

Linux & Docker Commands Documentation

apt update

 Description:

Updates the list of available packages and their versions.

 Command:

- sudo apt update

```
ubuntu@ip-172-31-18-108:~$ sudo apt update -y █
```

Install Docker



Description:
Installs Docker using apt.



- Command:
- sudo apt install docker.io -y
sudo systemctl enable docker
sudo systemctl start docker

```
ubuntu@ip-172-31-18-108:~$ sudo apt install docker.io -y
Reading package lists... Done
```

Modify Permissions



Description:

Allows running Docker without sudo every time.



Command:

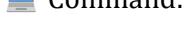
- sudo usermod -aG docker \$USER
- Sudo chmod 666 /var/run/docker.sock
- `ubuntu@ip-172-31-18-108:~$ sudo chmod 666 /var/run/docker.sock`

Interactive Mode



Description:

Runs a container interactively with a terminal.



Command:

- docker run -it ubuntu /bin/bash

```
ubuntu@ip-172-31-18-108:~$ docker run -it nginx /bin/bash
```

Detached Mode

Description:

Runs a container in the background.

Command:

- docker run -d nginx

```
ubuntu@ip-172-31-18-108:~$ docker run -dt nginx:latest
la53b78b9b7f422dd17fcc3388cdb84a8aa758215580496f94ac8e4ccd1cd3b5
ubuntu@ip-172-31-18-108:~$ docker run -d nginx
9abe5664320e3ecfaf915cb745b6102606d5ccbe3a28c1bd050cded0821c8644
ubuntu@ip-172-31-18-108:~$ docker ps
CONTAINER ID    IMAGE          COMMAND           CREATED        STATUS        PORTS
5 NAMES
9abe5664320e   nginx         "/docker-entrypoint..."   16 seconds ago   Up 15 seconds   80/tcp
cp   awesome_kirch
la53b78b9b7f   nginx:latest  "/docker-entrypoint..."   44 seconds ago   Up 43 seconds   80/tcp
cp   elegant_jennings
ubuntu@ip-172-31-18-108:~$
```

Pull Nginx Image



Description:
Downloads the Nginx image from Docker Hub.



Command:

- docker pull nginx

```
ubuntu@ip-172-31-18-108:~$ docker pull nginx
```

Run Container



Description:

Creates and runs a container from an image.



Command:

- `docker run --name mynginx -d -p 8080:80 nginx`

List Images



Description:
Displays all Docker images on the system.



Command:
• docker images

Start Docker Service



Description:
Starts the Docker service.



- Command:
- sudo systemctl start docker

```
elegant_jennings$  
ubuntu@ip-172-31-18-108:~$ docker start awesome_kirch  
awesome_kirch  
ubuntu@ip-172-31-18-108:~$ docker ps  
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS  
 NAMES  
9abe5664320e nginx "/docker-entrypoint...." 6 minutes ago Up 6 seconds 80/tcp  
 awesome_kirch  
1a53b78b9b7f nginx:latest "/docker-entrypoint...." 7 minutes ago Up 7 minutes 80/tcp  
 elegant_jennings
```

Enable Docker



Description:
Enables Docker to start on boot.



Command:

- `sudo systemctl enable docker`

Inspect Container



Description:
Shows detailed information about a container.



Command:

- docker inspect mynginx

```
ubuntu@ip-172-31-18-108:~$ docker inspect 9abe5664320e
[
  {
    "Id": "9abe5664320e3ecfaf915cb745b6102606d5ccbe3a28c1bd050cded0821c8644",
    "Created": "2025-11-11T10:57:11.803174294Z",
    "Path": "/docker-entrypoint.sh",
    "Args": [
      "nginx",
      "-g",
      "daemon off;"
```

Stop Container



Description:

Stops a running container.



Command:

- docker stop mynginx

```
ubuntu@ip-172-31-18-108:~$ docker stop awesome_kirch
awesome_kirch
ubuntu@ip-172-31-18-108:~$ docker ps
CONTAINER ID        IMAGE               COMMAND
```

Start Container



Description:
Restarts a previously stopped container.



- docker start mynginx

```
elegant_jennings$  
ubuntu@ip-172-31-18-108:~$ docker start awesome_kirch  
awesome_kirch  
ubuntu@ip-172-31-18-108:~$ docker ps  
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS  
 NAMES  
9abe5664320e nginx "/docker-entrypoint...." 6 minutes ago Up 6 seconds 80/tcp  
 awesome_kirch  
1a53b78b9b7f nginx:latest "/docker-entrypoint...." 7 minutes ago Up 7 minutes 80/tcp  
 elegant_jennings
```

Kill Container

■ Description:

Forcefully stops a running container.

■ Command:

- docker kill mynginx

```
ubuntu@ip-172-31-18-108:~$ docker kill elegant_jennings
elegant_jennings
ubuntu@ip-172-31-18-108:~$ docker ps -a
```

Remove Container

■ Description:

Removes a stopped container.

■ Command:

- docker rm mynginx

```
ubuntu@ip-172-31-18-108:~$ docker rm -f awesome_kirch
awesome_kirch
```

Force Remove Container

■ Description:

Forcefully removes a running container.

■ Command:

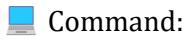
- docker rm -f mynginx

```
ubuntu@ip-172-31-18-108:~$ docker rm -f awesome_kirch
awesome_kirch
```

Prune Unused Images



Description:
Deletes unused Docker images.



Command:
• docker image prune -a

```
ubuntu@ip-172-31-18-108:~$ docker image prune -a
WARNING! This will remove all images without at least one container associated to them.
Are you sure you want to continue? [y/N] y
Total reclaimed space: 0B
```

Summary

Command	Purpose
apt update	Updates package list
apt install docker.io	Installs Docker
usermod -aG docker \$USER	Modify permissions
docker run -it	Interactive mode
docker run -d	Detached mode
docker pull nginx	Pull Nginx image
docker run	Run container
docker images	List images
systemctl start/enable docker	Start/enable Docker
docker inspect	Inspect container
docker stop/start/kill/rm	Manage containers
docker image prune	Clean unused images