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*****How to setup LAMP stack on Docker with Redhat Linux 9.4*****

To Setup LAMP Stack On Docker Using Redhat Linux 9.4

Introduction:-

A Docker LAMP stack is a software bundle that includes Linux as the operating system, Apache as the web server, MySQL as the database management system, and PHP as the server-side scripting language. It is containerized using Docker which makes it easy to deploy and manage.

Procedure:-

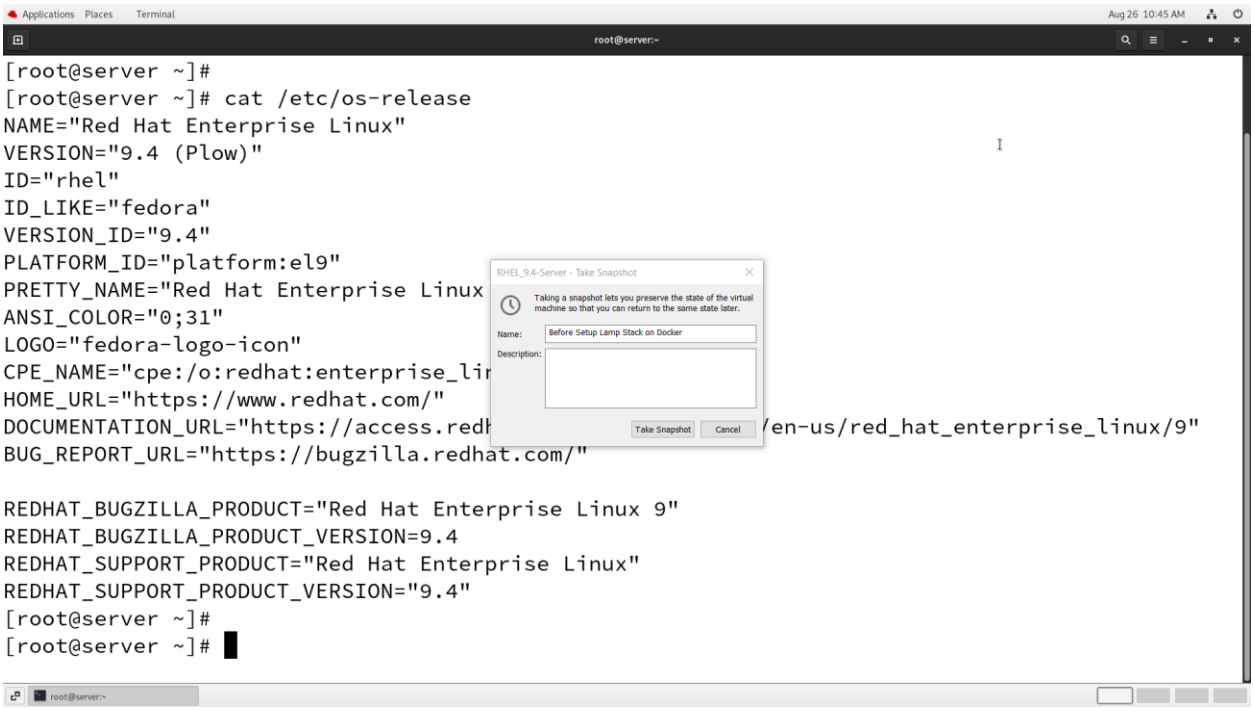
Step 1: Check the OS version by using the below command

#cat /etc/os-release

```
[root@server ~]#
[root@server ~]# cat /etc/os-release
NAME="Red Hat Enterprise Linux"
VERSION="9.4 (Plow)"
ID="rhel"
ID_LIKE="fedora"
VERSION_ID="9.4"
PLATFORM_ID="platform:el9"
PRETTY_NAME="Red Hat Enterprise Linux 9.4 (Plow)"
ANSI_COLOR="0;31"
LOGO="fedora-logo-icon"
CPE_NAME="cpe:/o:redhat:enterprise_linux:9::baseos"
HOME_URL="https://www.redhat.com/"
DOCUMENTATION_URL="https://access.redhat.com/documentation/en-us/red_hat_enterprise_linux/9"
BUG_REPORT_URL="https://bugzilla.redhat.com/"

REDHAT_BUGZILLA_PRODUCT="Red Hat Enterprise Linux 9"
REDHAT_BUGZILLA_PRODUCT_VERSION=9.4
REDHAT_SUPPORT_PRODUCT="Red Hat Enterprise Linux"
REDHAT_SUPPORT_PRODUCT_VERSION="9.4"
[root@server ~]#
[root@server ~]#
```

