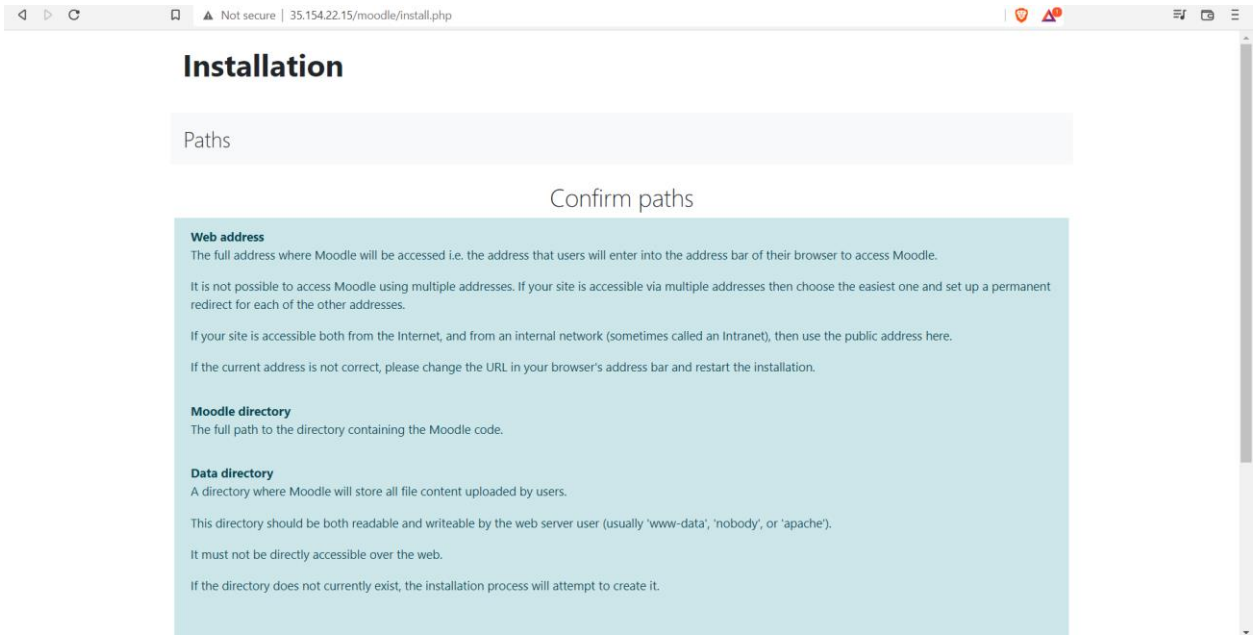
Input the following;

