EXPERIMENT-12

NAME- RAJAT PANWAR

ROLL NO- R171218080

SUBMITTED TO:

MR. HITESH KUMAR SHARMA

1}. First, in order to ensure the downloads are valid, add the GPG key for the official Docker repository to your system:
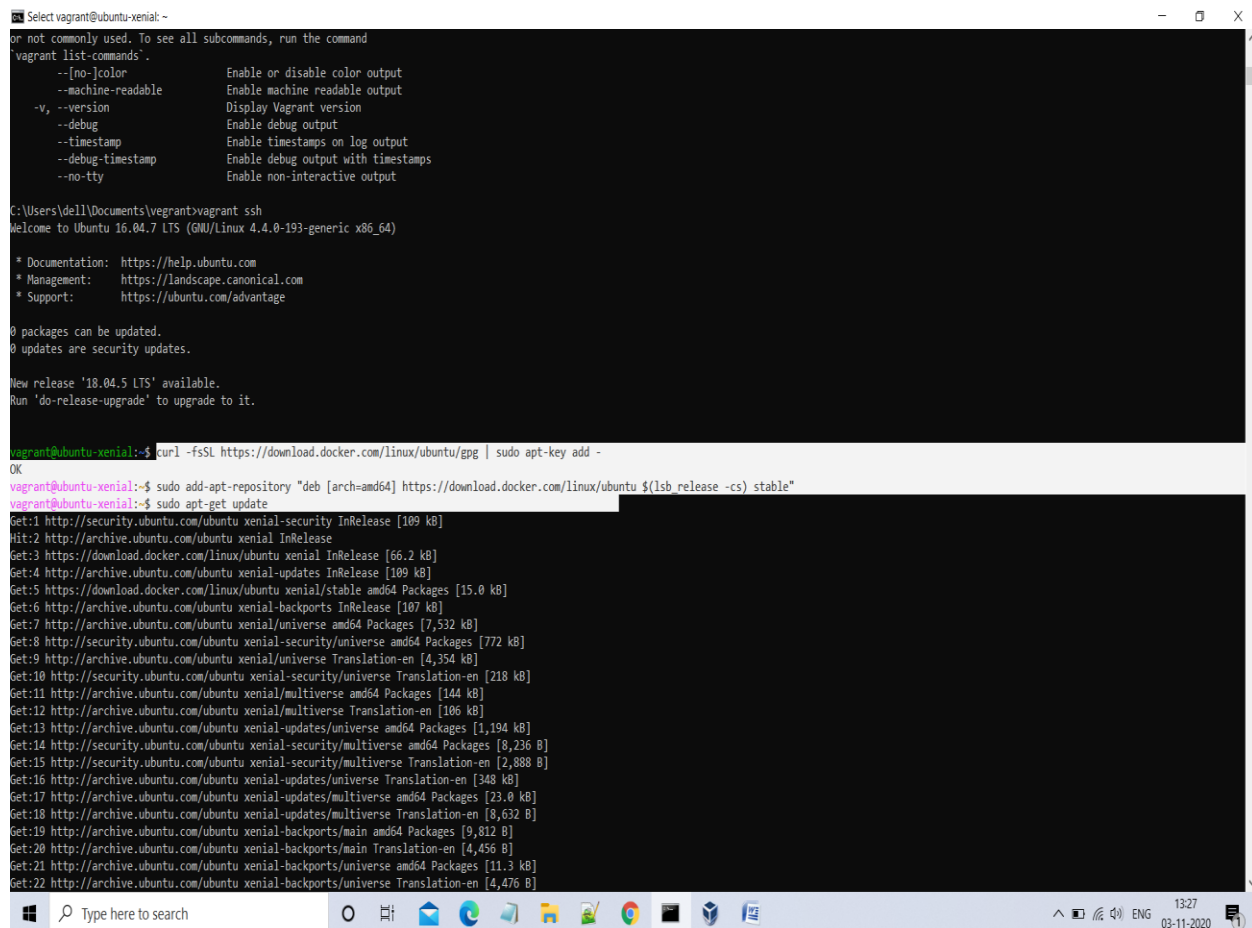
```
$ curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -
```

2}. Add the Docker repository to APT sources:

```
$ sudo add-apt-repository "deb [arch=amd64] https://download.docker.com/linux/ubuntu $(lsb_release -cs) stable"
```

3}. Next, update the package database with the Docker packages from the newly added repo:

```
$ sudo apt-get update
```

4}. Make sure you are about to install from the Docker repo instead of the default Ubuntu 16.04 repo:

`$ apt-cache policy docker-ce`

4. Finally, install Docker:

`$ sudo apt-get install -y docker-ce`

```
        500 https://download.docker.com/linux/ubuntu xenial/stable amd64 Packages
vagrant@ubuntu-xenial:~$ sudo apt-get install -y docker-ce
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  aufs-tools cgroupfs-mount containerd.io docker-ce-cli libltdl7 pigz
Suggested packages:
  mountall
The following NEW packages will be installed:
  aufs-tools cgroupfs-mount containerd.io docker-ce docker-ce-cli libltdl7 pigz
0 upgraded, 7 newly installed, 0 to remove and 0 not upgraded.
Need to get 91.2 MB of archives.
After this operation, 410 MB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu xenial/universe amd64 pigz amd64 2.3.1-2 [61.1 kB]
Get:2 https://download.docker.com/linux/ubuntu xenial/stable amd64 containerd.io amd64 1.3.7-1 [24.3 MB]
Get:3 http://archive.ubuntu.com/ubuntu xenial/universe amd64 aufs-tools amd64 1:3.2+20130722-1.1ubuntu1 [92.9 kB]
Get:4 http://archive.ubuntu.com/ubuntu xenial/universe amd64 cgroupfs-mount all 1.2 [4,970 B]
Get:5 http://archive.ubuntu.com/ubuntu xenial/main amd64 libltdl7 amd64 2.4.6-0.1 [38.3 kB]
Get:6 https://download.docker.com/linux/ubuntu xenial/stable amd64 docker-ce-cli amd64 5:19.03.13~3-0~ubuntu-xenial [44.2 MB]
Get:7 https://download.docker.com/linux/ubuntu xenial/stable amd64 docker-ce amd64 5:19.03.13~3-0~ubuntu-xenial [22.5 MB]
Fetched 91.2 MB in 1min 32s (990 kB/s)
Selecting previously unselected package pigz.
(Reading database ... 54328 files and directories currently installed.)
Preparing to unpack .../pigz_2.3.1-2_amd64.deb ...
Unpacking pigz (2.3.1-2) ...
Selecting previously unselected package aufs-tools.
Preparing to unpack .../aufs-tools_1%3a3.2+20130722-1.1ubuntu1_amd64.deb ...
Unpacking aufs-tools (1:3.2+20130722-1.1ubuntu1) ...
Selecting previously unselected package cgroupfs-mount.
Preparing to unpack .../cgroupfs-mount_1.2_all.deb ...
Unpacking cgroupfs-mount (1.2) ...
Selecting previously unselected package containerd.io.
Preparing to unpack .../containerd.io_1.3.7-1_amd64.deb ...
Unpacking containerd.io (1.3.7-1) ...
Selecting previously unselected package docker-ce-cli.
Preparing to unpack .../docker-ce-cli_5%3a19.03.13~3-0~ubuntu-xenial_amd64.deb ...
Unpacking docker-ce-cli (5:19.03.13~3-0~ubuntu-xenial) ...
Selecting previously unselected package docker-ce.
Preparing to unpack .../docker-ce_5%3a19.03.13~3-0~ubuntu-xenial_amd64.deb ...
Unpacking docker-ce (5:19.03.13~3-0~ubuntu-xenial) ...
Selecting previously unselected package libltdl7:amd64.
Preparing to unpack .../libltdl7_2.4.6-0.1_amd64.deb ...
Unpacking libltdl7:amd64 (2.4.6-0.1) ...
Processing triggers for man-db (2.7.5-1) ...
Processing triggers for libc-bin (2.23-0ubuntu11.2) ...
Processing triggers for ureadahead (0.100.0-19.1) ...
Processing triggers for systemd (229-4ubuntu21.29) ...
Setting up pigz (2.3.1-2) ...
Setting up aufs-tools (1:3.2+20130722-1.1ubuntu1) ...
```