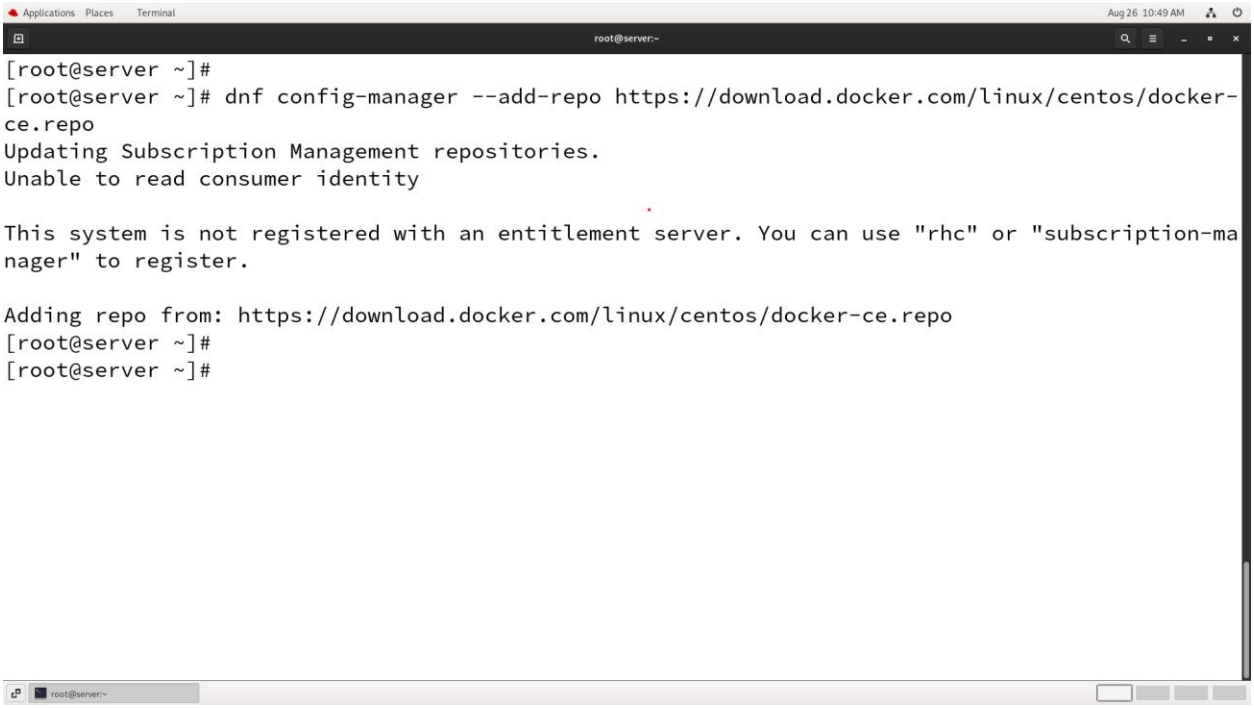
Step 2: Take a Snapshot:-

Snapshot Name:-Before Setup Lamp Stack on Docker



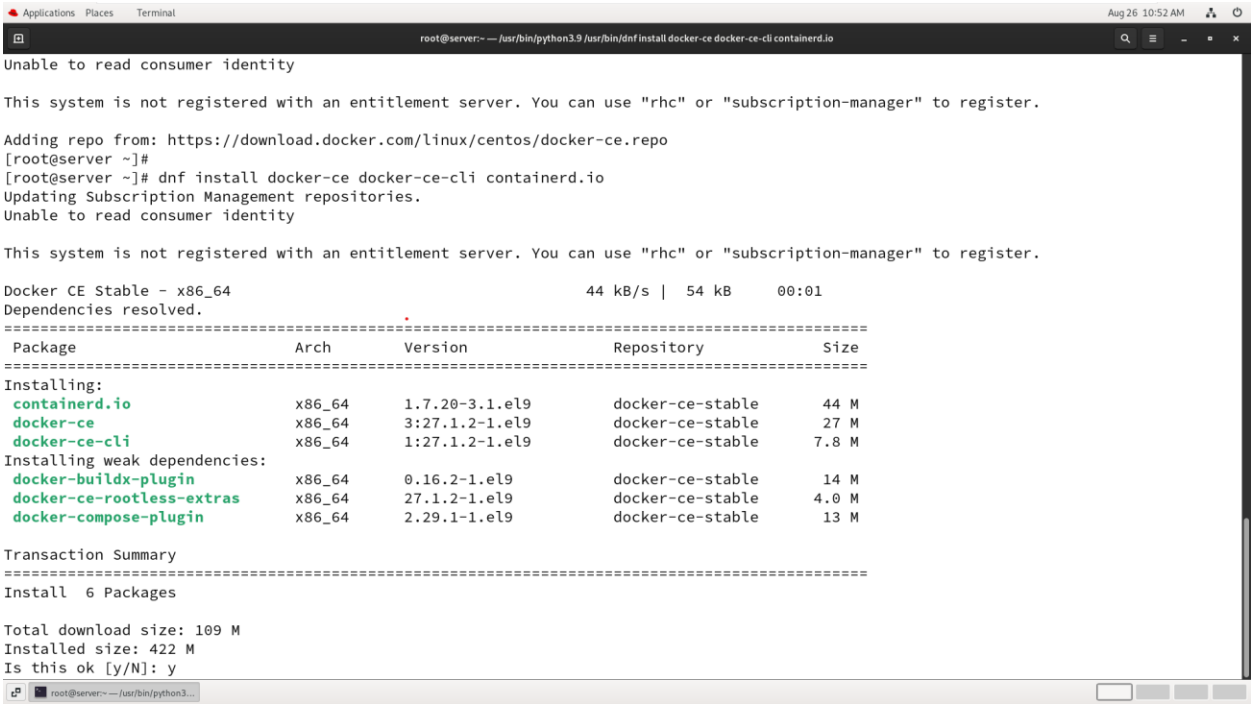
Step 3: Add the official Docker repository by using the below command

 # dnf config-manager --add-repo https://download.docker.com/linux/centos/docker-ce.repo



Step 4: After the repository added, install Docker, which is composed of three packages using the below command

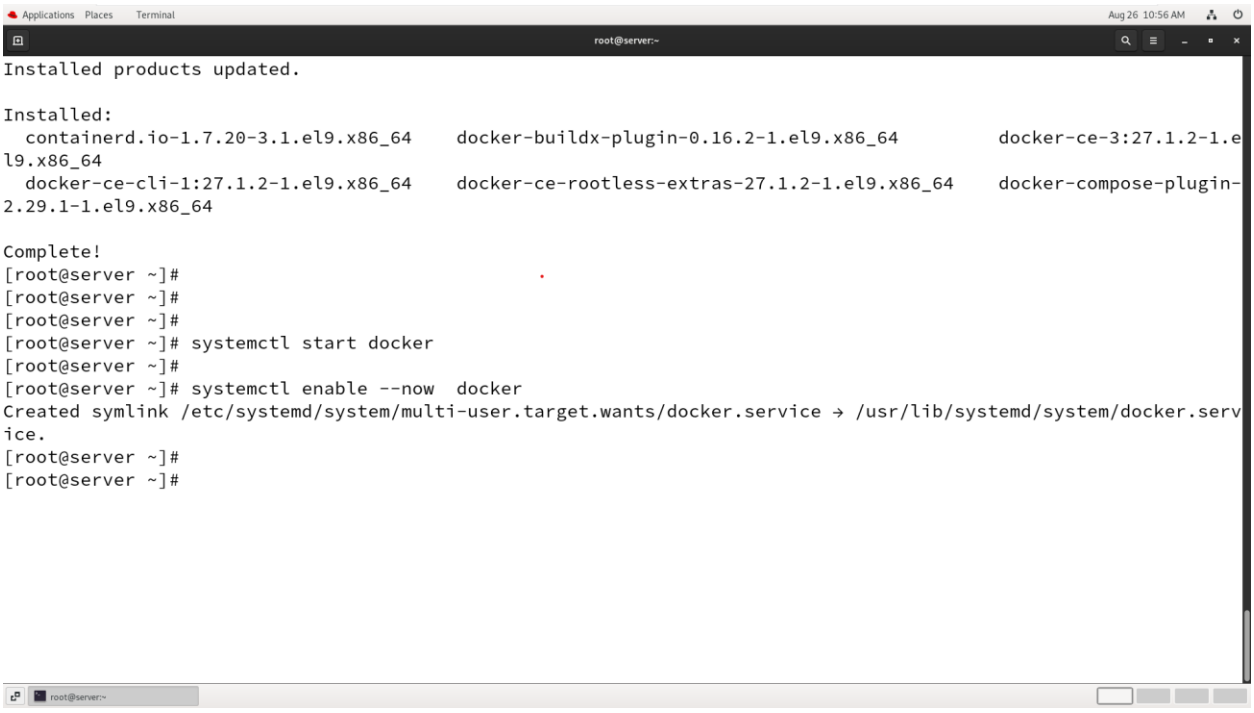
 # dnf install docker-ce docker-ce-cli containerd.io



Step 5: After installation has completed, start and enable the Docker daemon by using the below command

