

## MCQS INT332 - DEVOPS VIRTUALIZATION AND CONFIGURATION MANAGEMENT

<https://github.com/sauravhathi/lpu-cse/tree/master/Subjects/INT332%20-%20DEVOPS%20VIRTUALIZATION%20AND%20CONFIGURATION%20MANAGEMENT>

1. Docker is a container management service.

- A. TRUE
- B. FALSE
- C. Can be true or false
- D. Can not say

Ans: A Explanation: Docker is a container management service.

2. which of the following is/are keywords of Docker?

- A. develop
- B. ship
- C. run
- D. All the above

Ans: D Explanation: The keywords of Docker are develop, ship and run anywhere.

3. The initial release of Docker was in?

- A. 2011
- B. 2012
- C. 2013
- D. 2014

Ans: C Explanation: The initial release of Docker was in March 2013 and since then, it has become the buzzword for modern world development, especially in the face of Agile-based projects.

4. Which of the is true about Docker?

- A. Docker has the ability to reduce the size of development by providing a smaller footprint of the operating system via containers.
- B. Docker containers are pretty lightweight
- C. Docker are very easily scalable
- D. All the above

Ans: D Explanation: All of the above are true about docker.

5. Docker License is?

- A. Free
- B. Paid
- C. Both A and B
- D. None of the above

Ans: C Explanation: License: Free / Paid

6. Docker Written in?

- A. C
- B. C++
- C. Go
- D. Java

Ans: C Explanation: Written in: Go

7. Docker available in which of the following Operating system?

- A. Linux
- B. Windows
- C. macOS
- D. Linux, Windows, macOS

Ans: D Explanation: Operating system: Linux, Windows, macOS

8. Docker Original author is?

- A. Robert Griesemer
- B. Solomon Hykes
- C. Ken Thompson
- D. Rob Pike

Ans: B Explanation: Original author(s): Solomon Hykes

9. Docker Compose is used to define applications using multiple Docker containers.

- A. Yes
- B. No
- C. Can be yes or no
- D. Can not say

Ans: A Explanation: Yes, Docker Compose is used to define applications using multiple Docker containers.

10. Which of the following is the registry which is used to host various Docker images?

- A. Docker Engine
- B. Docker Hub
- C. Docker Compose
- D. None of the above

Ans: B Explanation: Docker Hub : This is the registry which is used to host various Docker images.

1. Docker \_\_\_\_\_ is used to run multiple containers as a single service.

- A. Hub
- B. Compose
- C. Cloud
- D. Logging

Ans: B Explanation: Docker Compose is used to run multiple containers as a single service.

2. which of the following is used to check docker-compose version?

- A. compose version
- B. docker version
- C. docker-compose version
- D. None of the above

Ans: C Explanation: docker-compose version is used to check docker-compose version.

3. version is used to specify that we want the details of the version of Docker Compose.

- A. TRUE
- B. FALSE
- C. Can be true or false
- D. Can not say

Ans: A Explanation: True, version is used to specify that we want the details of the version of Docker Compose.

4. \_\_\_\_\_ is native clustering for Docker. It turns a pool of Docker hosts into a single, virtual Docker host.

- A. Docker Hub
- B. Docker Swarm
- C. Docker Compose
- D. None of the above

Ans: B Explanation: Docker Swarm is native clustering for Docker. It turns a pool of Docker hosts into a single, virtual Docker host.

5. Docker \_\_\_\_\_ is used to run multiple containers as a single service.

- A. Docker Hub
- B. Docker Swarm
- C. Docker Compose
- D. All the above

Ans: A Explanation: Docker hub is used to run multiple containers as a single service.

- A. docker push myorg/img
- B. /var/lib/docker/volumes
- C. systemctl start/stop docker

D. `docker-compose -f docker-compose.json up`

Ans: D Explanation: `docker-compose -f docker-compose.json up` to use JSON instead of YAML compose file

7. Which of the following is the native clustering for Docker?

- A. Docker Hub
- B. Docker Swarm
- C. Docker Compose
- D. Docker Cloud

Ans: B Explanation: Docker Swarm is the native clustering for Docker.

8. Which of the following is a text document that contains all the commands a user could call on the command line to assemble an image?

- A. Docker Cloud
- B. Dockerfile
- C. Docker Kitematic
- D. Docker Compose

Ans: B Explanation: Dockerfile is a text document that contains all the commands a user could call on the command line to assemble an image

9. The `image` keyword is used to specify the image from dockerhub for our mysql and nginx containers

- A. TRUE
- B. FALSE
- C. Can be true or false

D. None of the above

Ans: A Explanation: True, The image keyword is used to specify the image from dockerhub for our mysql and nginx containers.

