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Experiment No. 2.3

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Section/Group: MCD-1/A
Semester: III
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Subject Name: CONTAINERIZATION WITH DOCKER
Subject Code: 22CAH-742

1. Aim/Overview of the practical:

a) Maintaining States with Docker Volumes.

2. Code for practical: (a)

Step 1 : First create a volume and inspect.

```
PS C:\Users\Pinda> docker volume create state
state
```

```
PS C:\Users\Pinda> docker volume inspect state
[
    {
        "CreatedAt": "2023-11-04T09:15:54Z",
        "Driver": "local",
        "Labels": null,
        "Mountpoint": "/var/lib/docker/volumes/state/_data",
        "Name": "state",
        "Options": null,
        "Scope": "local"
    }
]
```

Step 2 : Create a container using image with some additional flags:

-v for volume

-it for interaction mode

--name container name

```
PS C:\Users\Pinda> docker run -it -v state:/var/local --name linux1 ubuntu
```

Step 3 : Container is in running state.

- Specify the path.
- Create some files or data in the running container, then exit and remove the container.

```
root@3d1ad2887030:/# cd var/local
root@3d1ad2887030:/var/local# echo "Managing States with Docker Volumes" > state.txt
root@3d1ad2887030:/var/local# ls
state.txt
```

Step 4 : After removing the previous container, Now Create another container same with -v -it or –name flag.

- Specify the path.
- List the files.

```
PS C:\Users\Pinda> docker run -it -v state:/var/local --name linux2 ubuntu
root@cbfc43a850da:/# cd var/local
root@cbfc43a850da:/var/local# ls
state.txt
root@cbfc43a850da:/var/local# cat state.txt
Managing States with Docker Volumes
```

Step 5 : Previous generated file is visible that means different containers are using the same volume.