

EXPERIMENT NO: 5

AIM:- WORDPRESS INSTALLATION ON LAMP STACK

WORDPRESS

WordPress is the simplest, most popular way to create our own website or blog. It is an open-source content management system licensed under GPLv2, which means that anyone can use or modify the WordPress software for free.

A content management system (CMS) is basically a tool that makes it easy to manage important aspects of the website like content without needing to know anything about programming.

BENEFITS OF WordPress

- WordPress is free
- Simple and easy to use
- Stable and innovative
- Attractive design options
- Flexibility
- Sharing ability
- Easy content management
- Open source

LAMP

LAMP is a software stack designed to host web content, like websites and web apps. It's called LAMP because it's built on Linux (L), Apache web server (A), a MySQL database (M) or MariaDB, and the PHP scripting language (P).

LAMP is referred to as a software stack, because each of them is built on top of the other. Linux is the operating system, which creates the base layer. Apache is on top of the Linux because it needs Linux to operate. MySQL is along with Apache to store all the information it needs. And PHP sits atop the stack to drive the actual display of the website, pull info from the database and create user experience.

INSTALLATION PROCESS

STEPS:-

Install LAMP stack, for that open the terminal and type the following commands. At first check whether there are any updates available with

```
sudo apt-get update
```

```
gopika@gopika-VirtualBox: ~/Desktop
gopika@gopika-VirtualBox:~/Desktop$ sudo apt-get update
[sudo] password for gopika:
Get:1 http://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Hit:2 http://in.archive.ubuntu.com/ubuntu focal InRelease
Hit:3 http://in.archive.ubuntu.com/ubuntu focal-updates InRelease
Hit:4 http://in.archive.ubuntu.com/ubuntu focal-backports InRelease
Fetched 114 kB in 16s (6,948 B/s)
Reading package lists... Done
gopika@gopika-VirtualBox:~/Desktop$
```

If any updates available upgrade it using

`sudo apt-get upgrade`

Now type the command in terminal to install LAMP that is

`sudo apt-get install lamp-server^`

```
gopika@gopika-VirtualBox: ~/Desktop
gopika@gopika-VirtualBox:~/Desktop$ sudo apt-get install lamp-server^
[sudo] password for gopika:
E: dpkg was interrupted, you must manually run 'sudo dpkg --configure -a' to correct the problem.
gopika@gopika-VirtualBox:~/Desktop$ sudo dpkg --configure -a
Setting up libapache2-mod-php7.4 (7.4.3-4ubuntu2.5) ...
Package apache2 is not configured yet. Will defer actions by package libapache2-mod-php7.4.

Creating config file /etc/php/7.4/apache2/php.ini with new version
No module matches
Setting up apache2 (2.4.41-4ubuntu3.4) ...
Enabling module mpm_event.
Enabling module authz_core.
Enabling module authz_host.
Enabling module authn_core.
Enabling module auth_basic.
Enabling module access_compat.
Enabling module authn_file.
Enabling module authz_user.
Enabling module alias.
Enabling module dir.
Enabling module autoindex.
Enabling module env.
Enabling module mime.
Enabling module negotiation.
Enabling module setenvif.
Enabling module filter.
Enabling module deflate.
Enabling module status.
Enabling module reqtimeout.
Enabling conf charset.
Enabling conf localized-error-pages.
Enabling conf other-vhosts-access-log.
Enabling conf security.
```

```
gopika@gopika-VirtualBox: ~/Desktop
Enabling module alias.
Enabling module dir.
Enabling module autoindex.
Enabling module env.
Enabling module mime.
Enabling module negotiation.
Enabling module setenvif.
Enabling module filter.
Enabling module deflate.
Enabling module status.
Enabling module reqtimeout.
Enabling conf charset.
Enabling conf localized-error-pages.
Enabling conf other-vhosts-access-log.
Enabling conf security.
Enabling conf serve-cgi-bin.
Enabling site 000-default.
info: Switch to mpn prefork for package libapache2-mod-php7.4
Module mpn_event disabled.
Enabling module mpn_prefork.
info: Executing deferred 'a2enmod php7.4' for package libapache2-mod-php7.4
Enabling module php7.4.
Created symlink /etc/systemd/system/multi-user.target.wants/apache2.service → /lib/systemd/system/apache2.service.
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.service → /lib/systemd/system/apache-htcacheclean.service.
Setting up libapache2-mod-php (2:7.4+75) ...
Processing triggers for ufw (0.36-6) ...
Processing triggers for systemd (245.4-4ubuntu3.4) ...
Processing triggers for php7.4-cli (7.4.3-4ubuntu2.5) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for libc-bin (2.31-0ubuntu9.2) ...
Processing triggers for libapache2-mod-php7.4 (7.4.3-4ubuntu2.5) ...
gopika@gopika-VirtualBox:~/Desktop$
```

LAMP is successfully installed. Now we want to get into the root directory of Apache ,for that

```
cd var/www/html/
```

and then we need to download the WordPress ,

```
sudo wget https://wordpress.org/latest.tar.gz
```

```
gopika@gopika-VirtualBox: /var/www/html
gopika@gopika-VirtualBox:/var/www/html$ sudo wget https://wordpress.org/latest.tar.gz
```

Then we get the zip folder of latest version of WordPress and we need to unzip it using

```
sudo tar xvfz latest.tar.gz
```

After the folder is get unzipped, list the files in it using the command

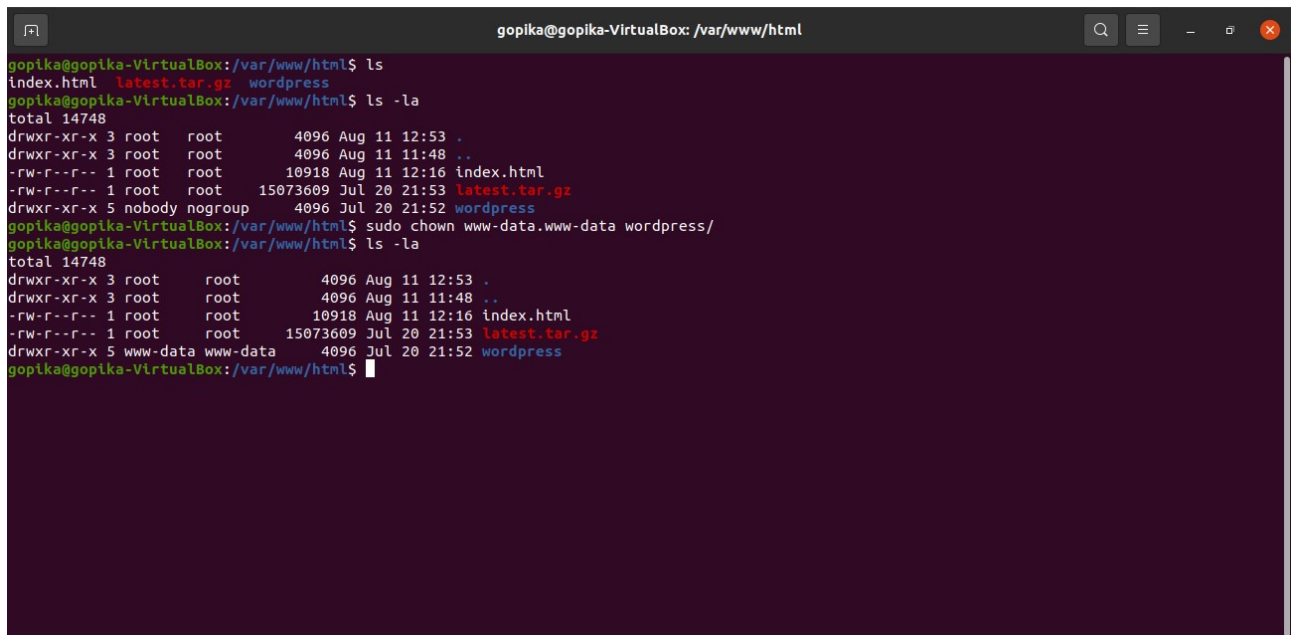
```
ls
```

then check the permission of the wordpress file using

```
ls -la
```

At first the wordpress file seems to be no one can write or change data, so we need to change the file permission using **chown** (change ownership) command

```
sudo chown www-data:www-data wordpress/
```



```
gopika@gopika-VirtualBox: /var/www/html
gopika@gopika-VirtualBox:/var/www/html$ ls
index.html  latest.tar.gz  wordpress
gopika@gopika-VirtualBox:/var/www/html$ ls -la
total 14748
drwxr-xr-x 3 root  root    4096 Aug 11 12:53 .
drwxr-xr-x 3 root  root    4096 Aug 11 11:48 ..
-rw-r--r-- 1 root  root   10918 Aug 11 12:16 index.html
-rw-r--r-- 1 root  root  15073609 Jul 20 21:53 latest.tar.gz
drwxr-xr-x 5 nobody nogroup 4096 Jul 20 21:52 wordpress
gopika@gopika-VirtualBox:/var/www/html$ sudo chown www-data:www-data wordpress/
gopika@gopika-VirtualBox:/var/www/html$ ls -la
total 14748
drwxr-xr-x 3 root  root    4096 Aug 11 12:53 .
drwxr-xr-x 3 root  root    4096 Aug 11 11:48 ..
-rw-r--r-- 1 root  root   10918 Aug 11 12:16 index.html
-rw-r--r-- 1 root  root  15073609 Jul 20 21:53 latest.tar.gz
drwxr-xr-x 5 www-data www-data 4096 Jul 20 21:52 wordpress
gopika@gopika-VirtualBox:/var/www/html$
```

Now we need to create a database for wordpress, for that we need to get into mysql

```
sudo mysql
```

along with that we need to create an username and password for MySQL using

```
CREATE USER 'username'@'localhost' IDENTIFIED BY 'password';
```

give username and password as our interest and grant permission to the user to access the databases by

```
GRANT ALL PRIVILEGES ON *.* TO 'GOPIKA'@'localhost';
```

```
gopika@gopika-VirtualBox: /var/www/html
Enter password:
ERROR 1698 (28000): Access denied for user 'root'@'localhost'
gopika@gopika-VirtualBox: /var/www/html$ sudo mysql
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 9
Server version: 8.0.26-0ubuntu0.20.04.2 (Ubuntu)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> CREATE USER 'GOPIKA'@'localhost' IDENTIFIED BY 'Gopika@123'
-> CREATE USER 'GOPIKA'@'localhost' IDENTIFIED BY 'Gopika@123';
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax
to use near 'CREATE USER 'GOPIKA'@'localhost' IDENTIFIED BY 'Gopika@123'' at line 2
mysql> mysql --v
-> clear
-> ^C
^C
mysql> CREATE USER 'GOPIKA'@'localhost' IDENTIFIED BY 'Gopika@123';
Query OK, 0 rows affected (4.21 sec)

mysql>
mysql> GRANT ALL PRIVILEGES ON *.* TO 'GOPIKA'@'localhost';
Query OK, 0 rows affected (0.30 sec)

mysql>
```

Check the existing databases using the command
show databases;
and then create database named wordpress

create database wordpress;

```
gopika@gopika-VirtualBox: /var/www/html

mysql>
mysql> GRANT ALL PRIVILEGES ON *.* TO 'GOPIKA'@'localhost';
Query OK, 0 rows affected (0.30 sec)

mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
4 rows in set (0.69 sec)

mysql> create database wordpress;
Query OK, 1 row affected (0.21 sec)

mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
| wordpress |
+-----+
5 rows in set (0.00 sec)

mysql>
```

and then launch **localhost/wordpress** and then connect the database to the wordpress

WordPress Setup Configuration

localhost/wordpress/wp-admin/setup-config.php?step=1

Below you should enter your database connection details. If you're not sure about these, contact your host.