10. The database and web keyword are used to define two separate services.

A. Yes

B. No

C. Can be yes or no

D. Can not say

Ans: A Explanation: Yes, The database and web keyword are used to define two separate services.

1. \_\_\_\_\_ are instances of Docker images that can be run using the Docker run command.

A. Hub

B. Container

C. File

D. Cloud

Ans: B Explanation: Containers are instances of Docker images that can be run using the Docker run command.

2. Running of containers is managed with the Docker \_\_\_\_\_ command.

A. CREATE

B. INSERT

C. RUN

D. SUDO

Ans: C Explanation: Running of containers is managed with the Docker run command.

3. One can list all of the containers on the machine via the \_\_\_\_\_ command.

- A. docker run
- B. docker pc
- C. docker r
- D. docker ps

Ans: D Explanation: One can list all of the containers on the machine via the docker ps command.

4. Which of the following tells the docker ps command to list all of the containers on the system?

- A. -p
- B. -r
- C. -a
- D. -z

Ans: C Explanation: —a : It tells the docker ps command to list all of the containers on the system.

5. Which command you can see all the commands that were run with an image via a container.

- A. ref
- B. history
- C. -a
- D. hist



Ans: B Explanation: docker history ImageID

6. ContainerID is the Container ID for which you want to see the top processes.

- A. TRUE
- B. FALSE
- C. Can be true or false
- D. Can not say

Ans: A Explanation: ContainerID is the Container ID for which you want to see the top processes.

7. which command is used to stop a running container?

- A. drop
- B. remove
- C. stop
- D. delete

Ans: C Explanation: docker stop command is used to stop a running container.

8. Which command is used to delete a container?

- A. delete
- B. remove
- C. rm
- D. drop

Ans: C Explanation: docker rm command is used to delete a container.

9. docker stats command is used to provide the statistics of a running container.

- A. TRUE
- B. FALSE
- C. Can be true or false
- D. Can not say

Ans: A Explanation: True, docker stats command is used to provide the statistics of a running container.

10. docker top you can see the top processes within a container.

- A. Yes
- B. No
- C. Can be yes or no
- D. Can not say

Ans: A Explanation: Yes, docker top you can see the top processes within a container.

1. An \_\_\_\_\_ is a combination of a file system and parameters.

- A. hub
- B. image
- C. container
- D. file

Ans: B Explanation: An image is a combination of a file system and parameters.

2. In Docker, everything is based on Images.

- A. Yes
- B. No
- C. Can be yes or no
- D. Can not say

Ans: A Explanation: Yes, In Docker, everything is based on Images.

3. To see the list of Docker images on the system, which of the following command is used?

- A. run images
- B. docker run images
- C. docker images
- D. None of the above

Ans: C Explanation: To see the list of Docker images on the system, you can issue the following command : docker images

4. Which command is used to mention that we want to create an instance of an image?

- A. docker
- B. run
- C. image
- D. container

Ans: B Explanation: The run command is used to mention that we want to create an instance of an image, which is then called a container.

5. Which is used to logically tag images?

- A. TAG
- B. Image ID

- C. Created
- D. Virtual Size

Ans: A Explanation: TAG : This is used to logically tag images.

6. Image ID is used to uniquely identify the image.

- A. TRUE
- B. FALSE
- C. Can be true or false
- D. Can not say

Ans: A Explanation: Image ID is used to uniquely identify the image.

7. The Docker images on the system can be removed via the \_\_\_\_\_ command.

- A. docker remove
- B. docker drop
- C. docker delete
- D. docker rmi

Ans: D Explanation: The Docker images on the system can be removed via the docker rmi command.

8. Which command is used see the details of an image or container?

- A. hint
- B. inspect
- C. details
- D. sudo

Ans: B Explanation: docker inspect command is used see the details of an image or container.

9. Virtual Size is size of the image.

- A. TRUE
- B. FALSE
- C. Can be true or false
- D. Can not say

Ans: A Explanation: True, Virtual Size is size of the image.

10. which tells the Docker command to return the Image ID's only?

- A. -a
- B. -p
- C. -q
- D. -t

Ans: C Explanation: -q : It tells the Docker command to return the Image ID's only.

1. which of the following is a stable driver; can be used for production-ready applications?

- A. AUFS
- B. Devicemapper
- C. Btrfs
- D. Overlay

Ans: A Explanation: AUFS is a stable driver; can be used for production-ready applications.

2. Which of the following driver is good for testing applications in the lab?

- A. AUFS
- B. Devicemapper
- C. Btrfs
- D. Overlay

Ans: B Explanation: Devicemapper driver is good for testing applications in the lab.

