

indico



# Container Deployment

## Walkthrough

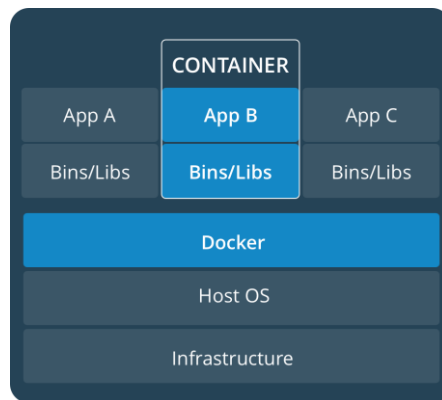
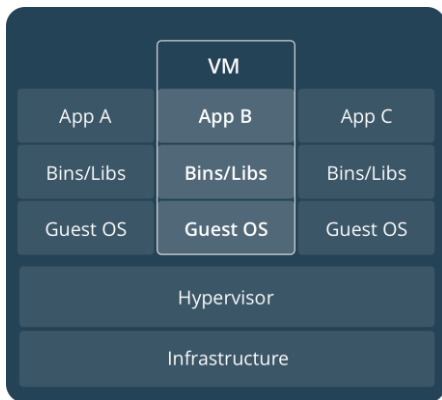
Marco Vidal, CERN, Oct. 2017

# What is Docker?

Docker is a software platform that allows you to build, test, and deploy applications quickly, packaging software into standardized units called **containers**.

# What is a container?

- Container  $\neq$  VM
- Isolated
- Share OS
- and sometimes bins/libs



# OpenShift

OpenShift is a layer on top of Docker and Kubernetes that makes it accessible and easy for the developer to create applications



- Web-based Console
- Command-Line Tool
- Logs and metrics
- Templates
- ...

Goal → ready-for-production **Indico template**



# Docker images

- Docker Hub
- Dockerfile

# Docker Hub



## Explore Official Repositories

 <b>nginx</b> official	6.1K STARS	10M+ PULLS	<a href="#">&gt;</a> DETAILS
 <b>redis</b> official	3.8K STARS	10M+ PULLS	<a href="#">&gt;</a> DETAILS
 <b>busybox</b> official	1.0K STARS	10M+ PULLS	<a href="#">&gt;</a> DETAILS
 <b>ubuntu</b> official	6.1K STARS	10M+ PULLS	<a href="#">&gt;</a> DETAILS
 <b>registry</b> official	1.5K STARS	10M+ PULLS	<a href="#">&gt;</a> DETAILS
 <b>alpine</b> official	2.3K STARS	10M+ PULLS	<a href="#">&gt;</a> DETAILS
 <b>mysql</b> official	4.4K STARS	10M+ PULLS	<a href="#">&gt;</a> DETAILS
 <b>mongo</b> official	3.3K STARS	10M+ PULLS	<a href="#">&gt;</a> DETAILS

# Dockerfile

It is possible to build your own images reading instructions from a Dockerfile

```
FROM centos:7
RUN yum install -y python-devel python-virtualenv
RUN virtualenv /opt/indico/venv
RUN pip install indico
COPY entrypoint.sh /opt/indico/entrypoint.sh
EXPOSE 8000
ENTRYPOINT /opt/indico/entrypoint.sh
```



# docker-compose

Allows to run multi-container Docker applications reading instructions from a `docker-compose.yml` file

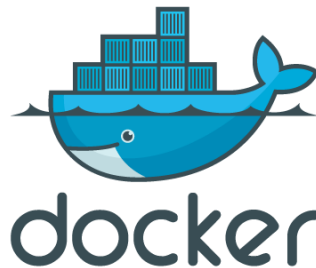
```
version: "2"
services:
  my-application:
    build: ./
    ports:
      - "8000:8000"
    environment:
      - CONFIG_FILE
  db:
    image: postgres
  redis:
    image: redis
    command: redis-server --save "" --appendonly no
    ports:
      - "6379"
```

# Indico on Docker

## Requirements

Docker

docker-compose



# Demo



[indico-docker](https://github.com/mvidalgarcia/indico-docker)

```
$ git clone https://github.com/mvidalgarcia/indico-docker.git  
$ cd indico-docker  
$ docker-compose up
```

Go to localhost:8080

Questions?

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