Docker installation and configuration

Here i am giving the example for docker installation and configuration in a Centos -7 system

Docker have 2 editions community edition and enterprise edition and docker CE has two update channels stable,edge

- stable will give you updates on every quarter
- edge will give you updates on every month

below are the details of the different server,cloud versions which supports CE and EE

Desktop

Platform	Docker CE x86_64	Docker CE ARM	Docker EE
Docker for Mac (macOS)	✓		
Docker for Windows (Microsoft Windows 10)	✓		

Cloud

Platform	Docker CE x86_64	Docker CE ARM	Docker EE
Amazon Web Services	✓		✓
Microsoft Azure	✓		✓
IBM Cloud (Beta)			✓

Server

Platform	Docker CE x86_64	Docker CE ARM	Docker CE IBM Power (ppc64le)	Docker CE IBM Z (s390x)	Docker EE x86_64	Docker EE IBM Power (ppc64le)	Docker EE IBM Z (s390x)
CentOS	✓				✓		
Debian	✓	✓					
Fedora	✓						
Microsoft Windows Server 2016					✓		
Oracle Linux					✓		
Red Hat Enterprise Linux					✓	✓	✓
SUSE Linux Enterprise Server					✓	✓	✓
Ubuntu	✓	✓	✓	✓	✓	✓	✓

1. First login to the server Centos-7 and run "yum-check-update" command

 # yum check-update

```
libgcc.x86_64                          4.8.5-28.el7_5.1                        updates
libgomp.x86_64                         4.8.5-28.el7_5.1                        updates
libss.x86_64                           1.42.9-12.el7_5                         updates
libstdc++.x86_64                       4.8.5-28.el7_5.1                        updates
linux-firmware.noarch                  20180220-62.2.git6d51311.el7_5          updates
microcode_ctl.x86_64                   2:2.1-29.10.el7_5                       updates
nspr.x86_64                            4.19.0-1.el7_5                          updates
nss.x86_64                             3.36.0-5.el7_5                          updates
nss-softokn.x86_64                     3.36.0-5.el7_5                          updates
nss-softokn-freebl.x86_64              3.36.0-5.el7_5                          updates
nss-sysinit.x86_64                     3.36.0-5.el7_5                          updates
nss-tools.x86_64                       3.36.0-5.el7_5                          updates
nss-util.x86_64                        3.36.0-1.el7_5                          updates
openldap.x86_64                        2.4.44-15.el7_5                         updates
procps-ng.x86_64                       3.3.10-17.el7_5.2                       updates
python.x86_64                          2.7.5-69.el7_5                          updates
python-libs.x86_64                     2.7.5-69.el7_5                          updates
python-perf.x86_64                     3.10.0-862.9.1.el7                      updates
rsyslog.x86_64                         8.24.0-16.el7_5.4                       updates
selinux-policy.noarch                  3.13.1-192.el7_5.4                      updates
selinux-policy-targeted.noarch         3.13.1-192.el7_5.4                      updates
sudo.x86_64                            1.8.19p2-14.el7_5                       updates
tzdata.noarch                          2018e-3.el7                             updates
yum-plugin-fastestmirror.noarch        1.1.31-46.el7_5                         updates
[root@unixchips ~]#
```

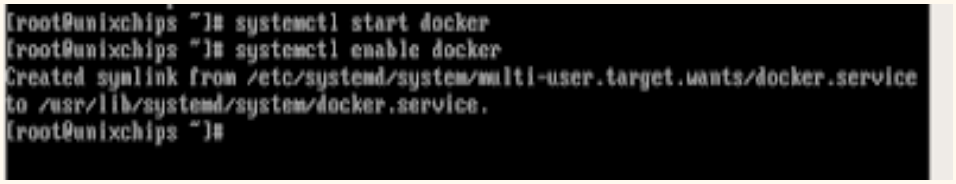
2. There is one installation script is available in the web called https://get.docker.com we are installing the docker using that script

```
[root@unixchips ~]# curl -fsSL https://get.docker.com/ | sh
```

