Docker Cmds

Basic Commands

`docker --version`

`docker search <image/image:tag>`

`docker pull <image/image:tag>`

`docker images`

`docker ps`

`docker ps -a`

`docker rm <containerID>`

`docker rm -f <containerID>`

`docker rm -f $(docker ps -aq)`

`docker rmi <imageID/Name>`

`docker rmi -f $(docker images)`

Once docker is installed we can see the version:

```
root@ubuntu22:~# docker --version
Docker version 23.0.3, build 3e7cbfd
```

To see the list of available images on our host:

```
root@ubuntu22:~# docker images
REPOSITORY       TAG       IMAGE ID       CREATED        SIZE
website-ssl      latest    26a6015f3619   26 hours ago   291MB
website          1.0       2d7bde687665   27 hours ago   239MB
ubuntu/apache2   latest    edd92437b7eb   3 weeks ago    179MB
ubuntu           latest    08d22c0ceb15   5 weeks ago    77.8MB
```

To see active containers or containers that are running:

```
root@ubuntu22:~# docker ps
CONTAINER ID   IMAGE         COMMAND                  CREATED        STATUS        PORTS
af14a5dce9b0   website-ssl   "apache2-foreground"   18 hours ago   Up 18 hours   0.0.0.0:80->80/tcp, :::80->80/tc
```

To see all containers including running or exited:

```
root@ubuntu22:~# docker ps -a
CONTAINER ID   IMAGE         COMMAND                  CREATED         STATUS                       PORTS
aa57b8ddd861   ubuntu        "/bin/bash"              9 minutes ago   Exited (127) 5 minutes ago
```

```
af14a5dce9b0   website-ssl   "apache2-foreground"   18 hours ago    Up 21 seconds               0.0.0.0:80->80/t

```

Stop and Start a Container:

```
docker stop af14a5dce9b0
docker start af14a5dce9b0
```

Running containers in attached mode:

We get the shell of the container

```
root@ubuntu22:~# docker run -it ubuntu
root@5d1274eb7a19:/#
```

You can see that we are now inside the container.

To confirm find the container os version: `cat /etc/os-release`

Come out of container:

There are 2 ways:

1. `exit` will get you of the container and also exits the container
2. `Control p`, `Control q`

Verify with `docker ps`

Removing a container:

Before removing a container you ensure the container is stopped.

You can use `docker stop <containerID>`

```
docker rm <containerID>
docker rm -f <containerID>
docker rm -f $(docker ps -aq)
```

Running containers in attached mode:

In Detached mode we don't get the shell of the container. But the container still run in the back.

```
root@ubuntu22:~# docker run -itd ubuntu
669e377f2e1a7bb596730a2e4b7352f49d62ea3425bb35ff5cc42878e5ae4510
```

Observe the difference between:

`docker run -itd --name c1 ubuntu`

`docker run -d --name c2 ubuntu`

Giving a name to the container:

```
docker run --name test-container ubuntu
```

Attaching to a container:

To attach to a container firstly the container should be in running state.

```
root@ubuntu22:~# docker start aa57b8ddd861
aa57b8ddd861
root@ubuntu22:~# docker attach aa57b8ddd861
root@aa57b8ddd861:/#
```

You again get the shell of the container.

Docker version

```
docker --version
```

List images

```
docker images
```

Pull image from docker hub

```
docker pull debian
```

Inspect image

```
docker image inspect debian
```

Run a container

```
docker run debian
```

List containers running

```
docker ps
```

List all containers

```
docker ps -a
```

Run a container in attached mode and access bash shell

```
docker run -i -t debian /bin/bash
```

Exit the continer without stopping it

```
Control+p Control+q
```

Run a container in detached mode

```
docker run -d httpd
```

Running a command remotely on a container

```
docker exec 04bd6e58dae1 env
```