

1



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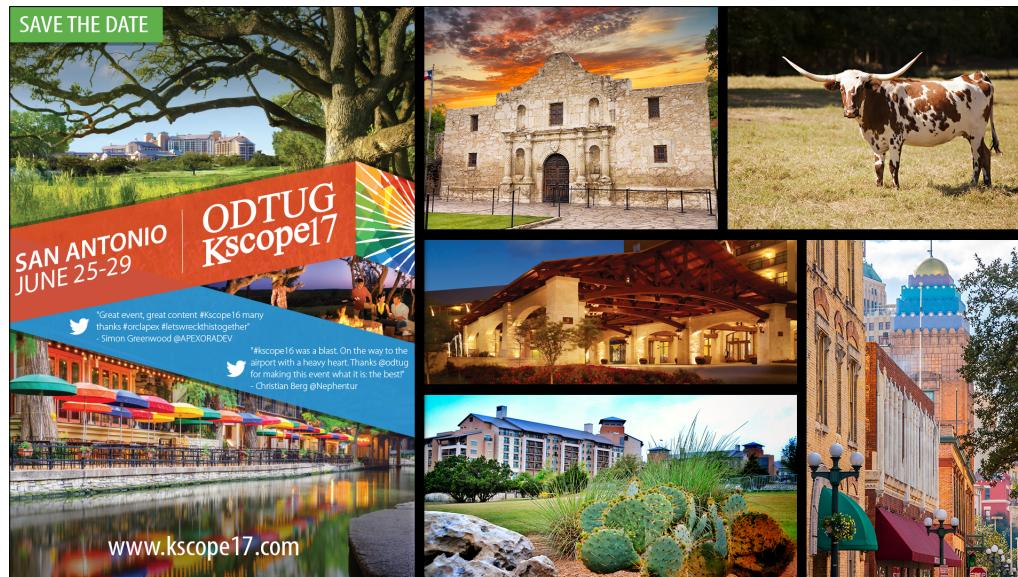


4

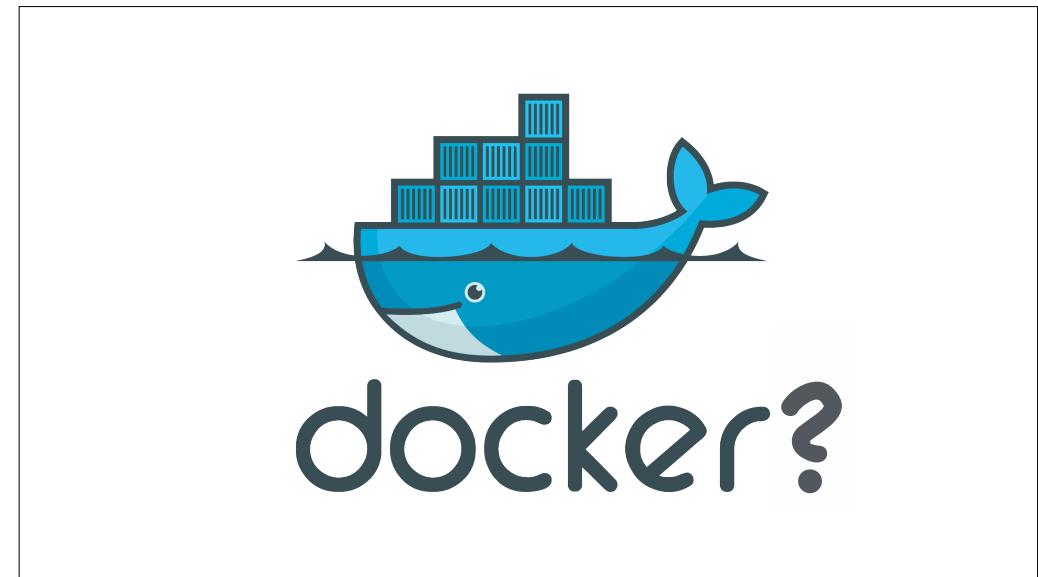


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Just a light weight VM?

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This is a VM



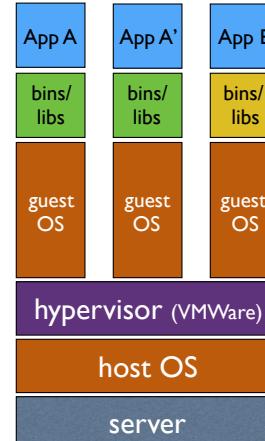
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And these are containers