3. Btrfs driver is in line with the main Linux kernel functionality.

- A. Yes
- B. No
- C. Can be yes or no
- D. Can not say

Ans: A Explanation: Yes, Btrfs driver is in line with the main Linux kernel functionality.

4. which of the following is true about Overlay driver?

- A. This is a stable driver and it is in line with the main Linux kernel functionality.
- B. It has a good memory usage.
- C. This driver is good for testing applications in the lab.
- D. All of the above

Ans: D Explanation: All of the above are true about Overlay driver

5. To see the storage driver being used, issue the \_\_\_\_\_ command.

- A. docker volume
- B. docker info
- C. docker hint
- D. docker pretty

Ans: C Explanation: To see the storage driver being used, issue the docker info command.

6. Which of the following are features of data volume?

- A. They are initialized when the container is created.
- B. They can be shared and also reused amongst many containers.
- C. They exist even after the container is deleted.
- D. All of the above

Ans: D Explanation: All of the above are features of data volume

7. You can also list all the docker volumes on a docker host using \_\_\_\_\_ command.

- A. list
- B. ls
- C. show
- D. use

Ans: B Explanation: You can also list all the docker volumes on a docker host using docker volume ls command.

8. ZFS is a stable driver and it is good for testing applications in the lab.

- A. TRUE
- B. FALSE

- C. Can be true or false
- D. Can not say

Ans: A Explanation: True, ZFS is a stable driver and it is good for testing applications in the lab.

9. In Docker, you have a separate volume that can shared across containers. These are known as?

- A. data values
- B. data storage
- C. data volumes
- D. None of the above

Ans: C Explanation: In Docker, you have a separate volume that can shared across containers. These are known as data volumes.

10. A volume can be created beforehand using the docker command.

- A. Yes
- B. No
- C. Can be yes or no
- D. Can not say

Ans: A Explanation: Yes, A volume can be created beforehand using the docker command.

1. What command is used for stopping a running container?

- a) `docker stop <container_id>`
- b) `docker rm <container_id>`
- c) `docker kill <container_id>`



d) docker terminate <container\_id>

Ans. c) docker kill <container\_id>

2. What command is used for running images as a container?

- a) docker ps -a
- b) sudo docker run -i -t alpine /bin/bash
- c) sudo docker run <container\_name>
- d) All of the above

Ans. b) sudo docker run -i -t alpine /bin/bash

3. What is a cloud-hosted service of Docker providing registry capabilities for public and private content?

- a) Docker Images
- b) Docker Alpine
- c) Docker Hub
- d) Docker Compose

Ans. c) Docker Hub

4. What is used for converting a pool of Docker hosts into a single, virtual Docker host?

- a) Docker Images
- b) Docker Compose
- c) Docker Hub
- d) Docker Swarm

Ans. d) Docker Swarm

5. What command is used for viewing all running containers?

- a) docker ps
- b) docker ps -a
- c) docker rm
- d) docker show

Ans. a) docker ps

6. What is a template used for describing a build of an image?

- a) Docker Logs
- b) Docker Documents
- c) DockerFile
- d) Docker Stream

Ans. c) DockerFile

7. Multiple containers running on a single machine all share the same resources such as the operating system kernel for instant boot and efficient utilization of RAM. True or False?

- a) True
- b) False
- c) Doesn't make sense

Ans. a) True

8. What is the default IP address of the Docker host?

- a) 0.0.0.0
- b) 127.0.0.1
- c) 172.17. 0.0/16
- d) 192.127.99.1

Ans. c) 172.17. 0.0/16

9. What command is used to go inside a running container?

- a) docker sh <container\_id>
- b) docker exec -it <container\_id> sh
- c) docker access <container\_id>
- d) docker ps -a

Ans. b) docker exec -it <container\_id> sh

10. What command is used for remove all stopped containers, unused networks, build caches, and dangling images?

- a) docker system kill -all
- b) docker kill -a
- c) docker system prune
- d) docker system rm -a

Ans. c) docker system prune

The command used to find images in the Docker Registry is:

- a) docker ls -a
- b) docker search
- c) docker pull
- d) docker image

Ans: b) docker search

Containers that are running can be listed using the command:

- a) \$ docker ps
- b) \$ docker container ls -a
- c) \$ docker ps -a

Ans: a) \$ docker ps

How to find container metadata location using Docker commands?

