


Introduction to Docker

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 Change photo

Cambridge Women BioInformatics Meetup

Location

Cambridge, MA

Members

433



Organizers

Lorena Pantano and 2 others

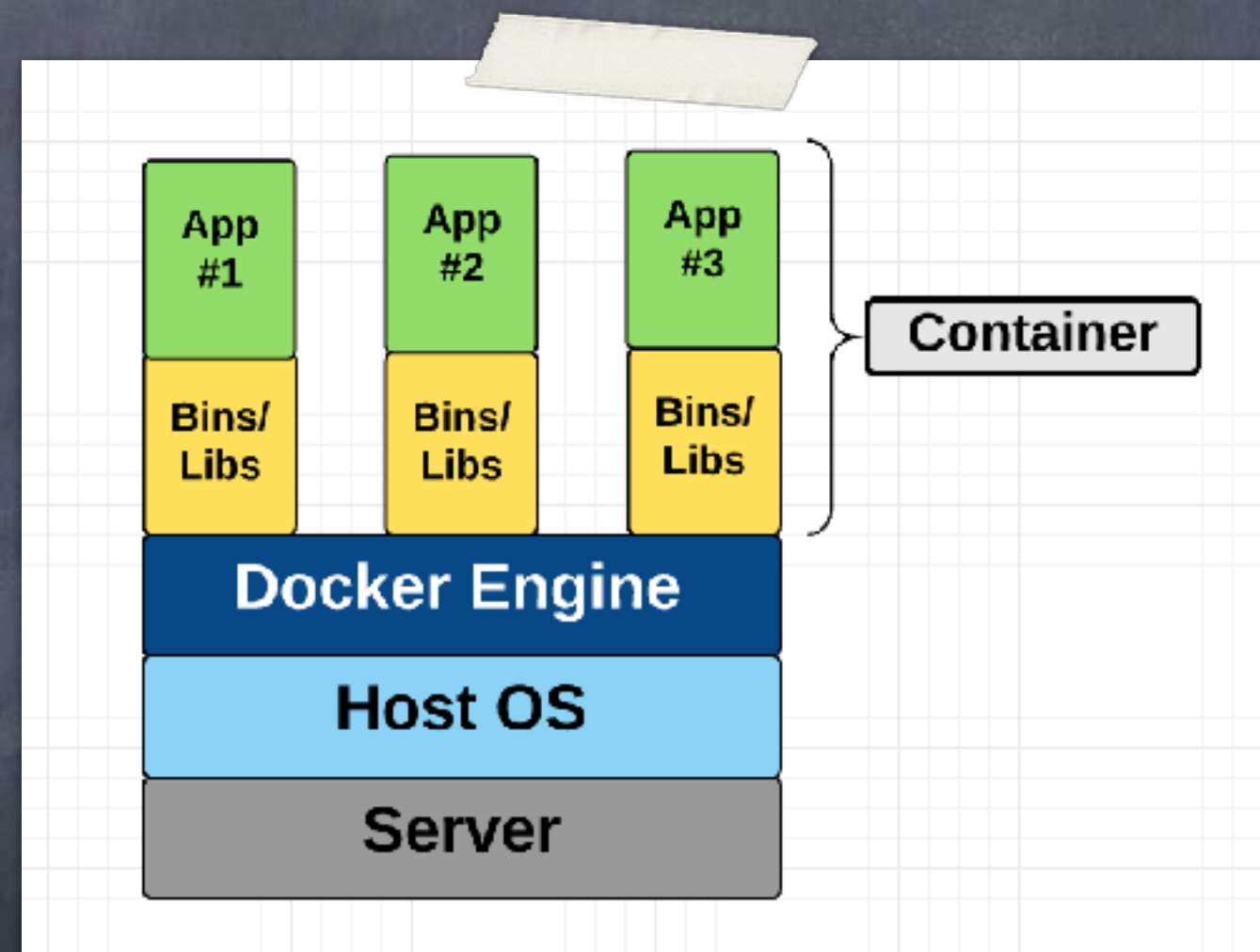
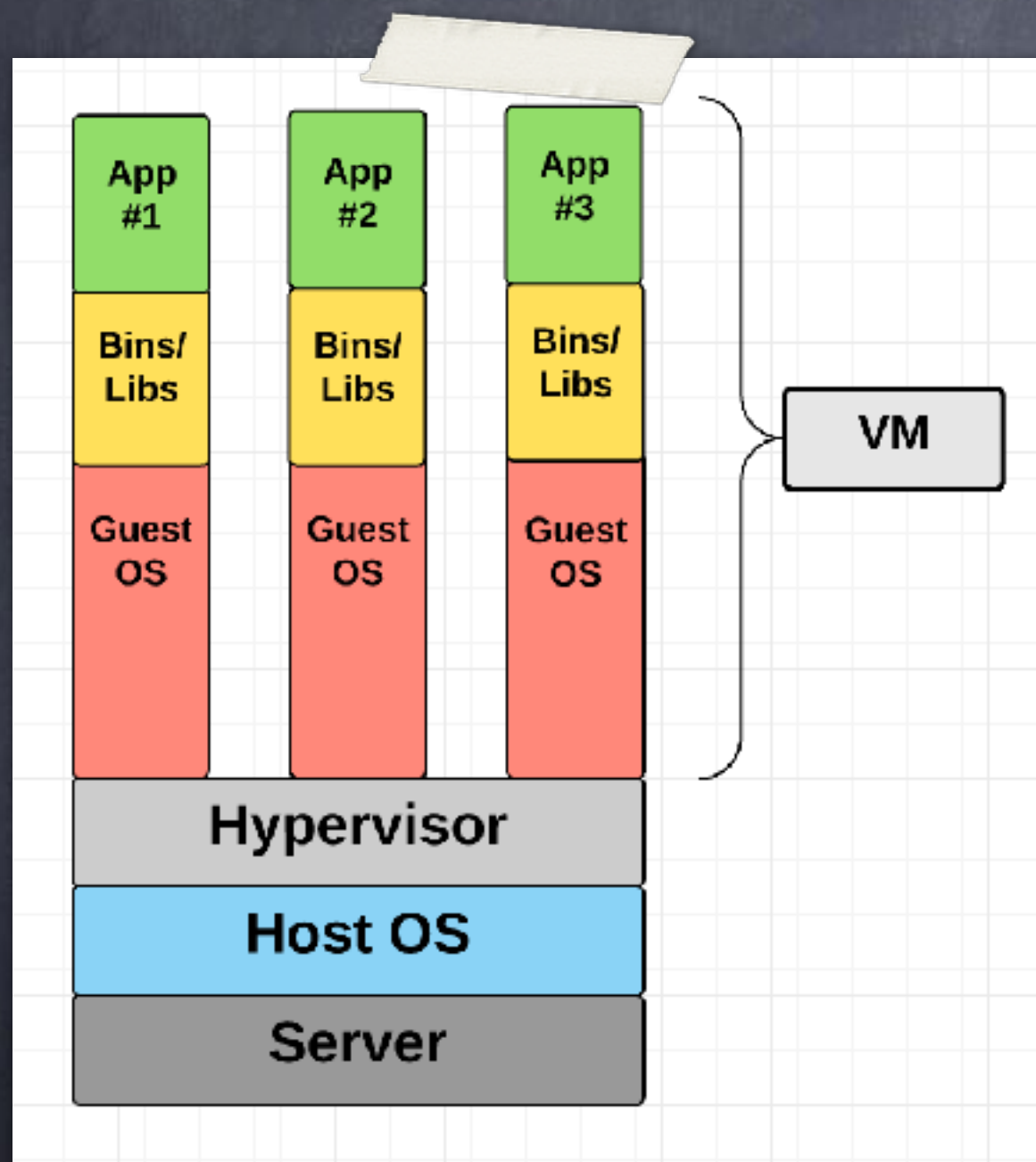
Schedule

