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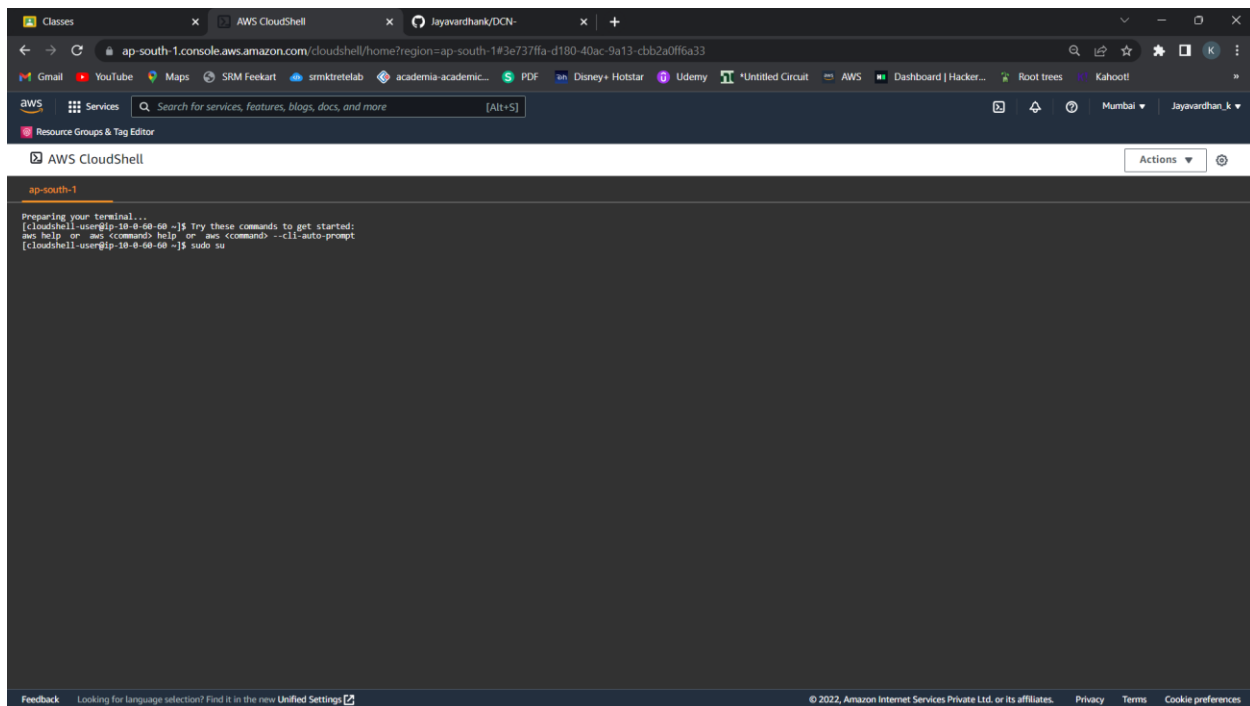
Karanam Jaya Vardhan