- a) docker build
- b) docker inspect
- c) docker version
- d) docker info

Ans: b) docker inspect

A template that is read-only is called:

- a) Container
- b) Images
- c) Daemon

Ans: b) Images

To delete all containers that have stopped using the command:

- a) docker prune
- b) docker rm -f
- c) docker rmi

Ans: b) docker rm -f

A container the daemon failed to terminate is:

- a) exited
- b) dead
- c) started

Ans: b) dead

The command used to find images in the Docker Registry is:

- a) docker ls -a
- b) docker search

- c) docker pull
- d) docker image

Ans: b) docker search

To list inactive and active containers:

- a) docker ps -a
- b) docker ps
- c) docker ps -l
- d) docker ps -d

Ans: a) docker ps -a

Which of the following is not a component of Docker Architecture?

- a) Docker Machine
- b) Docker Engine
- c) Docker Runtime
- d) Docker Registry
- e) Docker Daemon

Ans: a) Docker Machine

You are trying to push an image to Dockerhub, however, unable to do so. Which would not be a possible reason?

- a) You are not logged in to Docker. (Use "docker login" command)
- b) Network connectivity between your Docker host and Docker Hub
- c) Your image is not correctly tagged as per Docker recommendations
- d) You do not have an account on Docker Hub
- e) You should use Docker Swarm or Kubernetes orchestration engines to push images to Docker registry

Ans: e) You should use Docker Swarm or Kubernetes orchestration engines to push images to Docker registry

You need to create a Docker container based on the nginx image and need the root prompt of the container. Which command would help you achieve it?

- a) `docker run -it nginx /bin/bash`
- b) `docker container run -it nginx`
- c) `docker container run -d nginx`
- d) `docker container run -itd --name=web nginx`
- e) `docker exec -it nginx:latest /bin/bash`

Ans: a) `docker run -it nginx /bin/bash`

Which one of the following is not a command under "image" management commands for Docker?

- a) `build`
- b) `pull`
- c) `inspect`
- d) `pause`
- e) `rm`

Ans: d) `pause`

Which of the following network interfaces gets created when you install Docker runtime on the Docker host?

- a) `Docker1`
- b) `Docker0`
- c) `eth0`
- d) `eth1`

Ans: b) `Docker0`

Which of the following is/are valid Docker commands that will bind ports on a container to the ports on the host on which it is running?

- a) `docker container run -P`
- b) `docker container run -P 8080:80`
- c) `docker container run -p`

d) docker container run -p 8080:80

Ans: b) docker container run -P 8080:80

This command downloads an image to your Docker host:

a) docker pull

b) docker run

c) docker build

d) docker tag

Ans: a) docker pull

This command uploads your local image to your Docker Registry:

a) docker push

b) docker build

c) docker tag

d) docker run

Ans: a) docker push

A text document that contains all the commands needed to build an image:

a) Docker.config

b) Dockerfile

c) DOCKER.CONF

d) Docker.profile

Ans: b) Dockerfile

A stateless, highly scalable server which stores and lets you distribute Docker images:

a) Docker repository

b) Docker image host

c) Docker registry

d) Docker git

Ans: c) Docker registry

This command takes a snapshot of your current Docker container and puts it in a new image:

- a) docker pull
- b) docker push
- c) docker commit
- d) docker tag

Ans: c) docker commit

This Dockerfile command specifies the base image to use when creating a Docker image:

- a) FROM
- b) ADD
- c) COPY
- d) CMD

Ans: a) FROM

From where can I run my Docker Host?

- a) Anywhere
- b) Just my local machine

Ans: a) Anywhere

What is the use of Git?

- a) Continuous Integration tool
- b) Version Control System tool
- c) Continuous Monitoring tool
- d) Containerization tool

Ans: b) Version Control System tool

Ansible is a:

- a) Continuous Integration tool



b) Configuration Management and Deployment tools

c) Continuous Monitoring tool

d) Configuration Deployment tools

Ans: b) Configuration Management and Deployment tools

Which is a Continuous Monitoring tool?

a) Puppet

b) Nagios

c) Chef

d) None of the Above

Ans: b) Nagios

Chef is a DevOps tool?

a) Yes

b) No

c) Maybe

Ans: a) Yes

What platforms does Docker run on?

a) Linux platforms

b) Cloud platforms

c) Both

d) None

Ans: c) Both

Which is a Version Control tool?

a) Git

b) Chef

c) Ansible

d) None

Ans: a) Git

What are the advantages that Containerization provides over virtualization?

- a) Containers provide real-time provisioning and scalability, but VMs provide slow provisioning
- b) Containers are lightweight when compared to VMs
- c) Both
- d) Only 2

Ans: c) Both

1: Which of the following is not a type of Docker volume?

- (A) Bind mount
- (B) Named volume
- (C) Container-to-container volume
- (D) None of the above

Answer: (C)

2: What is the difference between a bind mount and a named volume?

