EXPIRIMENT NO : 6

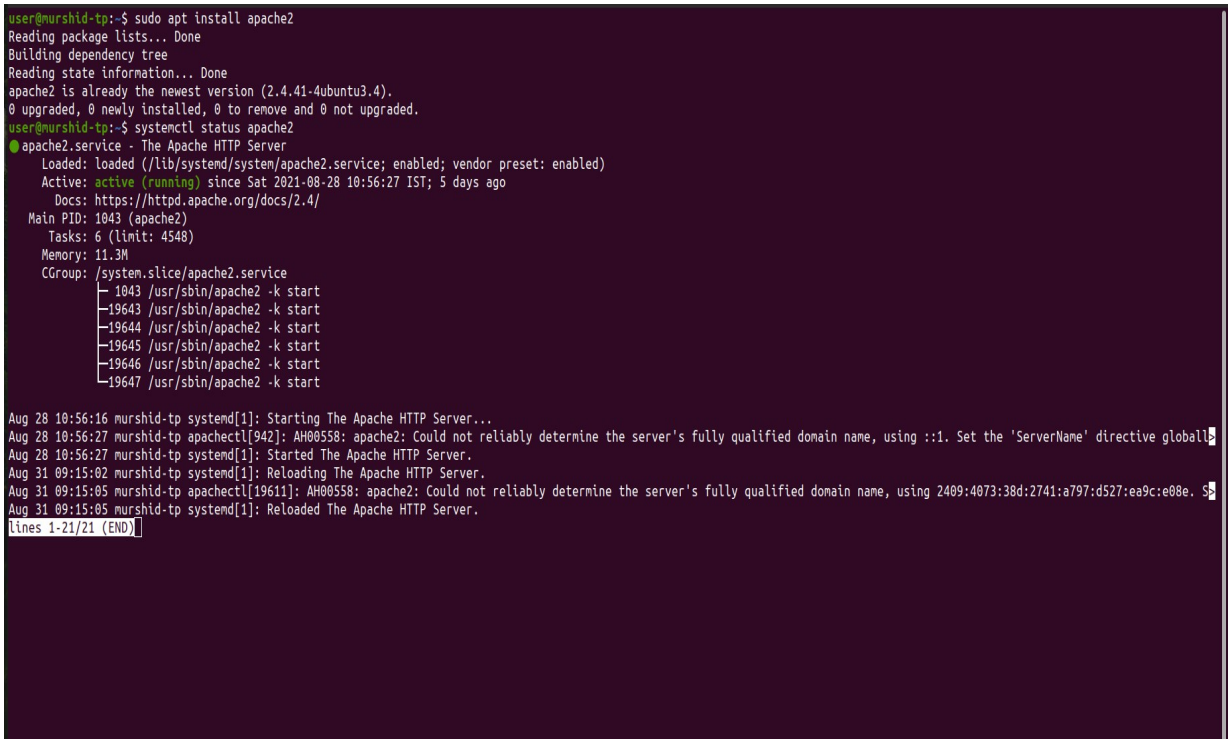
Aim: Installation and configuration of common software frame works such as Laravel. (Student should acquire the capability to install and configure a modern framework)

