

Networking & System Administration Lab

LAMP installation

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Apache Installation

Steps

1. Update your system

Update the system using command **sudo apt update**

2. Install Apache using apt:

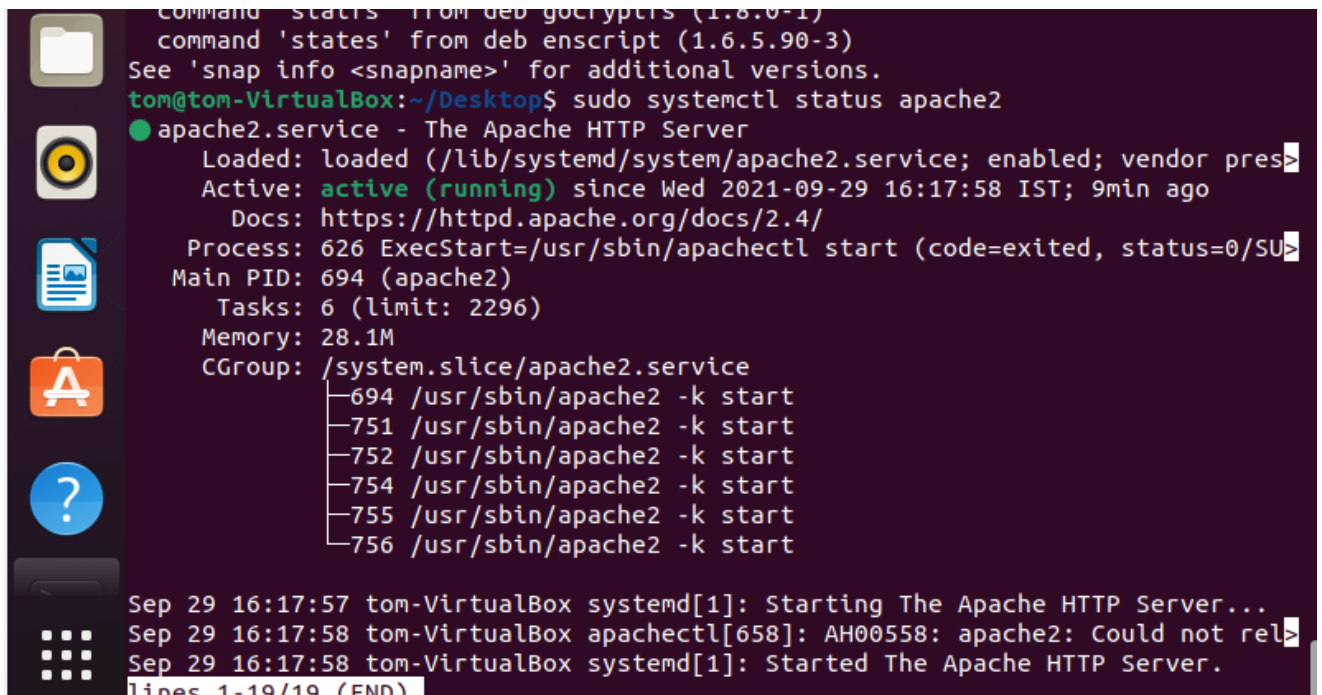
Install apache using the command **sudo apt install apache2**

3. Start apache

Using the command **sudo service apache2 start**

4. Confirm that Apache is now running with the following command:

Check the status of apache **sudo systemctl status apache2**



```
Command 'status' from deb gcrypts (1.8.0-1)
command 'states' from deb encrpt (1.6.5.90-3)
See 'snap info <snapname>' for additional versions.
tom@tom-VirtualBox:~/Desktop$ 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 16:17:58 IST; 9min ago
     Docs: https://httpd.apache.org/docs/2.4/
  Process: 626 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
 Main PID: 694 (apache2)
    Tasks: 6 (limit: 2296)
   Memory: 28.1M
    CGroup: /system.slice/apache2.service
           └─694 /usr/sbin/apache2 -k start
             └─751 /usr/sbin/apache2 -k start
               └─752 /usr/sbin/apache2 -k start
                 └─754 /usr/sbin/apache2 -k start
                   └─755 /usr/sbin/apache2 -k start
                     └─756 /usr/sbin/apache2 -k start

Sep 29 16:17:57 tom-VirtualBox systemd[1]: Starting The Apache HTTP Server...
Sep 29 16:17:58 tom-VirtualBox apachectl[658]: AH00558: apache2: Could not rel...
Sep 29 16:17:58 tom-VirtualBox systemd[1]: Started The Apache HTTP Server.
lines 1-19/19 (FND)
```