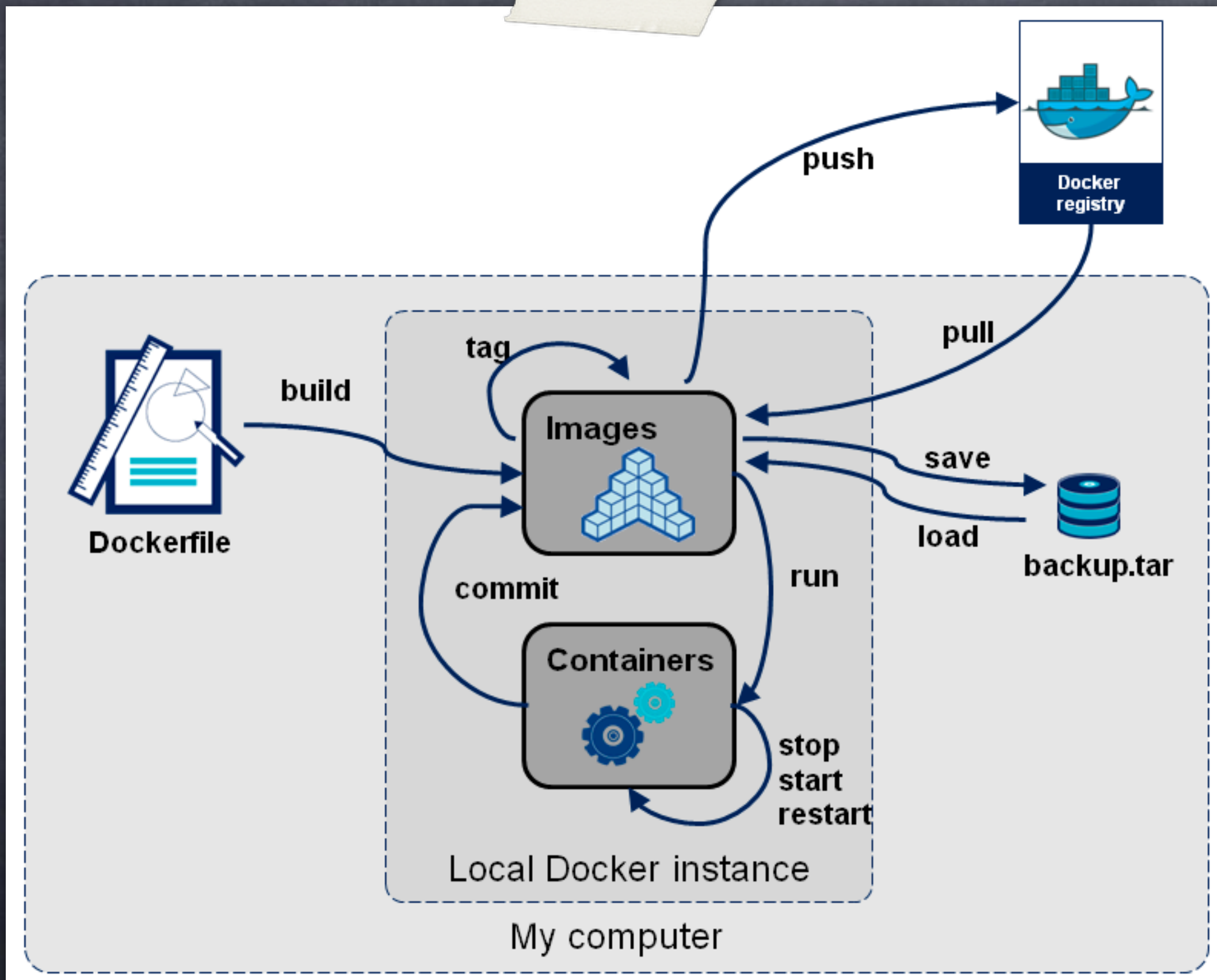
...



