

Networking & System Administration Lab

LAMP installation

Submitted by:

Amal Vijayan

Roll no: 10

S2 RMCA A

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

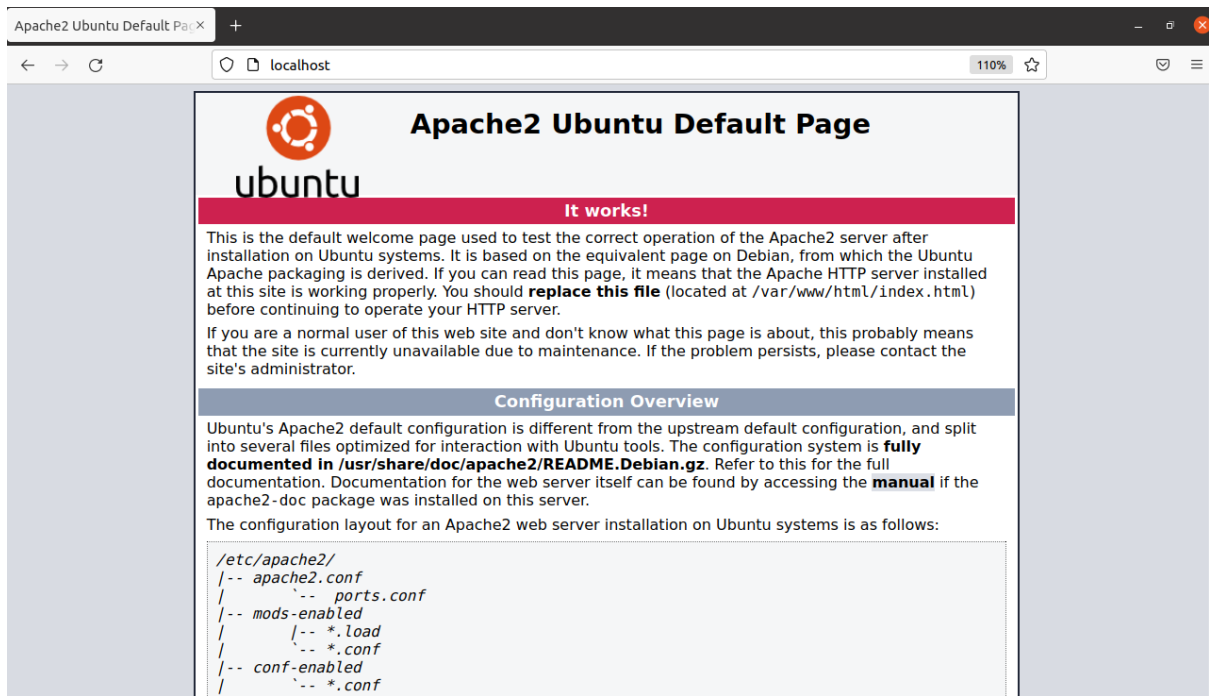
Using the command **sudo service apache2 start**

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

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

```
user@user-VirtualBox: ~/Desktop
user@user-VirtualBox:~/Desktop$ sudo service apache2 start
[sudo] password for user:
user@user-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 18:07:47 IST; 2min 27s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Process: 676 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
 Main PID: 803 (apache2)
    Tasks: 6 (limit: 3518)
   Memory: 19.9M
    CGroup: /system.slice/apache2.service
            └─803 /usr/sbin/apache2 -k start
              └─821 /usr/sbin/apache2 -k start
                └─822 /usr/sbin/apache2 -k start
                  └─823 /usr/sbin/apache2 -k start
                    └─824 /usr/sbin/apache2 -k start
                      └─826 /usr/sbin/apache2 -k start

Sep 29 18:07:45 user-VirtualBox systemd[1]: Starting The Apache HTTP Server...
Sep 29 18:07:46 user-VirtualBox apachectl[702]: AH00558: apache2: Could not reliably determine the server's fully qual
Sep 29 18:07:47 user-VirtualBox systemd[1]: Started The Apache HTTP Server.
lines 1-19/19 (END)
```