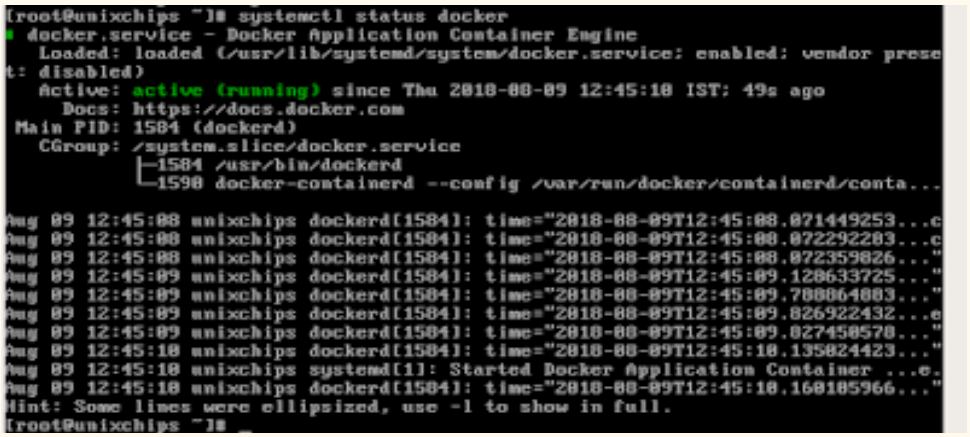
curl -fsSL https://get.docker.com | sh


```
libgcc.x86_64                          4.8.5-28.el7_5.1                        updates
libgomp.x86_64                         4.8.5-28.el7_5.1                        updates
libss.x86_64                           1.42.9-12.el7_5                         updates
libstdc++.x86_64                       4.8.5-28.el7_5.1                        updates
linux-firmware.noarch                  20180220-62.2.git6d51311.el7_5          updates
microcode_ctl.x86_64                   2:2.1-29.10.el7_5                       updates
nspr.x86_64                            4.19.0-1.el7_5                          updates
nss.x86_64                             3.36.0-5.el7_5                          updates
nss-softokn.x86_64                     3.36.0-5.el7_5                          updates
nss-softokn-freebl.x86_64              3.36.0-5.el7_5                          updates
nss-sysinit.x86_64                     3.36.0-5.el7_5                          updates
nss-tools.x86_64                       3.36.0-5.el7_5                          updates
nss-util.x86_64                        3.36.0-1.el7_5                          updates
openldap.x86_64                        2.4.44-15.el7_5                         updates
procps-ng.x86_64                       3.3.10-17.el7_5.2                       updates
python.x86_64                          2.7.5-69.el7_5                          updates
python-libs.x86_64                     2.7.5-69.el7_5                          updates
python-perf.x86_64                     3.10.0-862.9.1.el7                      updates
rsyslog.x86_64                         8.24.0-16.el7_5.4                       updates
selinux-policy.noarch                  3.13.1-192.el7_5.4                      updates
selinux-policy-targeted.noarch         3.13.1-192.el7_5.4                      updates
sudo.x86_64                            1.8.19p2-14.el7_5                       updates
tzdata.noarch                          2018e-3.el7                             updates
yum-plugin-fastestmirror.noarch        1.1.31-46.el7_5                         updates
[root@unixchips ~]#
```

2. Once the docker is installed we need to make it start and enable the service

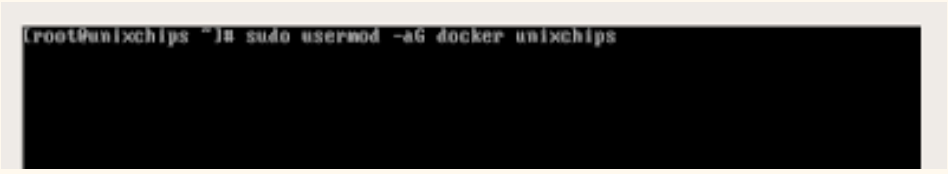


 # systemctl start docker
 # systemctl enable docker



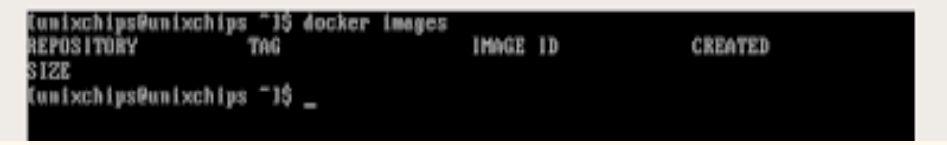
 # systemctl status docker

4. Now we need to give the permission to the local user (here raushan) to run docker commands



sudo usermod -aG docker raushan

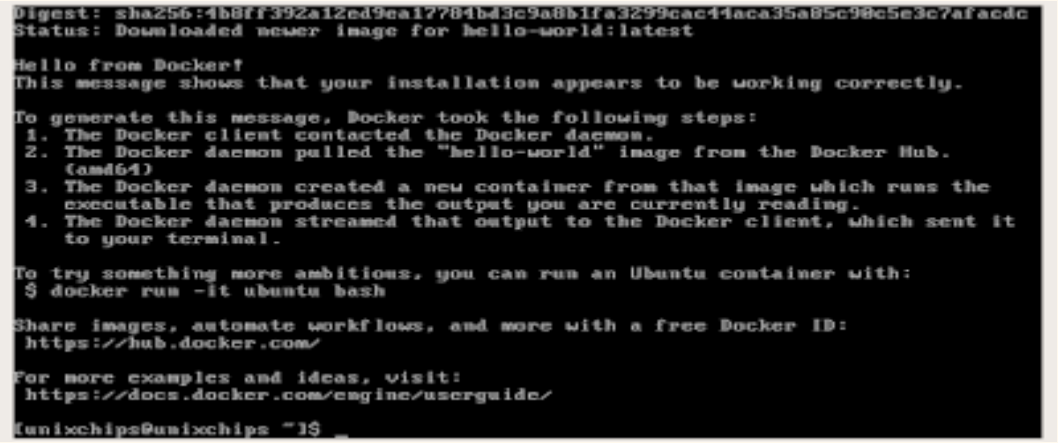
5. Once you given the permission we can able to run the command without any sudo permission