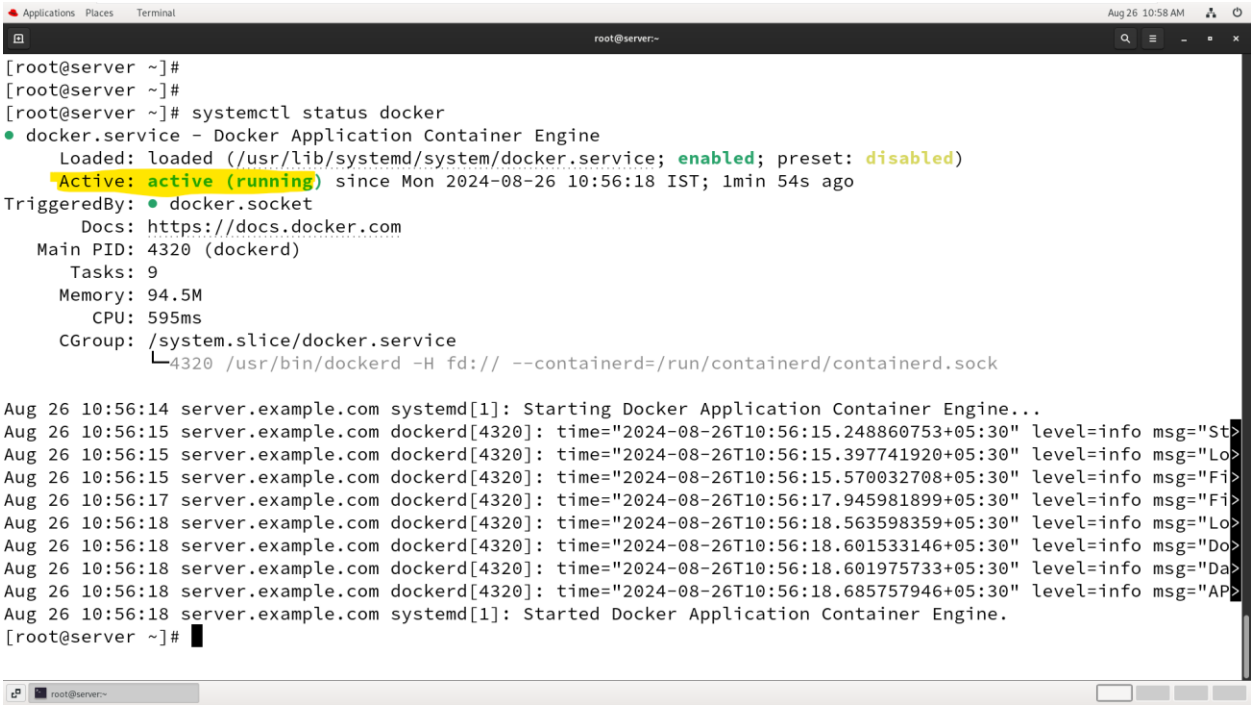
 # systemctl start docker

 # systemctl enable –now docker



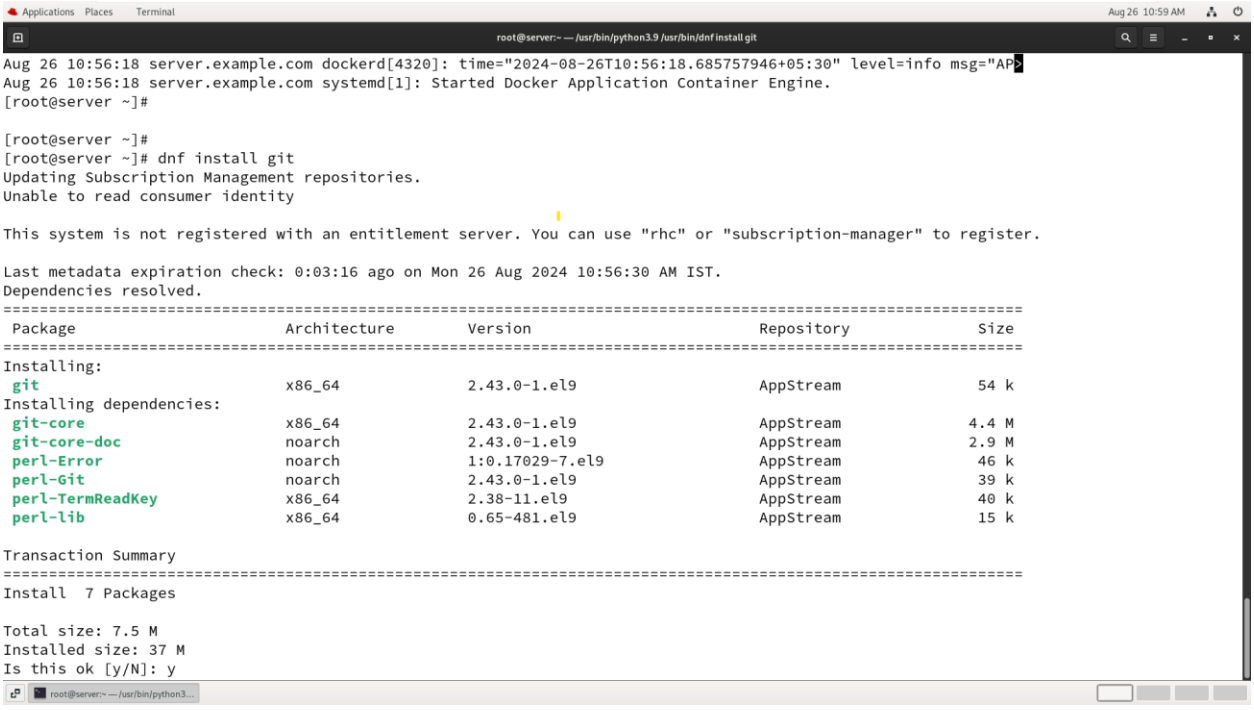
Step 6: Now check the status of docker by using the below command