## Experiment 2 –

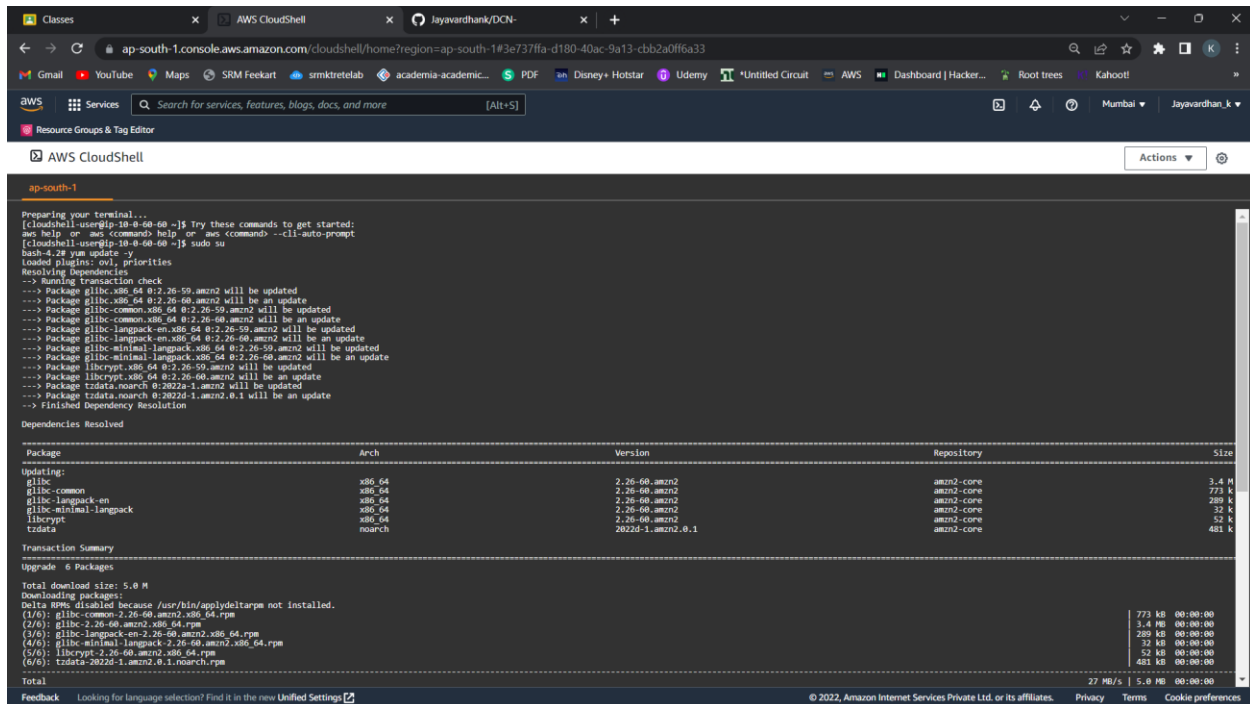
Creating Amazon EC2 Instances - Creating a LAMP Instance in the AWS CLI AIM:  
To create a LAMP instance in the AWS CLI.

PROCEDURE:

1. Firstly, type `sudo su` to become the root user.



## 2. To update all the packages in your instance type “yum update -y”.



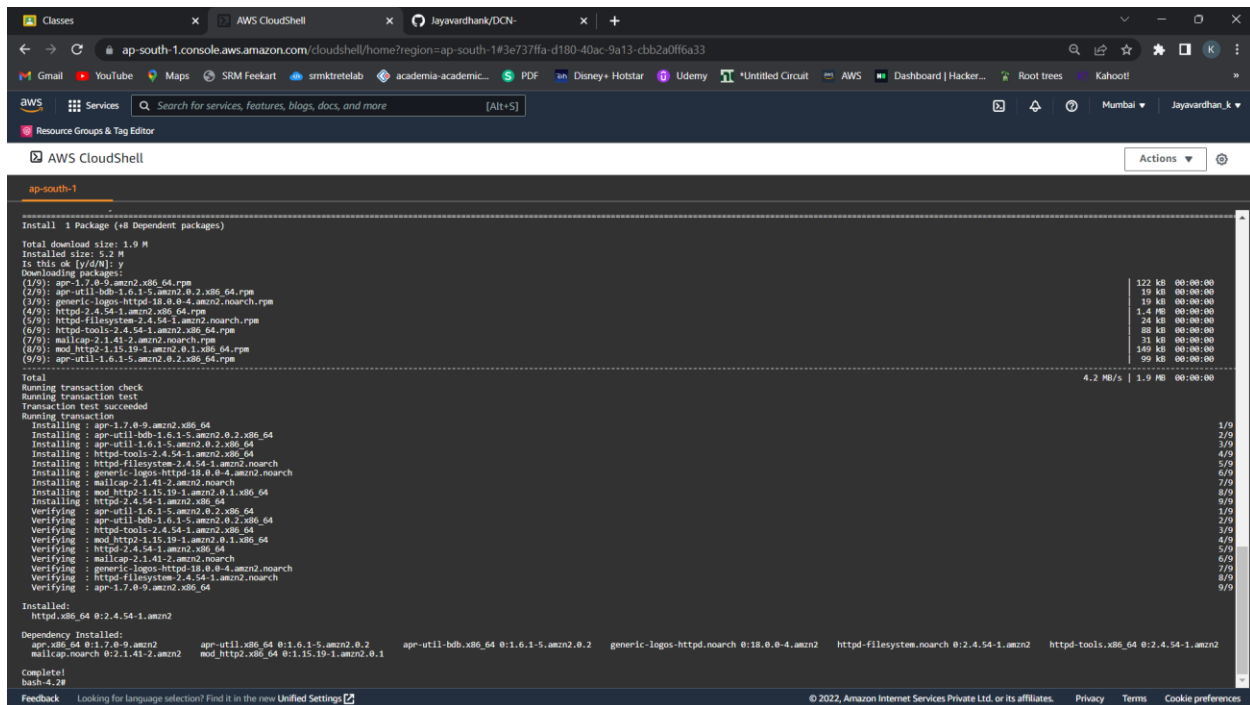
```
ap-south-1
Preparing your terminal...
[cloudshell-user@ip-18-0-68-08 ~]$ Try these commands to get started:
aws help or aws <command> help or aws <command> --cli-auto-prompt
[cloudshell-user@ip-18-0-68-08 ~]$ sudo su
bash-4.2# yum update -y
Loaded plugins: ovl, priorities
Resolving Dependencies
--> Running transaction check
--> Package glibc.x86_64 0:2.26-59.amzn2 will be updated
--> Package glibc.x86_64 0:2.26-60.amzn2 will be an update
--> Package glibc-common.x86_64 0:2.26-59.amzn2 will be updated
--> Package glibc-common.x86_64 0:2.26-60.amzn2 will be an update
--> Package glibc-langpack-en.x86_64 0:2.26-59.amzn2 will be updated
--> Package glibc-langpack-en.x86_64 0:2.26-60.amzn2 will be an update
--> Package glibc-langpack-minimal.x86_64 0:2.26-59.amzn2 will be updated
--> Package glibc-langpack-minimal.x86_64 0:2.26-60.amzn2 will be an update
--> Package libcrypt.x86_64 0:2.26-59.amzn2 will be updated
--> Package libcrypt.x86_64 0:2.26-60.amzn2 will be an update
--> Package tzdata.noarch 0:2022d-1.amzn2 will be updated
--> Package tzdata.noarch 0:2022d-1.amzn2.0.1 will be an update
--> Finished Dependency Resolution

Dependencies Resolved

Package Arch Version Repository Size
-----
Updating:
glibc x86_64 2.26-60.amzn2 amzn2-core 3.4 M
glibc-common x86_64 2.26-60.amzn2 amzn2-core 773 k
glibc-langpack-en x86_64 2.26-60.amzn2 amzn2-core 289 k
glibc-langpack-minimal x86_64 2.26-60.amzn2 amzn2-core 32 k
libcrypt x86_64 2.26-60.amzn2 amzn2-core 52 k
tzdata noarch 2022d-1.amzn2.0.1 amzn2-core 481 k

Transaction Summary
Upgrade 6 Packages
Total download size: 5.0 M
Downloading packages:
Delta RPMs disabled because /usr/bin/applydelta not installed.
(1/6): glibc-common-2.26-60.amzn2.x86_64.rpm 773 kB 00:00:00
(2/6): glibc-2.26-60.amzn2.x86_64.rpm 3.4 MB 00:00:00
(3/6): glibc-langpack-en-2.26-60.amzn2.x86_64.rpm 289 kB 00:00:00
(4/6): glibc-langpack-minimal-2.26-60.amzn2.x86_64.rpm 32 kB 00:00:00
(5/6): libcrypt-2.26-60.amzn2.x86_64.rpm 52 kB 00:00:00
(6/6): tzdata-2022d-1.amzn2.0.1.noarch.rpm 481 kB 00:00:00
Total 27 MB/s | 5.0 MB 00:00:00
Feedback Looking for language selection? Find it in the new Unified Settings
```

