

300 Interview Questions , Challenges for Docker , Docker Swarm, Docker Certified Associate Exam-Part 1/20



Gandhi Kumarasamy Sezhian

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From the Book -**Prove Yourself as a PRO in Docker & Docker Swarm: 700+ Challenges, Interview Questions in Docker, Docker Swarm & Docker Certified Associate Certification Exam**

The book is available for just \$1 from <https://payhip.com/b/JXRr>

1. A well-known claim is that Docker is not suitable for Databases, mainly due to performance considerations. What is your view on this?

Can by using volumes/tmpfs mount this issue can be solved?

What are the key pros and cons of using Docker for Databases?

Also Explain whether dockerizing is necessary for a BigData Environment like Apache Hadoop or Spark?

2. Explain how to keep the containers alive, even when the Docker Daemon is down

3. What are Google's Distroless images? What is the difference between it and Alpine distribution in terms of software's bundled?

4. How to view the logs for the last 1 hour, logs for a particular date, tail the log of a container continuously?

5. Explain how to launch GUI applications from container?For instance, explain how to run a Javafx or Python desktop application on the host machine from the container, so that containers can be used for software distribution.Is it possible to distribute Desktop apps using Docker?

6. How to get the IP address and gateway details of the container? List 5 ways to get it.
7. How to start Containers that will run as user with normal Privileges and not as Root user?
8. What is the key issue addressed by using docker run command with option **-device- write-bps**
9. What is the Command to list all the ports used by a container? How to list all the Mapped ports in a container? List at least two ways to do it
10. Explain in detail about the Dockers file system? What is UFS? Also explain about the snapshotting FS and VFS and their use case scenarios
11. What is meant by topology awareness? List few products that are topology aware for Rack, zone, region for a Docker based environment

12. Answer the below simple Questions

- a. Why layers are important in Docker?
- b. What are the commands that will create layers?
- c. How to list the Docker layers of a Container?
- d. Where layers can be physically located?
- e. What is aufs and how it is related to layers in Docker?

13. Answer the below simple Questions

- a. What is the difference between *docker ps* and *dockerps-a* commands?
- b. How to list the non-running containers?
- c. How to list containers that are using redis image?

14. Answer the below simple Questions

- a. How to list the containers that exit before last 30 minutes?
- b. How to list containers that have ports 80 and 443 published?

c. How to list containers with their commands?

15. Answer the below simple Questions

a. How to copy Docker images between hosts? What are the different ways to do the same?

b. Like using volumes what are the otherways to handle persistent data in containers?

c. Explain about docker-default profile and the steps to create a new profile with different set of permissions

16.Explain the simple commands listed below

`docker diff 1bgh67f789c1b`

`docker container ls -a`

`docker container ls`

`docker container ls -h`

`docker ps—last 5—quiet`

`docker ps—latest`

`docker ps—all—format {{.ID}}`

`docker ps -s`

`docker ps -n=-1`

`docker ps -l`

`docker ps -aq`

`docker ps -aq—no-trunc`

`docker container list`

`docker ps—format 'table {{.Names}}\t{{.Image}}'`

```
docker container ls -a -q --filter=name=redis docker ps --filter  
publish=8080
```

```
docker ps --filter expose=80-443/tcp
```

17. Explain the below simple commands

```
docker images purge
```

```
docker image prune -a
```

```
docker container prune --filter "until=1h"
```

```
docker network prune
```

```
docker volume prune --filter "label!=cache"
```

```
docker system prune --volumes
```

```
docker images -f dangling=true
```

```
docker ps -a -f status=exited
```

```
docker rm $(docker ps -a -f status=exited -q)
```

```
docker rm $(docker ps -a -f status=exited -f status=created -q) docker  
system prune --all --force --volumes
```

```
docker system prune -a -f --volumes
```

18. Explain the below simple commands

```
docker rm $(docker ps -a | grep "24 hours ago")
```

```
docker rm $(docker ps -a | grep redis | awk '{print $1}')
```

```
docker container ls -f 'status=exited' -f 'status=dead'
```

```
docker container rm $(docker container ls -q -f 'exited=0')
```

```
docker container ls --filter volume=remote-volume --format "table \\\n{{.ID}}\t{{.Mounts}}"
```

```
docker container ls—filter volume=/apl/data—format “table \
{{.ID}}\t{{.Mounts}}”
```

```
docker container ls—format “{{.ID}}: {{.Command}}”
```

19. Answer the below simple interview Questions

- a. How many Containers you had in your Production?
- b. Explain about your Production environment and deployment life cycle?
- c. How the services are linked in older versions of docker and in Newer versions?
- d. Do you used EE or CE edition?Why?
- e. Have you used Plugins for volumes and logging?Explain in detail about their performance and the issues faced.

20. How to set the docker daemon to listen to a TCP socket & what is the importance of port 2376? What is the role of /var/run/docker.sock? Can an application in a Docker container can access the /var/run/docker.sock file?

21. Mention 5 Docker Best Practices similar to this one—Single application per container

22. In the output of docker info command, the below is observed. How to fix this? WARNING: No memory limit support

23. Explain in detail about Docker image forgery, reply attack and how to proactively prevent them? Have you used Notary in your projects? How does signer, client, server interact in Notary?What is a root key and the different type of keys involved in a transaction?

24. Demo how the flatten a Docker image to remove history of layers associated with the image? What are the different ways to do it and why it is important for securing information?

How to remove only selected layers?

Have you used Dockviz?

25. What are data containers or Volume only containers? What are the pros and cons of using them?

Is it possible to access containers data from the host? If yes, what are the different ways to do it? What are named volumes?

26. Have you used tmpfs mount? When to use that?

Will it reside on container/Host memory? How to share them between containers? Is it possible?

For Swarm Services which option is recommended—tmpfs or—mount

Explain the below commands, their difference and purpose

```
docker run -d --read-only -it --tmpfs /appl/tmp voiptempdata docker run -d -it --name voiptempdata --mount type=tmpfs,destination=/appl/tmp voipasterix
```

27. When to use volumes and when to use Bind Mounts?

Explain about Docker Managed volumes & Bind mount volumes? What are their pros and cons?

Also Explain the below commands and their difference

```
docker run -d --name voipadcon -v /app/main:/app/main voip_asterix
docker run -d --name voipadcon -volume admin_data:/app/main voip_asterix
```

```
docker run -d --name voipadcon -v admin_data:/app/main:ro voip_asterix
docker run -d --name=voipadcon --mount source=admin-vol, destination=/app/main,readonly voipserver
```

28. Explain the below commands and their purpose

```
docker run -ti --name=voip1 -v voipdata:/datav voipserver
```

```
docker run -ti --name=voip2 --volumes-from voip1 voipserver
```

29. How will you see Docker events and filter Docker events for the last 1 hour?

30. When to use docker run command with **-memory-swap=0** option

