

Interview Questions: Fabric Network Setup

Q1	What is the entry point in a Docker?
Reference	https://docs.docker.com/engine/reference/run/#entrypoint-default-command-to-execute-at-runtime
Ans	<p>The 'entrypoint' of an image is similar to a 'command' because it specifies which executable should run when the container begins, but it is (purposely) difficult to override. The entrypoint gives the container its default nature or behaviour, so that when you initialise an entrypoint, you can run the container whenever needed, as if it were that binary.</p> <p>The command is as follows:</p> <p><code>--entrypoint=""</code>: Overwrite the default entrypoint set by the image.</p>

Q2	How will you mount a local directory to a Docker container?
Ans	<p>The local container can be mapped to the Docker under volumes, while defining the service for the container in the docker-compose.yml file. If the container is already running, then the following command can be used:</p> <pre>docker run -v /path/to/local/folder:/path/in/container -t testing</pre>

Q3	How will you remove the Docker running container?
Reference	https://linuxize.com/post/how-to-remove-docker-images-containers-volumes-and-networks/
Ans	<p>The Docker containers are not automatically removed when you stop them, unless you start the container by using the <code>--rm</code> flag.</p>

	You can remove one or more containers, or all the stopped containers, and use filters to remove the containers. The commands for all these three steps are mentioned in the reference link above.
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Q4	How will you tag the running Docker containers?
Reference	https://www.freecodecamp.org/news/an-introduction-to-docker-tags-9b5395636c2a/
Ans	The Docker tags convey useful information about a specific image version or variant. They are aliases to the ID of your image which often look like: f1477ec11d12. It is just a way of referring to your image. A good analogy is how Git tags refer to a particular commit in your history.

Q5	How to push a running Docker container to a Docker registry?
Reference	https://docs.docker.com/engine/reference/commandline/push/
Ans	It can be done by using the following command: docker push [OPTIONS] NAME: [TAG] Refer to the link above for more information on pushing.

Q6	What is the command to login in a running container?
Ans	There is a 'docker exec' command that can be used to connect to a container that is already running.

Q7	What is the use of the docker load and docker save commands?
Reference	https://pspdfkit.com/blog/2019/docker-import-export-vs-load-save/
Ans	To share or back-up your image, you will use the docker save command. The documentation describes save in the following manner:

	<p>docker save: Save one or more images to a tar archive. It contains all parent layers, and all tags along with their versions.</p> <p>To load an existing image, you will use the load command. The documentation describes load in the following way:</p> <p>docker load: Load an image or repository from a tar archive. It restores both the images and the tags.</p>
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Q8	What is the default Docker network driver while running a Docker image?
Ans	‘bridge’ is the default network driver. If you do not specify a driver, this is the type of network that you will create. The bridge networks are used when applications run in standalone containers that need to communicate.

Q9	What is the use of --memory-swap?
Reference	https://docs.docker.com/config/containers/resource_constraints/#--memory-swap-details
Ans	--memory-swap is a flag which is a modifier that only has meaning, if the memory is also set. Adding swap allows the container to write extra memory requirements to disk, when the container has consumed all the RAM that is available. There is a performance price for applications that swap memory to disk often.

Q10	What is the purpose of the 'expose' command?
Reference	https://docs.docker.com/engine/reference/builder/#expose
Ans	<p>EXPOSE <port> [<port>/<protocol>...]</p> <p>The 'expose' instruction informs the Docker that the container listens on the specified network ports at run-time. You can specify whether the port listens on TCP or UDP, and the default is TCP if the protocol is not specified.</p>

Q11	What is the difference between the 'copy' and 'add' commands in a Docker file?
Reference	https://stackoverflow.com/questions/24958140/what-is-the-difference-between-the-copy-and-add-commands-in-a-dockerfile
Ans	'copy' is the same as 'add', but without the tar and remote URL handling.

Q12	How will you monitor a Docker in production?
Reference	https://www.bmc.com/blogs/docker-monitoring-explained-monitor-containers-microservices/
Ans	<p>Docker monitoring refers to the activity of monitoring the performance of microservice containers in Docker environments. Monitoring is the first step towards optimising and improving performance.</p> <p>The detailed steps of how to monitor the Docker in production is listed in the reference link above.</p>

Q13	What is Docker swarm, and how can you balance the load in it?
Reference	https://www.sumologic.com/glossary/docker-swarm/
Ans	Docker swarm is a group of physical or virtual machines that are implementing the Docker application, and that have been configured to come together in a batch. Once a group of machines have been combined

	together, you can still run the Docker commands that you are used to, but they will be carried out by the machines in your cluster now. The activities of the batch are controlled by a swarm manager, and the machines that have joined the cluster are called nodes.
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Q14	How does CMD differ from the RUN parameters?
Ans	<p>The differences can be listed as follows:</p> <ul style="list-style-type: none">- RUN executes command(s) in a new layer and creates a new image. E.g. It is often used for installing software packages.- CMD sets default commands or parameters that can be overwritten from the command line when a Docker container runs.