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



```
ap-south-1
Installing 1 Package (+8 Dependent packages)
Total download size: 1.9 M
Installed size: 5.2 M
Is this ok [y/d/N]: y
Downloading packages:
(1/9): apr-1.7.0-9.amzn2.x86_64.rpm 122 kB 00:00:00
(2/9): apr-util-bdb-1.6.1-5.amzn2.0.2.x86_64.rpm 19 kB 00:00:00
(3/9): generic-logos-httpd-18.0.0-4.amzn2.noarch.rpm 19 kB 00:00:00
(4/9): httpd-2.4.54-1.amzn2.x86_64.rpm 1.4 MB 00:00:00
(5/9): httpd-tools-2.4.54-1.amzn2.noarch.rpm 34 kB 00:00:00
(6/9): httpd-tools-2.4.54-1.amzn2.x86_64.rpm 88 kB 00:00:00
(7/9): mailcap-2.1.41-2.amzn2.noarch.rpm 21 kB 00:00:00
(8/9): mod_httpd-1.15.19-1.amzn2.0.1.x86_64.rpm 149 kB 00:00:00
(9/9): apr-util-1.6.1-5.amzn2.0.2.x86_64.rpm 99 kB 00:00:00
Total 4.2 MB/s | 1.9 MB 00:00:00
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
Installing : apr-1.7.0-9.amzn2.x86_64 1/9
Installing : apr-util-bdb-1.6.1-5.amzn2.0.2.x86_64 2/9
Installing : apr-util-1.6.1-5.amzn2.0.2.x86_64 3/9
Installing : httpd-tools-2.4.54-1.amzn2.x86_64 4/9
Installing : httpd-filesystem-2.4.54-1.amzn2.noarch 5/9
Installing : generic-logos-httpd-18.0.0-4.amzn2.noarch 6/9
Installing : mailcap-2.1.41-2.amzn2.noarch 7/9
Installing : mod_httpd-1.15.19-1.amzn2.0.1.x86_64 8/9
Installing : httpd-2.4.54-1.amzn2.x86_64 9/9
Verifying : apr-util-1.6.1-5.amzn2.0.2.x86_64 1/9
Verifying : apr-util-bdb-1.6.1-5.amzn2.0.2.x86_64 2/9
Verifying : httpd-tools-2.4.54-1.amzn2.x86_64 3/9
Verifying : mod_httpd-1.15.19-1.amzn2.0.1.x86_64 4/9
Verifying : httpd-2.4.54-1.amzn2.x86_64 5/9
Verifying : mailcap-2.1.41-2.amzn2.noarch 6/9
Verifying : generic-logos-httpd-18.0.0-4.amzn2.noarch 7/9
Verifying : httpd-filesystem-2.4.54-1.amzn2.noarch 8/9
Verifying : apr-1.7.0-9.amzn2.x86_64 9/9
Installed:
httpd.x86_64 0:2.4.54-1.amzn2
Dependency Installed:
apr.x86_64 0:1.7.0-9.amzn2 apr-util.x86_64 0:1.6.1-5.amzn2.0.2 apr-util-bdb.x86_64 0:1.6.1-5.amzn2.0.2 generic-logos-httpd.noarch 0:18.0.0-4.amzn2 httpd-filesystem.noarch 0:2.4.54-1.amzn2 httpd-tools.x86_64 0:2.4.54-1.amzn2
mailcap.noarch 0:2.1.41-2.amzn2 mod_httpd.x86_64 0:1.15.19-1.amzn2.0.1
Complete!
bash-4.2#
Feedback Looking for language selection? Find it in the new Unified Settings
```