- (A) A bind mount is a directory on the host that is mounted into the container, while a named volume is a directory that is stored in Docker's data directory and is accessible to all containers that use it.
- (B) A bind mount is more flexible than a named volume, as it can be mounted into any container, while a named volume can only be mounted into containers that have been configured to use it.
- (C) A named volume is more secure than a bind mount, as it is not accessible to the host system.

Answer: Both (A) and (B)

3:How do you create a named volume?

- (A) docker volume create my-volume
- (B) docker volume create -d local my-volume
- (C) docker volume create -d none my-volume

Answer: (A)

4:How do you mount a named volume into a container?

- (A) docker run -v my-volume:/var/www/app my-app
- (B) docker run -v my-volume:/var/www/app -d my-app
- (C) docker run -v my-volume:/var/www/app -p 80:80 my-app

Answer: (A)

5:What are the benefits of using Docker volumes?

- (A) Data is isolated from the host system
- (B) Data is persistent between container restarts
- (C) Data can be shared between containers

Answer: All of the above

6:Which of the following is the default storage driver for Docker volumes?

- (A) Local
- (B) None
- (C) ZFS

Answer: (A)

7:What is the difference between a local volume and a named volume?

(A) A local volume is a directory on the host that is mounted into the container, while a named volume is a directory that is stored in Docker's data directory and is accessible to all containers that use it.

(B) A local volume is more flexible than a named volume, as it can be mounted into any container, while a named volume can only be mounted into containers that have been configured to use it.

(C) A named volume is more secure than a local volume, as it is not accessible to the host system.

Answer: Both (A) and (B)

8:How do you list all of the Docker volumes on a Docker host?

(A) `docker volume ls`

(B) `docker volume ls -a`

(C) `docker volume ls -d`

Answer: (A)

9:How do you remove a Docker volume?

(A) `docker volume rm my-volume`

(B) `docker volume rm -f my-volume`

(C) `docker volume rm -v my-volume`

Answer: (A)

10: What happens to the data in a Docker volume when the container is deleted?

- (A) The data is deleted along with the container.
- (B) The data is preserved on the host system.
- (C) The data is moved to a backup location.

Answer: The data is deleted along with the container.

1. Which of the following is the default network a container will join if you don't override with the `--network` flag?

- a) Overlay
- b) Bridge
- c) MACVLAN
- d) WIFI

Ans: b) Bridge

2. You wish to view the assigned IP addresses for all running containers on the "nat" network. Which of the following commands will display this information?

- a) `docker ip inspect nat`
- b) `docker inspect nat`
- c) `docker ip nat`
- d) `docker network nat`

Ans: b) `docker inspect nat`

3. Which of the following built-in Docker networks creates a single layer-2 container-only network across multiple Docker hosts that can be on different underlying networks?

- a) NAT
- b) Overlay
- c) Bridge

d) MACVLAN

Ans: b) Overlay

4. What Docker technologies are available to support communication between containers?

- a) Docker connect and bridge networks.
- b) None of these.
- c) Docker connect and alias networks.
- d) Docker linking and bridge networks.

Ans: a) Docker connect and bridge networks.

5. Which of the following docker commands will return detailed configuration information about network?

- a) docker network ls
- b) docker network inspect
- c) docker network ls
- d) docker inspect

Ans: b) docker network inspect

6. What benefits do container networks offer?

- a) Allow local containers to communicate with external host containers.
- b) Allow containers to communicate with each other in an isolated network.
- c) Allow local container to communicate directly with host processes.
- d) All of these.

Ans: d) All of these.

7. What Docker CLI command can be used to create a container network?

- a) docker build network
- b) docker ps network
- c) docker network create
- d) docker createNetwork

Ans: c) docker network create

8. How can you connect a container to a user-defined network?

- a) --net NETWORK\_NAME
- b) --udf NETWORK\_NAME
- c) docker disconnect
- d) docker attach
- e) docker connect

Ans: a) --net NETWORK\_NAME

9. Which of the following network types would you choose if you needed your containers to be first class on one of your existing VLANs?

- a) Bridge
- b) Overlay
- c) MACVLAN
- d) NAT

Ans: c) MACVLAN

10. Which Docker command shows the network ports that a container is exposed on?

- a) docker port
- b) docker network --port
- c) docker container ports

Ans: a) docker port

11. What command line switches are used with legacy linking?

- a) --net and --name
- b) --link and --name
- c) --com and --name
- d) --run and --link

Ans: b) --link and --name

12. Why is networking a concern with containers?

- a) All of these.
- b) Because you have to use port forwarding to share the host's physical network adapter.
- c) Because container networking is a new frontier and is different from how you network VMs and physical machines.
- d) Because you don't want applications to have port conflicts.
- e) Because each container usually has its own network namespace that needs configuration.