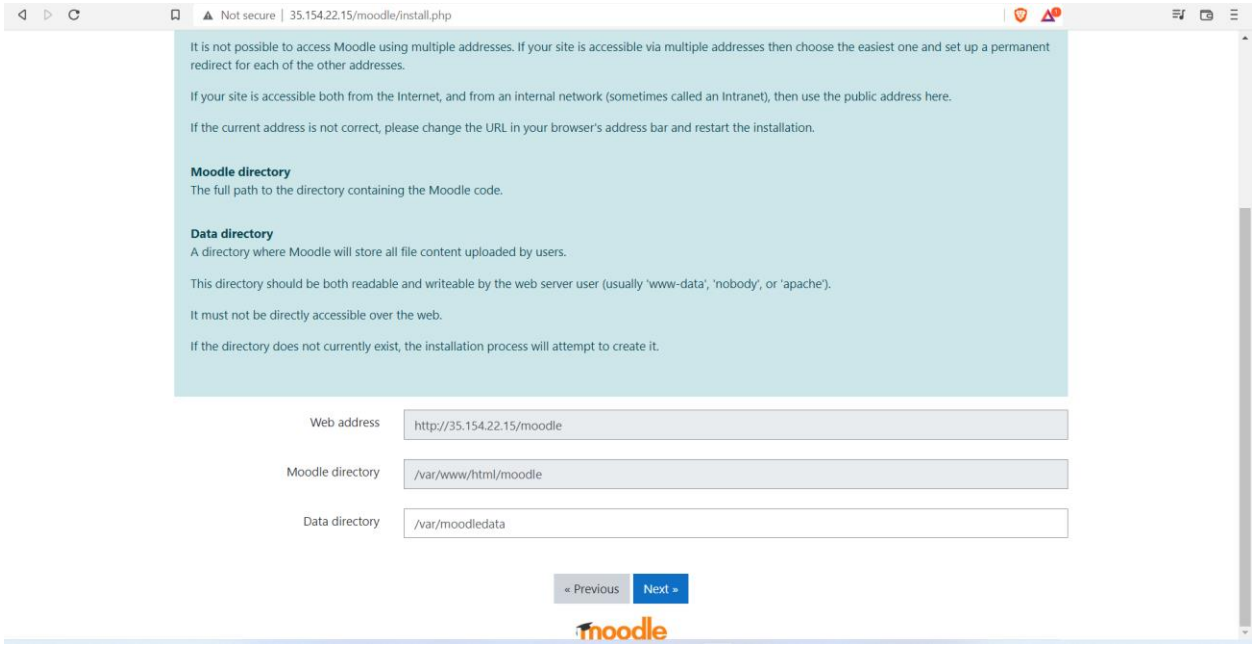
Path to Du: /usr/bin/du

Path to Apsell: /usr/bin/aspell

Path to dot: /usr/bin/dot

Save Changes


Not secure | 35.154.22.15/moodle/install.php
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.


Not secure | 35.154.22.15/moodle/install.php
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If your site is accessible both from