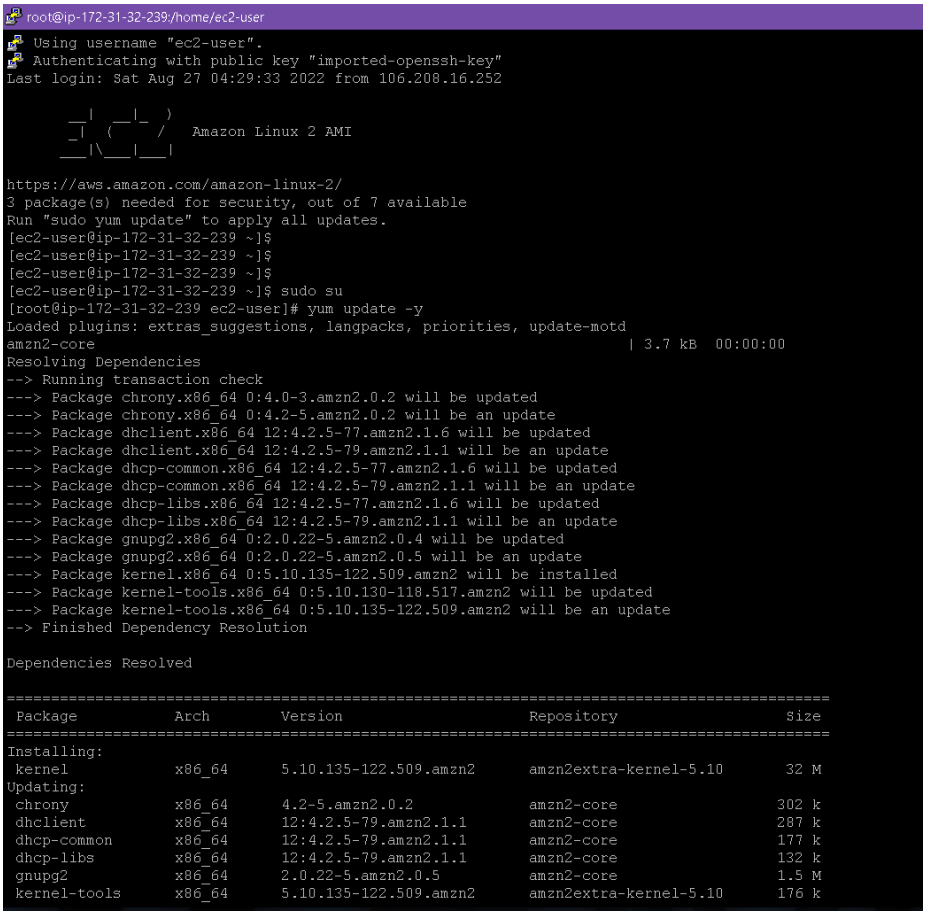
Experiment 2

AIM: To create a LAMP instance in the AWS CLI.

PROCEDURE:

