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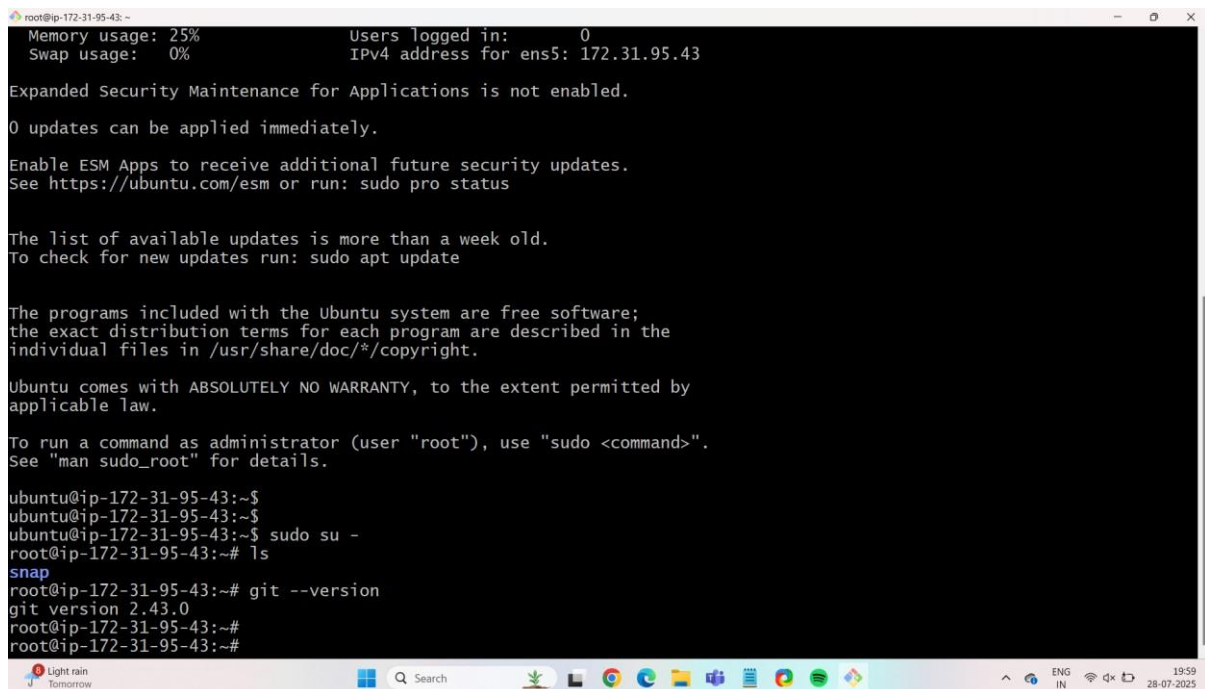
**Topic : Docker Volume & sharing volume & Create customized image.**

Install docker in ubuntu OS. curl -fsSL

<https://get.docker.com> -o install-docker.sh sh install-

docker.sh docker version :28.3.2 git version :2.43.0

- create one directory: mkdir aws
- Create docker volume
- Docker run --name cont1 -v /aws -it imageid • Check that “/aws” is mounted in docker.

A terminal window screenshot showing system updates and git version check. The terminal output includes: Memory usage: 25%, Swap usage: 0%, Users logged in: 0, IPv4 address for ens5: 172.31.95.43. It also shows a message about Expanded Security Maintenance for Applications not being enabled. The user runs 'sudo su -' to become root, then 'ls' showing 'snap'. Finally, 'git --version' is run, outputting 'git version 2.43.0'. The terminal window has a title bar 'root@ip-172-31-95-43: ~' and a taskbar at the bottom with various application icons and system status indicators like 'Light rain Tomorrow', 'Search', 'ENG IN', and '19:59 28-07-2025'.