the Internet, and from an internal network (sometimes called an Intranet), then use the public address here.
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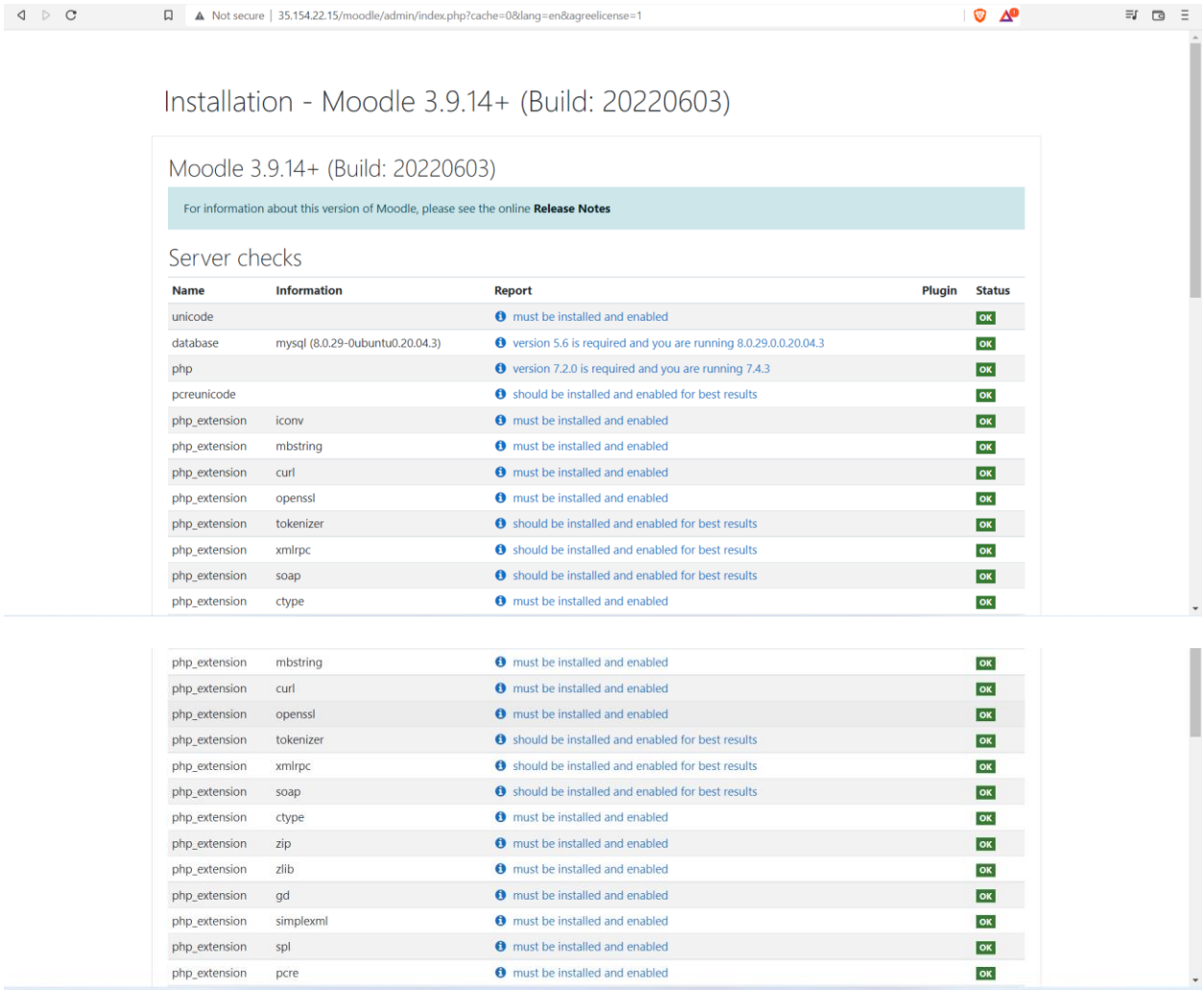
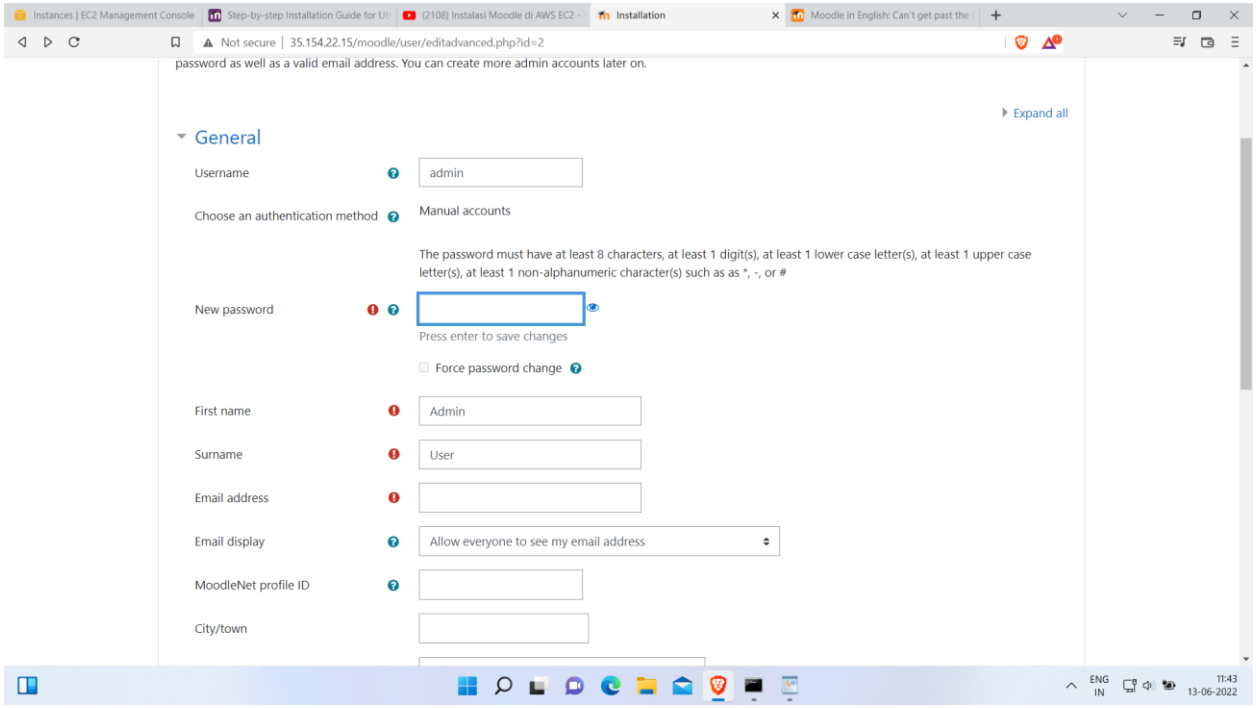
Web address
http://35.154.22.15/moodle
Moodle directory
/var/www/html/moodle
Data directory
/var/moodledata
« Previous
Next »
moodle