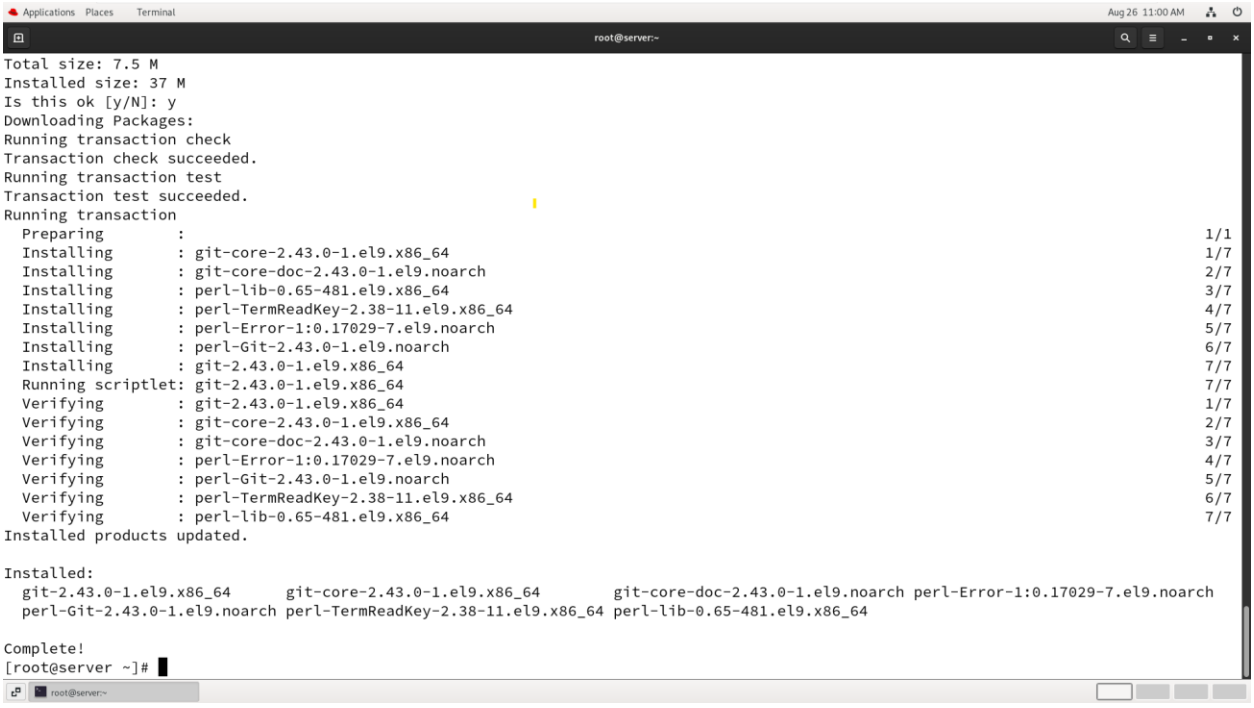
 # systemctl status docker



Step 7: Install Git and download for LAMP stack by using the below command

 # dnf install git

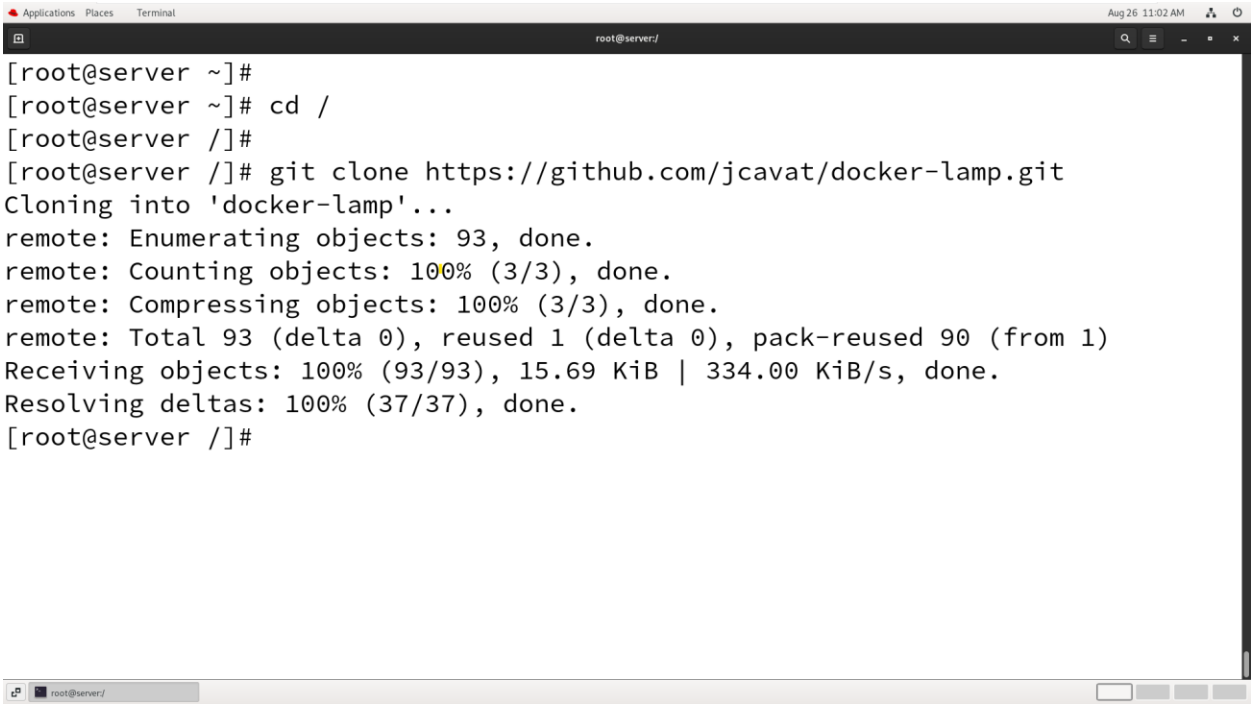




Step 8: Clone the LAMP from github by using “git clone” command.

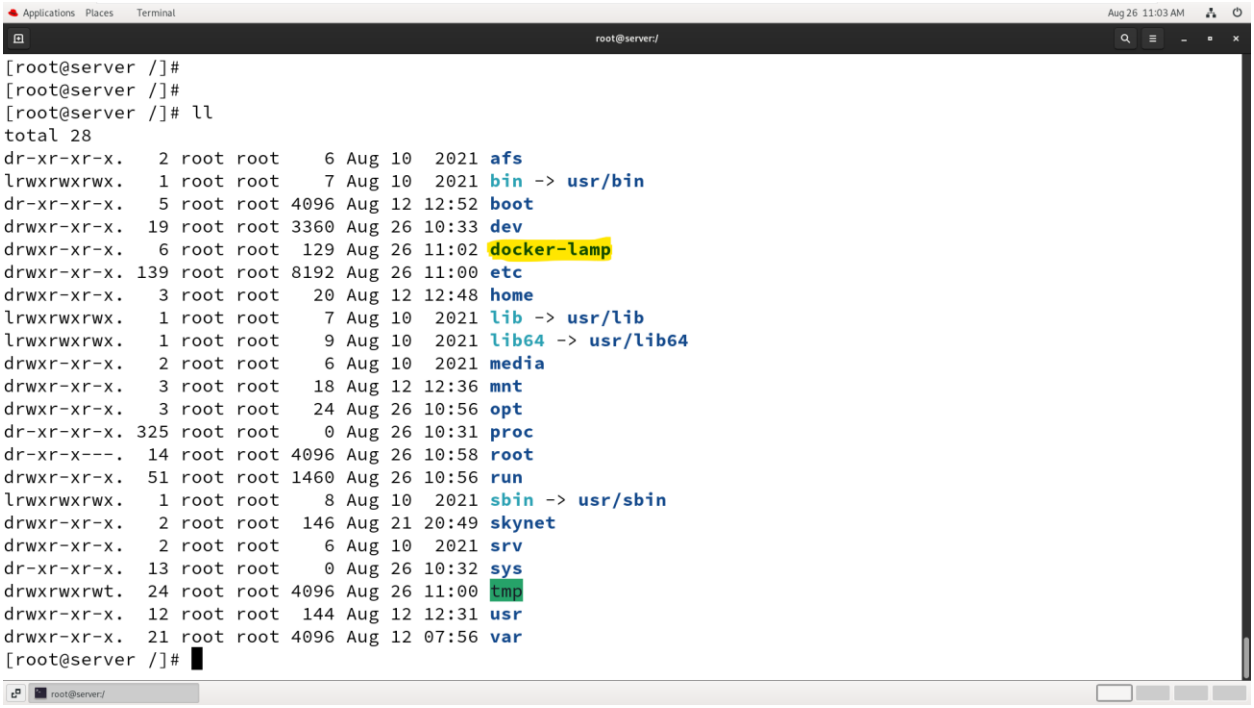
 # cd /

 # git clone https://github.com/jcavat/docker-lamp.git



Step 9: Long list the file and verify the downloaded LAMP directory by using the below command.

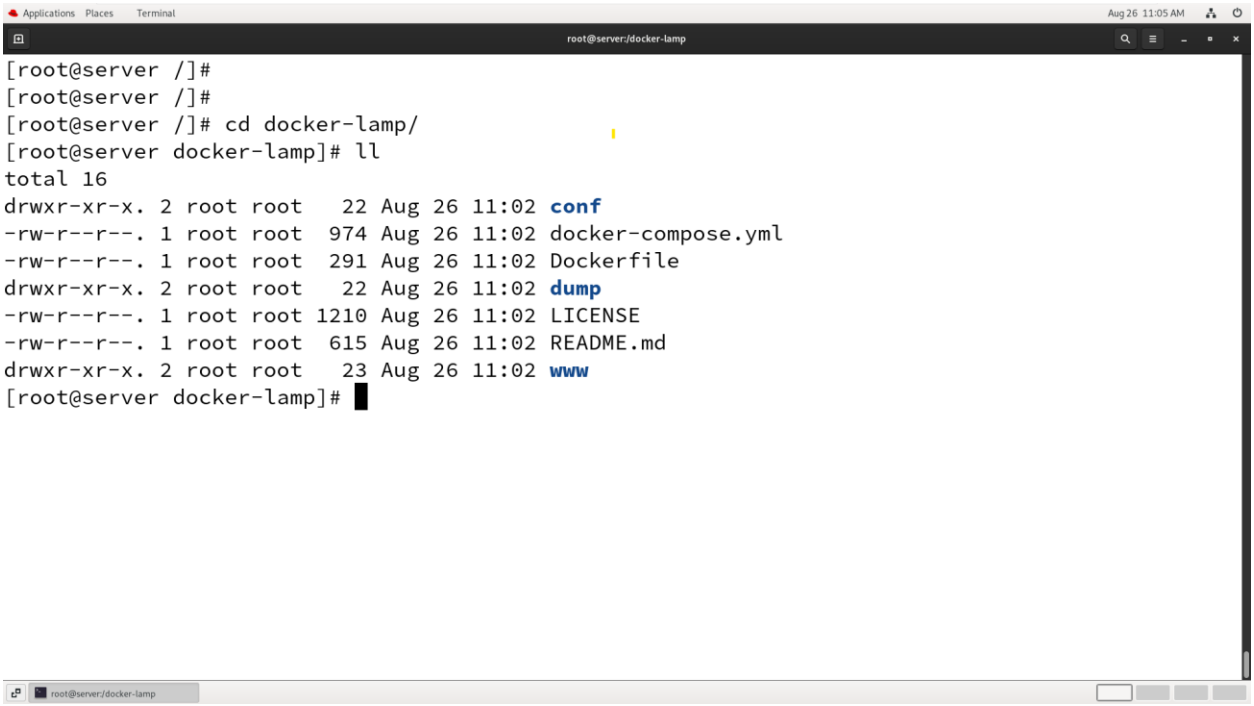
 # ll



Step 10: Now go to the LAMP directory and long list the LAMP files by using the below command