SETUP LARAVEL ON UBUNTU WITH APACHE

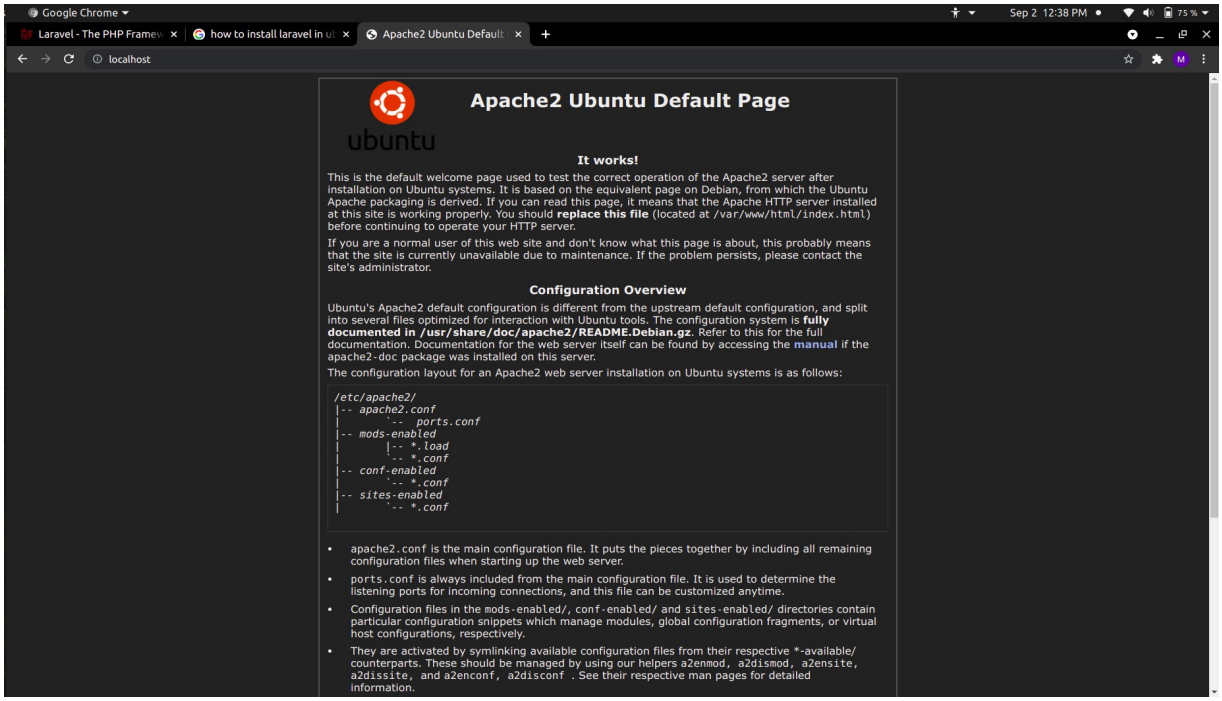
Step-1: Install Apache Web Server

- Let's open up a Terminal and do first thing first update your package list using **Sudo apt update** command.

- After updating your package list install apache webserver. So, go ahead and type sudo apt install apache2 then hit the enter key. Press y key to proceed. You can also setup laravel with Nginx instead of the apache web server.

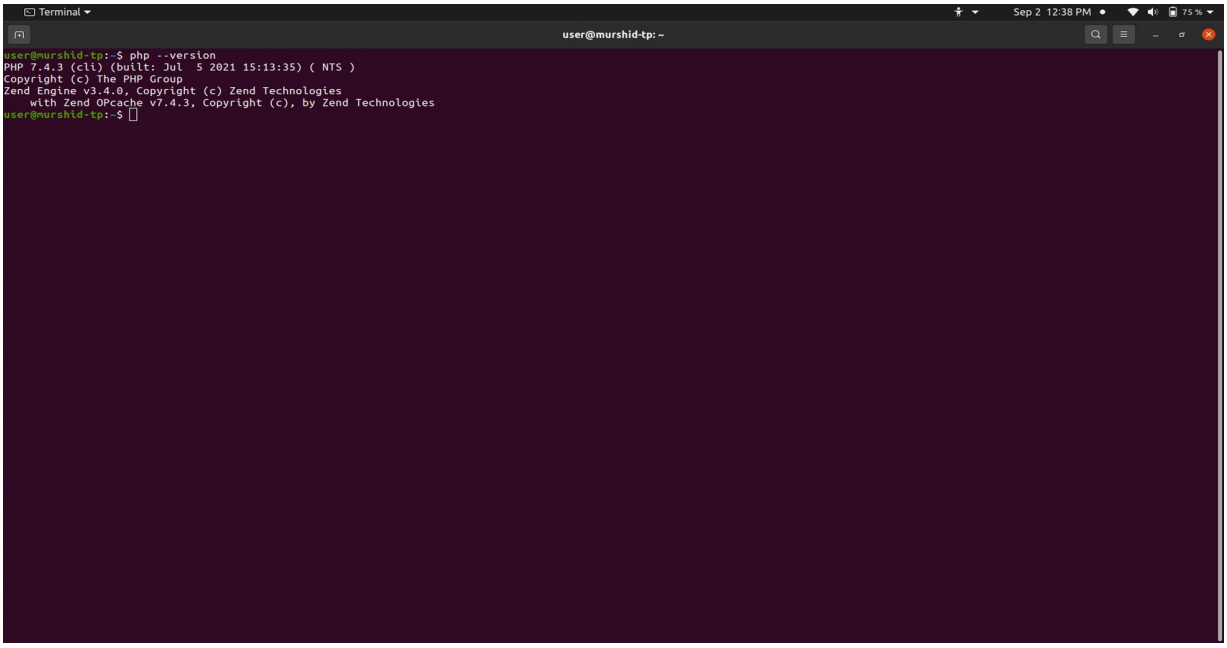


- Check Apache server is working



Step-2: Install and Configure PHP 7.4

- To install Laravel 8.x, at least you must have PHP >= 7.3 on your system. And by default, the official Ubuntu 20.04 repository provides PHP 7.4 packages. Install PHP 7.4 packages using the apt command
- You can check your PHP version using it.