What

- What is docker
- Run interactive image
- Mount folders
- Public and private images
- Dockerfile





[https://docs.docker.com/get-started/
#test-docker-installation](https://docs.docker.com/get-started/#test-docker-installation)

[https://medium.freecodecamp.org/a-
beginner-friendly-introduction-to-
containers-vms-and-docker-79a9e3e119b](https://medium.freecodecamp.org/a-beginner-friendly-introduction-to-containers-vms-and-docker-79a9e3e119b)

List Docker CLI commands

docker

docker container --help

Display Docker version and info

docker --version

docker version

docker info

Execute Docker image

docker run hello-world

List Docker images

docker image ls

List Docker containers (running, all, all in quiet mode)

docker container ls

docker container ls --all

docker container ls -a -q

3 tips to get you started

- Docker image ls

- Docker ps -a

- Docker run -it

```
$ docker run -i -t <image_name> /bin/bash
```

- Docker start/attach/stop

```
$ docker start <container_name>
```

```
$ docker attach <container_name>
```

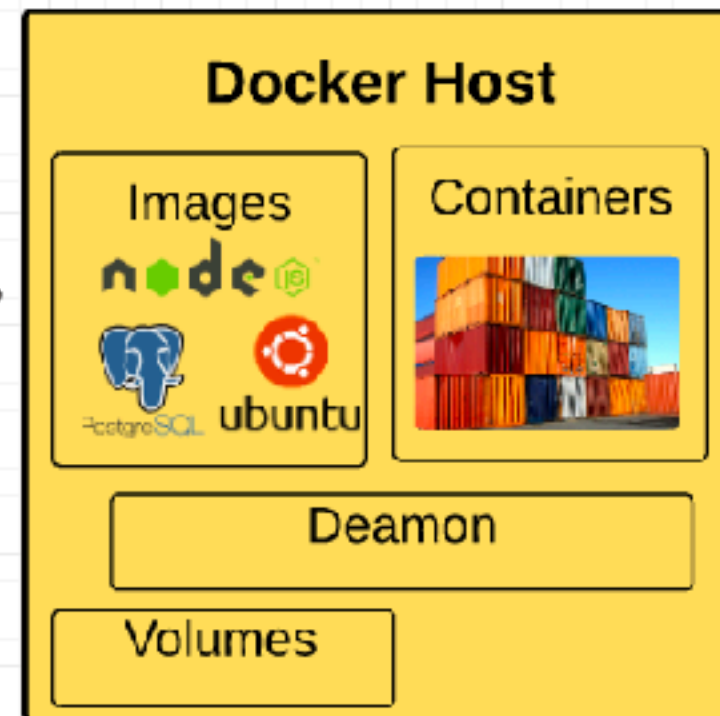
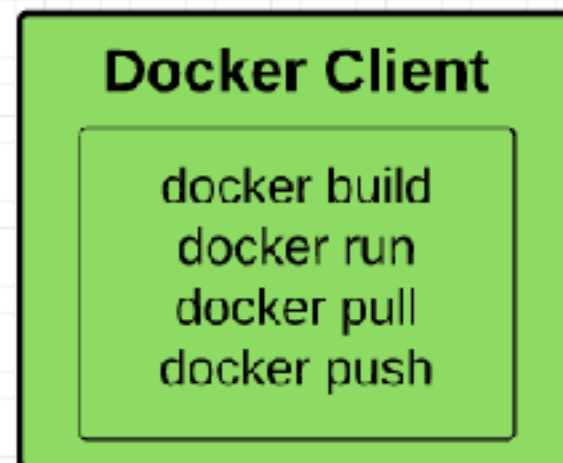
Share folders

```
$ docker run --name devtest -m vol1:/app nginx:latest
```


Dockerfile and Hub



<https://hub.docker.com>



Dockerfile



>docker build


```
$ docker build <docker_file>
```

```
# Use an official Python runtime as a parent image
FROM python:2.7-slim

# Set the working directory to /app
WORKDIR /app

# Copy the current directory contents into the container at /app
ADD . /app

# Install any needed packages specified in requirements.txt
RUN pip install --trusted-host pypi.python.org -r requirements.txt

# Make port 80 available to the world outside this container
EXPOSE 80

# Define environment variable
ENV NAME World

# Run app.py when the container launches
CMD ["python", "app.py"]
```