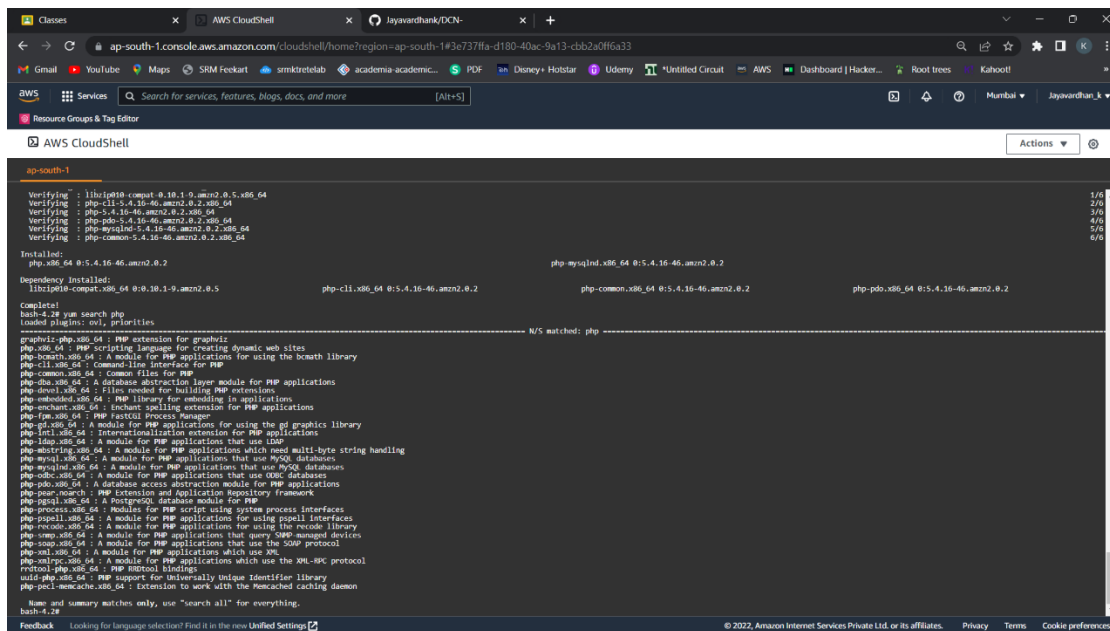
## 4. To install mysql or mariadb type “yum install mariadb mariadb-server”.

```
Classes x AWS CloudShell x Jayavardhan/DCN- x +
ap-south-1.console.aws.amazon.com/cloudshell/home?region=ap-south-1&3e737ffa-d180-40ac-9a13-cbb2a0ffa33
Gmail YouTube Maps SRM Feekart smkrtetelab academia-academic... PDF Disney+ Hotstar Udem... *Untitled Circuit AWS Dashboard | Hacker... Root trees Kahoot!
AWS Services Search for services, features, blogs, docs, and more [Alt+S]
Resource Groups & Tag Editor
AWS CloudShell Actions
ap-south-1
Total download size: 13 M
Installed size: 61 M
Is this ok [y/d/N]: y
Downloading packages:
(1/10): perl-Compress-Raw-Zip-2.061-3.amzn2.0.2.x86_64.rpm 24 kB 00:00:00
(2/10): perl-Compress-Raw-Zlib-2.061-3.amzn2.0.2.x86_64.rpm 32 kB 00:00:00
(3/10): perl-Compress-Raw-Zlib-2.061-3.amzn2.0.2.x86_64.rpm 32 kB 00:00:00
(4/10): perl-DBD-MySQL-4.023-6.amzn2.x86_64.rpm 58 kB 00:00:00
(5/10): perl-DBD-MySQL-4.023-6.amzn2.x86_64.rpm 141 kB 00:00:00
(6/10): perl-DBD-MySQL-4.023-6.amzn2.x86_64.rpm 884 kB 00:00:00
(7/10): perl-DBD-MySQL-4.023-6.amzn2.x86_64.rpm 48 kB 00:00:00
(8/10): mariadb-server-5.5.68-1.amzn2.x86_64.rpm 11 MB 00:00:00
(9/10): mariadb-server-5.5.68-1.amzn2.x86_64.rpm 208 kB 00:00:00
(10/10): perl-Net-Daemon-0.48-5.amzn2.noarch.rpm 51 kB 00:00:00
(11/10): perl-Net-Daemon-0.48-5.amzn2.noarch.rpm 36 kB 00:00:00
Total
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
Installing : perl-Data-Dumper-2.145-3.amzn2.0.2.x86_64 1/10
