# Docker Storage (Volumes)

Docker containers are stateless by default that means data does not persist once the container stops.

In docker we some different storage solutions to make the data persist.

1. Volumes:
    * managed By Docker
    * stored location: /var/lib/docker
2. Bind Mounts:
    * Map a directory or a file on the host to the container
3. tmpfs mounts: Temporary filesystems which stores data in memory but not persisted.

Let's Understand How Volume Works

Create Volume and see available volumes:

```
C:\Users\NEW>docker volume ls
DRIVER     VOLUME NAME

C:\Users\NEW>docker volume create my_volume
my_volume

C:\Users\NEW>docker volume ls
DRIVER     VOLUME NAME
local      my_volume
```

Use Volume in a container:

```
C:\Users\NEW>docker run -d --name my-container -v my_volume:/app nginx
Unable to find image 'nginx:latest' locally
latest: Pulling from library/nginx
af302e5c37e9: Pull complete
207b812743af: Pull complete
841e383b441e: Pull complete
0256c04a8d84: Pull complete
38e992d287c5: Pull complete
9e9aab598f58: Pull complete
4de87b37f4ad: Pull complete
Digest: sha256:0a399eb16751829e1af26fea27b20c3ec28d7ab1fb72182879dcae1cca21206a
Status: Downloaded newer image for nginx:latest
afd350e67fe1c3299f22b0a04e5e7e10e08874dc2d8fab67a53b3381ef1b8925

C:\Users\NEW>docker ps
CONTAINER ID   IMAGE    COMMAND               CREATED         STATUS          PORTS      NAMES
afd350e67fe1   nginx    "/docker-entrypoint.…"  5 seconds ago   Up 3 seconds    80/tcp     my-container
```

See the Volume Content: