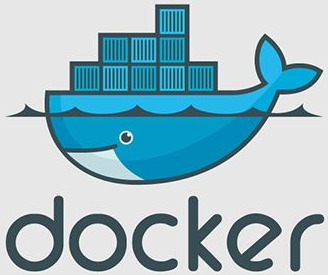
Build, Ship, Run



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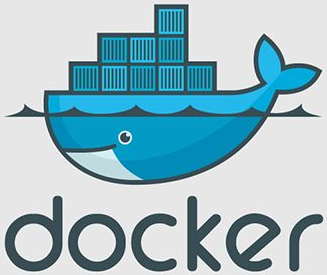
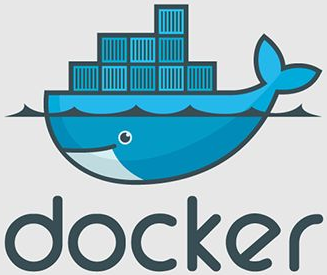
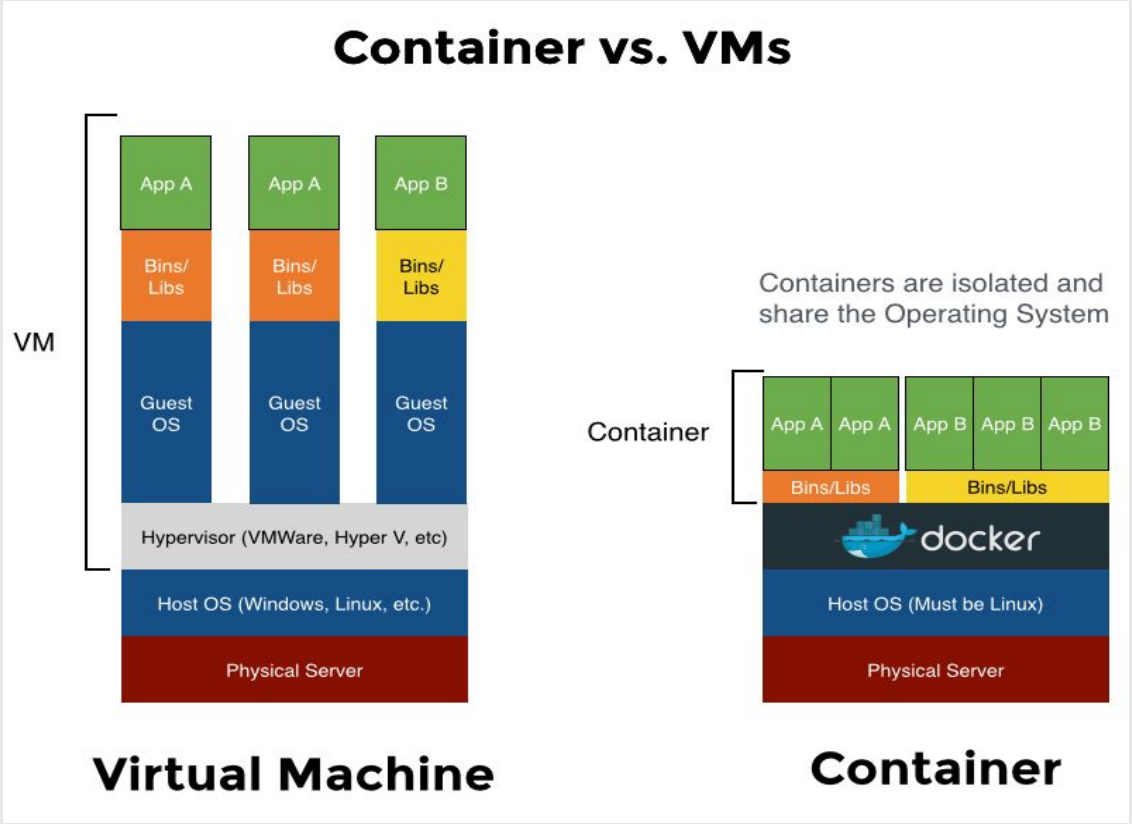


What Is it?

- Docker Container
  - Linux cgroups
  - Kernel namespaces
  - Docker image
  - lifecycle
- Docker Image
- Docker Registry
- dockerfile