Maria dB Installation

Steps

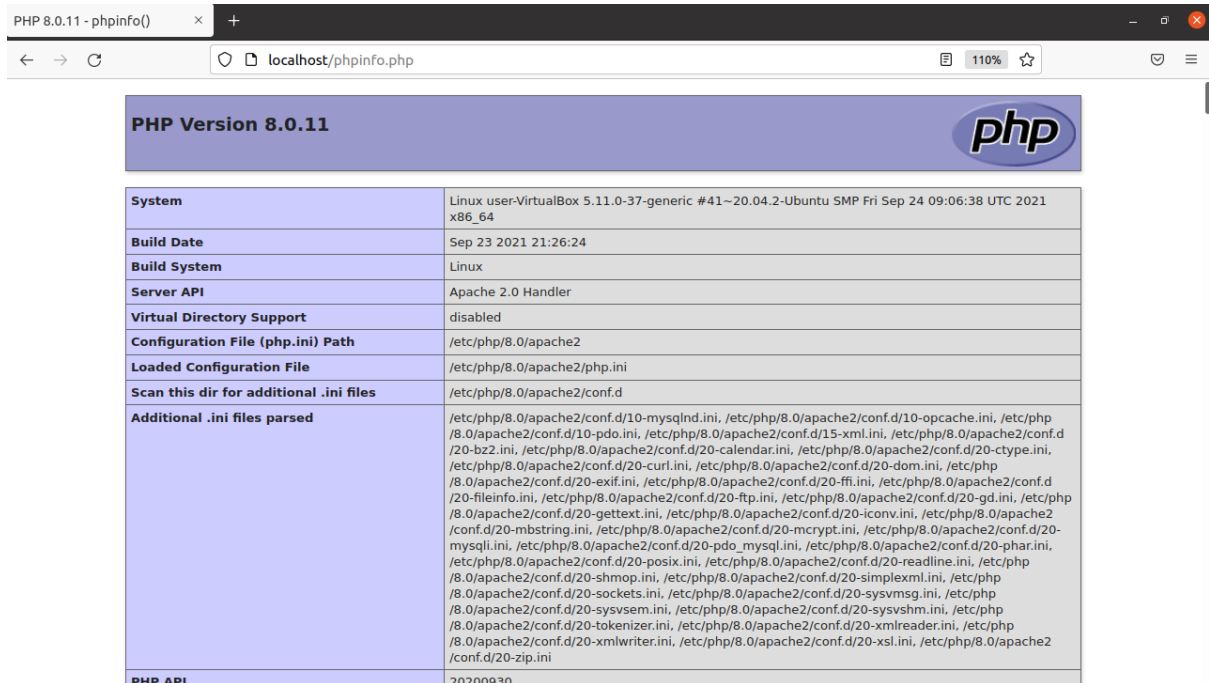
1. Install Maria dB using the command **sudo apt install mariadb-server mariadb-client**
2. Check the status of the Maria dB using **sudo systemctl status mysql**

```
user@user-VirtualBox:~/Desktop$ sudo systemctl start mysql
user@user-VirtualBox:~/Desktop$ 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 18:07:49 IST; 4min 30s ago
     Docs: man:mysqld(8)
           https://mariadb.com/kb/en/library/systemd/
  Process: 679 ExecStartPre=/usr/bin/install -m 755 -o mysql -g root -d /var/run/mysqld (code=exited, status=0/SUCCESS)
  Process: 708 ExecStartPre=/bin/sh -c systemctl unset-environment _WSREP_START_POSITION (code=exited, status=0/SUCCESS)
  Process: 714 ExecStartPre=/bin/sh -c [ ! -e /usr/bin/galera_recovery ] && VAR=|| VAR=`cd /usr/bin/..; /usr/bin/galera_recovery`; [ $?
  Process: 978 ExecStartPost=/bin/sh -c systemctl unset-environment _WSREP_START_POSITION (code=exited, status=0/SUCCESS)
  Process: 1000 ExecStartPost=/etc/mysql/debian-start (code=exited, status=0/SUCCESS)
 Main PID: 801 (mysqld)
   Status: "Taking your SQL requests now..."
    Tasks: 31 (limit: 3518)
  Memory: 97.1M
   CGroup: /system.slice/mariadb.service
           └─801 /usr/sbin/mysqld

Sep 29 18:07:47 user-VirtualBox mysqld[801]: 2021-09-29 18:07:47 0 [Note] /usr/sbin/mysqld (mysqld 10.3.31-MariaDB-0ubuntu0.20.04.1) starting
Sep 29 18:07:49 user-VirtualBox systemd[1]: Started MariaDB 10.3.31 database server.
Sep 29 18:07:49 user-VirtualBox /etc/mysql/debian-start[1013]: Upgrading MySQL tables if necessary.
Sep 29 18:07:49 user-VirtualBox /etc/mysql/debian-start[1017]: Looking for 'mysql' as: /usr/bin/mysql
Sep 29 18:07:49 user-VirtualBox /etc/mysql/debian-start[1017]: Looking for 'mysqlcheck' as: /usr/bin/mysqlcheck
Sep 29 18:07:49 user-VirtualBox /etc/mysql/debian-start[1017]: Version check failed. Got the following error when calling the 'mysql' command:
Sep 29 18:07:49 user-VirtualBox /etc/mysql/debian-start[1017]: ERROR 1045 (28000): Access denied for user 'root'@'localhost' (using password: NO)
Sep 29 18:07:49 user-VirtualBox /etc/mysql/debian-start[1017]: FATAL ERROR: Upgrade failed
Sep 29 18:07:49 user-VirtualBox /etc/mysql/debian-start[1050]: Checking for insecure root accounts.
Sep 29 18:07:49 user-VirtualBox debian-start[1054]: ERROR 1045 (28000): Access denied for user 'root'@'localhost' (using password: NO)
lines 1-27/27 (END)
```

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



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-sysvmsg.ini, /etc/php/8.0/apache2/conf.d/20-sysvsem.ini, /etc/php/8.0/apache2/conf.d/20-sysvshm.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

```
user@user-VirtualBox:~/Desktop$ php -version
PHP 8.0.11 (cli) (built: Sep 23 2021 21:26:24) ( NTS )
Copyright (c) The PHP Group
Zend Engine v4.0.11, Copyright (c) Zend Technologies
    with Zend OPcache v8.0.11, Copyright (c), by Zend Technologies
user@user-VirtualBox:~/Desktop$
```

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**