1. Create files & directories in container inside /data.

```
root@ip-172-31-95-43: ~
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-95-43:~$
ubuntu@ip-172-31-95-43:~$
ubuntu@ip-172-31-95-43:~$ sudo su -
root@ip-172-31-95-43:~# ls
snap
root@ip-172-31-95-43:~# git --version
git version 2.43.0
root@ip-172-31-95-43:~#
root@ip-172-31-95-43:~# apt-get update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe Translation-en [5982 kB]
Get:7 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Components [3871 kB]
Get:8 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [1023 kB]
Get:9 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 c-n-f Metadata [301 kB]
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [269 kB]
Get:11 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse Translation-en [118 kB]
Get:12 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Components [35.0 kB]
Get:13 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 c-n-f Metadata [8328 B]
Get:14 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [1282 kB]
Get:15 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main Translation-en [260 kB]
Get:16 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Components [163 kB]
```

```
root@ip-172-31-95-43:~#
root@ip-172-31-95-43:~# curl -fsSL https://get.docker.com -o install-docker.sh
root@ip-172-31-95-43:~# sudo sh install-docker.sh
# Executing docker install script, commit: 8555c7c554f6c7e4b2e67dd644b4dc46297330c2
+ sh -c apt-get -qq update >/dev/null
+ sh -c DEBIAN_FRONTEND=noninteractive apt-get -y -qq install ca-certificates curl >/dev/null
+ sh -c install -m 0755 -d /etc/apt/keyrings
+ sh -c curl -fsSL "https://download.docker.com/linux/ubuntu/gpg" -o /etc/apt/keyrings/docker.asc
+ sh -c chmod a+r /etc/apt/keyrings/docker.asc
+ sh -c echo "deb [arch=amd64 signed-by=/etc/apt/keyrings/docker.asc] https://download.docker.com/linux/ubuntu noble s
table" > /etc/apt/sources.list.d/docker.list
+ sh -c apt-get -qq update >/dev/null
+ sh -c DEBIAN_FRONTEND=noninteractive apt-get -y -qq install docker-ce docker-ce-cli containerd.io docker-compose-plu
gin docker-ce-rootless-extras docker-buildx-plugin docker-model-plugin >/dev/null
Scanning processes...
Scanning linux images...
+ sh -c docker version
Client: Docker Engine - Community
Version: 28.3.2
API version: 1.51
Go version: go1.24.5
Git commit: 578ccf6
Built: Wed Jul 9 16:13:45 2025
OS/Arch: linux/amd64
Context: default

Server: Docker Engine - Community
Engine:
Version: 28.3.2
API version: 1.51 (minimum version 1.24)
Go version: go1.24.5
Git commit: e77ff99
Built: Wed Jul 9 16:13:45 2025
OS/Arch: linux/amd64
```

```
root@ip-172-31-95-43:~# docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
root@ip-172-31-95-43:~#
root@ip-172-31-95-43:~# docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
root@ip-172-31-95-43:~#
root@ip-172-31-95-43:~# docker pull ubuntu
Using default tag: latest
latest: pulling from library/ubuntu
32f112e3802c: Pull complete
Digest: sha256:a08e551cb33850e4740772b38217fc1796a66da2506d312abe51acda354ff061
Status: Downloaded newer image for ubuntu:latest
docker.io/library/ubuntu:latest
root@ip-172-31-95-43:~#
```

```
root@ip-172-31-95-43:~# docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
root@ip-172-31-95-43:~#
root@ip-172-31-95-43:~# docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
root@ip-172-31-95-43:~#
root@ip-172-31-95-43:~# docker pull ubuntu
Using default tag: latest
latest: Pulling from library/ubuntu
32f112e3802c: Pull complete
Digest: sha256:a08e551cb33850e4740772b38217fc1796a66da2506d312abe51acda354ff061
Status: Downloaded newer image for ubuntu:latest
docker.io/library/ubuntu:latest
root@ip-172-31-95-43:~#
root@ip-172-31-95-43:~#
root@ip-172-31-95-43:~# docker -v
Docker version 28.3.2, build 578ccf6
root@ip-172-31-95-43:~#
root@ip-172-31-95-43:~# docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
root@ip-172-31-95-43:~# docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
ubuntu latest 65ae7a6f3544 13 days ago 78.1MB
root@ip-172-31-95-43:~# ls
install-docker.sh snap
root@ip-172-31-95-43:~# mkdir aws
root@ip-172-31-95-43:~# ls
aws install-docker.sh snap
root@ip-172-31-95-43:~# docker run --name mydata -v /aws -it 65ae7a6f3544
root@3e9488bb9888:/#
```

