Docker Storage 101

Categories of data storage:

- Non-persistent
    - Data that is ephemeral
    - Every container has it
    - Tied to the lifecycle of the container
- Persistent
    - Volumes
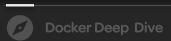   - Volumes are decoupled from containers

Non-persistent Data

Non-persistent data:

- By default all container use local storage

- Storage locations:

  - linux: `/var/lib/docker/<STORAGE-DRIVER>/`
  - windows: `c:\ProgramData\Docker\windowsfilter\`
- Storage Drivers:

  - RHEL uses overlay2
  - Ubuntu uses overlay2 or aufs
  - SUSE uses btrfs
  - Windows uses it's own

Persistent Data Using Volumes

Volumes:

- Use a volume for persistent data

    1. Create the volume.
    2. Create your container.

- Mounted to a directory in the container

- Data is written to the volume

- Deleting a container does not delete the volume

- First-class citizens

- Uses the local driver

Persistent Data Using Volumes (cont.)

Volumes:

- Third party drivers

  - Block storage
  - File storage
  - Object storage
- Storage locations

  - linux: `/var/lib/docker/volumes/`
  - windows: `c:\ProgramData\Docker\volumes`

Persistent Data Using Volumes (cont.)

/
- bin
- var/code
- dev
- etc

Docker Volume

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