

Networking and System Administration Lab

Lab Assignment: LAMP Stack installation

Vimal Thomson
Roll No: 40
RMCA-B Sem-II

The name LAMP is an acronym of the following programs:

Linux Operating System

Apache HTTP Server

MySQL database management system

PHP programming language

1. Installation of Apache Server.

Command:

```
sudo apt-get install apache2
```

Press y (yes) and hit ENTER to permit the installation

Check if Apache is installed correctly by running the Apache service status. Use the following the command:

```
sudo service apache2 status
```

```
vimalthomson@vimal-thomson:~$ sudo systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: active (running) since Wed 2021-09-29 14:35:43 IST; 5h 23min left
     Docs: https://httpd.apache.org/docs/2.4/
   Process: 1008 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
  Main PID: 1220 (apache2)
    Tasks: 6 (limit: 8716)
   Memory: 19.0M
   CGroup: /system.slice/apache2.service
           └─1220 /usr/sbin/apache2 -k start
             └─1228 /usr/sbin/apache2 -k start
               └─1229 /usr/sbin/apache2 -k start
                 └─1230 /usr/sbin/apache2 -k start
                   └─1231 /usr/sbin/apache2 -k start
                     └─1232 /usr/sbin/apache2 -k start

Sep 29 14:35:36 vimal-thomson systemd[1]: Starting The Apache HTTP Server...
Sep 29 14:35:43 vimal-thomson apachectl[1061]: AH00558: apache2: Could not reliably determine th
Sep 29 14:35:43 vimal-thomson systemd[1]: Started The Apache HTTP Server.
lines 1-19/19 (END)
```

2. Installation of MariaDB

MariaDB is an open source relational database management system (RDBMS)

Command:

```
sudo apt install mariadb-server mariadb-client
```

Check mariadb Installation

```
sudo systemctl status mysql
```

(if it is not working sudo systemctl start mysql)

```
vimalthomson@vimal-thomson:~$ sudo systemctl status mysql
● mariadb.service - MariaDB 10.3.31 database server
   Loaded: loaded (/lib/systemd/system/mariadb.service; enabled; vendor preset: enabled)
   Active: active (running) since Wed 2021-09-29 14:35:49 IST; 5h 23min left
     Docs: man:mysqld(8)
           https://mariadb.com/kb/en/library/systemd/
   Process: 1010 ExecStartPre=/usr/bin/install -m 755 -o mysql -g root -d /var/run/mysqld (code=exited, status=0/SUCCESS)
   Process: 1024 ExecStartPre=/bin/sh -c systemctl unset-environment _WSREP_START_POSITION (code=exited, status=0/SUCCESS)
   Process: 1032 ExecStartPre=/bin/sh -c [ ! -e /usr/bin/galera_recovery ] && VAR= || VAR='cd /usr/bin && cp -rf galera_recovery ../' (code=exited, status=0/SUCCESS)
   Process: 1347 ExecStartPost=/bin/sh -c systemctl unset-environment _WSREP_START_POSITION (code=exited, status=0/SUCCESS)
   Process: 1349 ExecStartPost=/etc/mysql/debian-start (code=exited, status=0/SUCCESS)
  Main PID: 1123 (mysqld)
    Status: "Taking your SQL requests now..."
     Tasks: 31 (limit: 8716)
    Memory: 108.8M
    CGroup: /system.slice/mariadb.service
            └─1123 /usr/sbin/mysqld
```

3. Install PHP

Command:

```
sudo apt install php libapache2-mod-php php-opcache php-cli php-gd
php-curl php-mysql
```

Restart apache2

```
sudo systemctl restart apache2
```

check installation

open <http://127.0.0.1/phpinfo.php> in any browser

4. Install phpmyadmin

Command:

```
sudo apt install phpmyadmin php-mbstring php-zip php-gd php-json php-curl
```

(It asks for webserver select apache2, select db-configuration and set password)

Restart apache2

```
sudo systemctl restart apache2
```

Check phpmyadmin

Open a browser

<http://localhost/phpmyadmin>

username : root

password : yourpassword



Welcome to phpMyAdmin

Language

English

Log in

Username:

admin

Password:

....

Go

The screenshot shows the phpMyAdmin interface in a web browser. The browser address bar displays 'localhost/phpmyadmin/index.php'. The interface includes a top navigation bar with tabs for 'Databases', 'SQL', 'Status', 'User accounts', 'Export', 'Import', 'Settings', 'Replication', 'Variables', 'Charsets', 'Engines', and 'Plugins'. On the left, there is a sidebar with a 'Recent' and 'Favorites' section, and a list of databases: 'New', 'information_schema', 'laravel', 'myste', 'myste1', 'mysql', 'performance_schema', and 'phpmyadmin'. The main content area is divided into several sections: 'General settings' (with 'Change password' and 'Server connection collation' set to 'utf8mb4_unicode_ci'), 'Appearance settings' (with 'Language' set to 'English', 'Theme' set to 'pmahomme', and 'Font size' set to '82%'), 'Database server' (showing details like 'Server: Localhost via UNIX socket', 'Server type: MariaDB', 'Server connection: SSL is not being used', 'Server version: 10.3.31-MariaDB-0ubuntu0.20.04.1 - Ubuntu 20.04', 'Protocol version: 10', 'User: admin@localhost', and 'Server charset: UTF-8 Unicode (utf8mb4)'), 'Web server' (showing details like 'Apache/2.4.41 (Ubuntu)', 'Database client version: libmysql - mysqlnd 7.4.3', 'PHP extension: mysqli, curl, mbstring', and 'PHP version: 7.4.3'), and 'phpMyAdmin' (showing details like 'Version information: 4.9.5deb2', 'Documentation', 'Official Homepage', 'Contribute', 'Get support', 'List of changes', and 'License'). At the bottom, there is a 'Console' tab.