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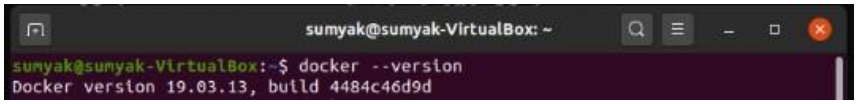
Application Containerization file

Experiment 2

DOCKER VOLUME

1) Checking data in container without docker volume attached and then attaching docker volume to the container

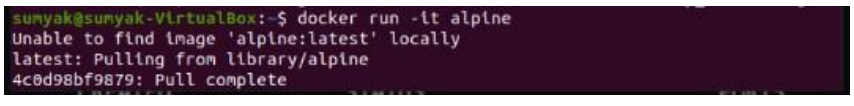
1.1 check docker version



1.2 see any running container

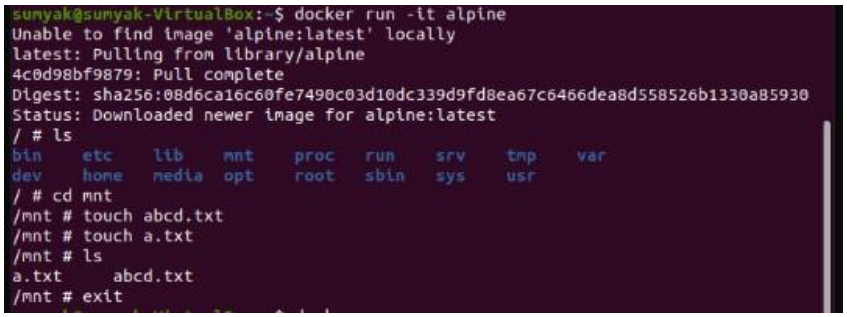
1.3 see all docker container run so far

1.4 make a container of alpine image



1.5

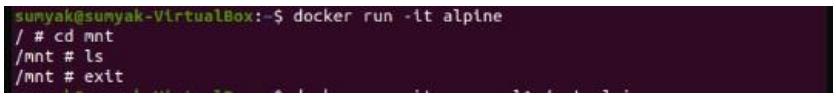
- go to root folder of alpine image i.e “mnt”
- Create files a.txt, b.txt
- And view files
- The exit the container



1.6 see the container is exited

1.7

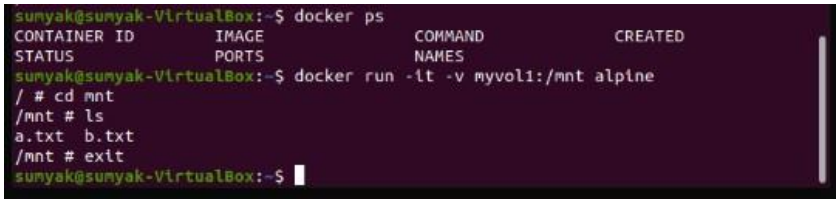
- make alpine container again
- And go to its root folder and check for the files created before (they are not there)



1.8 now make another container but this time with “docker volume” And again

- go to root folder of alpine image i.e “mnt”
- Create files a.txt, b.txt
- And view files
- The exit the container

1.9 make another container and check for the files created before now this time files are present Even after we have exited the container



2) Docker volume inspection

2.1 you can check all the volumes created

```
sumyak@sumyak-VirtualBox:~$ docker volume ls
DRIVER              VOLUME NAME
local               b2b4e45313908d64b9b494597c0da5d0e086f5fa1d806cc5b7532c389fc9
5970
local               ca0ec7acdb2cb99160161f84fff787d438448bbc84161ff07938c3e9bcd8
18d8
local               f21a7e167458c5b2d0590769e99ff19aa540c3c65fa9ce0be1e61cec0317
e8e4
local               myvol1
```

2.2 you can inspect your volume and know its location

```
sumyak@sumyak-VirtualBox:~$ docker volume inspect myvol1
[
    {
        "CreatedAt": "2021-02-01T16:19:02+05:30",
        "Driver": "local",
        "Labels": null,
        "Mountpoint": "/var/lib/docker/volumes/myvol1/_data",
        "Name": "myvol1",
        "Options": null,
        "Scope": "local"
    }
]
sumyak@sumyak-VirtualBox:~$
```

2.3 you can go to your volume location and check for the content in it

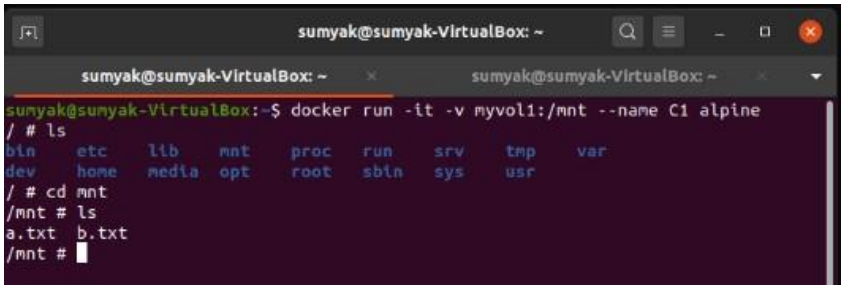
```
sumyak@sumyak-VirtualBox:~$ sudo ls /var/lib/docker/volumes/myvol1/_data
[sudo] password for sumyak:
a.txt  b.txt
sumyak@sumyak-VirtualBox:~$
```