 # cd docker-lamp/

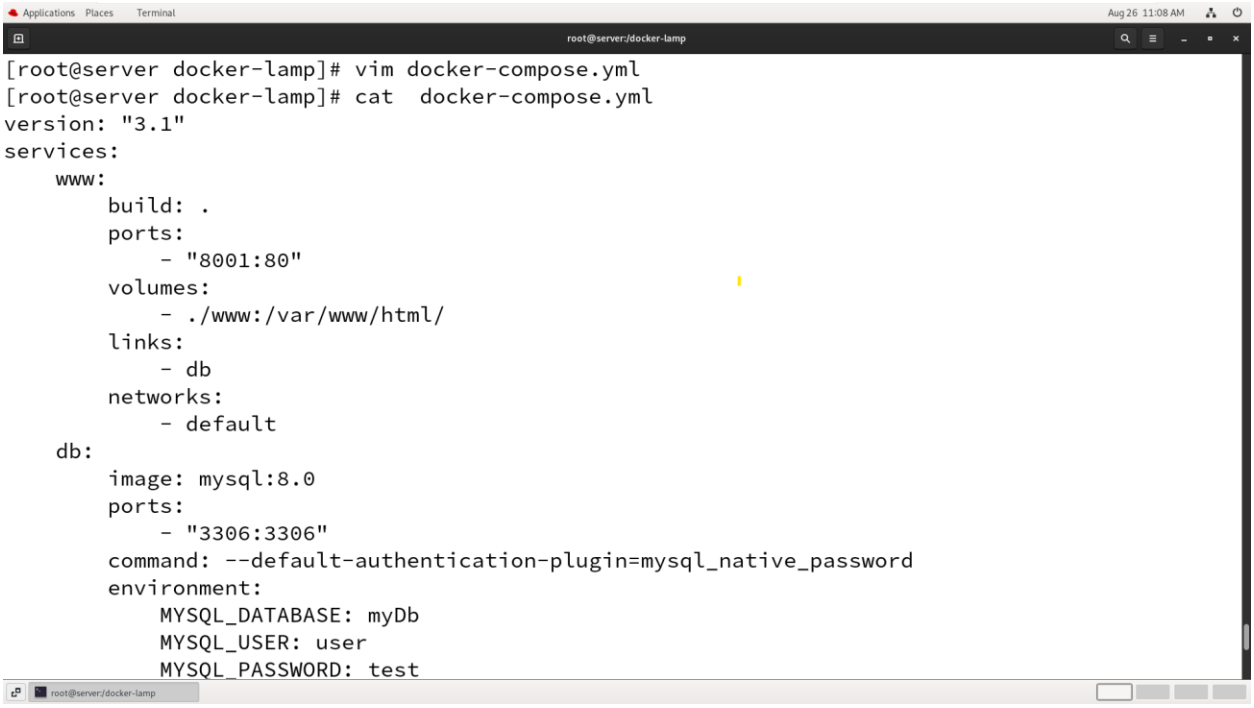
 # ll



Step 11: Open “docker-compose.yml” file and verify the version and port number for LAMP then save and quit from the file by using the below command

 # vim docker-compose.yml

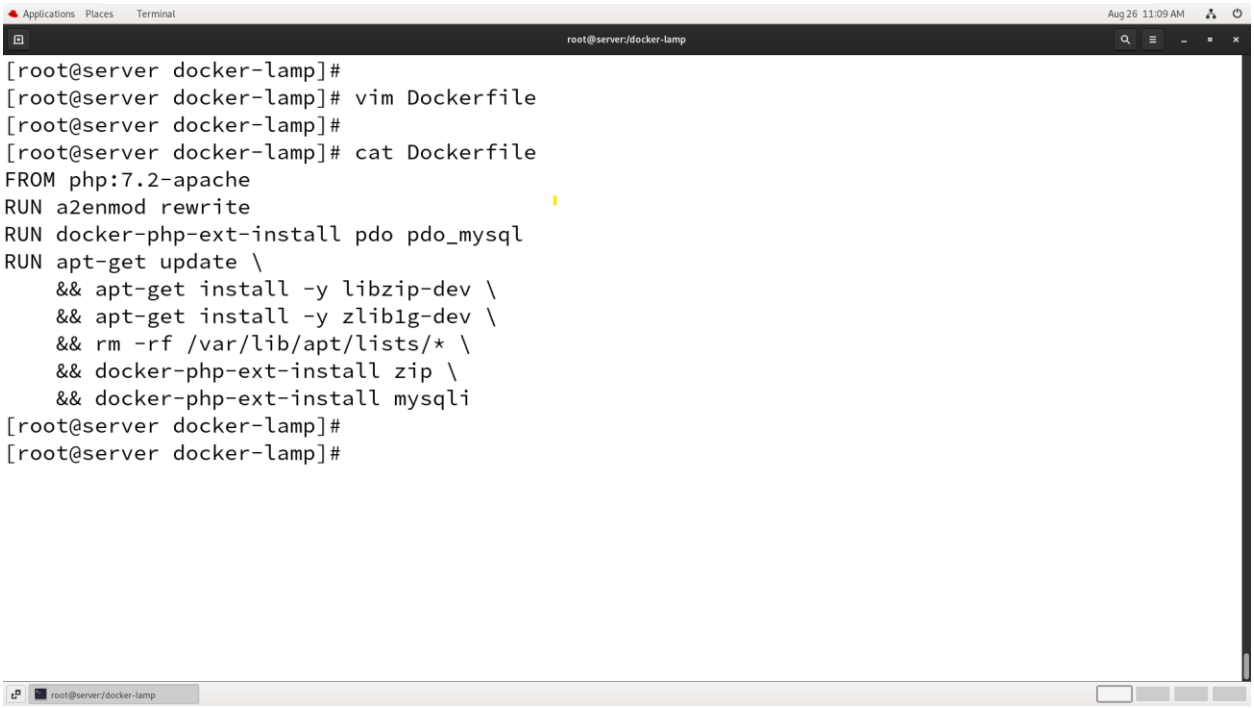
 # cat docker-compose.yml



Step 12: Next open "Dockerfile" and verify the installation command for LAMP then save and quit from the file by using the below command

 # vim Dockerfile

 # cat Dockerfile



Step 13: Now go the document root location inside the LAMP directory by using the below command

 # cd www/

 # ll

```
[root@server docker-lamp]#
[root@server docker-lamp]# cd www/
[root@server www]# ll
total 4
-rw-r--r--. 1 root root 1194 Aug 26 11:02 index.php
[root@server www]#
```

