

DOCKER VOLUME

What is Docker Volume

1. When we create a container then by default volume will be created
2. Volume is a directory inside of our container
3. If we stop the container then also, we can access the volume
4. Volume can be created in one container
5. While creating the container only we can attach the created volume to that container

How many ways to map the volumes

There are two ways to map the volumes

1. Container → Container
2. Host → Container

How many ways to create volumes

There are two ways to create volumes

1. Automation
2. Manual

Automation process

1. First install the docker by using some commands

Commands	
yum install docker -y	To install docker packages
systemctl start docker	To start docker service

systemctl status docker	To check status of docker
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2. Create Dockerfile 'D' is capital in Dockerfile

vi Dockerfile	It can open the editor
FROM	Specifies base image
VOLUME	Give volume directory name

3. Add the instructions in editor as shown in below figure

```
FROM ubuntu
VOLUME [\"/mani\"]
```

4. Build the image by command

Docker build -t image1	It is used to build the image
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5. Create the container to the image1

Docker run -it --name cont-2 image1	It can create the container with the volume
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6. Volume is created in container as shown in below figure

```
See 'docker run --help'.
[root@ip-172-31-19-173 ~]# docker run -it --name cont-2 image1
root@9494ca375c86:/# ll
total 0
drwxr-xr-x. 1 root root 18 Nov 4 13:44 ./
drwxr-xr-x. 1 root root 18 Nov 4 13:44 ../
-rwxr-xr-x. 1 root root 0 Nov 4 13:44 .dockerenv*
lrwxrwxrwx. 1 root root 7 Apr 22 2024 bin -> usr/bin/
drwxr-xr-x. 2 root root 6 Apr 22 2024 boot/
drwxr-xr-x. 5 root root 360 Nov 4 13:44 dev/
drwxr-xr-x. 1 root root 66 Nov 4 13:44 etc/
drwxr-xr-x. 3 root root 20 Oct 11 02:09 home/
lrwxrwxrwx. 1 root root 7 Apr 22 2024 lib -> usr/lib/
lrwxrwxrwx. 1 root root 9 Apr 22 2024 lib64 -> usr/lib64/
drwxr-xr-x. 2 root root 6 Nov 4 13:44 mani/
drwxr-xr-x. 2 root root 6 Oct 11 02:03 media/
drwxr-xr-x. 2 root root 6 Oct 11 02:03 mnt/
drwxr-xr-x. 2 root root 6 Oct 11 02:03 opt/
dr-xr-xr-x. 170 root root 0 Nov 4 13:44 proc/
drwx----- 2 root root 37 Oct 11 02:09 root/
drwxr-xr-x. 4 root root 33 Oct 11 02:09 run/
lrwxrwxrwx. 1 root root 8 Apr 22 2024 sbin -> usr/sbin/
drwxr-xr-x. 2 root root 6 Oct 11 02:03 srv/
dr-xr-xr-x. 13 root root 0 Nov 4 13:04 sys/
drwxrwxrwt. 2 root root 6 Oct 11 02:09 tmp/
drwxr-xr-x. 12 root root 133 Oct 11 02:03 usr/
drwxr-xr-x. 11 root root 139 Oct 11 02:09 var/
root@9494ca375c86:/#
```

7. To share that created volume for container to container we are having the command

docker run -it --name new cont name --volume-from cont name --privileged=true image name

Manual process

1. We need to create volume manually for the container by using command

docker run -it --name new cont name -v/volume name image name
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Host to container

1. We can create the volume in host by using command

docker volume create volume name	It is used to create the volume in host
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2. To check the volumes in host

docker volume ls	To check the list of volumes
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3. If we want to add files in host volume we need to inspect the volume, there you see the path

docker volume inspect volume name	To inspect the volume
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var/lib/docker/volume/_data	This is path to add files
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4. To share the host volume to the container the command is

docker run -it --name new cont name --mount source=volume name,destination=new volume name image name
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