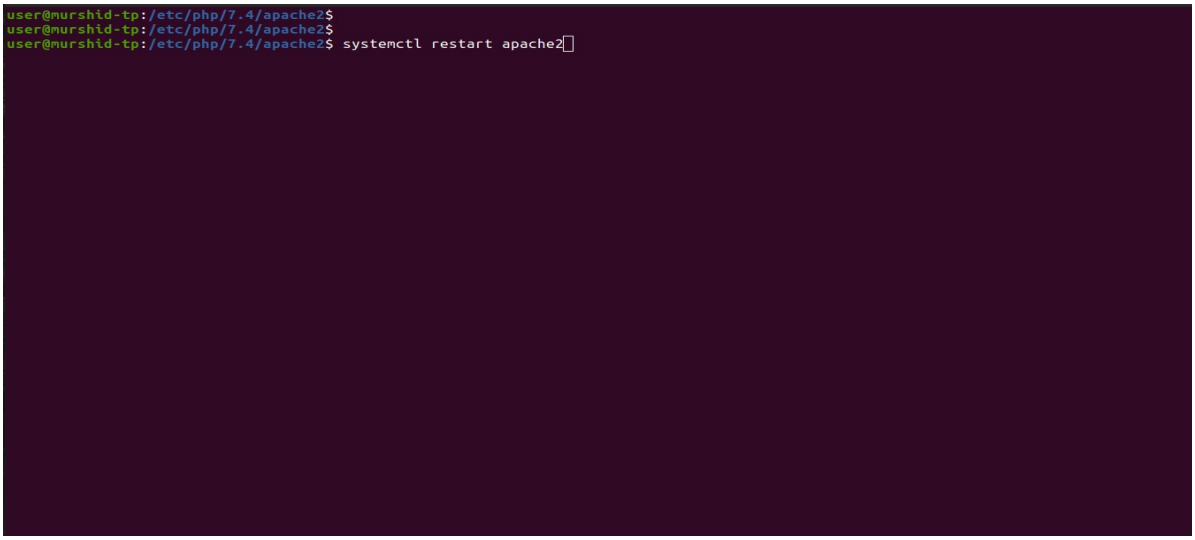


- Now go ahead and make tweak changes in PHP ini file and set cgi.fix_pathinfo set to be 0. If this number is kept as a 1, the php interpreter will do its best to process the file that is as near to the requested file as possible. This is a possible security risk. If this number is set to 0, conversely, the interpreter will only process the exact file path—a much safer alternative.

Press ctrl+w and search for the word “cgi.fix” the uncomment the line and set it to 0.

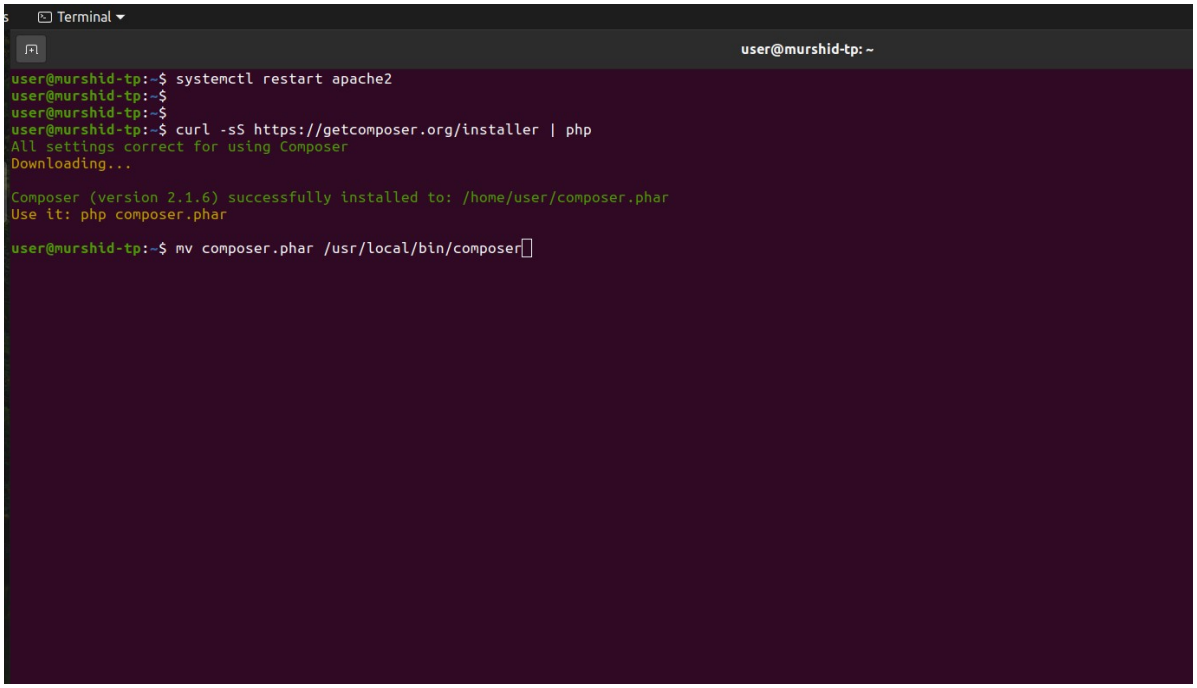
Press Ctrl + x then y to Save and Exit.

