Installing Docker on Ubuntu

If you have older versions of Docker and wish to start fresh, uninstall those versions with the commands below. It's okay if you get messages that the packages are not installed.

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

Docker-ce is the Community Engine of Docker. You will set up the Docker repository on your Ubuntu VM with the commands below.

Start by updating the *apt* package index.

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

Install packages to allow *apt* to use a repository over HTTPS.

```
$ sudo apt-get install \
    apt-transport-https \
    ca-certificates \
    curl \
    gnupg-agent \
    software-properties-common
```

Add Docker's official GPG key:

```
$ curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -
```

Verify that you have the key with the fingerprint "`9DC8 5822 9FC7 DD38 854A E2D8 8D81 803C 0EBF CD88`", like shown here, by searching for the last 8 characters.

```
$ sudo apt-key fingerprint 0EBFCD88
```

Use the following command to set up the **stable** repository.

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

Now you can install Docker Community Engine. Start by updating the *apt* package index.

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

Then, install the latest version of Docker Community Engine and containerd.

```
$ sudo apt-get install docker-ce docker-ce-cli containerd.io
```

Verify that Docker installed correctly by running a *hello-world* container.

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

Lastly, add your user to the *docker* user group to avoid the need to enter *sudo* for each command.

```
$ sudo usermod -aG docker $USER
```

Reboot your VM to make these permissions changes take effect. Then run a basic *docker ps* command, without *sudo*, to confirm the permissions are working.

```
$ docker ps
```