1. Firstly, type sudo su to become the root user.
2. To update all the packages in your instance type “yum update -y”.



3. To install Apache server in linux, type “yum install httpd”.

```
[root@ip-172-31-32-239 ec2-user]#
[root@ip-172-31-32-239 ec2-user]#
[root@ip-172-31-32-239 ec2-user]# yum install httpd
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
---> Package httpd.x86_64 0:2.4.54-1.amzn2 will be installed
--> Processing Dependency: httpd-tools = 2.4.54-1.amzn2 for package: httpd-2.4.54-1.amzn2.x86
_64
--> Processing Dependency: httpd-filesystem = 2.4.54-1.amzn2 for package: httpd-2.4.54-1.amzn
2.x86_64
--> Processing Dependency: system-logos-httpd for package: httpd-2.4.54-1.amzn2.x86_64
--> Processing Dependency: mod_http2 for package: httpd-2.4.54-1.amzn2.x86_64
--> Processing Dependency: httpd-filesystem for package: httpd-2.4.54-1.amzn2.x86_64
--> Processing Dependency: /etc/mime.types for package: httpd-2.4.54-1.amzn2.x86_64
--> Processing Dependency: libaprutil-1.so.0()(64bit) for package: httpd-2.4.54-1.amzn2.x86_6
4
--> Processing Dependency: libapr-1.so.0()(64bit) for package: httpd-2.4.54-1.amzn2.x86_64
--> Running transaction check
---> Package apr.x86_64 0:1.7.0-9.amzn2 will be installed
---> Package apr-util.x86_64 0:1.6.1-5.amzn2.0.2 will be installed
--> Processing Dependency: apr-util-bdb(x86-64) = 1.6.1-5.amzn2.0.2 for package: apr-util-1.6
.1-5.amzn2.0.2.x86_64
---> Package generic-logos-httpd.noarch 0:18.0.0-4.amzn2 will be installed
---> Package httpd-filesystem.noarch 0:2.4.54-1.amzn2 will be installed
---> Package httpd-tools.x86_64 0:2.4.54-1.amzn2 will be installed
---> Package mailcap.noarch 0:2.1.41-2.amzn2 will be installed
---> Package mod_http2.x86_64 0:1.15.19-1.amzn2.0.1 will be installed
--> Running transaction check
---> Package apr-util-bdb.x86_64 0:1.6.1-5.amzn2.0.2 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

================================================================================
 Package                  Arch          Version                    Repository        Size
================================================================================
```

4. To install mysql or mariadb type “yum install mariadb mariadb-server”.

```
[root@ip-172-31-32-239 ec2-user]#
[root@ip-172-31-32-239 ec2-user]#
[root@ip-172-31-32-239 ec2-user]#
[root@ip-172-31-32-239 ec2-user]#
[root@ip-172-31-32-239 ec2-user]# yum install mariadb mariadb-server
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
---> Package mariadb.x86_64 1:5.5.68-1.amzn2 will be installed
---> Package mariadb-server.x86_64 1:5.5.68-1.amzn2 will be installed
--> Processing Dependency: perl-DBI for package: 1:mariadb-server-5.5.68-1.amzn2.x86_64
--> Processing Dependency: perl-DBD-MySQL for package: 1:mariadb-server-5.5.68-1.amzn2.x86_64
--> Processing Dependency: perl(Data::Dumper) for package: 1:mariadb-server-5.5.68-1.amzn2.x8
6_64
--> Processing Dependency: perl(DBI) for package: 1:mariadb-server-5.5.68-1.amzn2.x86_64
--> Running transaction check
---> Package perl-DBD-MySQL.x86_64 0:4.023-6.amzn2 will be installed
---> Package perl-DBI.x86_64 0:1.627-4.amzn2.0.2 will be installed
--> Processing Dependency: perl(RPC::PlServer) >= 0.2001 for package: perl-DBI-1.627-4.amzn2.
0.2.x86_64
--> Processing Dependency: perl(RPC::PlClient) >= 0.2000 for package: perl-DBI-1.627-4.amzn2.
0.2.x86_64
---> Package perl-Data-Dumper.x86_64 0:2.145-3.amzn2.0.2 will be installed
--> Running transaction check
---> Package perl-PlRPC.noarch 0:0.2020-14.amzn2 will be installed
--> Processing Dependency: perl(Net::Daemon) >= 0.13 for package: perl-PlRPC-0.2020-14.amzn2.
noarch
```