Now Restart The apache service.

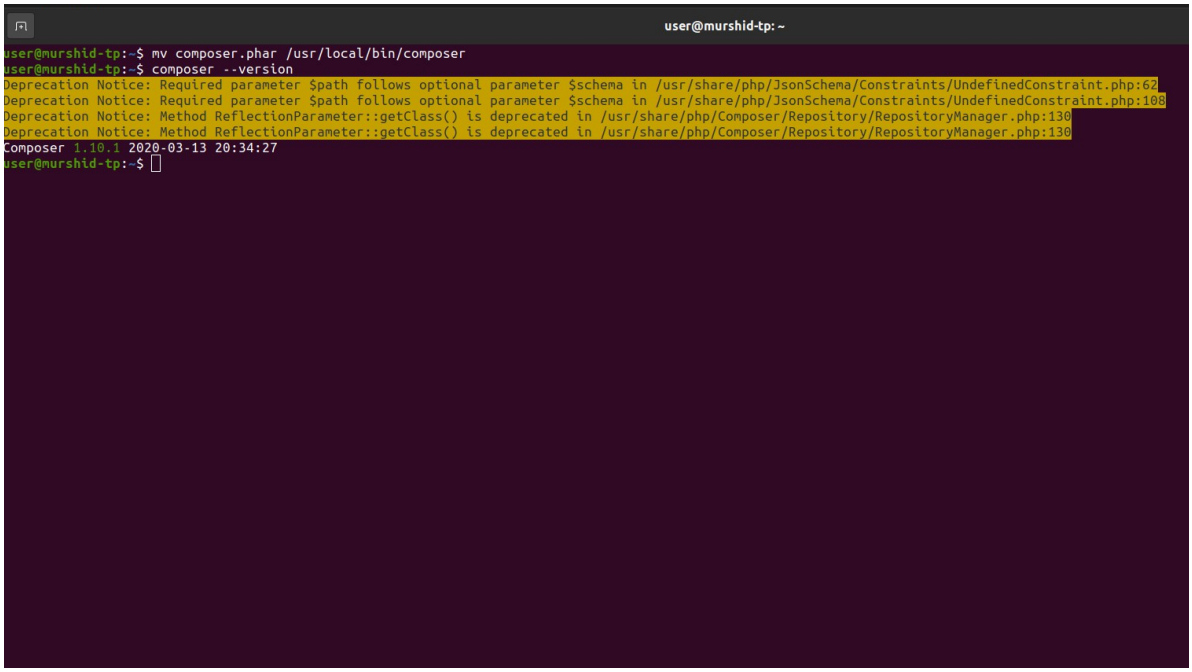


Step-3: Install Composer PHP Packages Management

install the composer package manager go ahead and download and install Composer. and move the composer .phar file to usr/local/bin/composer directory.

