

# Docker Cheat-Sheet

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|--|--------------------------------------|
|  sudo usermod -aG docker \$USER | : to run command as a non-root user. |
|  docker version                 | : shows the installed docker version |
|  service docker start           | : start docker service               |

## Basic info

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|--------------------|---|
| ❖ docker ps        | : lists only running containers                             |
| ❖ docker ps -a     | : shows all containers includes created, running, exited.   |
| ❖ docker images -a | : lists all images created                                  |
| ❖ docker logs      | : shows the logs of container                               |
| ❖ docker inspect   | : view detail information about a image or a container      |
| ❖ docker stats     | : view resource usage statistics for one or more containers |
| ❖ docker port      | : list the port mappings for a container                    |
| ❖ docker top       | : to view the processes inside a container                  |

## Manage images and containers

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|--|---|
| ✓ docker build -t [tag name] [directory]           | : build a new docker image                                      |
| ✓ docker run [image]                               | : starts a new container from an image                          |
| ✓ docker run --name [container] [image]            | : assign a name of container                                    |
| ✓ docker run -d [image]                            | : starts a container in backend                                 |
| ✓ docker run -p [Hostport:Containerport] [image]   | : map all ports to container                                    |
| ✓ docker run -it [image]                           | : interact with the image through command line                  |
| ✓ docker run -e [my Var=my prop] [image]           | : specify an environmental variable for a docker container      |
| ✓ docker exec -it [container-ID/name] [executable] | : start a shell or entering inside a running container          |
| ✓ docker rename [old name] [newname]               | : rename the container  |
| ✓ docker save [image] > [archive file] or          |   |
| ✓ docker save -o [archive file] [image]            | : save an image to a tar archive                                |
| ✓ docker commit [image] [image name]               | : save a running docker container as an image                   |
| ✓ docker load -i [archive file]                    | : load an image to a tar archive                                |
| ✓ docker start [container]                         | : start the exited container                                    |
| ✓ docker stop [container]                          | : stop the running container                                    |
| ✓ docker kill [container]                          | : forced shutdown of running container                          |
| ✓ docker rm  | : delete the exited container                                   |
| ✓ docker rm -f                                     | : deleted running container forcefully &                        |
| dangling containers                                |   |
| ✓ docker rm \$(docker ps -a -q)                    | : removes all running container                                 |
| ✓ docker rmi [image]                               | : removes a docker image  |
| ✓ docker rmi \$(docker images -q)                  | : removes all docker images                                     |
| ✓ docker system prune                              | : removes all dangling containers, unused images and containers |
| ✓ docker login                                     | : login cli session with registry like Docker                   |
| hub using credentials                              |   |
| ✓ docker remote -v                                 | : lists out remote docker host                                  |

- ✓ docker push [username/repository: tag] : upload images to registry
- ✓ docker tag [image] [username/repository: tag] : set the tag for images pushed to Docker hub
- ✓ docker pull [username/repository: tag] : download images from registry

### **Docker-Compose, Volumes & Network**

- docker compose build : build containers running from a directory of your docker-compose.yml file
- docker compose up -d : start multiple containers at once
- docker compose down : stop all running containers and also remove them
- docker compose logs : shows the logs of running containers with docker compose
- docker compose -d --scale up [service]=[no. of times] : scale up the services or containers with limited times as prescribed in Yaml file
- docker service [service] --replicas [no. of times] [image] : autoscaling services with set number of times
- docker volume create [volume] : create a volume in the machine
- docker run -v [HostDir:TargetDir] -it [container] [image]: connect a container to a volume or mapping local directory with a docker container
- docker volume rm [volume] : remove unused volume from machine
- docker volume ls : lists all volumes
- docker volume inspect [volume] : inspects the volume

### **Docker Swarm**

- docker swarm init : enable first node of docker system
- docker swarm join --token [token] --listen -addr [ip:port] : add a node to a swarm cluster
- docker swarm join-token : retrieve the join token
- docker node ls : list nodes in a cluster
- docker node rm [node-name] : remove a node from swarm cluster
- docker service ls : list services in docker swarm
- docker service ps [service] : list containers in a service
- docker service rm [service] : remove a service