Ans: a) All of these.

13. Which feature is shared by both user-defined Docker bridge networks and the default Docker bridge network?

- a) The ability to securely isolate a container from external hosts.
- b) Greater interoperability between containerized applications.
- c) Automatic Domain Name System (DNS) resolution between containers.
- d) Attaching and detaching a bridge from a running container.

Ans: a) The ability to securely isolate a container from external hosts.



14. You have two containers on separate Docker hosts with multi-host networking. Your containers cannot connect to each other. What is the most likely cause?

- a) Each container is attached to the bridge network on each respective Docker host.
- b) You have not created the overlay network on every node.
- c) Your Docker hosts are on different layer 5 networks.
- d) One or both containers have networking disabled by default.

Ans: b) You have not created the overlay network on every node.

15. How does the Docker daemon assign an IP address to a newly started container?

- a) From a range of addresses specified in the "DOCKER\_OPTS" line in the Docker config files.
- b) From a pool assigned to be "docker0" bridge.
- c) From a range of addresses specified in the "NETWORK\_OPTS" line in the Docker config files.
- d) From a static config file.

Ans: b) From a pool assigned to be "docker0" bridge.

16. Which command will successfully create a new Docker bridge network?

- a) `docker network-bridge -i newNet generate`
- b) `docker network create netNet`
- c) `docker bridge add netNet`
- d) `docker net add netNet`

Ans: b) `docker network create netNet`

17. What is a Docker volume?

- a) A directory that mounts remote files.
- b) The union file system for a container.
- c) The host file system.

d) A directory that bypasses the container's union file system.

Ans: d) A directory that bypasses the container's union file system.

18. Which of the following statements accurately describe a Docker volume?

- a) All of these
- b) Are not affected by updates to the image.
- c) Persisted even after a container is deleted.
- d) Special type of directory in a container.
- e) Can be shared and reused among containers.

Ans: a) All of these

19. What will happen if you start a new container or service and specify a volume that does not currently exist?

- a) The command will complete but the container/service will fail to start.
- b) Docker will create the volume for you.
- c) The command will fail.
- d) You will be prompted to create a new volume.

Ans: b) Docker will create the volume for you.

20. Where do dangling volumes typically come from?

- a) Containers that we manually mount managed volumes into.
- b) Containers that we bind-mount host volumes into.
- c) Images that have a VOLUME instruction.
- d) Every container that is created has a volume created as well.

Ans: c) Images that have a VOLUME instruction.

21. What type of storage takes care of a container's union filesystem/union mount?

- a) Copy-on-write (CoW)
- b) Graph Driver (snapshotter)
- c) Object storage
- d) Volume data

Ans: b) Graph Driver (snapshotter)

22. What is a major goal of Docker volumes?

- a) Persistent data
- b) Object storage
- c) Data replication
- d) Data encryption at-rest
- e) RAID

Ans: a) Persistent data

23. What happens when you perform a docker volume rm against a volume attached to a running container?

- a) The volume and the container will be deleted.
- b) The command will fail.
- c) You will be asked to confirm the command.
- d) The volume will be deleted.

Ans: b) The command will fail.

24. Which of the following uses Docker's layered file system?

- a) Docker containers only.
- b) Docker images and containers.
- c) Docker images only.

- d) VirtualBox
- e) All of these.

Ans: e) All of these.

25. Which of the following describes data that we need to keep long-term?

- a) Ephemeral
- b) Non-persistent
- c) Persistent
- d) Immutable

Ans: c) Persistent

26. Where does a container's graph driver storage usually exist?

- a) /var/lib/docker
- b) /etc/docker
- c) /var/run/docker

Ans: a) /var/lib/docker

27. What happens to data in a volume when the last container it was connected to is deleted?

- a) The data remain intact.
- b) The data is deleted along with the latest container.

Ans: a) The data remain intact.

28. What syntax can be used to create a volume that "hooks" to a source code folder on your machine?

- a) `docker run -v $(pwd):/app`

- b) `docker run --vol /var/temp`
- c) None of these
- d) `docker run -v /var/www`

Ans: a) `docker run -v $(pwd):/app`

29. Which of the following commands will list all of the Docker volumes on a particular Docker host?

- a) `docker system info | grep volumes`
- b) `docker volume ls`
- c) `docker node volumes`

Ans: b) `docker volume ls`

30. Docker volumes are persisted even after a container is deleted.

- a) TRUE
- b) FALSE

Ans: a) TRUE

31. What syntax can be used to create a volume that Docker manages?

- a) None of these
- b) `docker run -v /var/www`
- c) `docker run -v /temp:/var/temp`
- d) `docker run --vol /temp:/var/temp`

Ans: c) `docker run -v /temp:/var/temp`

32. What is the purpose of a volume in a container?

- a) A volume "links" a container directory to a host directory.

