

**NETWORKING & SYSTEM ADMINISTRATION LAB****Experiment No.: 22****Aim**

Install Docker on Ubuntu

**Procedure**

Steps for Installing Docker:

1. Open the terminal on Ubuntu.
2. Remove any Docker files that are running in the system, using the following command:

```
$ sudo apt-get remove docker docker-engine docker.io
```

```
mca@T70:~$ sudo apt-get remove docker docker-engine docker.io
[sudo] password for mca:
Reading package lists... Done
Building dependency tree
Reading state information... Done
Package 'docker-engine' is not installed, so not removed
Package 'docker' is not installed, so not removed
Package 'docker.io' is not installed, so not removed
The following packages were automatically installed and are no longer required:
 debhelper dh-autoreconf dh-strip-nondeterminism libarchive-cpio-perl
 libfile-stripnondeterminism-perl libmail-sendmail-perl libpcre16-3 libpcre3-dev
 libpcre32-3 libpcrecpp0v5 libssl-dev libssl-doc libsys-hostname-long-perl php-common
 php-pear php-xml php7.2-cli php7.2-common php7.2-json php7.2-opcache php7.2-readline
 php7.2-xml pkg-php-tools po-debconf shtool
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
```

**Name: Mathew Sebastian**

**Roll No: 18**

**Batch: B**

**Date: 23-05-2022**

3. Check if the system is up-to-date using the following command:

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

```
mca@T70:~$ sudo apt-get update
Hit:1 http://in.archive.ubuntu.com/ubuntu bionic InRelease
Get:2 http://dl.google.com/linux/chrome/deb stable InRelease [1,811 B]
Ign:3 https://repo.mongodb.org/apt/ubuntu trusty/mongodb-org/3.6 InRelease
Err:2 http://dl.google.com/linux/chrome/deb stable InRelease
  The following signatures couldn't be verified because the public key is not available: NO_
  PUBKEY 78BD65473CB3BD13
Err:4 http://ppa.launchpad.net/jonathonf/python-3.6/ubuntu bionic InRelease
  403 Forbidden [IP: 185.125.190.52 80]
Get:5 https://repo.mongodb.org/apt/ubuntu trusty/mongodb-org/3.6 Release [2,495 B]
Get:6 http://ppa.launchpad.net/webupd8team/java/ubuntu bionic InRelease [15.4 kB]
Get:7 https://repo.mongodb.org/apt/ubuntu trusty/mongodb-org/3.6 Release.gpg [801 B]
Err:7 https://repo.mongodb.org/apt/ubuntu trusty/mongodb-org/3.6 Release.gpg
  The following signatures were invalid: EXPKEYSIG 58712A2291FA4AD5 MongoDB 3.6 Release Sign
```

4. Install Docker using the following command:

```
$ sudo apt install docker.io
```

```
mca@T70:~$ sudo apt install docker.io
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
debhelper dh-autoreconf dh-strip-nondeterminism libarchive-cpio-perl
libfile-stripnondeterminism-perl libmail-sendmail-perl libpcre16-3 libpcre3-dev
libpcre32-3 libpcrecpp0v5 libssl-dev libssl-doc libsys-hostname-long-perl php-common
php-pear php-xml php7.2-cli php7.2-common php7.2-json php7.2-opcache php7.2-readline
php7.2-xml pkg-php-tools po-debconf shtool
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
bridge-utils cgroupfs-mount ubuntu-fan
Suggested packages:
aufs-tools btrfs-tools debootstrap docker-doc rinse zfs-fuse | zfsutils
The following NEW packages will be installed:
bridge-utils cgroupfs-mount docker.io ubuntu-fan
```

5. Install all the dependency packages using the following command:

```
$ sudo snap install docker
```

```
mca@T70:~$ sudo snap install docker
docker 20.10.14 from Canonical installed
```

6. Before testing Docker, check the version installed using the following command:

```
$ docker --version
```

```
mca@T70:~$ docker --version
Docker version 17.12.1-ce, build 7390fc6
mca@T70:~$
```

7. Pull an image from the Docker hub using the following command:

```
$ sudo docker run hello-world
```

```
mca@T70:~$ sudo docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:80f31da1ac7b312ba29d65080fddf797dd76acfb870e677f390d5acba9741b17
Status: Downloaded newer image for hello-world:latest

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
1. The Docker client contacted the Docker daemon.
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
   (amd64)
3. The Docker daemon created a new container from that image which runs the
   executable that produces the output you are currently reading.
4. The Docker daemon streamed that output to the Docker client, which sent it
   to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
$ docker run -it ubuntu bash
```

8. Check if the docker image has been pulled and is present in your system using the following command:

```
$ sudo docker images
```

```
mca@T70:~$ sudo docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
hello-world	latest	feb5d9fea6a5	8 months ago	13.3kB

```
mca@T70:~$
```

9. To display all the containers pulled, use the following command:

```
$ sudo docker ps -a
```

```
mca@T70:~$ sudo docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS
	PORTS	NAMES		
c337d61fb063	hello-world	"/hello"	About a minute ago	Exited (0)

```
About a minute ago
mca@T70:~$
```

10. To check for containers in a running state, use the following command:

```
$ sudo docker ps
```

```
mca@T70:~$ sudo docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS
	PORTS	NAMES		

```
mca@T70:~$
```

successfully installed Docker on Ubuntu!