

# Module-3: Storage in Docker

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Demo Document - 1

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## DEMO-1: Using Volumes for Storage

**Note:** All commands are executed as root.

### Creating a New Volume

1. Create a new Docker volume using the docker volume command

```
$ docker volume create <volumeName>
$ docker volume ls
```

```
root@docker-1:~# docker volume create vol1
vol1
root@docker-1:~# docker volume ls
DRIVER          VOLUME NAME
local           c583d14f0ff9ea9035cdf1d5a8c9a208e66969660abafaa65ee70c4338e29874
local           vol1
```

2. To check the volume configuration, use the inspect option

```
$ docker volume inspect <volumeName>
```

```
root@docker-1:~# docker volume inspect vol1
[
  {
    "CreatedAt": "2020-06-26T07:58:19Z",
    "Driver": "local",
    "Labels": {},
    "Mountpoint": "/var/lib/docker/volumes/vol1/_data",
    "Name": "vol1",
    "Options": {},
    "Scope": "local"
  }
]
```

## Starting a container with a volume

1. To start a container with volume using -v flag

```
docker run -d \  
--name <containerName> \  
-v <volumeName>:<containerPath> \  
imageName
```

Mounting a volume using the --mount flag

```
docker run -d \  
--name <containerName> \  
--mount source=<volumeName>, dst=<containerPath> \  
nginx:latest
```

```
root@docker-1:~# docker run -d \  
> --name nginx1 \  
> -v vol1:/app \  
> nginx:latest  
925e3e69eab7d5bed256f0d04b4165f94800b95ce4add17d0c08ca26b906e48d
```

2. To verify the volume attached to the container we can run the inspect command and check under mounts section

```
$ docker inspect <containerName>
```

```
"Mounts": [  
  {  
    "Type": "volume",  
    "Name": "vol1",  
    "Source": "/var/lib/docker/volumes/vol1/_data",  
    "Destination": "/app",  
    "Driver": "local",  
    "Mode": "z",  
    "RW": true,  
    "Propagation": ""  
  }  
,  
]
```