Step 14: We can keep our web files in www directory by using the below command

#vim index.php

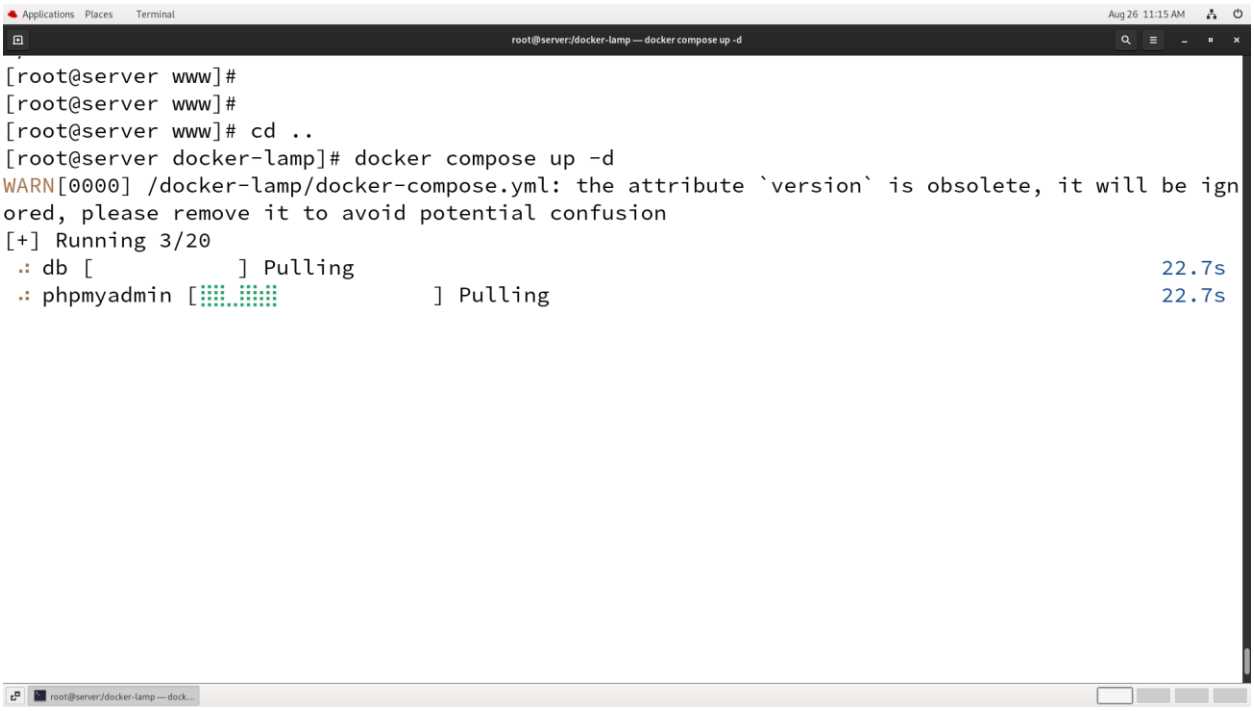
#cat index.php

```
Applications  Places  Terminal                                   Aug 26 11:14 AM
root@server:/docker-lamp/www

[root@server www]#
[root@server www]# vim index.php
[root@server www]# cat index.php
<html>
 <head>
  <title>Hello...</title>

  <meta charset="utf-8">

  <link rel="stylesheet" href="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.6/css/bootstrap.min
.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.0/jquery.min.js"></script>
  <script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.6/js/bootstrap.min.js"></script>

</head>
<body>
    <div class="container">
    <?php echo "<h1>Hi! I'm happy</h1>"; ?>

    <?php

    // Connexion et sélection de la base
```

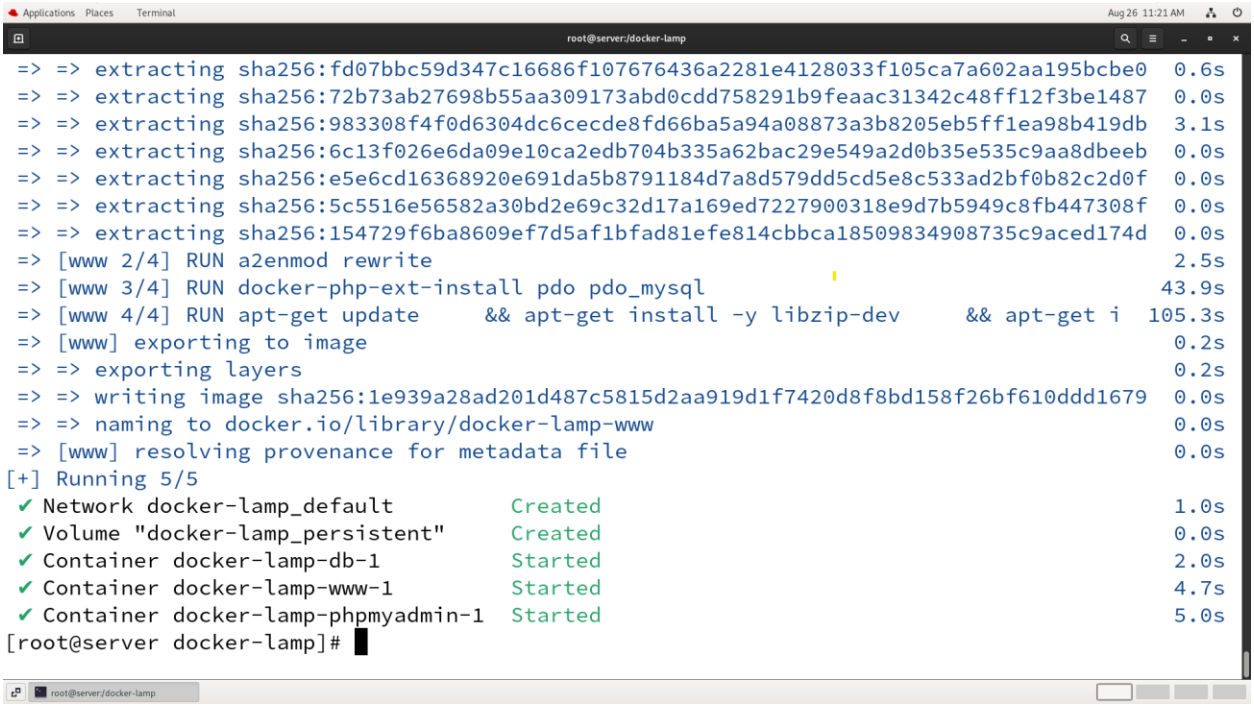
Step 15: Now use the docker compose command to pull images and create containers and required networks for that go to LAMP directory by using the below command

