DOCKER COMMANDS CHEAT SHEET

> Use this cheat sheet to master Docker quickly. All commands tested on Linux (Ubuntu) \ Keep this handy for Docker project setups, DevOps labs, or container troubleshooting.

Installation & Setup

```
sudo apt update && sudo apt install docker.io
```

Updates the system and installs Docker

Container Commands

```
docker ps                  # Show running containers
docker ps -a               # Show all containers (even stopped)
docker run mysql:latest    # Run container from image
docker run --name mydb -v mysql-data:/var/lib/mysql mysql
```

Use `--name` to name your container\ `-v` is for volume (data persistence)

```
docker stop <id>           # Stop container
docker start <id>          # Start container
docker restart <id>        # Restart container
docker pause <id>          # Pause container
docker unpause <id>        # Unpause container
docker rm <id>             # Remove container
docker kill <id>           # Force stop container
```

Images

```
docker pull ubuntu         # Get image from Docker Hub
docker push myimg          # Push image to your registry
docker images              # List all images
docker rmi <image_id>      # Delete an image
docker tag old new:tag     # Tag image
```

Build & Dockerfile

```
docker build -t myapp:latest .
```

Builds image from Dockerfile in current folder

Volumes (Data Persistence)

```
docker volume ls
docker volume create mysql-data
docker volume inspect mysql-data
docker volume rm mysql-data
```

Networks

```
docker network ls
docker network create mynetwork
docker network connect mynetwork <container>
docker network disconnect mynetwork <container>
```

Default networks:

- `bridge` - default
- `host` - shares host ports
- `none` - no networking
- `custom bridge` - your own network setup

Container Info & Logs

```
docker logs <id>              # View container logs
docker inspect <id>           # Deep info about container
docker exec -it <id> bash     # Run command inside container
docker port <id>              # Show port mappings
docker cp file.txt <id>:/app  # Copy files to/from container
```

Export/Import

```
docker export <id> > file.tar
docker import file.tar
docker save myimg > image.tar
docker load < image.tar
```

Monitoring

```
docker stats         # Resource usage (CPU/RAM)
docker top <id>      # Processes inside container
docker diff <id>     # Files changed inside container
docker events        # Docker event stream
docker history <img> # Image build history
```

Other Useful Stuff

```
docker commit <id> newimg       # Save changes as new image
docker login/logout             # Login to Docker Hub
docker wait <id>                # Wait for container exit
docker attach <id>              # Attach to container terminal
docker system prune             # Clean up everything
docker system df                # Show Docker space usage
```

Advanced Tools

```
docker buildx                 # Multi-platform builds
docker compose up             # Run multi-container apps (docker-compose.yml)
docker swarm init             # Cluster management (Swarm mode)
```

System Info

```
docker system info
docker system events
```

```
docker system version
docker system inspect
```