5}. Executing the Docker Command Without Sudo

If you want to avoid typing sudo whenever you run the docker command, add your username to the docker group:
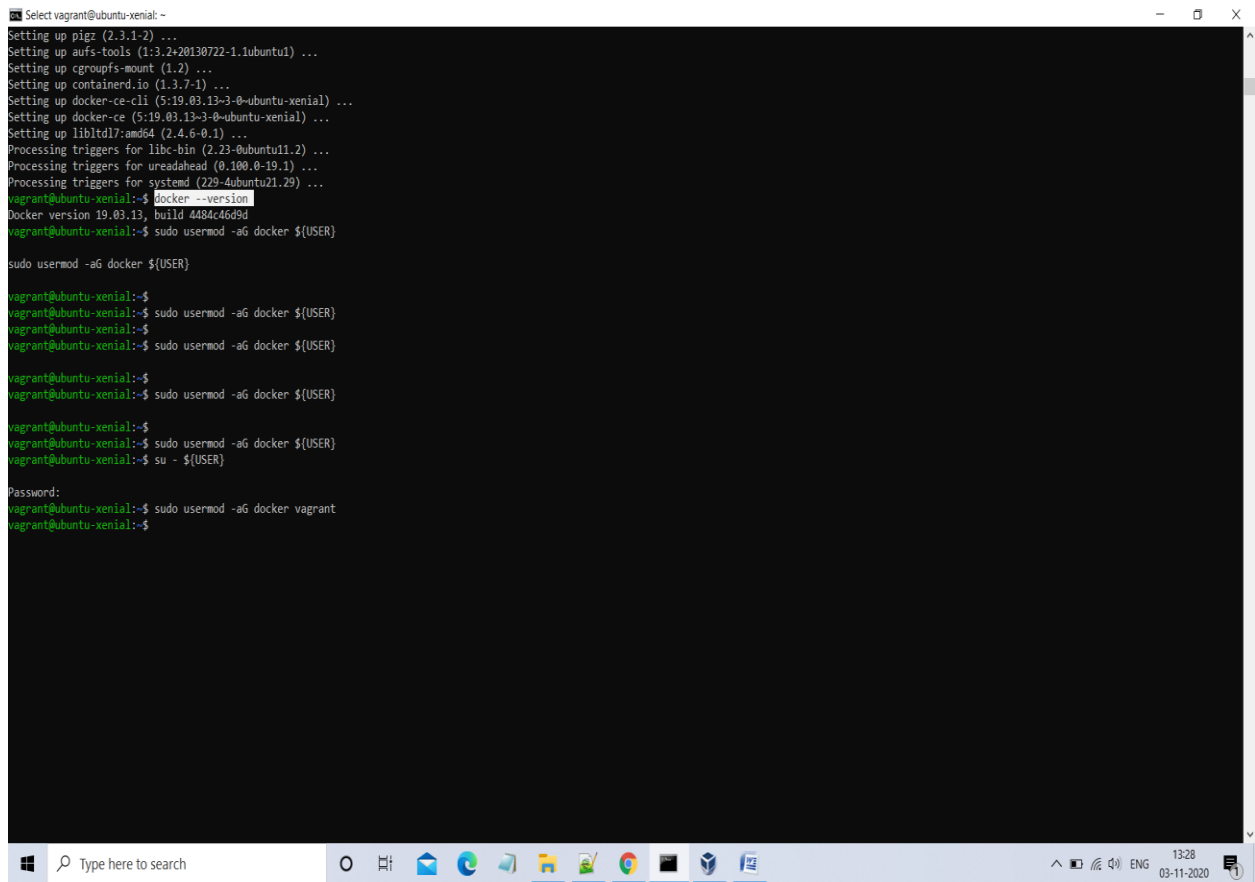
$ sudo usermod -aG docker ${USER}

6}. To apply the new group membership, you can log out of the server and back in, or you can type the following:

$ su - ${USER}

You will be prompted to enter your user's password to continue. Afterwards, you can confirm that your user is now added to the docker group by typing:

7. If you need to add a user to the docker group that you're not logged in as, declare that username explicitly using:

```
$ sudo usermod -aG docker username
```

$ docker run ubuntu

$ docker ps

$ docker ps -a

$docker run -it ubuntu

CREATE A DIRECTORY:-

```
CONTAINER ID     IMAGE          COMMAND          CREATED            STATUS                     PORTS          NAMES
7b316aa95ad3     ubuntu         "/bin/bash"      About a minute ago Exited (0) About a minute ago              interesting_fermi
vagrant@ubuntu-xenial:~$ docker run -it ubuntu
root@927002adbabe:/# ls
bin  boot  dev  etc  home  lib  lib32  lib64  libx32  media  mnt  opt  proc  root  run  sbin  srv  sys  tmp  usr  var
root@927002adbabe:/# mkdir Rajat
root@927002adbabe:/# ls
Rajat  bin  boot  dev  etc  home  lib  lib32  lib64  libx32  media  mnt  opt  proc  root  run  sbin  srv  sys  tmp  usr  var
root@927002adbabe:/#
```