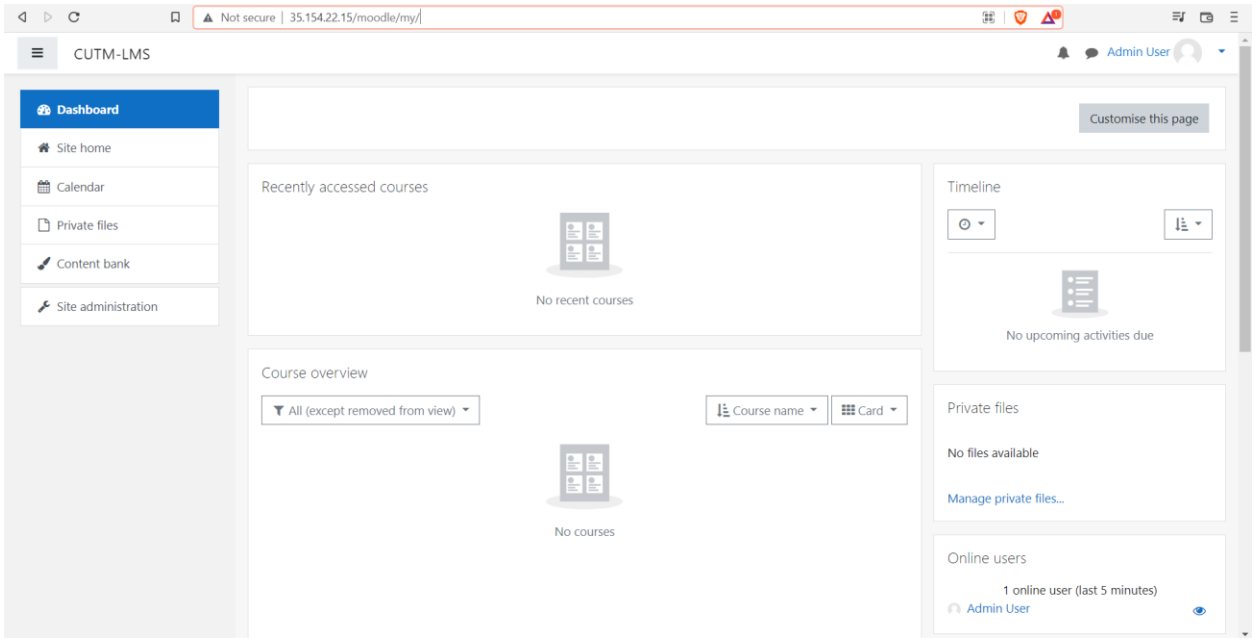

Not secure | 35.154.22.15/moodle/admin/index.php?cache=0&lang=en&agreelicense=1
Installation - Moodle 3.9.14+ (Build: 20220603)
Moodle 3.9.14+ (Build: 20220603)
For information about this version of Moodle, please see the online Release Notes
Server checks
Name Information Report Plugin Status
unicode 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

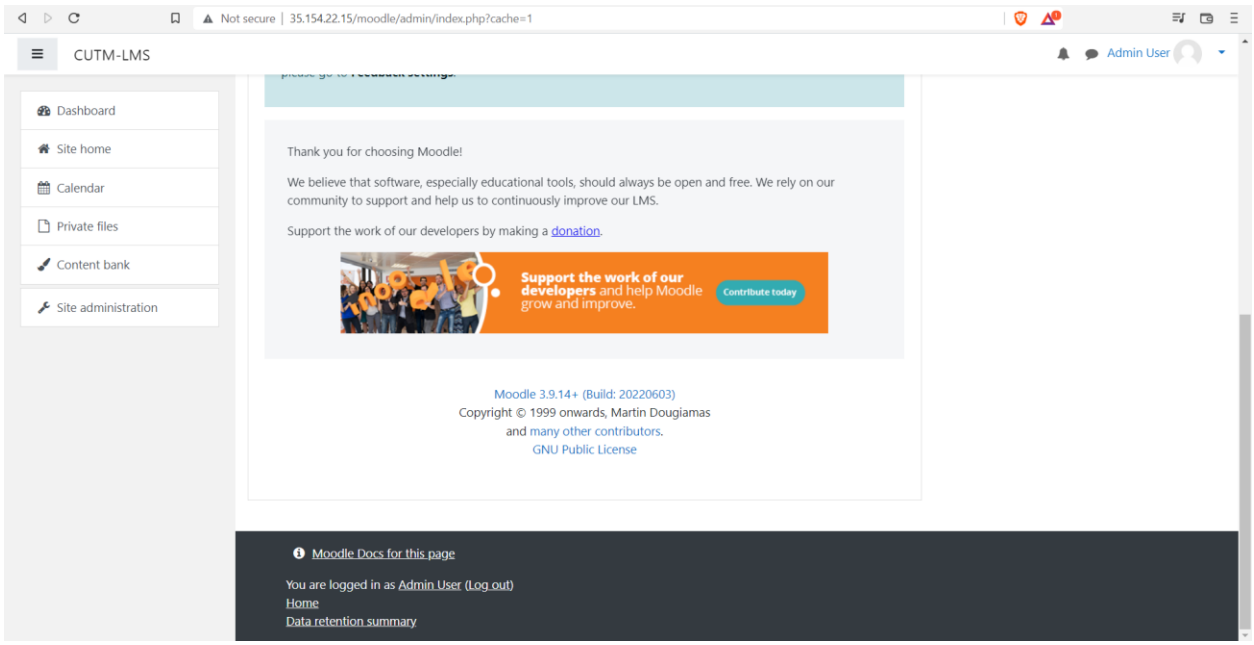
php_extension mbstring must be installed and enabled OK
php_extension curl must be installed and enabled OK
php_extension openssl must be installed and enabled OK
php_extension tokenizer should be installed and enabled for best results OK
php_extension xmlrpc should be installed and enabled for best 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 pcre must be installed and enabled OK

Final Steps :



Now, You're good to go :





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