 # cd ..

 # docker compose up -d

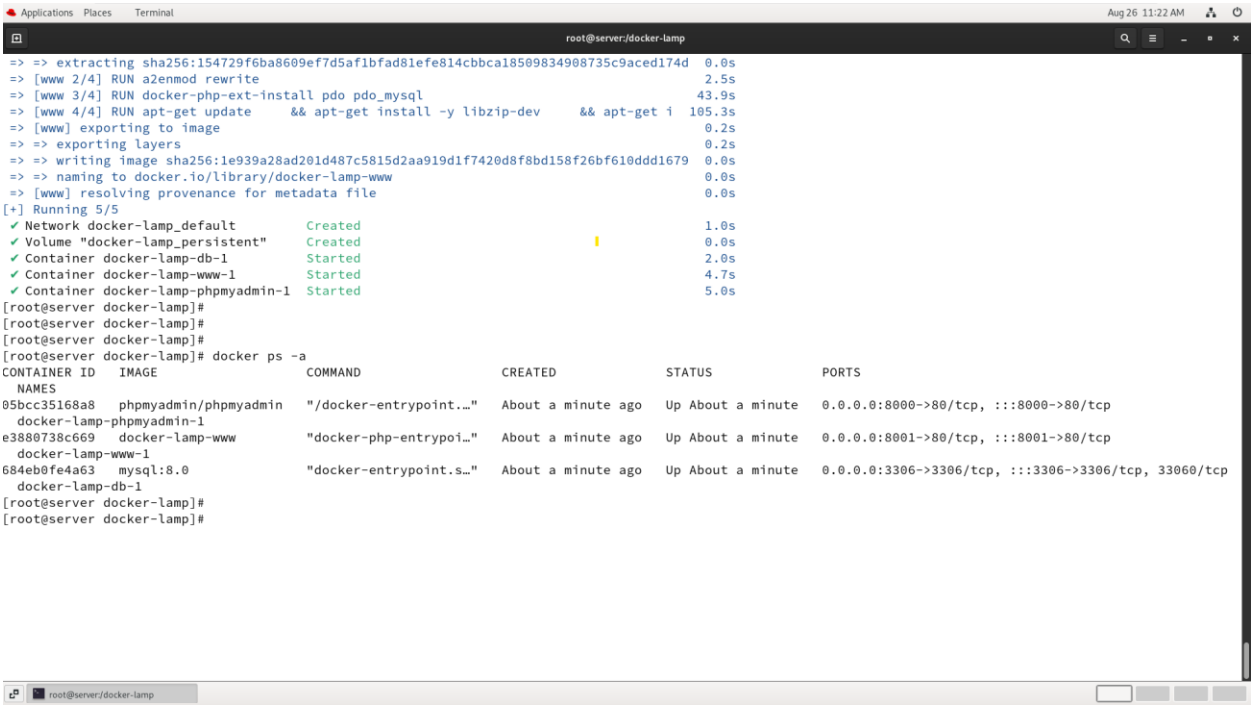

Applications Places Terminal
Aug 26 11:15 AM
root@server:/docker-lamp — docker compose up -d
[root@server www]#
[root@server www]#
[root@server www]# cd ..
[root@server docker-lamp]# docker compose up -d
WARN[0000] /docker-lamp/docker-compose.yml: the attribute `version` is obsolete, it will be ign
ored, please remove it to avoid potential confusion
[+] Running 3/20
.: db [ ] Pulling 22.7s
.: phpmyadmin [ ] Pulling 22.7s
root@server:/docker-lamp — dock...


Applications Places Terminal
Aug 26 11:18 AM
root@server:/docker-lamp — docker compose up -d
[+] Building 71.5s (5/7) docker:default
=> => extracting sha256:afb30f0cd8e0ff78b5eecdc2d9365a50441ad83c5db5f1e87942d6426237fa 12.2s
=> => extracting sha256:3bb2e805159413e5278b859f7fbb86ddfc99e667cb705d5d5aec0a7c8ffcf1b 0.0s
=> => extracting sha256:4c761b44e2ccbff3f10b254b21bb00a52dfd26919ad9e3f7efcd569196e6c26 3.0s
=> => extracting sha256:c2199db96575122fd559c29b619a2773fe9069e0266312a6369ac95f4464b1d 0.0s
=> => extracting sha256:1b9a9381eea8f93068e8043f18ea59b709c07256e2f90962931a1433fbdf5e7 0.0s
=> => extracting sha256:fd07bbc59d347c16686f107676436a2281e4128033f105ca7a602aa195bcbe0 0.6s
=> => extracting sha256:72b73ab27698b55aa309173abd0cdd758291b9feaac31342c48ff12f3be1487 0.0s
=> => extracting sha256:983308f4f0d6304dc6cecde8fd66ba5a94a08873a3b8205eb5ff1ea98b419db 3.1s
=> => extracting sha256:6c13f026e6da09e10ca2edb704b335a62bac29e549a2d0b35e535c9aa8dbeeb 0.0s
=> => extracting sha256:e5e6cd16368920e691da5b8791184d7a8d579dd5cd5e8c533ad2bf0b82c2d0f 0.0s
=> => extracting sha256:5c5516e56582a30bd2e69c32d17a169ed7227900318e9d7b5949c8fb447308f 0.0s
=> => extracting sha256:154729f6ba8609ef7d5af1bfad81efe814cbbca18509834908735c9aced174d 0.0s
=> [www 2/4] RUN a2enmod rewrite 2.5s
=> [www 3/4] RUN docker-php-ext-install pdo pdo_mysql 20.6s
=> => # rc/php/ext/pdo/main -I/usr/src/php/ext/pdo -I/usr/local/include/php -I/usr/local/incl
=> => # ude/php/main -I/usr/local/include/php/TSRM -I/usr/local/include/php/Zend -I/usr/local
=> => # /include/php/ext -I/usr/local/include/php/ext/date/lib -fstack-protector-strong -fpic
=> => # -fpie -O2 -D_LARGEFILE_SOURCE -D_FILE_OFFSET_BITS=64 -DHAVE_CONFIG_H -fstack-protect
=> => # or-strong -fpic -fpie -O2 -D_LARGEFILE_SOURCE -D_FILE_OFFSET_BITS=64 -c /usr/src/php/
=> => # ext/pdo/pdo_dbh.c -fPIC -DPIC -o .libs/pdo_dbh.o
root@server:/docker-lamp — dock...



Step 16: Check the Container status by using the below command

#docker ps -a



Step 17: Now go the web browser and check the LAMP Service Status by using our server IP address with LAMP Service ports by using the below command

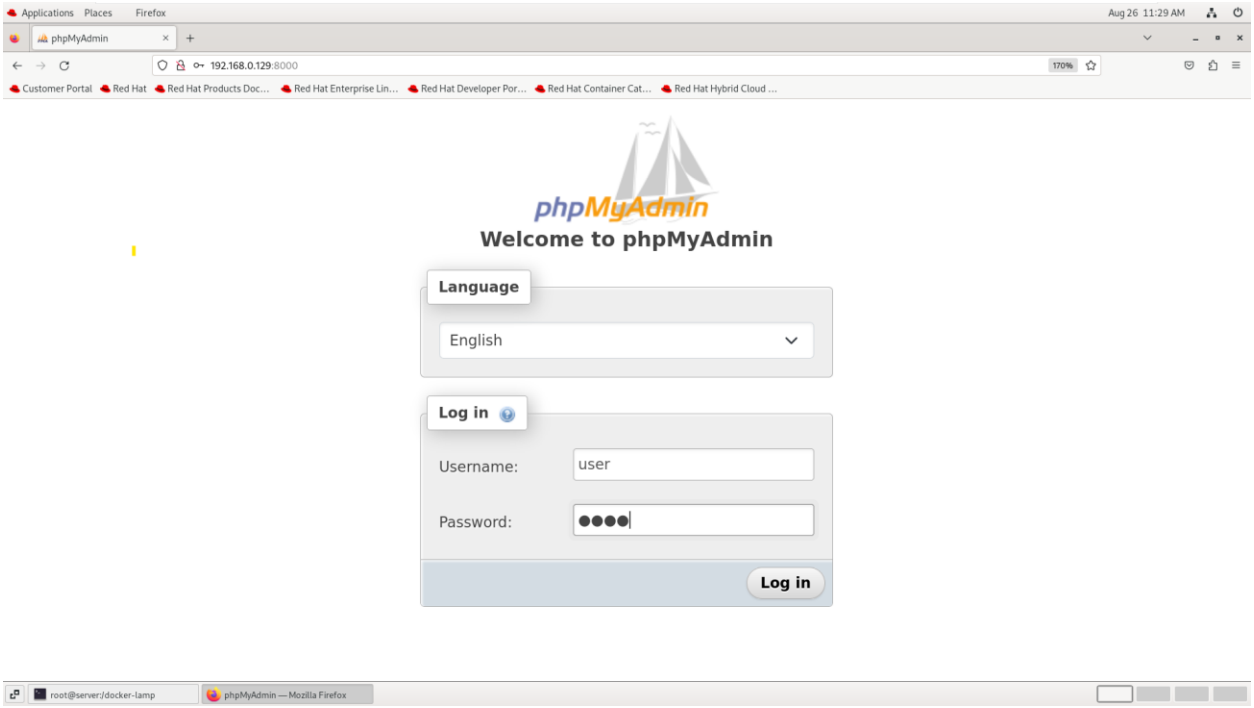
- **phpmyadmin: 8000**
- **Apache: 8001**
- **mysql: 3306**

