

# Practice Docker Commands

**Due** No Due Date      **Points** 0



You must use elevated shell (CMD, POWER, BASH)



You need to add "sudo", stands for **switch user and do**, at the beginning of each command

## Stop and Remove ALL containers

```
docker stop $(docker ps -aq); docker rm $(docker ps -aq)
```

## Stop ALL containers

```
docker stop $(docker ps -a -q)
```

## Remove ALL containers

```
docker rm -f $(docker ps -a -q)
```

## For Containers :

```
docker stop $(docker ps -qa)
docker rm $(docker ps -qa)
```

For Images : `docker rmi $(docker images -qa)` `docker images` `docker rmi -f b00ea124ed62529165268aa20c45f7936948` `docker images`

Volume Example usage:

```
docker run -v c:\ContainerData:c:\data:RO for read-only access
docker run -v c:\ContainerData:c:\data:RW for read-write access
docker run -v c:\ContainerData:c:\data for read-write access (default)

docker run -itd -p 8030:80 -m 1GB --name nginx1 -v c:/html:/usr/share/nginx/html nginx

docker run -itd -p 8040:80 -m 1GB --name nginx2 -v c:/html:/usr/share/nginx/html:ro nginx:v2
```

## Docker run :

### --privileged

```
$ docker run -t -i --rm ubuntu bash
root@bc338942ef20:/# mount -t tmpfs none /mnt
```

mount: permission denied

```
$ docker run -t -i --privileged ubuntu bash
root@50e3f57e16e6:/# mount -t tmpfs none /mnt
root@50e3f57e16e6:/# df -h
```

Filesystem	Size	Used	Avail	Use%	Mounted on
none	1.9G	0	1.9G	0%	/mnt

### -w

```
$ docker run -w /path/to/dir/ -i -t ubuntu pwd
```

The -w lets the command being executed inside directory given, here /path/to/dir/.

Note : If the path does not exist it is created inside the container.

```
docker run -itd -p 8050:80 -m 1GB --name nginx3 -w //usr//share//nginx//html -v c:/html:/usr/share/nginx/html nginx
```

### -e, --env, --env-file

```
$ docker run -e MYVAR1 --env MYVAR2=foo --env-file ./env.list ubuntu bash
```

```
$ docker run --env VAR1=value1 --env VAR2=value2 ubuntu env | grep VAR
VAR1=value1
VAR2=value2
```

### Limiting Memory

```
$ docker run -d -p 8081:80 --memory=20m --memory-swap=20m nginx
```

```
$ docker container run -d --memory-reservation=250m --name mymem1 alpine:3.8 sleep 3600
```

### Limiting CPU

#### --cpus

Docker 1.13 and higher:

```
$ docker run -it --cpus=".5" ubuntu /bin/bash
```

Docker 1.12 and lower:

```
$ docker run -it --cpu-period=100000 --cpu-quota=50000 ubuntu /bin/bash
```

```
$ docker run -it --cpus-shares="512" ubuntu /bin/bash
```

## docker stats :

```
$ docker stop $(docker ps -aq); docker rm $(docker ps -aq)
```

```
$ docker run -itd -p 8030:80 --name nginx7 -v c:/html:/usr/share/nginx/html:ro nginx:v2
```

```
$ docker stats
```

CONTAINER ID	NAME	CPU %	MEM USAGE / LIMIT	MEM %	NET I/O
BLOCK I/O	PIDS				

779eb8148aa7	nginx7	0.00%	1.914MiB / 8.75GiB	0.02%	906B / 0B
0B / 4.1kB	2				

Create and start a container \$ docker create -t -i fedora bash

6d8af538ec541dd581ebc2a24153a28329acb5268abe5ef868c1f1a261221752

```
$ docker start -a -i 6d8af538ec5
bash-4.2#
```

Copy :

Copy a file from host to container:

```
docker cp Dockerfile 779eb8148aa7:/tmp/Dockerfile
docker exec -it 779eb8148aa7 //bin/bash
docker cp Dockerfile 779eb8148aa7:/tmp/Dockerfile123
docker exec -it 779eb8148aa7 //bin/bash
```

Copy a file from Docker container to host:

```
docker cp 779eb8148aa7:/tmp/Dockerfile123 Dockerfile_Delete
```

Copy a Folder from host to container:

```
docker cp /home/captain/my_dir ubu_container:/home
docker cp ubu_container:/home/my_dir /home/captain
```

Logs : \$ docker logs 779eb8148aa7 --follow