5. To install php, type “yum install php php-mysql”.

```
[root@ip-172-31-32-239 ec2-user]#
[root@ip-172-31-32-239 ec2-user]# yum install php php-mysql
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Package php-mysql is obsoleted by php-mysqlnd, trying to install php-mysqlnd-5.4.16-46.amzn2.
0.2.x86_64 instead
Resolving Dependencies
--> Running transaction check
---> Package php.x86_64 0:5.4.16-46.amzn2.0.2 will be installed
--> Processing Dependency: php-cli(x86-64) = 5.4.16-46.amzn2.0.2 for package: php-5.4.16-46.a
mzn2.0.2.x86_64
--> Processing Dependency: php-common(x86-64) = 5.4.16-46.amzn2.0.2 for package: php-5.4.16-4
6.amzn2.0.2.x86_64
---> Package php-mysqlnd.x86_64 0:5.4.16-46.amzn2.0.2 will be installed
--> Processing Dependency: php-pdo(x86-64) = 5.4.16-46.amzn2.0.2 for package: php-mysqlnd-5.4
.16-46.amzn2.0.2.x86_64
--> Running transaction check
---> Package php-cli.x86_64 0:5.4.16-46.amzn2.0.2 will be installed
---> Package php-common.x86_64 0:5.4.16-46.amzn2.0.2 will be installed
--> Processing Dependency: libzip.so.2()(64bit) for package: php-common-5.4.16-46.amzn2.0.2.x
86_64
```

6. Type “yum search php” to see all the packages installed in the server.

```
[root@ip-172-31-32-239 ec2-user]#
[root@ip-172-31-32-239 ec2-user]#
[root@ip-172-31-32-239 ec2-user]# yum search php
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
================================== N/S matched: php ==================================
graphviz-php.x86_64 : PHP extension for graphviz
php.x86_64 : PHP scripting language for creating dynamic web sites
php-bcmath.x86_64 : A module for PHP applications for using the bcmath library
php-cli.x86_64 : Command-line interface for PHP
php-common.x86_64 : Common files for PHP
php-dba.x86_64 : A database abstraction layer module for PHP applications
php-devel.x86_64 : Files needed for building PHP extensions
php-embedded.x86_64 : PHP library for embedding in applications
php-enchant.x86_64 : Enchant spelling extension for PHP applications
php-fpm.x86_64 : PHP FastCGI Process Manager
php-gd.x86_64 : A module for PHP applications for using the gd graphics library
php-intl.x86_64 : Internationalization extension for PHP applications
php-ldap.x86_64 : A module for PHP applications that use LDAP
php-mbstring.x86_64 : A module for PHP applications which need multi-byte string handling
php-mysql.x86_64 : A module for PHP applications that use MySQL databases
php-mysqlnd.x86_64 : A module for PHP applications that use MySQL databases
php-odbc.x86_64 : A module for PHP applications that use ODBC databases
php-pdo.x86_64 : A database access abstraction module for PHP applications
php-pear.noarch : PHP Extension and Application Repository framework
php-pgsql.x86_64 : A PostgreSQL database module for PHP
php-process.x86_64 : Modules for PHP script using system process interfaces
php-pspell.x86_64 : A module for PHP applications for using pspell interfaces
php-recode.x86_64 : A module for PHP applications for using the recode library
php-snmp.x86_64 : A module for PHP applications that query SNMP-managed devices
php-soap.x86_64 : A module for PHP applications that use the SOAP protocol
php-xml.x86_64 : A module for PHP applications which use XML
php-xmlrpc.x86_64 : A module for PHP applications which use the XML-RPC protocol
rrdtool-php.x86_64 : PHP RRDtool bindings
uuid-php.x86_64 : PHP support for Universally Unique Identifier library
php-pecl-memcache.x86_64 : Extension to work with the Memcached caching daemon
```

7. Enabling the mariadb server.

```
[root@ip-172-31-32-239 ec2-user]#
[root@ip-172-31-32-239 ec2-user]# systemctl start mariadb
[root@ip-172-31-32-239 ec2-user]# systemctl enable mariadb
Created symlink from /etc/systemd/system/multi-user.target.wants/mariadb.service to /usr/lib/
systemd/system/mariadb.service.
[root@ip-172-31-32-239 ec2-user]#
[root@ip-172-31-32-239 ec2-user]#
[root@ip-172-31-32-239 ec2-user]#
[root@ip-172-31-32-239 ec2-user]#
```