- b) A volume provides documentation for a container.
- c) A volume acts as the base image for a container.
- d) A volume acts as a container for images.

Ans: a) A volume "links" a container directory to a host directory.

33. What can you use to create persistent storage in a container?

- a) Volume
- b) Image layers
- c) Share the container host's (root) mount namespace
- d) Root file system

Ans: a) Volume

34. Which of the following is NOT a benefit of a union filesystem for containers?

- a) Decrease startup time for containers with pre-existing images into an image cache.
- b) Save disk space by sharing common files with the host OS filesystem via symbolic links.
- c) Share page cache entries to reduce memory overhead.
- d) Save disk space with read-only layers reused among containers.

Ans: a) Decrease startup time for containers with pre-existing images into an image cache.

35. You must ensure that all of your Docker hosts are running the Device Mapper storage driver (devicemapper). Which command shows this?

- a) docker storage info
- b) docker info
- c) docker device
- d) docker dm

Ans: b) docker info

1. What does SCM stand for in the context of Jenkins?

- a) Software Configuration Management
- b) Source Control Management
- c) System Configuration Management
- d) Source Code Management

Ans: d) Source Code Management

2. Which of the following is not a supported SCM system in Jenkins?

- a) Git
- b) Subversion (SVN)
- c) Mercurial
- d) Bitbucket

Ans: d) Bitbucket

3. What is a Jenkinsfile?

- a) A configuration file for Jenkins that defines pipeline stages and tasks.
- b) An XML file used to configure Jenkins job parameters.
- c) A file containing Jenkins plugins and dependencies.
- d) A file used to define Jenkins security settings.

Ans: a) A configuration file for Jenkins that defines pipeline stages and tasks.

4. What is a webhook in Jenkins?

- a) A web-based user interface for managing Jenkins jobs.
- b) A mechanism for triggering a Jenkins job automatically based on external events.
- c) A plugin that provides integration with popular project management tools.
- d) A web-based dashboard for monitoring Jenkins build status.

Ans: b) A mechanism for triggering a Jenkins job automatically based on external events.

5. How can Jenkins be integrated with external tools?

- a) By using plugins.
- b) By modifying Jenkins source code.
- c) By configuring Jenkins environment variables.
- d) By creating custom Jenkins scripts.

Ans: a) By using plugins.

6. What is the purpose of the "Poll SCM" option in Jenkins?

- a) To monitor the health of the Jenkins server.
- b) To periodically check for changes in the SCM repository and trigger builds.
- c) To synchronize Jenkins with the SCM repository.
- d) To generate reports based on SCM statistics.

Ans: b) To periodically check for changes in the SCM repository and trigger builds.

7. What is the benefit of using a Jenkins webhook over polling SCM for changes?

- a) Webhooks provide faster detection of changes in the SCM repository.
- b) Webhooks allow for better integration with third-party systems.
- c) Webhooks eliminate the need for manual configuration in Jenkins.
- d) Webhooks provide more control over the build process.

Ans: a) Webhooks provide faster detection of changes in the SCM repository.

8. Which of the following is not a Jenkins plugin category?

- a) SCM plugins
- b) Build and test plugins
- c) Reporting plugins
- d) Monitoring plugins

Ans: d) Monitoring plugins

9. What is the role of the Jenkins Distributed Build feature?

- a) To distribute the build process across multiple Jenkins servers.



- b) To enable Jenkins to build and test distributed systems.
- c) To allow Jenkins to integrate with remote SCM repositories.
- d) To distribute build artifacts to multiple target environments.

Ans: a) To distribute the build process across multiple Jenkins servers.

10. How can you secure sensitive information such as passwords in Jenkins?

- a) By encrypting the Jenkins configuration file.
- b) By using the Jenkins Credential plugin.
- c) By restricting access to the Jenkins server.
- d) By storing sensitive information outside of Jenkins.

Ans: b) By using the Jenkins Credential plugin.

