

# **Docker Cheat Sheet:**

## **100 Essential Commands**

# 1. Basic Commands

1. **docker --version** - Check Docker version .
2. **docker info** - View system-wide information .
3. **docker run** - Run a container from an image .
4. **docker ps** - List running containers .
5. **docker ps -a** - List all containers (including stopped ones) .
6. **docker images** - List all available images .
7. **docker pull** - Download an image from Docker Hub .
8. **docker start** - Start a stopped container .
9. **docker stop** - Stop a running container .
10. **docker rm** - Remove a container .

## 2. Working with Images

11. **docker build -t .** - Build an image from a Dockerfile .
12. **docker rmi** - Remove an image .
13. **docker tag <new\_tag>** - Add a new tag to an image .
14. **docker push** - Push an image to a registry .
15. **docker save** - Save an image to a tarball .
16. **docker load** - Load an image from a tarball .
17. **docker history** - Show the history of an image .
18. **docker inspect** - Display detailed information about an image .
19. **docker search** - Search Docker Hub for an image .
20. **docker image prune** - Remove unused images .

### 3. Container Management

21. **docker exec** - Run a command in a running container .
22. **docker attach** - Attach to a running container .
23. **docker logs** - View logs from a container .
24. **docker rename <old\_name> <new\_name>** - Rename a container .
25. **docker pause** - Pause a running container .
26. **docker unpause** - Unpause a paused container .
27. **docker top** - View processes in a container .
28. **docker kill** - Forcefully stop a container .
29. **docker update** - Update container settings .
30. **docker cp** - Copy files between a container and the host .

## 4. Networking Commands

31. **docker network ls** - List all networks .
32. **docker network create** - Create a new network .
33. **docker network inspect** - View detailed network information .
34. **docker network rm** - Remove a network .
35. **docker network connect** - Connect a container to a network .
36. **docker network disconnect** - Disconnect a container from a network .

## 5. Volumes and Storage

37. **docker volume create** - Create a new volume .
38. **docker volume ls** - List all volumes .
39. **docker volume inspect** - View detailed volume information .
40. **docker volume rm** - Remove a volume .
41. **docker system df** - Show Docker disk usage .
42. **docker system prune** - Remove unused resources (volumes, networks, etc.) .

## 6. Docker Compose Commands

43. **docker-compose up** - Start containers defined in a docker-compose.yml file .
44. **docker-compose down**-Stop and remove containers, networks, and volumes .
45. **docker-compose build** -Build images defined in a docker-compose.yml file .
46. **docker-compose ps** - List containers managed by Docker Compose .
47. **docker-compose logs** - View logs from containers managed by Compose .
48. **docker-compose restart** - Restart containers managed by Compose .
49. **docker-compose config**- Validate and view the Compose file configuration .
50. **docker-compose stop** - Stop running containers without removing them .

## 7. Docker Swarm and Orchestration

51. **docker swarm init** - Initialize a Docker Swarm .
52. **docker swarm join** - Join an existing Swarm as a node .
53. **docker swarm leave** - Leave the Swarm .
54. **docker node ls** - List nodes in the Swarm .
55. **docker service create** - Create a service in Swarm mode .
56. **docker service ls** - List all services in the Swarm .
57. **docker service ps** - List tasks for a service .
58. **docker service scale =** - Scale a service to the specified number of replicas .
59. **docker service rm** - Remove a service .
60. **docker stack deploy -c** - Deploy a stack using a Compose file .
61. **docker stack ls** - List all stacks .
62. **docker stack services** - List services in a stack .
63. **docker stack rm** - Remove a stack .

## 8. Debugging and Monitoring

- 64. **docker stats** - Display real-time resource usage for containers .
- 65. **docker events** - View real-time events from the Docker daemon .
- 66. **docker inspect** - Display detailed information about a container .
- 67. **docker logs --tail** - Show the last n lines of container logs .
- 68. **docker diff** - Show changes in a container's filesystem .
- 69. **docker system events** - View real-time Docker system events .

## 9. Advanced Container Commands

- 70. **docker commit <new\_image>** - Create a new image from a container .
- 71. **docker export** - Export a container's filesystem as a tarball .
- 72. **docker import** - Import a tarball as an image .
- 73. **docker checkpoint create** - Create a checkpoint for a container .
- 74. **docker checkpoint ls** - List checkpoints for a container .
- 75. **docker checkpoint rm** - Remove a checkpoint .

## 10. Security and Access Control

- 76. **docker login** - Authenticate with a Docker registry .
- 77. **docker logout** - Log out from a Docker registry .
- 78. **docker secret create** - Create a secret from a file .
- 79. **docker secret ls** - List all secrets .
- 80. **docker secret rm** - Remove a secret .
- 81. **docker config create** - Create a configuration file .
- 82. **docker config ls** - List all configuration files .
- 83. **docker config rm** - Remove a configuration file .

## 11. Troubleshooting Commands

- 84. **docker container ls -q** - List container IDs only .
- 85. **docker container prune** - Remove all stopped containers .
- 86. **docker image prune -a** - Remove all unused images .
- 87. **docker logs --follow** - Stream container logs .
- 88. **docker top** - Show running processes inside a container .
- 89. **docker system df** - Display disk usage for Docker .
- 90. **docker service logs** - Display logs for a service in Swarm mode .

## 12. Miscellaneous Commands

91. **docker context create** - Create a Docker context .
92. **docker context ls** - List all Docker contexts .
93. **docker context use** - Switch to a specific Docker context .
94. **docker image ls --filter** - List images based on a filter .
95. **docker volume prune** - Remove unused volumes .
96. **docker container rename <old\_name> <new\_name>** - Rename a container.
97. **docker container stop \$(docker container ls -q)** - Stop all running containers.
98. **docker container exec -it <container> bash** - Access a running container's shell.
99. **docker container update --cpus <value> <container>** - Limit a container's CPU usage.
100. **docker container update --memory <value> <container>** - Limit a container's memory usage.

**Happy Learning**

