

## Interview Questions Docker

### 1) what is docker?

->a)docker is a container based technology to build , ship and run applications

b)reduce the resources and deployment is very fast.

### 2)what is difference between vm's and docker ?

-> VM level

(ubuntu) (cent os)

Guest os Guest os

| |

apps apps

| |

lib lib

Hypervisor

os

hardware

VM

Docker level

app app app

| | |

lib lib

docker

OS

Hardware

VirtualBox and VMWare are virtualization apps that create virtual machines that are isolated at the hardware level.but not share the libraries and it take lot of resources compare to less resource take docker applications ,its dedicted Guest OS.

Docker is a containerization app that isolates apps at software level. is the share the libraries one app to onother app.

If a VM is a house then a docker container is a hotel room.

### 3)what is dockerfile?

->a)A Dockerfile is a text file that defines a Build the Docker image

b) set of the dockerfile instructions. We can build the applications.

c) Dockerfile to create our own custom Docker image.

build -> ship(repo) -> run

image                      container

Dockerfile

FROM                      ubuntu

LABEL/MAINTAINER      vijay

ARG                      port:8080

ENV                      JAVA\_HOME=/bin

COPY                      <source><destination>

ADD                      <s><v>

RUN                      installation commands

EXPOSE                   ports are exposing

VOLUME                   persistence you want data

USER                      which you want use

WORKDIR

HEALTHCHECK

ONBUILD

CMD                      executable

#### **4) what is difference between the kill and stop?**

->there are two ways we can terminate our detached container

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1)killing it using the docker kill command

2)stopping it the docker stop command

the first one stops the container immediately by using the kill signal.

the second one is more graceful it sends a TERM signal after 10 seconds.if the container has not stopped .it sends kill.

#### **5)what is difference between Add and copy commands in a dockerfile?**

->COPY

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- 1)The COPY instruction copies files or directories into the Docker image.
- 2)It takes a src and destination as arguments.
- 3)Source can be absolute or relative from current WORKDIR or wild cards.
- 4)Destination path can be absolute or relative to current WORKDIR.

ADD

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- 1)The ADD instruction copies files, directories, remote file or tar archive into the Docker image.
- 2)It takes a src and destination as arguments.
- 3)Source can be files and directories.
- 4)Source can be a URL. The ADD instruction will download the file from the URL and save it to the destination. We don't need to use curl or wget to download a file.
- 5)Source can be a local tar/zip archive. The ADD instruction will automatically extract it to the destination. We don't need to run unarchive commands manually.
- 6)Use ADD when you want download a file from a URL or extract local archive file.
- 7)this is use the multi-stage build purpose.

#### **6)what is difference between cmd and entriypoint?**

->ENTRYPOINT CMD RUN ->there are same purpose but run different

RUN ->build image time

ENTRYPOINT and CMD -> running container time

ENTRYPOINT -> we cant override the parameters .(running /bin/bash). it take fixed command.ownership

CMD -> we can override the parameters .(running /bin/bash) .many CMD are in Dockerfile but last CMD execute.

#### **7)which is the base image you will prefer your docker file ?**

->Alpine linux

#### **8) how login a running container?**

->1)Use docker ps to get the name of the existing container

2) Use the command `docker exec -it <container name> /bin/bash` to get a bash shell in the container.

**9) how to check live logs in docker containers?**

-> `docker logs -f --tail 10 container-id` . -> default give 10 logs

**10) how to check no. of containers running your machine?**

-> `docker ps`

**11) how to check stop and running containers ?**

-> `docker ps -a`

**12) what is port forwarding?**

-> `-p 8181:9090`

`<host port>:<container-port>`

**13) How to run a container in background?**

-> use the `-d` flag

with `-d` (detached mode)

**14) what is first line in a dockerfile? what are the commands have you used in your docker file ? FROM RUN CMD ENTRYPOINT label workdir COPY ADD EXPOSE VOLUME ENV ARG HEALTHCHECK.**

-> 1) The FROM line starts from a base image that gives you most of what you need,

then copies your code to the image

and runs a few commands to get dependencies and compile the app.

FROM	ubuntu
LABEL/MAINTAINER	vijay
ARG	port:8080
ENV	JAVA_HOME=/bin
COPY	<source><destination>
ADD	<s><v>
RUN	installation commands
EXPOSE	ports are exposing

VALUME            persistence you want data

USER            which you want use

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HEALTHCHECK

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CMD            executable

LABEL->The LABEL instruction adds metadata to an image.

**15) what is label in dockerfile?**

-> maintains of username

**16) what is docker tag ?**

-> Docker tags convey useful information about a specific image version/variant.

**17) How you store data persistently?**

-> volumes

**18) have you worked on docker volumes?**

-> -v hostmachie/path:container/data/path

**19) what is docker network ? types of networks ?**

-> primarily used to establish communication between Docker containers and the outside world via the host machine where the Docker daemon is running.

Docker supports different types of networks, each fit for certain use cases.

3 common docker network.

1) Bridge

2) host

3) none

**20) I have a one web application is running on one container and database is running in one container how you communicate these two containers?**

-> by attaching them to the same network

**21) where you are store docker images?**

-> Registry2

in real time -> AWS ECR

**22)how to run multiple containers at a time?**

->docker-compose

**23) what is difference between exec and attach ?**

-> docker exec executes a new command / create a new process in the container's environment, w

hile docker attach just connects the standard input/output/error of the main process(with PID 1) inside the container to corresponding standard input/output/error of current terminal

**24) what is save and load commands in docker?**

-> 1) docker run --volumes-from container1 --name container2

2)To share or back up our image, we use the docker save command

3)load command load an image or repository from a tar archive. It restores both images and tags.

docker load < compsetest\_web.tar