2.4 removing docker volume

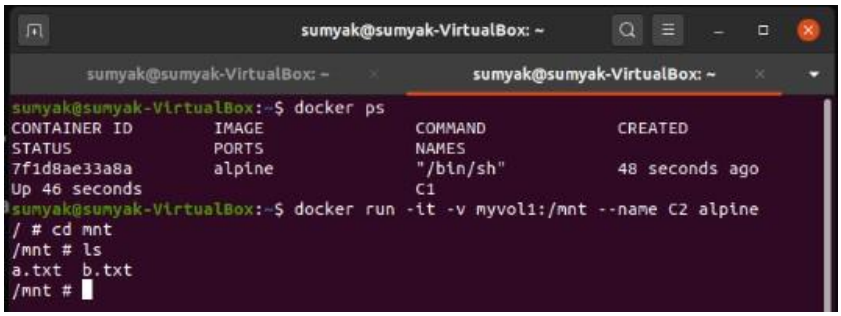
```
sumyak@sumyak-VirtualBox: ~
sumyak@sumyak-VirtualBox:~$ docker ps
CONTAINER ID        IMAGE               COMMAND             CREATED
STATUS              PORTS               NAMES
sumyak@sumyak-VirtualBox:~$ docker volume

Usage:  docker volume COMMAND

Manage volumes

Commands:
  create      Create a volume
  inspect     Display detailed information on one or more volumes
  ls          List volumes
  prune       Remove all unused local volumes
  rm          Remove one or more volumes

Run 'docker volume COMMAND --help' for more information on a command.
sumyak@sumyak-VirtualBox:~$ docker volume rm myvol1
Error response from daemon: remove myvol1: volume is in use - [26a6487c93c581801
6382b7f6c0430bd28944683e09d5464ce549a5e28491106, 8e4952f96c0ae82ae630dfc75cd303f
348e5148daf2db4bab06428e3e5952aad, 7f1d8ae33a8a73a4076734a3a08725975e1b8341a1cb3
d988d33d734bcbc013c, ba9bf09ccc1641205cc12213a9a312467c6e9d54a8de2e001916ff2c139
faa3e, c74cf9d93599a52510baec1082e9f28c40b26df655d3f6407dfb92b786f9293f]
sumyak@sumyak-VirtualBox:~$
```

3) making container of same image with different names and sharing files between them

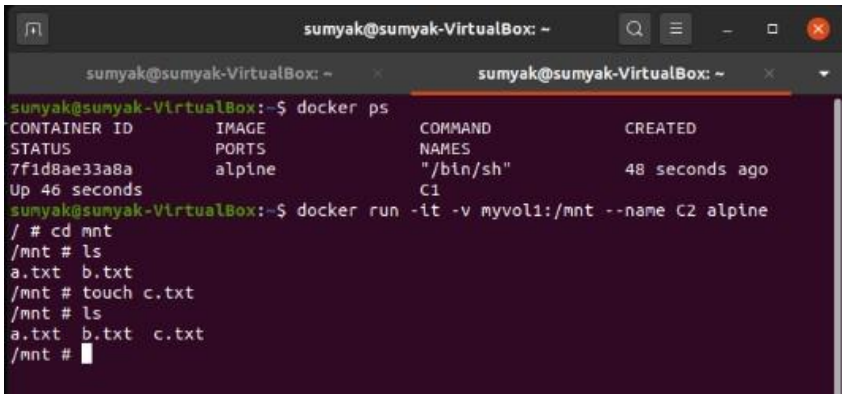
3.1 create a container naming c1 with same docker volume attached and see the files present in it



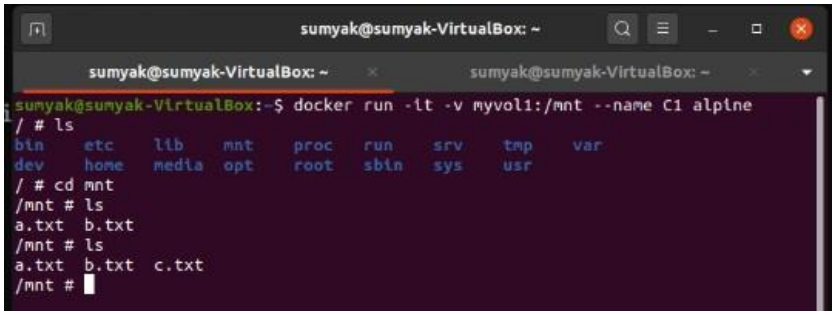
3.2 create another container with name c2 and same docker volume attached



3.3 create a file c.txt in container c2



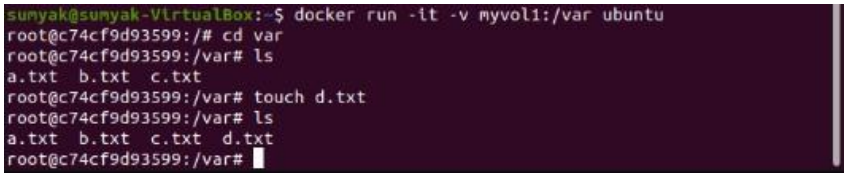
3.4 you see the same file c.txt in c1 container also



4) making container of different image and sharing files between them

4.1

- Create another container but this time with different image “ubuntu” with same docker volume
- Go to its root folder “var”
- Create a file d.txt
- And exit the container



4.2 check another container of different image have the same files present made on the another container with different image