Installing : perl-Compress-Raw-Zip-2.061-3.amzn2.0.2.x86_64 2/10
Installing : libaio-0.3.109-13.amzn2.0.2.x86_64 3/10
Installing : perl-Net-Daemon-0.48-5.amzn2.noarch 4/10
Installing : perl-IO-Compress-2.061-2.amzn2.noarch 5/10
Installing : perl-PlRPC-0.2020-14.amzn2.noarch 6/10
Installing : perl-DBI-1.627-4.amzn2.0.2.x86_64 7/10
Installing : perl-DBD-MySQL-4.023-6.amzn2.x86_64 8/10
Installing : mariadb-server-5.5.68-1.amzn2.x86_64 9/10
Verifying : perl-Compress-Raw-Zlib-2.061-3.amzn2.0.2.x86_64 10/10
Verifying : perl-IO-Compress-2.061-2.amzn2.noarch 2/10
Verifying : perl-Net-Daemon-0.48-5.amzn2.noarch 3/10
Verifying : libaio-0.3.109-13.amzn2.0.2.x86_64 4/10
Verifying : perl-Data-Dumper-2.145-3.amzn2.0.2.x86_64 5/10
Verifying : perl-DBD-MySQL-4.023-6.amzn2.x86_64 6/10
Verifying : 1:mariadb-server-5.5.68-1.amzn2.x86_64 7/10
Verifying : perl-Compress-Raw-Zip-2.061-3.amzn2.0.2.x86_64 8/10
Verifying : perl-DBI-1.627-4.amzn2.0.2.x86_64 9/10
Verifying : perl-PlRPC-0.2020-14.amzn2.noarch 10/10
Installed:
mariadb-server.x86_64 1:5.5.68-1.amzn2
Dependency Installed:
libaio.x86_64 0:0.3.109-13.amzn2.0.2 perl-Compress-Raw-Zip.x86_64 0:2.061-3.amzn2.0.2 perl-Compress-Raw-Zlib.x86_64 1:2.061-4.amzn2.0.2 perl-DBD-MySQL.x86_64 0:4.023-6.amzn2 perl-DBI.x86_64 0:1.627-4.amzn2.0.2
perl-Data-Dumper.x86_64 0:2.145-3.amzn2.0.2 perl-IO-Compress.noarch 0:2.061-2.amzn2 perl-Net-Daemon.noarch 0:0.48-5.amzn2 perl-PlRPC.noarch 0:0.2020-14.amzn2
Complete!
bash-4.2#
Feedback Looking for language selection? Find it in the new Unified Settings
```