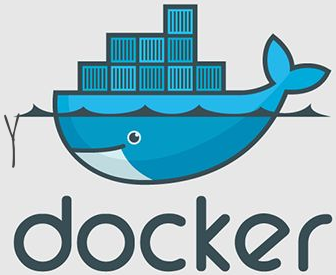


Docker Container

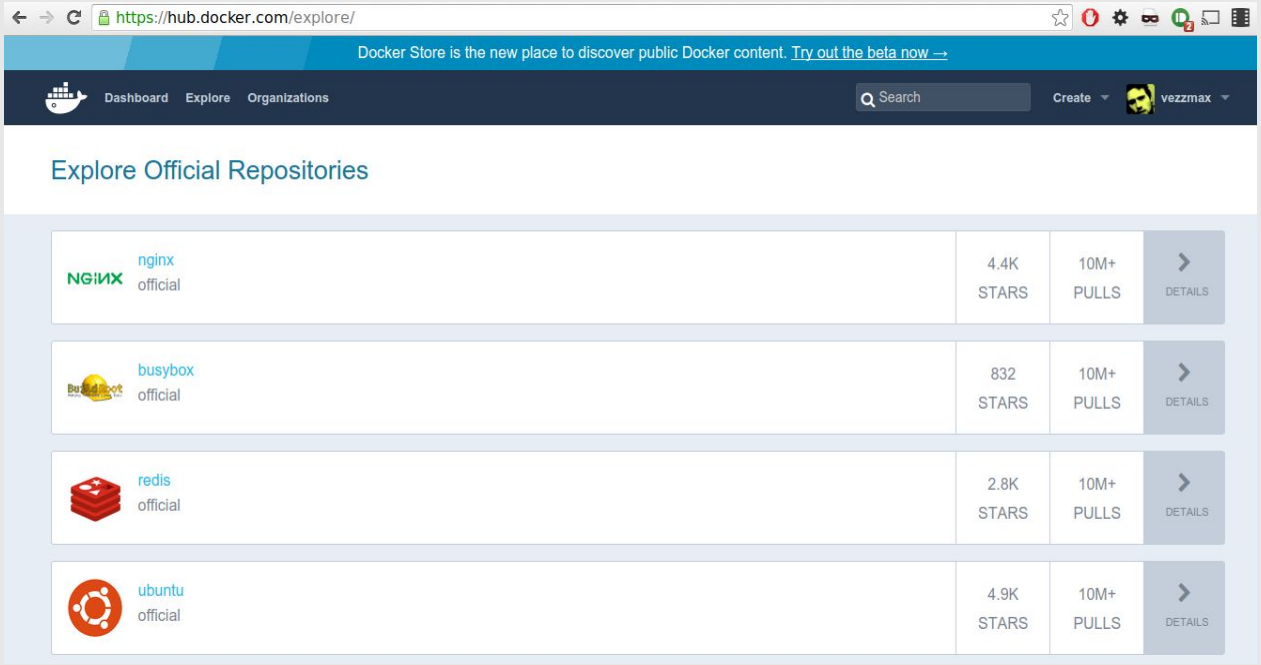


Docker Image

- Not a Filesystem
- Not a VHD
- Tar file
- Fits into the docker registry
  - Git repo Semantics
    - Pull
    - Push
    - Commit
- Has a hierarchy



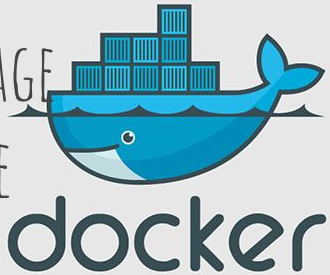
Docker Registry



`$ docker search` is another option

Dockerfile

- Like a Makefile
- Extends from a base image
- Results in a new docker image
- Imperative, not declarative

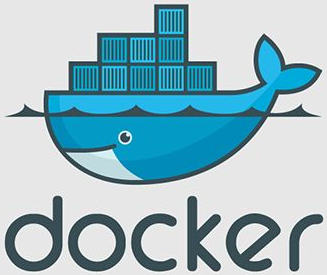



```
FROM centos:centos6
MAINTAINER Maximo Vezzosi
RUN yum -y install httpd
EXPOSE 80
ADD start.sh /start.sh
CMD /start.sh
```

Docker CLI Commands

```
Commands:
    attach    Attach to a running container
    build     Build an image from a Dockerfile
    commit    Create a new image from a container's changes
    cp        Copy files/folders between a container and the local filesystem
    create    Create a new container
    diff      Inspect changes on a container's filesystem
    events    Get real time events from the server
    exec      Run a command in a running container
    export    Export a container's filesystem as a tar archive
    history   Show the history of an image
    images    List images
    import    Import the contents from a tarball to create a filesystem image
    info      Display system-wide information
    inspect   Return low-level information on a container, image or task
    kill      Kill one or more running containers
    load      Load an image from a tar archive or STDIN
    login     Log in to a Docker registry.
    logout    Log out from a Docker registry.
    logs      Fetch the logs of a container
    network   Manage Docker networks
    node      Manage Docker Swarm nodes
    pause     Pause all processes within one or more containers
    port      List port mappings or a specific mapping for the container
    ps        List containers
    pull      Pull an image or a repository from a registry
    push      Push an image or a repository to a registry
    rename    Rename a container
    restart   Restart a container
    rm        Remove one or more containers
    rmi       Remove one or more images
    run       Run a command in a new container
    save      Save one or more images to a tar archive (streamed to STDOUT by default)
    search    Search the Docker Hub for images
    service   Manage Docker services
    start     Start one or more stopped containers
    stats     Display a live stream of container(s) resource usage statistics
    stop      Stop one or more running containers
    swarm     Manage Docker Swarm
    tag       Tag an image into a repository
    top       Display the running processes of a container
    unpause   Unpause all processes within one or more containers
    update    Update configuration of one or more containers
    version   Show the Docker version information
    volume    Manage Docker volumes
    wait      Block until a container stops, then print its exit code
```

DEMO



QUESTIONS?