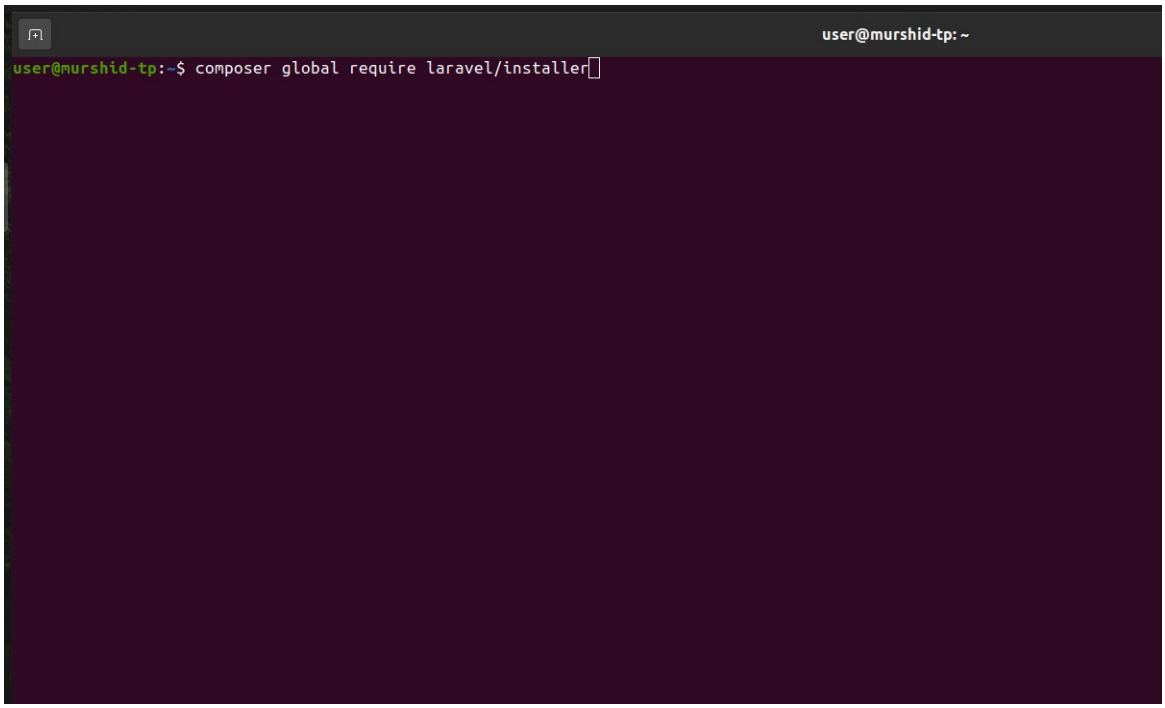


You can check your installed composer version by typing the composer –version.

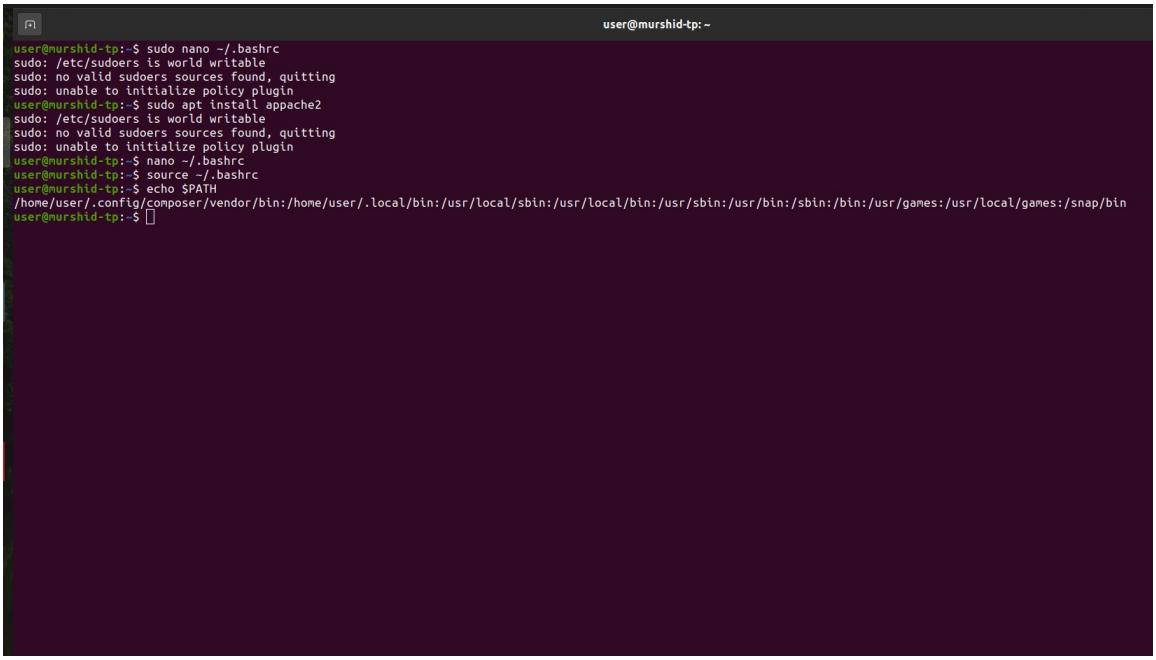


Step-4: Install Laravel 8.x on Ubuntu 20.04

Now install Laravel Framework using composer, just type composer global require Laravel/installer It will take a while to complete download its dependencies.

