



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
a53b78b9b7f422dd17fcc3388cdb84a8aa758215580496f94ac8e4ccd1cd3b5
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/t
cp_awesome_kirch
a53b78b9b7f    nginx:latest  "/docker-entrypoint..." 44 seconds ago Up 43 seconds 80/t
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": "9abe5664320e3ecfaf915cb745b6102606d5ccb3a28c1bd050cded0821c8644",
    "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`

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

Start Container



Description:

Restarts a previously stopped container.



Command:

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