1. What is Jenkins?

- a) An open-source database management system
- b) An automation tool for building and testing software projects
- c) A programming language for web development
- d) A cloud computing platform

Ans: b) An automation tool for building and testing software projects

2. What are the features of Jenkins?

- a) Closed-source and expensive
- b) Limited plugin support
- c) Difficult to set up and install
- d) Free and open-source, extensive plugin support, easy installation, and setup

Ans: d) Free and open-source, extensive plugin support, easy installation, and setup

3. What is Groovy in Jenkins?

- a) A version control system used by Jenkins
- b) A programming language used for scripting in Jenkins
- c) A build tool used for compiling code in Jenkins

d) A testing framework used by Jenkins

Ans: b) A programming language used for scripting in Jenkins

4. How do you install Jenkins?

a) By running the "jenkins install" command in the terminal

b) By downloading and installing the Jenkins package from the official website

c) By adding Jenkins as a dependency in your project's build file

d) By cloning the Jenkins repository from GitHub

Ans: b) By downloading and installing the Jenkins package from the official website

5. Which command is used to start Jenkins?

a) ``start jenkins``

b) ``java -jar jenkins.war``

c) ``run jenkins``

d) ``jenkins start``

Ans: b) ``java -jar jenkins.war``

6. What is Continuous Integration (CI) with reference to Jenkins?

a) A practice of integrating code changes into a shared repository and running automated builds and tests

b) A practice of deploying software updates continuously to production servers

c) A practice of monitoring and optimizing Jenkins server performance

d) A practice of automating code reviews and quality checks in Jenkins

Ans: a) A practice of integrating code changes into a shared repository and running automated builds and tests

7. What are the differences between Continuous Integration, Continuous Delivery, and Continuous Deployment?

a) Continuous Integration focuses on automated builds, Continuous Delivery focuses on automated testing, and Continuous Deployment focuses on automated deployment.

- b) Continuous Integration focuses on automated deployment, Continuous Delivery focuses on automated builds, and Continuous Deployment focuses on automated testing.
- c) Continuous Integration focuses on automated testing, Continuous Delivery focuses on automated deployment, and Continuous Deployment focuses on automated builds.
- d) Continuous Integration, Continuous Delivery, and Continuous Deployment are all different terms for the same concept.

Ans: a) Continuous Integration focuses on automated builds, Continuous Delivery focuses on automated testing, and Continuous Deployment focuses on automated deployment.

8. What is a CI/CD pipeline?

- a) A tool used for managing Jenkins plugins and dependencies
- b) A process for automating software builds, testing, and deployment
- c) A database management system for Jenkins configurations
- d) A Jenkins job that runs a set of predefined commands or scripts

Ans: b) A process for automating software builds, testing, and deployment

9. What is a Jenkins pipeline?

- a) A graphical user interface for configuring Jenkins jobs
- b) A plugin for managing dependencies in Jenkins
- c) A script or set of scripts that define the entire build, test, and deployment process in Jenkins
- d) A Jenkins feature for tracking code changes in a version control system

Ans: c) A script or set of scripts that define the entire build, test, and deployment process in Jenkins

10. Which of the following are types of pipelines in Jenkins?

- a) CI/CD pipeline
- b) Scripted pipeline
- c) Declarative pipeline
- d) All of the above

Ans: d) All of the above

1. What is the requirement for using Jenkins?

- A. A source code repository which is accessible, for instance, a Git repository
- B. A working build script, e.g., a Maven script, checked into the repository
- C. Both of these
- D. None

Ans: C

2. What are the advantages of Jenkins?

- A. At the integration stage, build failures are cached
- B. For each code commit changes, an automatic build report notification generates
- C. It is integrated with an LDAP mail server to notify developers about build report success or failure
- D. All of the above

Ans: D

3. How can we move or copy Jenkins from one server to another?

- A. First, copy the related job directory and slide a job from one installation of Jenkins to another
- B. Make a copy of an already existing job by making a clone of a job directory by a different name
- C. Renaming an existing job by renaming a directory
- D. All of these

Ans: D

4. What are the useful plugins in Jenkins?

- A. Maven 2 project
- B. Amazon EC2
- C. HTML publisher
- D. All

Ans: D

5. Which SCM tools does Jenkins support?

- A. AccuRev
- B. CVS
- C. Subversion
- D. All of these

Ans: D

6. Which file is used to define dependency in Maven?

- A. build.xml
- B. pom.xml
- C. dependency.xml
- D. version.xml

Ans: B

7. Which command can be used to check Maven version?

- A. mvn -ver
- B. maven -ver
- C. maven -version
- D. mvn -version

Ans: D

8. How can we secure Jenkins?

- A. Global security should be enabled
- B. Jenkins should be integrated with appropriate plugins
- C. Automate the process of setting rights and privileges
- D. All of the above

Ans: D

9. Which Maven plugin creates the project structure?

- A. dependency
- B. properties
- C. archetype
- D. execution

Ans: C

10. How can we set up Jenkins jobs?

- A. Select "New Item" from the menu
- B. Enter a name for the job and select "Freestyle Project"
- C. Click "OK" to create a new job in Jenkins
- D. The next page enables you to configure your job
- E. All of these

Ans: E

<https://github.com/sauravhathi/lpu-cse>