Prerequisites

Uninstall older versions of Dockers, named “**docker”**or “**docker-engine**” along with associated dependencies. If your system does not have a docker package, skip the below step.

$ sudo apt-get -y remove docker docker-engine

Contents such as images, volumes, and networks under**/var/lib/docker/** are preserved.

**Install the below packages only on Ubuntu 14.04**to make use of **aufs** storage driver, make sure your system has the **linux-image-extra**package.

$ sudo apt-get install -y linux-image-extra-$(uname -r) linux-image-extra-virtual

Setup Docker Repository

Update the repository cache.

$ sudo apt-get update

Install the below packages to ensure the “**apt**” work with https method, and that CA certificates are installed.

$ sudo apt-get install -y apt-transport-https software-properties-common ca-certificates curl

Add the GPG key for Docker repository on your system.

$ wget https://download.docker.com/linux/ubuntu/gpg

$ sudo apt-key add gpg

Now, add the official Docker repository by running the following command in the terminal.

### Ubuntu 16.04 ###

$ echo "deb [arch=amd64] https://download.docker.com/linux/ubuntu xenial stable" | sudo tee /etc/apt/sources.list.d/docker.list

### Ubuntu 17.10 ###

$ echo "deb [arch=amd64] https://download.docker.com/linux/ubuntu artful stable" | sudo tee /etc/apt/sources.list.d/docker.list

#### Ubuntu 14.04 ###

echo "deb [arch=amd64] https://download.docker.com/linux/ubuntu trusty stable" | sudo tee /etc/apt/sources.list.d/docker.list

Update the apt database.

$ sudo apt-get update

Make sure you are installing the docker from the official repository, not from the default Ubuntu 16.04 / 14.04 repo.

$ sudo apt-cache policy docker-ce

You should see the output like below, should have Docker repository details.

docker-ce:

Installed: (none)

Candidate: 17.03.1~ce-0~ubuntu-xenial

Version table:

17.03.1~ce-0~ubuntu-xenial 500

500 https://download.docker.com/linux/ubuntu xenial/stable amd64 Packages

17.03.0~ce-0~ubuntu-xenial 500

500 https://download.docker.com/linux/ubuntu xenial/stable amd64 Packages

Install Docker on Ubuntu

Now, install the Docker using the following command.

$ sudo apt-get -y install docker-ce

Now you have Docker installed on your machine, start the Docker service in case if it is not started automatically after the installation

$ sudo systemctl start docker.service

$ sudo systemctl enable docker.service

Run a docker container to verify the Docker installation

$ sudo docker run hello-world

You should see output like below; this confirms us that Docker is correctly installed.

Unable to find image 'hello-world:latest' locally

latest: Pulling from library/hello-world

78445dd45222: Pull complete

Digest: sha256:c5515758d4c5e1e838e9cd307f6c6a0d620b5e07e6f927b07d05f6d12a1ac8d7

Status: Downloaded newer image for hello-world:latest

Hello from Docker!

This message shows that your installation appears to be working correctly.

Allow Non-root user to run Docker

By default, you would require root privilege to run docker commands. To avoid this, I had been using docker commands with sudo. If you want to allow non-root users to run Docker containers, follow the below steps to give them privileges to run a Docker.

Create a group called docker if it does not exist.

$ sudo groupadd docker

Add your user to docker group, replace “**raj**” with your username.

$ sudo useradd raj

Add a user to docker group.

$ sudo usermod -aG docker raj

Log out and log back in.

Now, you should now be able to run Docker commands without prefixing sudo.

$ docker run hello-world