



## Lab 7B. Persistent Volumes with Docker

In this lab, you are going to learn how to create three different types of volumes with Docker. These instructions are intended to be followed along with the video lessons which explain each of the volume types in detail.

### Types of Volumes

Following are the three types of volumes that are supported by Docker and are available on the Docker host by default:

- volumes
- bind mounts
- tmpfs

### Automatic Volumes

To create a volume which is automatically named by Docker, just provide the destination inside the container to mount the volume at:

```
docker container run -idt --name vt01 -v /var/lib/mysql alpine sh
docker inspect vt01 | grep -i mounts -A 10
```

### Named Volumes

To create a volume with a specific name use the following command:

```
docker container run -idt --name vt02 -v db-data:/var/lib/mysql
alpine sh
docker inspect vt02 | grep -i mounts -A 10
```

## Bind Mounts

If you have an existing path on the host, and want to make it available inside the container, use the following command:

```
mkdir /root/sysfoo
docker container run -idt --name vt03 -v /root/sysfoo:/var/lib/mysql
alpine sh
docker inspect vt03 | grep -i mounts -A 10
```

Sharing files between host and the container:

```
ls /root/sysfoo/
touch /root/sysfoo/file1
docker exec -it vt03 sh
ls sysfoo/
```

## Summary

In this lab, you just learned how to provide persistent storage to a container using three different types of volumes.