In that aws directory create some files:

```
root@3e9488bb9888:/aws# ls
aws bin boot dev etc home lib lib64 media mnt opt proc root run sbin srv sys tmp usr var
root@3e9488bb9888:/aws#
root@3e9488bb9888:/aws# cd aws
root@3e9488bb9888:/aws# ls
root@3e9488bb9888:/aws# touch abc.txt
root@3e9488bb9888:/aws# vi file.txt
bash: vi: command not found
root@3e9488bb9888:/aws#
root@3e9488bb9888:/aws# touch file.txt
root@3e9488bb9888:/aws# ls
abc.txt file.txt
root@3e9488bb9888:/aws# echo "hello" > lmn.txt
root@3e9488bb9888:/aws# cat lmn.txt
hello
root@3e9488bb9888:/aws#
```

- Check the mount location for con1 container use following command:.
- Docker inspect con1

```
root@3e9488bb9888:/aws# ls
abc.txt  file.txt
root@3e9488bb9888:/aws# echo "hello" > 1mn.txt
root@3e9488bb9888:/aws# cat 1mn.txt
hello
root@3e9488bb9888:/aws# cd ..
root@3e9488bb9888:/# exit
exit
root@ip-172-31-95-43:~#
root@ip-172-31-95-43:~#
root@ip-172-31-95-43:~# docker ps
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS   NAMES
root@ip-172-31-95-43:~# docker ps -a
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS   NAMES
3e9488bb9888   65ae7a6f3544   "/bin/bash"   2 minutes ago   Exited (0) 25 seconds ago   mydata
root@ip-172-31-95-43:~# docker inspect 3e9488bb9888
[
  {
    "Id": "3e9488bb98885e25b1f6ff5bc33182c705ca243a4a8bbd49423b19577e711879",
    "Created": "2025-07-28T14:34:02.348705237Z",
    "Path": "/bin/bash",
    "Args": [],
    "State": {
      "Status": "exited",
      "Running": false,
      "Paused": false,
      "Restarting": false,
      "OOMKilled": false,
      "Dead": false,
      "Pid": 0,
      "ExitCode": 0,
      "Error": "",
      "StartedAt": "2025-07-28T14:34:02.441955158Z",
      "FinishedAt": "2025-07-28T14:36:26.964353051Z"
```

```
    },
    "GraphDriver": {
      "Data": {
        "ID": "3e9488bb98885e25b1f6ff5bc33182c705ca243a4a8bbd49423b19577e711879",
        "LowerDir": "/var/lib/docker/overlay2/ba5efcf008fef802ac363791a133710cf22022a75e5f9d7416a7596a5b2168a5-init/diff:/var/lib/docker/overlay2/9c5eb4107ee8197313e818af16a34713742f31abc1265b8d52becabab85e1334/diff",
        "MergedDir": "/var/lib/docker/overlay2/ba5efcf008fef802ac363791a133710cf22022a75e5f9d7416a7596a5b2168a5/merged",
        "UpperDir": "/var/lib/docker/overlay2/ba5efcf008fef802ac363791a133710cf22022a75e5f9d7416a7596a5b2168a5/diff",
        "WorkDir": "/var/lib/docker/overlay2/ba5efcf008fef802ac363791a133710cf22022a75e5f9d7416a7596a5b2168a5/work"
      },
      "Name": "overlay2"
    },
    "Mounts": [
      {
        "Type": "volume",
        "Name": "bf70f2fcc4f85fcd6273c5f1845c331f91c5b367179cefb37bfe34a6216b3023",
        "Source": "/var/lib/docker/volumes/bf70f2fcc4f85fcd6273c5f1845c331f91c5b367179cefb37bfe34a6216b3023/_data",
        "Destination": "/aws",
        "Driver": "local",
        "Mode": "",
        "RW": true,
        "Propagation": ""
      }
    ],
    "Config": {
      "Hostname": "3e9488bb9888",
      "Domainname": "",
      "User": "",
      "AttachStdin": true,
      "AttachStdout": true,
      "AttachStderr": true,
```

- If your container is exit or stop then use following command for start container & copy source:
- Go to the source location and check the files & dir created in container.





```
root@257fb28510f:/aws
root@ip-172-31-95-43:~# docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS   NAMES
3e9488bb9888   65ae7a6f3544   "/bin/bash"             4 minutes ago   Exited (0) 2 minutes ago   mydata
root@ip-172-31-95-43:~# docker rm 3e9488bb9888
3e9488bb9888
root@ip-172-31-95-43:~#
root@ip-172-31-95-43:~# cd /var/lib/docker/volumes/bf70f2fcc4f85fcd6273c5f1845c331f91c5b367179cefb37bfe34a6216b3023/_data
ata
root@ip-172-31-95-43:/var/lib/docker/volumes/bf70f2fcc4f85fcd6273c5f1845c331f91c5b367179cefb37bfe34a6216b3023/_data#
root@ip-172-31-95-43:/var/lib/docker/volumes/bf70f2fcc4f85fcd6273c5f1845c331f91c5b367179cefb37bfe34a6216b3023/_data#
root@ip-172-31-95-43:/var/lib/docker/volumes/bf70f2fcc4f85fcd6273c5f1845c331f91c5b367179cefb37bfe34a6216b3023/_data# ls
s
abc.txt file.txt lmn.txt
root@ip-172-31-95-43:/var/lib/docker/volumes/bf70f2fcc4f85fcd6273c5f1845c331f91c5b367179cefb37bfe34a6216b3023/_data#
root@ip-172-31-95-43:/var/lib/docker/volumes/bf70f2fcc4f85fcd6273c5f1845c331f91c5b367179cefb37bfe34a6216b3023/_data# cd
d
root@ip-172-31-95-43:~# cd /
root@ip-172-31-95-43:~#
root@ip-172-31-95-43:~#
root@ip-172-31-95-43:~# docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
ubuntu        latest    65ae7a6f3544   13 days ago    78.1MB
root@ip-172-31-95-43:~#
root@ip-172-31-95-43:~# docker run --name con1 -v /aws -it 65ae7a6f3544
root@257fb28510f:/# ls
aws bin boot dev etc home lib lib64 media mnt opt proc root run sbin srv sys tmp usr var
root@257fb28510f:/# cd aws
root@257fb28510f:/aws# ls
root@257fb28510f:/aws# |
```

- Volume sharing by con2 or con3
- Create new container with volume sharing from con1.
- Docker run --name con2 --volumes-from con1 -it ubuntu
- Docker run --name con3 --volumes-from con1 -it ubuntu
- Check whether the files of con1 are visible.
- Create new files from cont2.

```
root@07b6cf7e50e6:/aws
root@ip-172-31-95-141:~#
root@ip-172-31-95-141:~# docker -v
Docker version 28.3.2, build 578ccf6
root@ip-172-31-95-141:~#
root@ip-172-31-95-141:~# docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
ubuntu        latest    65ae7a6f3544   2 weeks ago    78.1MB
root@ip-172-31-95-141:~# docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS   NAMES
root@ip-172-31-95-141:~# docker pull ubuntu
Using default tag: latest
latest: Pulling from library/ubuntu
32f112e3802c: Pull complete
Digest: sha256:a08e551cb33850e4740772b38217fc1796a66da2506d312abe51acda354ff061
Status: Downloaded newer image for ubuntu:latest
docker.io/library/ubuntu:latest
root@ip-172-31-95-141:~#
root@ip-172-31-95-141:~#
root@ip-172-31-95-141:~# docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
ubuntu        latest    65ae7a6f3544   2 weeks ago    78.1MB
root@ip-172-31-95-141:~# docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS   NAMES
root@ip-172-31-95-141:~# ls
install-docker.sh snap
root@ip-172-31-95-141:~# mkdir aws
root@ip-172-31-95-141:~#
root@ip-172-31-95-141:~# ls
aws install-docker.sh snap
root@ip-172-31-95-141:~# docker run --name co1 -v /aws -it ubuntu
root@07b6cf7e50e6:/# ls
aws bin boot dev etc home lib lib64 media mnt opt proc root run sbin srv sys tmp usr var
root@07b6cf7e50e6:/# cd aws
root@07b6cf7e50e6:/aws#
root@07b6cf7e50e6:/aws#
root@07b6cf7e50e6:/aws# vi abc.txt
bash: vi: command not found
root@07b6cf7e50e6:/aws# vim abc.txt
bash: vim: command not found
root@07b6cf7e50e6:/aws# apt install vim
```

```
root@07b6cf7e50e6:/aws# cd ..
root@07b6cf7e50e6:/# cd aws
root@07b6cf7e50e6:/aws#
root@07b6cf7e50e6:/aws# touch abc.txt cds.txt
root@07b6cf7e50e6:/aws# ls
abc.txt cds.txt
root@07b6cf7e50e6:/aws# cd ..
root@07b6cf7e50e6:/# root@ip-172-31-95-141:~#
root@ip-172-31-95-141:~# docker run --name con2 --volumes-from col -it ubuntu
root@9d759933837d:/# ls
aws bin boot dev etc home lib lib64 media mnt opt proc root run sbin srv sys tmp usr var
root@9d759933837d:/# cd aws
root@9d759933837d:/aws# ls
abc.txt cds.txt
root@9d759933837d:/aws# cd ..
root@9d759933837d:/# root@ip-172-31-95-141:~#
root@ip-172-31-95-141:~# docker run --name con3 --volumes-from col con2 -it ubuntu
Unable to find image 'con2:latest' locally
docker: Error response from daemon: pull access denied for con2, repository does not exist or may require 'docker login': denied: requested access to the resource is denied

Run 'docker run --help' for more information
root@ip-172-31-95-141:~# docker run --name con3 --volumes-from col -it ubuntu
root@45911a2ffe57:/# ls
aws bin boot dev etc home lib lib64 media mnt opt proc root run sbin srv sys tmp usr var
root@45911a2ffe57:/# cd aws
root@45911a2ffe57:/aws# ls
abc.txt cds.txt
root@45911a2ffe57:/aws# touch abc.txt
root@45911a2ffe57:/aws# cxs.txt
bash: cxs.txt: command not found
root@45911a2ffe57:/aws# touch file.txt file.java
root@45911a2ffe57:/aws# ls
abc.txt cds.txt file.java file.txt
root@45911a2ffe57:/aws#
root@45911a2ffe57:/aws#
root@45911a2ffe57:/aws# cd ..
root@45911a2ffe57:/# root@ip-172-31-95-141:~#
root@ip-172-31-95-141:~# docker ps
```