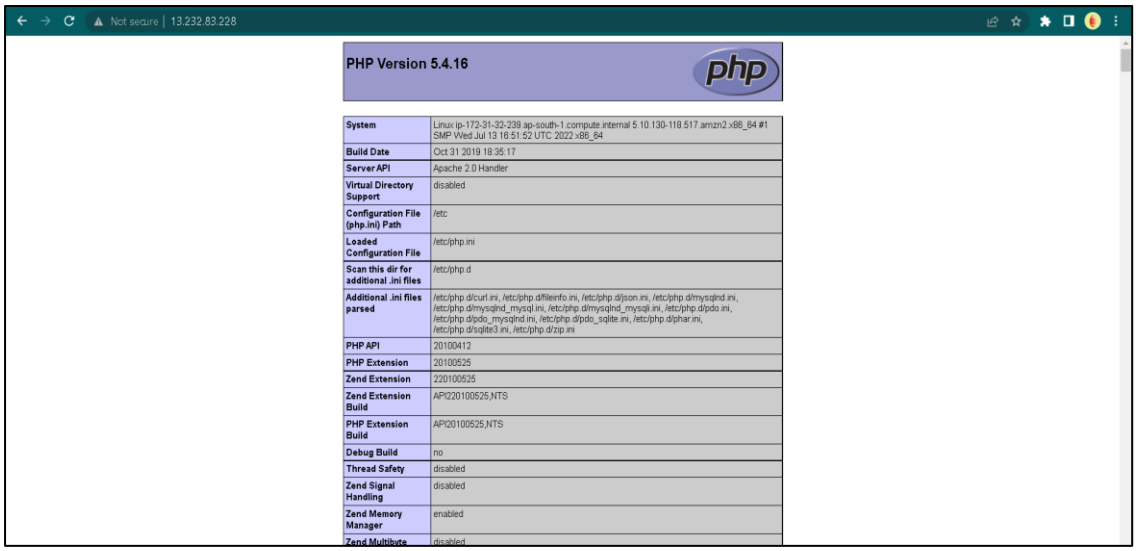
8. After enabling httpd (apache server) , go to the directory where cd /var/www/html/

9. Go to vim and type “<?php phpinfo(); ?>”.

```
root@ip-172-31-32-239:/var/www/html
[root@ip-172-31-32-239 ec2-user]# cd /var/www/html/
[root@ip-172-31-32-239 html]# ls
[root@ip-172-31-32-239 html]# pwd
/var/www/html
[root@ip-172-31-32-239 html]#
[root@ip-172-31-32-239 html]#
[root@ip-172-31-32-239 html]#
[root@ip-172-31-32-239 html]# vim index.php
~
~
~
~
```

Copy the public ip address or public domain name from the console and paste in the web browser.

OUTPUT:



System	Linux ip-172-31-32-239.ap-south-1.compute.internal 5.10.130-118.517.amzn2.x86_64 #1 SMP Wed Jul 13 16:51:52 UTC 2022 x86_64
Build Date	Oct 31 2019 18:35:17
Server API	Apache 2.0 Handler
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/etc
Loaded Configuration File	/etc/php.ini
Scan this dir for additional .ini files	/etc/php.d
Additional .ini files parsed	/etc/php.d/curl.ini, /etc/php.d/fileinfo.ini, /etc/php.d/json.ini, /etc/php.d/mysqlnd.ini, /etc/php.d/mysqlnd_mysql.ini, /etc/php.d/mysqlnd_mysqli.ini, /etc/php.d/pdo.ini, /etc/php.d/pdo_mysqlnd.ini, /etc/php.d/pdo_sqlite.ini, /etc/php.d/phar.ini, /etc/php.d/sqlite3.ini, /etc/php.d/zip.ini
PHP API	20100412
PHP Extension	20100525
Zend Extension	220100525
Zend Extension Build	API220100525,NTS
PHP Extension Build	API20100525,NTS
Debug Build	no
Thread Safety	disabled
Zend Signal Handling	disabled
Zend Memory Manager	enabled
Zend Multibyte	disabled

RESULT:

LAMP instance was successfully created and executed in AWS CLI.

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