# Docker 101

**OS:** Debian 10

**References:**

* <https://phoenixnap.com/kb/how-to-install-docker-on-debian-10>
* <https://terminalroot.com.br/2019/08/tutorial-definitivo-de-docker-para-iniciantes-ubuntu.html>

## Installation:

### Requirements:

sudo apt-get update

sudo apt-get install apt-transport-https ca-certificates curl gnupg2 software-properties-common

### Installation:

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

sudo add-apt-repository "deb [arch=amd64] https://download.docker.com/linux/debian buster stable"

sudo apt-get update

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

### Checking the service status:

sudo systemctl status docker

### Run the first container:

sudo docker run hello-world

### Check additional information:

sudo docker info

## Running Docker without sudo (recommendable):

### Check the groups available in your system (look for the group docker):

cat /etc/group | cut -d: -f1

or

cat /etc/group | grep docker

or

[[ $(grep 'docker' /etc/group) ]] && echo 'There is the docker group' || echo 'There is not the docker group'

### If there is no docker group, add it using this:

sudo groupadd docker

### Now, add the current user:

sudo usermod -aG docker $USER

### Check the groups where the current user belongs to:

groups $USER

### Reboot the system and perform a command without sudo, for instance, "docker info".

## Useful commands:

### List all images:

docker images

### Remove an image:

docker rmi <image name or ID>

### List all process:

docker ps -a

### Remove a container:

docker rm < container name or ID >

### Remove all containers:

docker rm $(docker ps -a -q)

### Stopping a container:

docker stop < container name or ID >

### Starting and running a container:

docker start < container name or ID >

docker exec -it < container name or ID > bash

### How to login before pushing an image (create an account in https://hub.docker.com/):

docker login

### Before pushing, give to the image a tag:

docker tag sample repository/sample

docker push repository/sample