- Now use docker attach con1 command for run container:
- In con3 we will create one file con3.txt this data will visible on con1 and con2 also

```
root@07b6cf7e50e6:/aws#
ubuntu@ip-172-31-95-141:~$ ls
ubuntu@ip-172-31-95-141:~$ docker attach con3
permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Get "http://%2Fvar%2Frun%2Fdocker.sock/v1.51/containers/con3/json": dial unix /var/run/docker.sock: connect: permission denied
ubuntu@ip-172-31-95-141:~$ docker run exec -it con3
docker: permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Head "http://%2Fvar%2Frun%2Fdocker.sock/_ping": dial unix /var/run/docker.sock: connect: permission denied

Run 'docker run --help' for more information
ubuntu@ip-172-31-95-141:~$
ubuntu@ip-172-31-95-141:~$ docker ps
permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Get "http://%2Fvar%2Frun%2Fdocker.sock/v1.51/containers/json": dial unix /var/run/docker.sock: connect: permission denied
ubuntu@ip-172-31-95-141:~$ sudo su
root@ip-172-31-95-141:/home/ubuntu# cd ..
root@ip-172-31-95-141:/home# cd ..
root@ip-172-31-95-141:/# cd /
root@ip-172-31-95-141:/# ls
bin dev home lib32 libx32 media opt root sbin srv tmp var
boot etc lib lib64 lost+found mnt proc run snap sys usr
root@ip-172-31-95-141:/# docker -v
Docker version 28.3.2, build 578ccf6
root@ip-172-31-95-141:/# docker attach con3
root@45911a2ffe57:/# ls
aws bin boot dev etc home lib lib64 media mnt opt proc root run sbin srv sys tmp usr var
root@45911a2ffe57:/# cd aws
root@45911a2ffe57:/aws# ls
abc.txt cds.txt file.java file.txt file1.txt
root@45911a2ffe57:/aws# touch con3.txt
root@45911a2ffe57:/aws#
root@45911a2ffe57:/aws# cd ..
root@45911a2ffe57:/# read escape sequence
root@ip-172-31-95-141:/# ls
bin dev home lib32 libx32 media opt root sbin srv tmp var
boot etc lib lib64 lost+found mnt proc run snap sys usr
root@ip-172-31-95-141:/#
root@ip-172-31-95-141:/# docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS   NAMES
45911a2ffe57   ubuntu   "/bin/bash"             8 minutes ago  Up 8 minutes          con3
```

```
root@ip-172-31-95-141:/# docker -v
Docker version 28.3.2, build 578ccf6
root@ip-172-31-95-141:/# docker attach con3
root@45911a2ffe57:/# ls
aws bin boot dev etc home lib lib64 media mnt opt proc root run sbin srv sys tmp usr var
root@45911a2ffe57:/# cd aws
root@45911a2ffe57:/aws# ls
abc.txt cds.txt file.java file.txt file1.txt
root@45911a2ffe57:/aws# touch con3.txt
root@45911a2ffe57:/aws#
root@45911a2ffe57:/aws# cd ..
root@45911a2ffe57:/# read escape sequence
root@ip-172-31-95-141:/# ls
bin dev home lib32 libx32 media opt root sbin srv tmp var
boot etc lib lib64 lost+found mnt proc run snap sys usr
root@ip-172-31-95-141:/#
root@ip-172-31-95-141:/# docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS   NAMES
45911a2ffe57   ubuntu   "/bin/bash"             8 minutes ago Up 8 minutes   con3
9d759933837d   ubuntu   "/bin/bash"             14 minutes ago Up 14 minutes  con2
07b6cf7e50e6   ubuntu   "/bin/bash"             18 minutes ago Up 18 minutes  col
root@ip-172-31-95-141:/# docker attach con2
root@9d759933837d:/# ls
aws bin boot dev etc home lib lib64 media mnt opt proc root run sbin srv sys tmp usr var
root@9d759933837d:/# cd aws
root@9d759933837d:/aws# ls
abc.txt cds.txt con3.txt file.java file.txt file1.txt
root@9d759933837d:/aws# cd ..
root@9d759933837d:/# read escape sequence
root@ip-172-31-95-141:/# ls
bin dev home lib32 libx32 media opt root sbin srv tmp var
boot etc lib lib64 lost+found mnt proc run snap sys usr
root@ip-172-31-95-141:/# docker attach col
root@07b6cf7e50e6:/# ls
aws bin boot dev etc home lib lib64 media mnt opt proc root run sbin srv sys tmp usr var
root@07b6cf7e50e6:/# cd aws
root@07b6cf7e50e6:/aws# ls
abc.txt cds.txt con3.txt file.java file.txt file1.txt
root@07b6cf7e50e6:/aws#
```