 # docker images

6. The best way to check the status of the docker installation is to run the below command

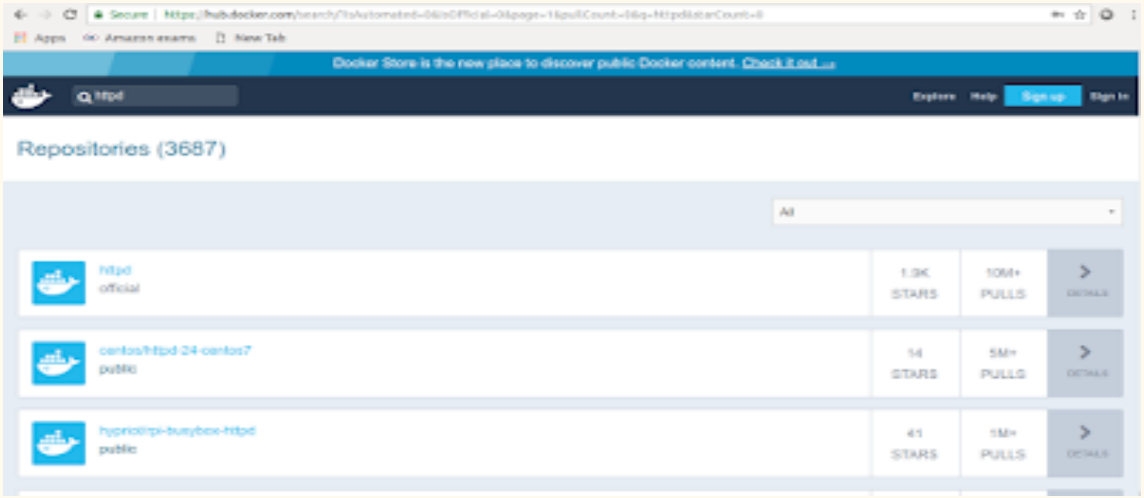
"docker run hello-world" and the expected out is given below



7. Let's search the httpd image through the docker

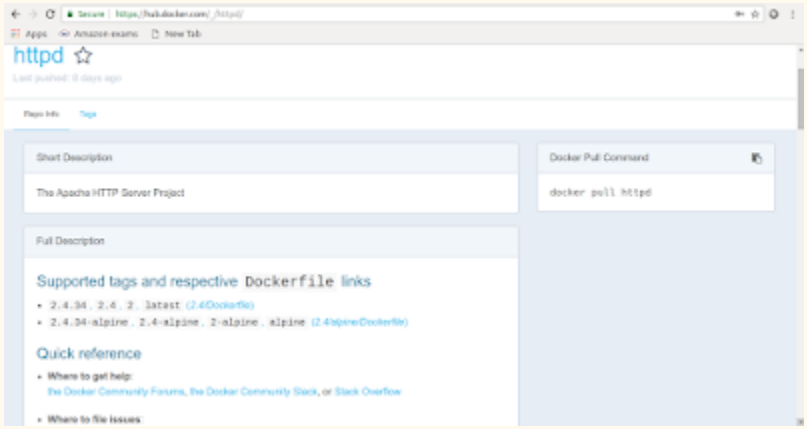
 # docker search httpd

Also if we need to check the image details we will get it from https://hub.docker.com

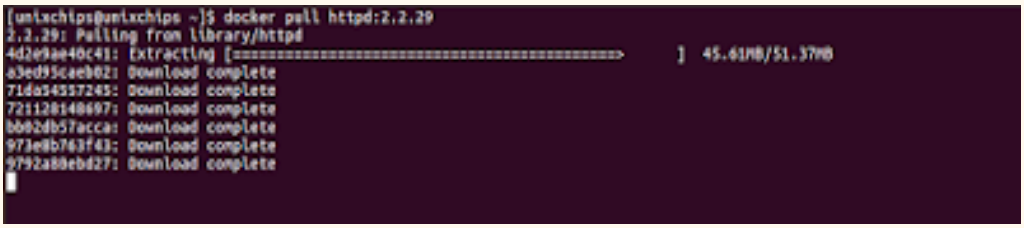


8. Now we can pull the httpd image to the docker

If we click on the httpd official project we can see the latest one is apache 2.4.29



let's pull the image through docker command



 # docker pull httpd:2.2.29

9. Now if we check the docker mages we can see the downloaded http image

 # docker images

10 .If we need to remove one image we have to use the below command

 # docker rmi hello-world -f