Maria dB Installation

Steps

1. Install Maria dB using the command **sudo apt install mariadb-server mariadb-client**
2. Check the status of the Maria dB using **sudo systemctl status mysql**

```
tom@tom-VirtualBox:~/Desktop$ sudo systemctl start mysql
tom@tom-VirtualBox:~/Desktop$ sudo systemctl status mysql
● mariadb.service - MariaDB 10.5.12 database server
   Loaded: loaded (/lib/systemd/system/mariadb.service; enabled; vendor preset: enabled)
   Active: active (running) since Wed 2021-09-29 16:18:01 IST; 15min ago
     Docs: man:mariadb(8)
           https://mariadb.com/kb/en/library/systemd/
  Process: 630 ExecStartPre=/usr/bin/install -m 755 -o mysql -g root -d /var>
  Process: 666 ExecStartPre=/bin/sh -c systemctl unset-environment _WSREP_ST>
  Process: 673 ExecStartPre=/bin/sh -c [ ! -e /usr/bin/galera_recovery ] &&>
  Process: 868 ExecStartPost=/bin/sh -c systemctl unset-environment _WSREP_S>
  Process: 870 ExecStartPost=/etc/mysql/debian-start (code=exited, status=0/>
 Main PID: 735 (mariabdb)
   Status: "Taking your SQL requests now..."
    Tasks: 8 (limit: 2296)
  Memory: 91.2M
    CGroup: /system.slice/mariadb.service
            └─735 /usr/sbin/mariabdb

Sep 29 16:18:01 tom-VirtualBox mariabdb[735]: 2021-09-29 16:18:01 0 [Note] /us>
Sep 29 16:18:01 tom-VirtualBox mariabdb[735]: Version: '10.5.12-MariaDB-0ubunt>
Sep 29 16:18:01 tom-VirtualBox systemd[1]: Started MariaDB 10.5.12 database se>
Sep 29 16:18:01 tom-VirtualBox /etc/mysql/debian-start[873]: Upgrading MySQL t>
Sep 29 16:18:02 tom-VirtualBox /etc/mysql/debian-start[876]: Looking for 'mysq>
Sep 29 16:18:02 tom-VirtualBox /etc/mysql/debian-start[876]: Looking for 'mysq>
Sep 29 16:18:02 tom-VirtualBox /etc/mysql/debian-start[876]: This installation>
Sep 29 16:18:02 tom-VirtualBox /etc/mysql/debian-start[951]: Checking for inse>
```

Installing PHP and commonly used modules


1. Install php using **sudo apt install php libapache2-mod-php php-opcache php-cli php-gd php-curl php-mysql**
2. Restart apache2 using the command **sudo systemctl restart apache2**
3. Check the php installation by using localhost/phpinfo.php

PHP 8.0.11 - phpinfo()

localhost/phpinfo.php

110%

PHP Version 8.0.11



System	Linux user-VirtualBox 5.11.0-37-generic #41~20.04.2-Ubuntu SMP Fri Sep 24 09:06:38 UTC 2021 x86_64
Build Date	Sep 23 2021 21:26:24
Build System	Linux
Server API	Apache 2.0 Handler
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/etc/php/8.0/apache2
Loaded Configuration File	/etc/php/8.0/apache2/php.ini
Scan this dir for additional .ini files	/etc/php/8.0/apache2/conf.d
Additional .ini files parsed	/etc/php/8.0/apache2/conf.d/10-mysqlnd.ini, /etc/php/8.0/apache2/conf.d/10-opcache.ini, /etc/php/8.0/apache2/conf.d/10-pdo.ini, /etc/php/8.0/apache2/conf.d/15-xml.ini, /etc/php/8.0/apache2/conf.d/20-bz2.ini, /etc/php/8.0/apache2/conf.d/20-calendar.ini, /etc/php/8.0/apache2/conf.d/20-ctype.ini, /etc/php/8.0/apache2/conf.d/20-curl.ini, /etc/php/8.0/apache2/conf.d/20-dom.ini, /etc/php/8.0/apache2/conf.d/20-exif.ini, /etc/php/8.0/apache2/conf.d/20-ffi.ini, /etc/php/8.0/apache2/conf.d/20-fileinfo.ini, /etc/php/8.0/apache2/conf.d/20-ftp.ini, /etc/php/8.0/apache2/conf.d/20-gd.ini, /etc/php/8.0/apache2/conf.d/20-gettext.ini, /etc/php/8.0/apache2/conf.d/20-iconv.ini, /etc/php/8.0/apache2/conf.d/20-mbstring.ini, /etc/php/8.0/apache2/conf.d/20-mcrypt.ini, /etc/php/8.0/apache2/conf.d/20-mysqli.ini, /etc/php/8.0/apache2/conf.d/20-pdo_mysql.ini, /etc/php/8.0/apache2/conf.d/20-phar.ini, /etc/php/8.0/apache2/conf.d/20-posix.ini, /etc/php/8.0/apache2/conf.d/20-readline.ini, /etc/php/8.0/apache2/conf.d/20-shmop.ini, /etc/php/8.0/apache2/conf.d/20-simplexml.ini, /etc/php/8.0/apache2/conf.d/20-sockets.ini, /etc/php/8.0/apache2/conf.d/20-sysvshm.ini, /etc/php/8.0/apache2/conf.d/20-sysvsem.ini, /etc/php/8.0/apache2/conf.d/20-tokenizer.ini, /etc/php/8.0/apache2/conf.d/20-xmlreader.ini, /etc/php/8.0/apache2/conf.d/20-xmlwriter.ini, /etc/php/8.0/apache2/conf.d/20-xsl.ini, /etc/php/8.0/apache2/conf.d/20-zip.ini
PHP API	20200930

```
tom@tom-VirtualBox:~/Desktop$ php -version
PHP 7.4.16 (cli) (built: Jul 5 2021 13:04:38) ( NTS )
Copyright (c) The PHP Group
Zend Engine v3.4.0, Copyright (c) Zend Technologies
    with Zend OPcache v7.4.16, Copyright (c), by Zend Technologies
tom@tom-VirtualBox:~/Desktop$ S
```

Installing phpmyadmin

1. Install phpmyadmin using **sudo apt install phpmyadmin php-mbstring php-zip php-gd php-json php-curl**
2. Restart apache2 **sudo systemctl restart apache2**
3. Check phpmyadmin by opening a browser and typing **http://localhost/phpmyadmin**