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

```
Classes x AWS CloudShell x Jayavardhan/DCN- x +
ap-south-1.console.aws.amazon.com/cloudshell/home?region=ap-south-1&3e737ffa-d180-40ac-9a13-cbb2a0ffa33
Gmail YouTube Maps SRM Feekart smkrtetelab academia-academic... PDF Disney+ Hotstar Udem... *Untitled Circuit AWS Dashboard | Hacker... Root trees Kahoot!
AWS Services Search for services, features, blogs, docs, and more [Alt+S]
Resource Groups & Tag Editor
AWS CloudShell Actions
ap-south-1
Installing:
php x86_64 5.4.16-46.amzn2.0.2 amzn2-core 1.4 M
php-mysqlnd x86_64 5.4.16-46.amzn2.0.2 amzn2-core 172 k
Installing for dependencies:
libzip-devel-compat x86_64 0.10.1-3.amzn2.0.5 amzn2-core 30 k
php-curl x86_64 5.4.16-46.amzn2.0.2 amzn2-core 2.8 M
php-common x86_64 5.4.16-46.amzn2.0.2 amzn2-core 563 k
php-pdo x86_64 5.4.16-46.amzn2.0.2 amzn2-core 98 k
Transaction Summary
Install 2 Packages (+4 Dependent packages)
Total download size: 5.0 M
Installed size: 18 M
Is this ok [y/d/N]: y
Downloading packages:
(1/6): libzip-devel-compat-0.10.1-3.amzn2.0.5.x86_64.rpm 30 kB 00:00:00
(2/6): php-5.4.16-46.amzn2.0.2.x86_64.rpm 1.4 MB 00:00:00
(3/6): php-curl-5.4.16-46.amzn2.0.2.x86_64.rpm 2.8 MB 00:00:00
(4/6): php-common-5.4.16-46.amzn2.0.2.x86_64.rpm 563 kB 00:00:00
(5/6): php-mysqlnd-5.4.16-46.amzn2.0.2.x86_64.rpm 172 kB 00:00:00
(6/6): php-pdo-5.4.16-46.amzn2.0.2.x86_64.rpm 98 kB 00:00:00
Total
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
Installing : libzip-devel-compat-0.10.1-3.amzn2.0.5.x86_64 1/6
Installing : php-common-5.4.16-46.amzn2.0.2.x86_64 2/6
Installing : php-curl-5.4.16-46.amzn2.0.2.x86_64 3/6
Installing : php-pdo-5.4.16-46.amzn2.0.2.x86_64 4/6
Installing : php-mysqlnd-5.4.16-46.amzn2.0.2.x86_64 5/6
Installing : php-5.4.16-46.amzn2.0.2.x86_64 6/6
Verifying : libzip-devel-compat-0.10.1-3.amzn2.0.5.x86_64 1/6
Verifying : php-curl-5.4.16-46.amzn2.0.2.x86_64 2/6
Verifying : php-common-5.4.16-46.amzn2.0.2.x86_64 3/6
Verifying : php-mysqlnd-5.4.16-46.amzn2.0.2.x86_64 4/6
Verifying : php-pdo-5.4.16-46.amzn2.0.2.x86_64 5/6
Verifying : php-common-5.4.16-46.amzn2.0.2.x86_64 6/6
Installed:
php.x86_64 0:5.4.16-46.amzn2.0.2 php-mysqlnd.x86_64 0:5.4.16-46.amzn2.0.2
Dependency Installed:
libzip-devel-compat.x86_64 0:0.10.1-3.amzn2.0.5 php-curl.x86_64 0:5.4.16-46.amzn2.0.2 php-common.x86_64 0:5.4.16-46.amzn2.0.2 php-pdo.x86_64 0:5.4.16-46.amzn2.0.2
Complete!
bash-4.2#
Feedback Looking for language selection? Find it in the new Unified Settings
```

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



```
ap-south-1
Verifying : libzip@0.0.0-1.0.amzn2.0.5.x86_64 1/6
Verifying : php-cli@8.0.16-46.amzn2.0.2.x86_64 2/6
Verifying : php-pdo@8.0.16-46.amzn2.0.2.x86_64 3/6
Verifying : php-pgsql@8.0.16-46.amzn2.0.2.x86_64 4/6
Verifying : php-common@8.0.16-46.amzn2.0.2.x86_64 5/6
Verifying : php-mysqlnd@8.0.16-46.amzn2.0.2.x86_64 6/6

Installed:
php.x86_64 8:5.4.16-46.amzn2.0.2 php-mysqlnd.x86_64 8:5.4.16-46.amzn2.0.2
Dependency Installed:
libzip@0.0.0-1.0.amzn2.0.5 php-cli.x86_64 8:5.4.16-46.amzn2.0.2 php-common.x86_64 8:5.4.16-46.amzn2.0.2 php-pdo.x86_64 8:5.4.16-46.amzn2.0.2

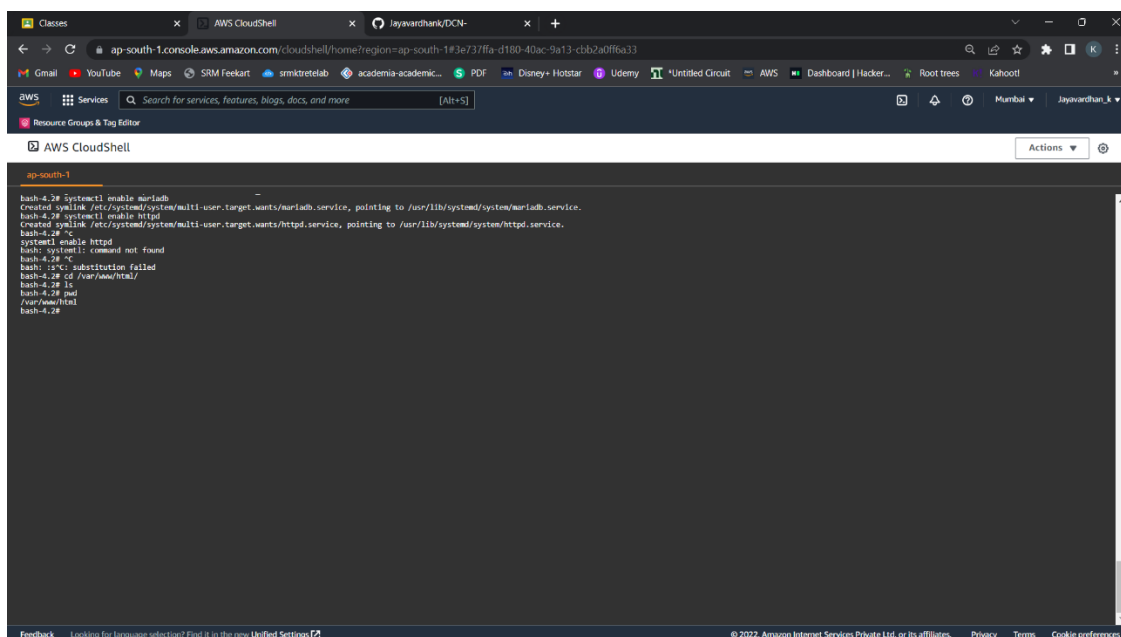
Complete!
bash-4.2# yum search php
Loaded plugins: ovn, priorities
----- N/S matched: php -----
graphviz-php.x86_64 : PHP extension for graphviz
php.x86_64 : PHP scripting language for creating dynamic web sites
php-ldap.x86_64 : A module for PHP applications for using the ldap library
php-cli.x86_64 : 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-dbm.x86_64 : Files needed for building PHP extensions
php-embed.x86_64 : PHP library for embedding in applications
php-enchant.x86_64 : Enchant spell checking 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-gmp.x86_64 : Internationalization extension for PHP applications
php-igmp.x86_64 : A module for PHP applications that use IGMP
php-logging.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-mysqli.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-openssl.x86_64 : A database access abstraction module for PHP applications
php-pgsql.x86_64 : PHP Extension and Application Repository framework
php-pgsql.x86_64 : 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-redis.x86_64 : A module for PHP applications that query Redis managed devices
php-soap.x86_64 : A module for PHP applications that use the SOAP protocol
php-sol.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
python3-php.x86_64 : PHP runtime bindings
uuid-php.x86_64 : PHP support for Universally Unique Identifier library
php-pcl-memcache.x86_64 : Extension to work with the Memcached caching daemon

Name and summary matches only, use "search all" for everything.
bash-4.2#
```

7. Enabling the mariadb server.

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

9.Go to vim and type “”.



```
ap-south-1
bash-4.2# systemctl enable mariadb
Created symlink /etc/systemd/system/multi-user.target.wants/mariadb.service, pointing to /usr/lib/systemd/system/mariadb.service.
bash-4.2# systemctl enable httpd
Created symlink /etc/systemd/system/multi-user.target.wants/httpd.service, pointing to /usr/lib/systemd/system/httpd.service.
bash-4.2# %
systemctl enable httpd
bash: systemctl: command not found
bash-4.2# %
bash: !%: substitution failed
bash-4.2# cd /var/www/html/
bash-4.2# ls
bash-4.2# pwd
/var/www/html
bash-4.2#
```

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

**RESULT-** AWS LAMP was successfully created and executed using was CLI.