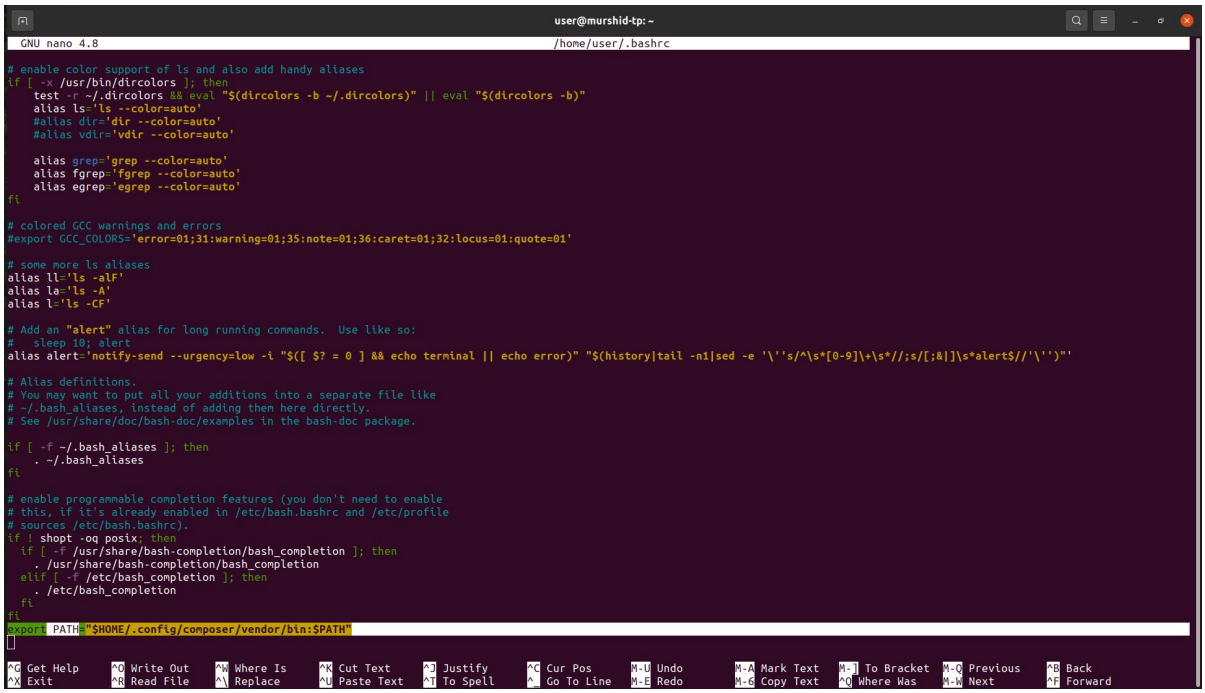


As you had seen above image, all packages have been installed on the '~/.config/composer' directory. Next, we need to add the 'bin' directory to the PATH environment through the ~/.bashrc configuration. So Now Edit the ~/.bashrc configuration using nano command.



And add the following line at the end of the file.

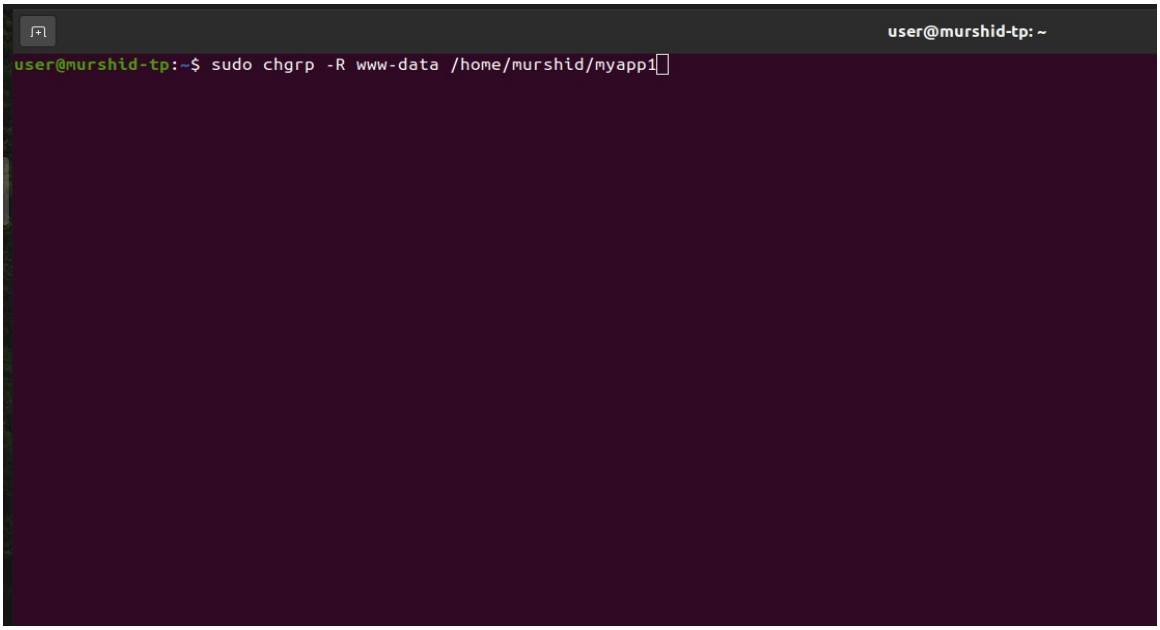
export PATH="$HOME/.config/composer/vendor/bin:$PATH"



