

## EXPERIMENT 3

### AIM: Working with Docker Volume

#### Steps to Complete:

1. View all Volume in Docker - **docker volume ls**

```
anuvagarg@Anuvas-MacBook-Air ~ % docker volume ls
DRIVER      VOLUME NAME
local       0bca3e9253ea86ebcd36710eb1f9c40fad66e4c60fc62e7c797e4d522f01968f
local       1e67c1041bafae7c5f52e25aabc76502879d753218d4b6e3669ad804ab7753b
local       2f2ced9f787f2452c658f01307c3a677318ae4a113218da430d33fef9cc75b7b
local       3f0b72b11e6e3deaf1cf3b3a452d779a209397747dbaa66e6559538e413b5f3e
local       5b734ff1f6fca44f29f1505d5dfdc370fc13608f01acc95dca51f2c45219dac9
local       6e681d9584986769efd053a88663623581bca812a903a2ea5701376b4de2c446
local       8beebcbd0ff792c51b11a28ae7cdf672a914ac2c58b8585aa2dfb9abd48e6a08
local       26b6e7b6cede6eb8263eda6fbe098cc674a09a8621b191aace1ad9eccbbe8f43
local       28b69644ebc4cfdeb9aff11b00b7901e8677f3af427abb88c37b9afb7299ba1f
local       59ac504c49e6a1ab7d7ef05a582eac5ba088078509e1b20599f09261c3a10ada
local       84a1bc5c6bab37ed4026b5f025f82a5ed1c2b9e541491b4b025d1eaa19a5e67e
local       90d2f455bec6d300bd7e0aa8fe01ce59ec18f6d87a5b9fc9e3cd8d86695f261b
local       341b3cc8ba6d566ea061afd5178b988e3ba406fa362123b4869ce91e681e659a
local       961bc0fbfb2e5242edc89ba466758b8c4d9846f9d8f0b547fd1677ac14c537ee
local       0877424f9b1141487da3f54c061826ac059358f3e3b2c29421bd6e7256682c58
local       a7cfa40657a26a6b3552f7fea0477c81b9c166e35ef40f918cb487fcf32e548d
local       a146b3610acc460aea565a017caf8302be40f901f1cf96fb25fbcd2ab8cd7624
local       c540f6bc55c830db72015ee9f5fa145ce6a6af1e9275c1707280888e2afe97d3
local       cc1b265d3053a7044e6608c84c8a1adc0e42ce8111e29396cdce3d5b7fddb706
local       e584c4fd44594aaecbc97080127162e600b5aeb6a3c2454a1ff94572f8c48a24
local       e809d3c2e7e4b9c554b9641aca9ec15ff750c08925f3ec7aa86bc34566ca16bc
local       jenkins_home
local       myvol
local       techworld-js-docker-demo-app_mongo-data
```

2. Create a new Volume - **docker volume create myVol2**

```
anuvagarg@Anuvas-MacBook-Air ~ % docker volume create myVol2
myVol2
```

3. Mount a Volume with a container -

**docker run -d redis**

**docker ps, docker inspect <container id>**

```
anuvagarg@Anuvas-MacBook-Air ~ % docker run -d redis
8a48ac29c585f9d7de732c4fcba9712ba6f1f47052b3b6c1f0fda0a36465c471
anuvagarg@Anuvas-MacBook-Air ~ % docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED    STATUS    PORTS    NAMES
8a48ac29c585   redis    "docker-entrypoint.s..." 10 seconds ago    Up 7 seconds    6379/tcp    affectionate_noyce
```

```

anuvagarg@Anuvas-MacBook-Air ~ % docker inspect 8a48ac29c585
[
  {
    "Id": "8a48ac29c585f9d7de732c4fcb9712ba6f1f47052b3b6c1f0fda0a36465c471",
    "Created": "2022-08-17T06:14:44.438248628Z",
    "Path": "docker-entrypoint.sh",
    "Args": [
      "redis-server"
    ],
    "State": {
      "Status": "running",
      "Running": true,
      "Paused": false,
      "Restarting": false,
      "OOMKilled": false,
      "Dead": false,
      "Pid": 1962,
      "ExitCode": 0,
      "Error": "",
      "StartedAt": "2022-08-17T06:14:46.555504Z",
      "FinishedAt": "0001-01-01T00:00:00Z"
    }
  }
]

```

**docker run -it -v myVol2:/data redis /bin/bash**

**ls, mkdir test, touch xyz.txt, ls, exit, docker ps -a**

```

anuvagarg@Anuvas-MacBook-Air ~ % docker run -it -v myVol2:/data redis /bin/bash
root@9656484b60e9:/data# ls
root@9656484b60e9:/data# mkdir test
root@9656484b60e9:/data# touch xyz.txt
root@9656484b60e9:/data# ls
test  xyz.txt
root@9656484b60e9:/data# exit
exit
anuvagarg@Anuvas-MacBook-Air ~ % docker ps -a

```

CONTAINER ID	IMAGE	COMMAND	NAMES	CREATED	STATUS
9656484b60e9	redis	"docker-entrypoint.s..."	magical_goldberg	33 seconds ago	Exited (0) 6 seconds ago
8a48ac29c585	redis	"docker-entrypoint.s..."	affectionate_noyce	5 minutes ago	Up 5 minutes
6379/tcp	redis	"docker-entrypoint.s..."	bold_kilby	7 days ago	Exited (0) 7 days ago
5d27039e8a54	redis	"docker-entrypoint.s..."	agitated_shaw	7 days ago	Exited (0) 7 days ago
867273995c82	redis	"docker-entrypoint.s..."	interesting_varahamihira	7 days ago	Exited (0) 7 days ago
be8085a6df67	redis	"docker-entrypoint.s..."		7 days ago	Exited (0) 7 days ago

4. Create another container and Mount with the same Volume

**docker run -it -v myVol2:/data redis /bin/bash**

```

anuvagarg@Anuvas-MacBook-Air ~ % docker run -it -v myVol2:/data redis /bin/bash
root@8e07d1b3c445:/data# ls
test  xyz.txt

```

5. See the complete working of container

```

anuvagarg@Anuvas-MacBook-Air ~ % docker ps -a

```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS
8e07d1b3c445	redis	"docker-entrypoint.s..."	3 minutes ago	Exited (0) 3 seconds ago	
9656484b60e9	redis	"docker-entrypoint.s..."	5 minutes ago	Exited (0) 4 minutes ago	
8a48ac29c585	redis	"docker-entrypoint.s..."	10 minutes ago	Up 10 minutes	6379/tcp

6. Exited from container and restart again to see the persistent of Docker Volume:

**docker start <container id>**

**docker attach <container id>**

```
anuvagarg@Anuvas-MacBook-Air ~ % docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS        NAMES
8a48ac29c585   redis    "docker-entrypoint.s..." 10 minutes ago Up 10 minutes 6379/tcp     affectionate_noyce
anuvagarg@Anuvas-MacBook-Air ~ % docker start 8e07d1b3c445
8e07d1b3c445
anuvagarg@Anuvas-MacBook-Air ~ % docker attach 8e07d1b3c445
root@8e07d1b3c445:/data# ls
test  xyz.txt
root@8e07d1b3c445:/data#
```