Database Name	<input type="text" value="wordpress"/>	The name of the database you want to use with WordPress.
Username	<input type="text" value="GOPIKA"/>	Your database username.
Password	<input type="text" value="Gopika@123"/>	Your database password.
Database Host	<input type="text" value="localhost"/>	You should be able to get this info from your web host, if localhost doesn't work.
Table Prefix	<input type="text" value="all_"/>	If you want to run multiple WordPress installations in a single database, change this.

click on submit and create user login credentials and click on install wordpress.

WordPress Installation

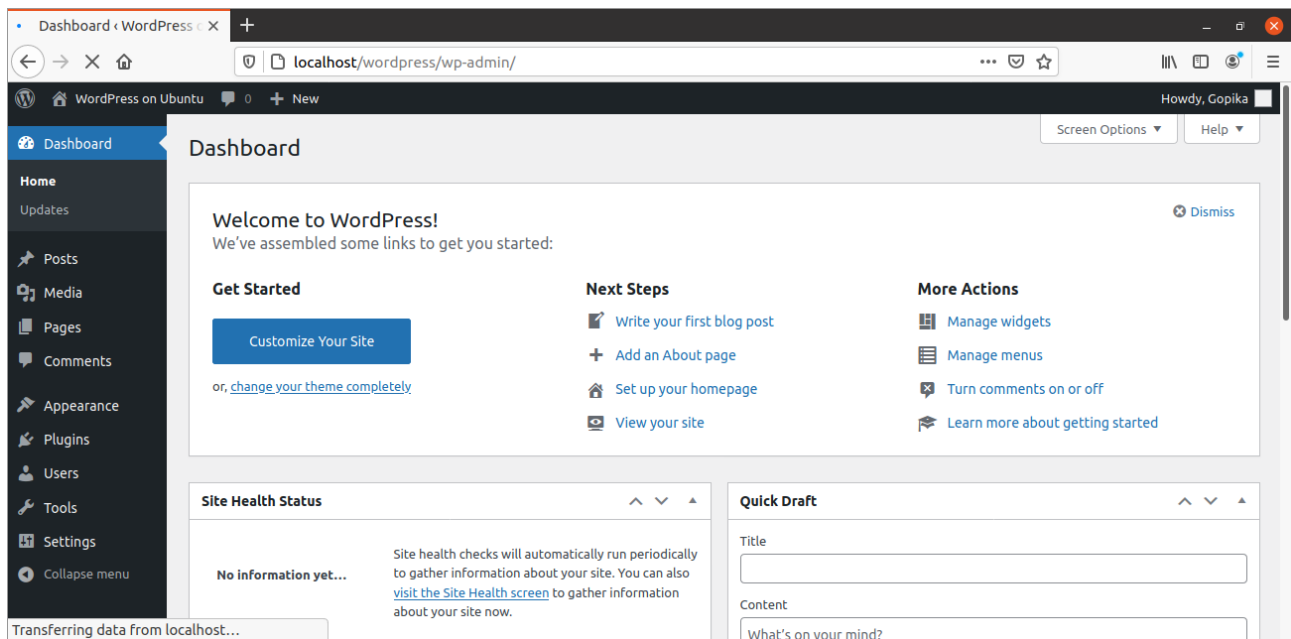
localhost/wordpress/wp-admin/install.php?language=en_US

Please provide the following information. Don't worry, you can always change these settings later.

Site Title	<input type="text" value="WordPress on Ubuntu"/>
Username	<input type="text" value="Gopika"/> Usernames can have only alphanumeric characters, spaces, underscores, hyphens, periods, and the @ symbol.
Password	<input type="password" value="@123GopikaP"/> <input type="button" value="Hide"/> Medium Important: You will need this password to log in. Please store it in a secure location.
Your Email	<input type="text" value="gopugrasp@gmail.com"/> Double-check your email address before continuing.
Search engine visibility	<input checked="" type="checkbox"/> Discourage search engines from indexing this site It is up to search engines to honor this request.

localhost

login to the wordpress using the login credentials.



WordPress is successfully installed locally.