AFRIDYNE SYSTEMS · LINUX CHEAT SHEET

Docker Cheat Sheet

The Docker and Compose commands we use most, with a section for Windows in a container.

Updated November 2026 · Docker Engine and Compose v2 · print-friendly

The Docker commands we reach for most. Add `sudo` if you are not in the `docker` group. New to Docker? Start with the full guide. This page prints cleanly if you want a paper copy.

Run and manage containers

Command	What it does
`docker run -d --name web -p 8080:80 nginx`	Start a container in the background, named *web*, with port 8080 on your computer pointing to its port 80.
`docker run --rm -it alpine sh`	Throw-away container with a shell. It is deleted when you exit.
`docker ps`	List running containers. Add `-a` to include stopped ones.
`docker logs -f web`	Follow a container's log live. `--tail 50` shows the last 50 lines.
`docker exec -it web sh`	Open a shell inside a running container.
`docker stop web`	Stop it. Also `start` and `restart`.
`docker rm web`	Delete a stopped container. `rm -f` stops and deletes.
`docker stats`	Live CPU and memory use per container.
`docker inspect web`	Everything Docker knows about it: ports, mounts, IP address.
`docker cp web:/etc/nginx/nginx.conf .`	Copy a file out of a container.

Images

Command	What it does
`docker pull nginx`	Download or update an image.
`docker images`	List images on this machine.
`docker rmi nginx`	Delete an image (no container may be using it).
`docker image prune -a`	Delete every image not used by a container.
`docker search nginx`	Search Docker Hub. Check the publisher before you trust it.

Compose

Run these in the folder that holds `compose.yaml`.

Command	What it does
`docker compose up -d`	Create and start everything. Run it again after editing the file to apply changes.
`docker compose ps`	Status of this project's containers.
`docker compose logs -f`	Follow the logs of all services. Add a service name to narrow it.
`docker compose pull`	Fetch newer images. Follow with `up -d` to update.
`docker compose restart`	Restart the services.
`docker compose exec app sh`	Shell in the service named *app*.
`docker compose config`	Check the file for mistakes and show the result.

Command	What it does
`docker compose down`	Stop and remove the containers. Volumes and `./data` folders are kept.
`docker compose down -v`	As above **and delete the named volumes**. Your data. Use with care.

Volumes and networks

Command or setting	What it does
`docker volume ls`	List named volumes.
`docker volume inspect NAME`	Show where a volume lives on disk.
`docker network ls`	List networks. Containers in one Compose project share one by default.
`- ./data:/app/data`	In compose.yaml: keep the container's `/app/data` in `./data` beside the file.
`- "127.0.0.1:3001:3001"`	In compose.yaml: publish a port to this computer only. Without the `127.0.0.1:` it is open to the network and can bypass `ufw`.

Clean up

Command	What it does
`docker system df`	How much disk Docker is using.
`docker system prune`	Delete stopped containers, unused networks and dangling images. It asks first.
`docker builder prune`	Delete the build cache.
`sudo systemctl status docker`	Is the Docker service itself running?
`journalctl -u docker -b`	The Docker service's own log since boot.

Windows in a container (dockur/windows)

Item	What it means
`ls -l /dev/kvm`	Must exist. No KVM, no Windows container.
`image: dockurr/windows`	The image. Needs `/dev/kvm`, `/dev/net/tun` and `NET_ADMIN`.
`VERSION: "11"`	Which Windows to install. Other values include `10` and several Server releases.
`RAM_SIZE, CPU_CORES, DISK_SIZE`	Defaults are 4G, 2 cores and 64G.
`http://localhost:8006`	Browser view, mainly for the install. Use RDP on port 3389 afterwards.
`./shared:/shared`	A folder shared with Windows, shown as *Shared* on the desktop.

> **A good first move** on any container that will not behave: `docker compose ps` for the state, then `docker compose logs --tail 50` for the reason.