The ‘bin’ directory for the composer packages has been added to the $PATH environment variable. And as a result, you can use the command ‘laravel’ to start and create a new project. Now go ahead and type Laravel new then your project name to start a new Laravel project.

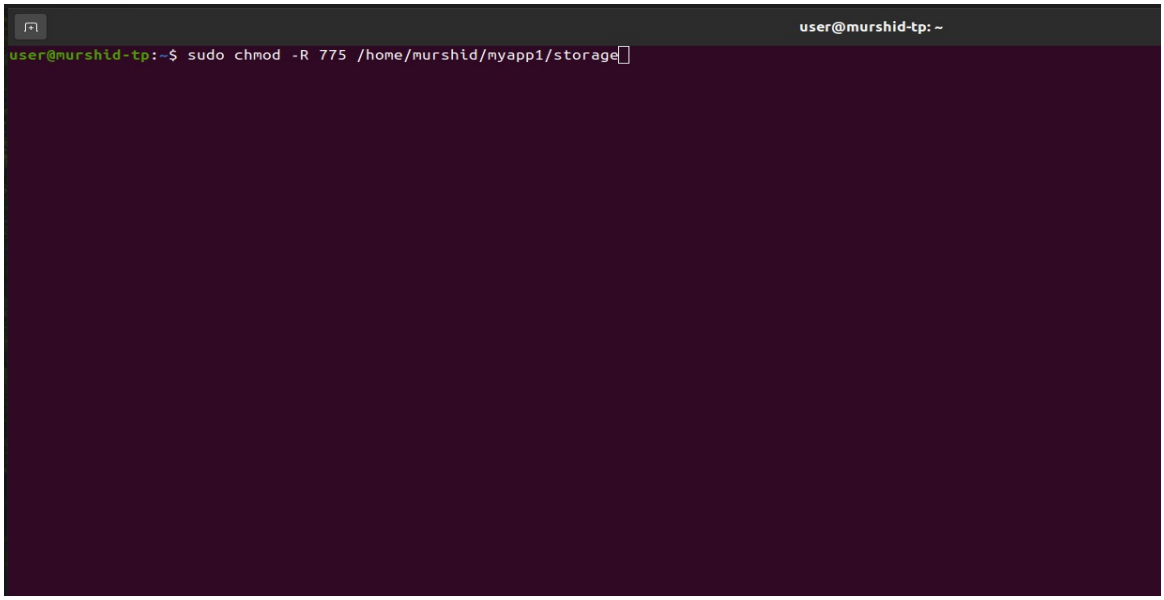
Step-5: Finally Configure Apache for Laravel and test it

- Add your project directory to www-data group use the following command



-R flag is recursive, Recursive means all subdirectory and files under your project directory become changed to the “www-data” group.

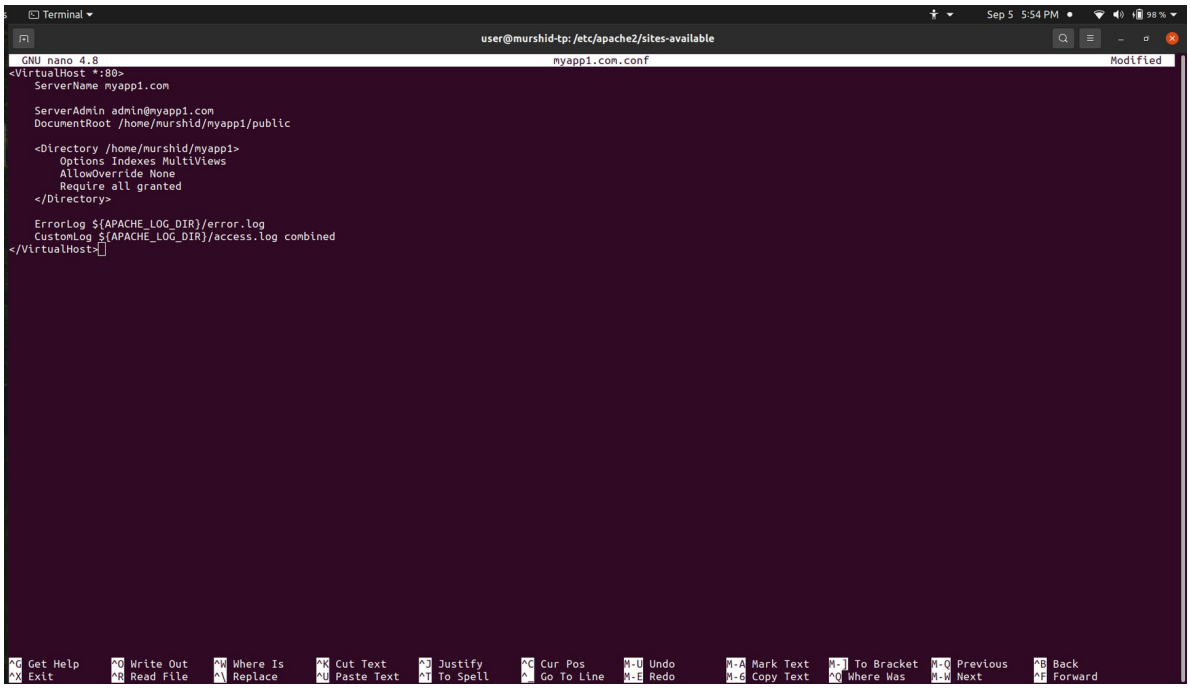
Also, you need to change access permission 775 of the storage directory under your project. So, go ahead and use the following command.