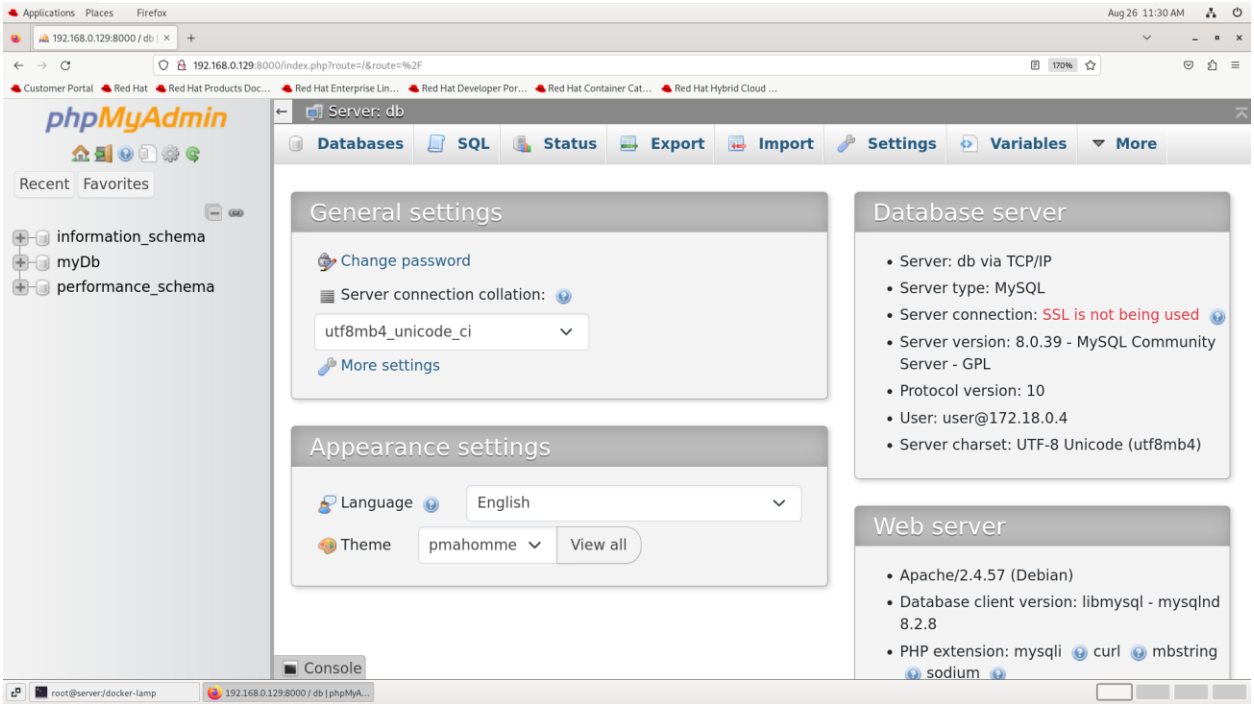
http://<IP Address>:8000

in phpmyAdmin

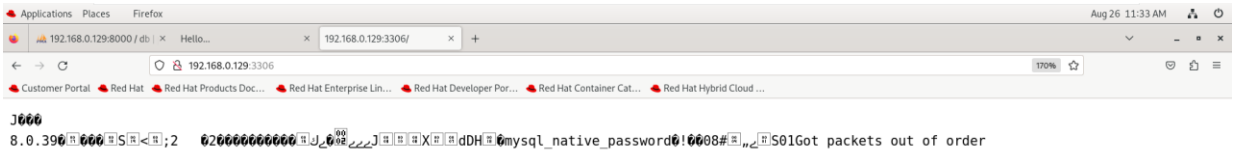
username:-user

password:-test



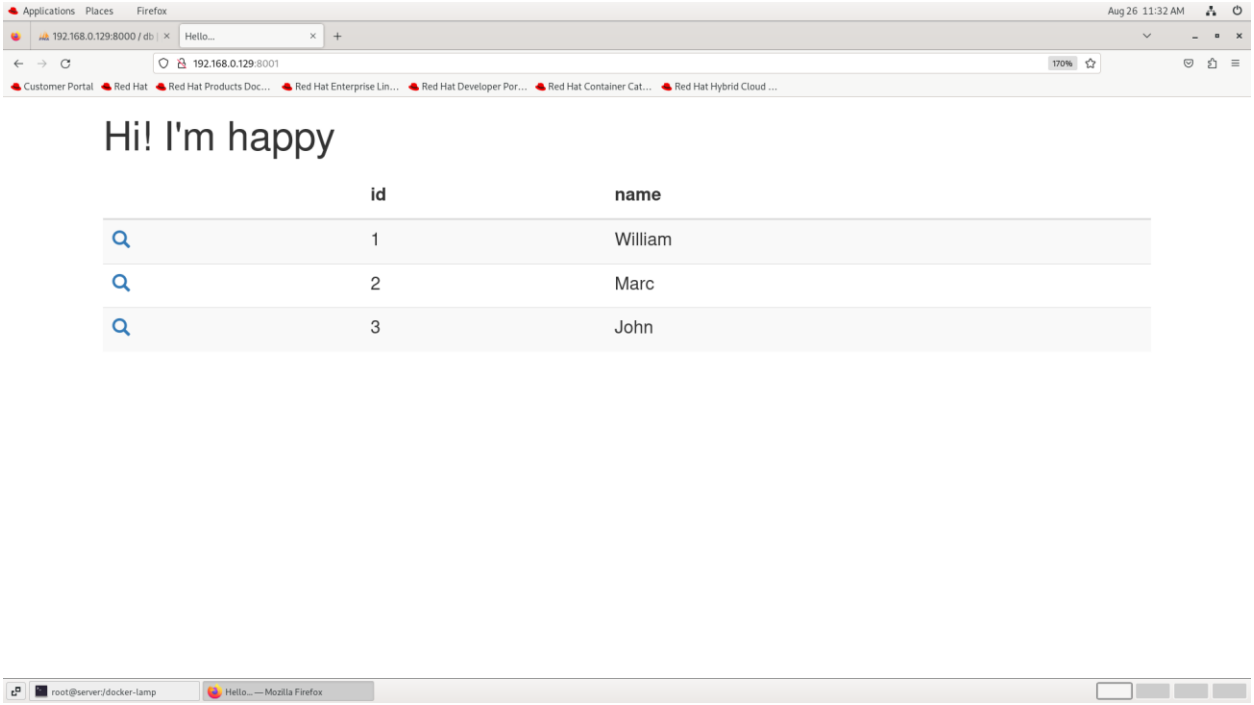


http://<IP Address>:3306



Now,To Show Apache Page

http://<IP Address>:8001



Note:-After Complete a Setup kindly Roll Back a Pratical

*****Thank You!*****