Now create an apache vhost configuration go to the following directory and create a vhost config file using nano file editor.

```
user@murshid-tp:~$ cd /etc/apache2/sites-available/
user@murshid-tp:/etc/apache2/sites-available$ ls
000-default.conf  default-ssl.conf
user@murshid-tp:/etc/apache2/sites-available$ sudo nano myapp1.com.conf
```

And type the following line inside the file.

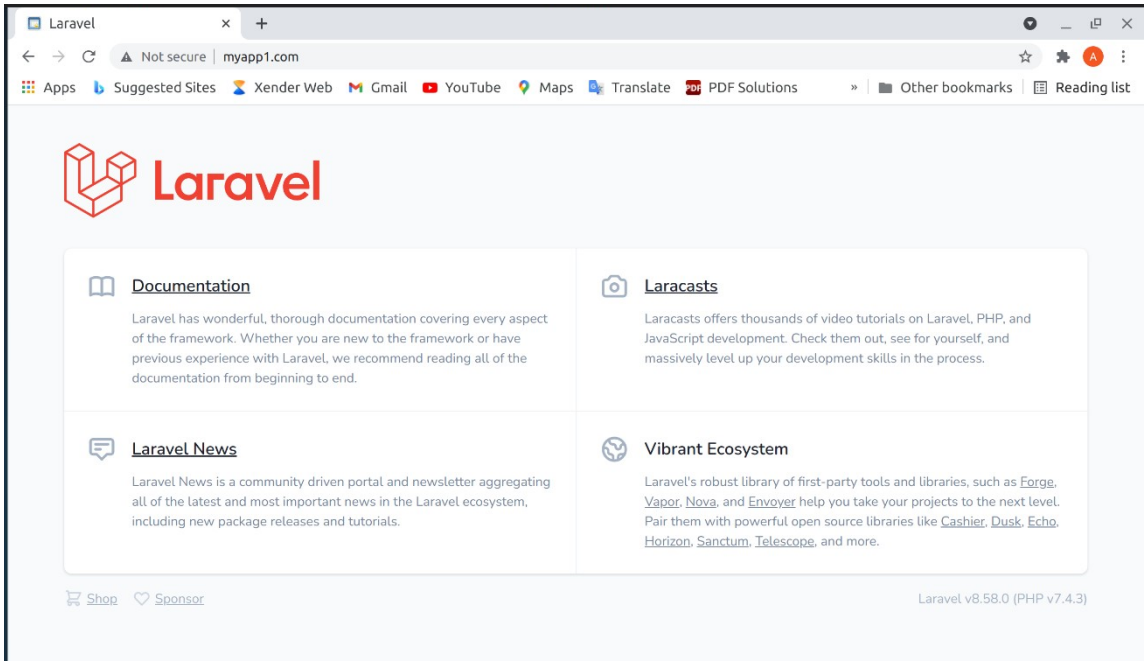


Now enable mod rewrite for apache2 just type

Now enable your site, just type
Finally, Restart the apache service, type

Type the following 3 command

sudo a2enmod rewrite.
sudo a2ensite myapp1.com.conf.
systemctl restart apache2

As you are in a local environment you need a local dns resolver for your site. Go ahead and edit /etc/hosts file, add a dns record for your site then save the file.

Now get back to the web browser and open a tab then type your project hostname.