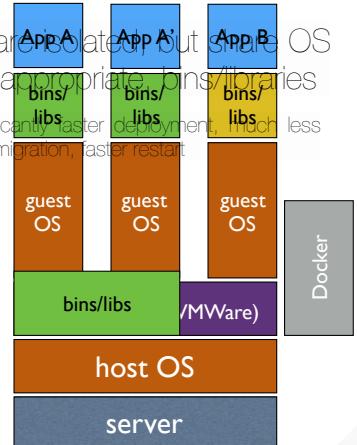


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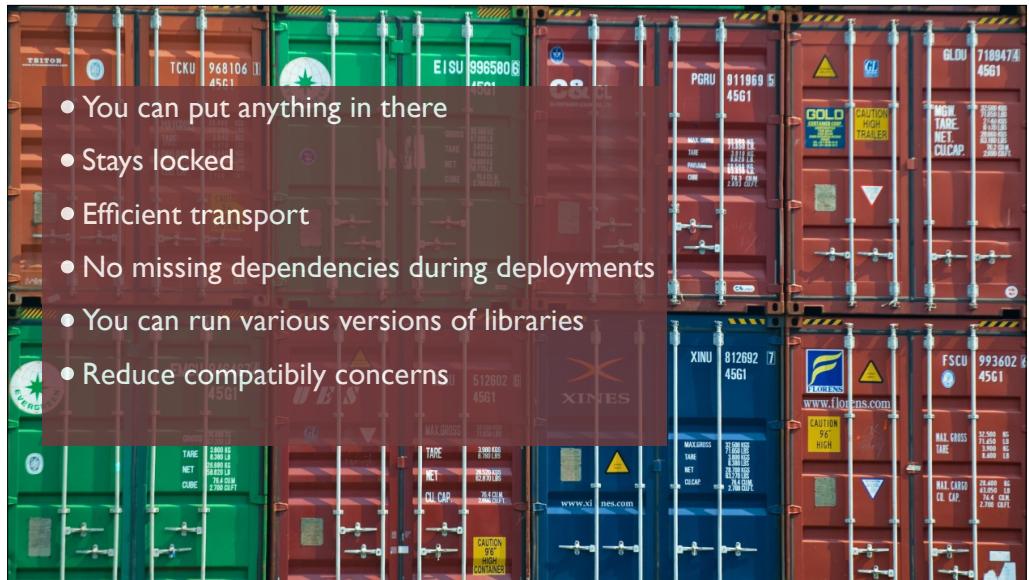
Architectural differences



Containers are isolated but share OS and, where appropriate, bins/libraries
... result is significantly faster deployment, less overhead, easier migration, faster restart



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Pros of a Docker Container

- You can put anything in there
- Stays locked
- Efficient transport
- No missing dependencies during deployments
- You can run various versions of libraries
- Reduce compatibility concerns

So it's not (just) a VM. It is a ...

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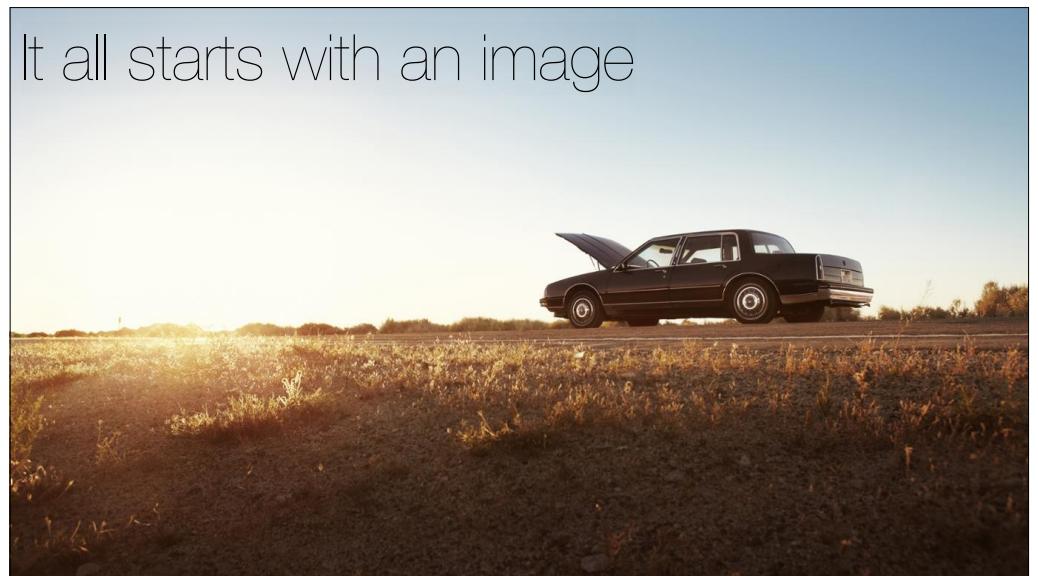
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Software
Delivery
Platform

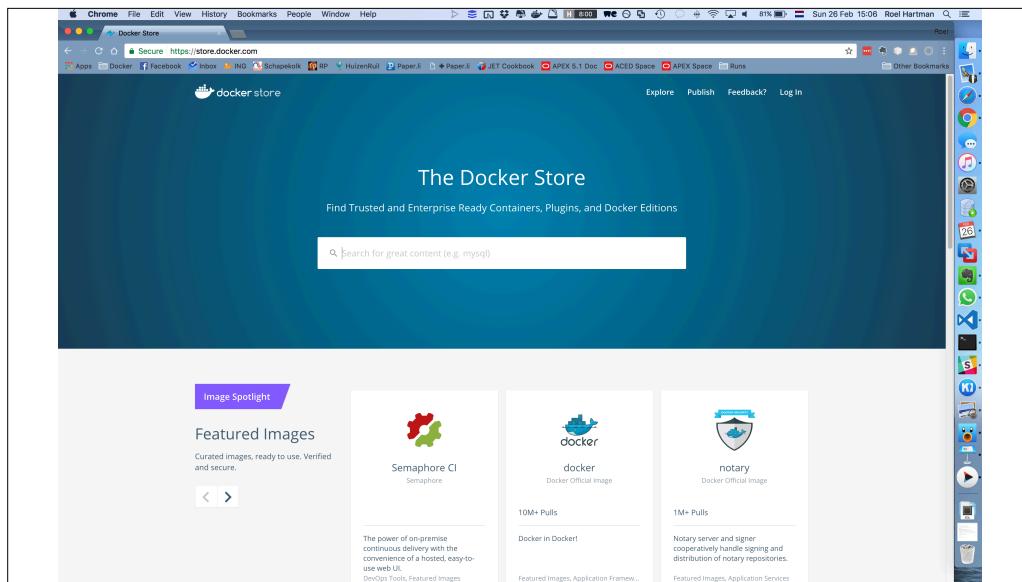


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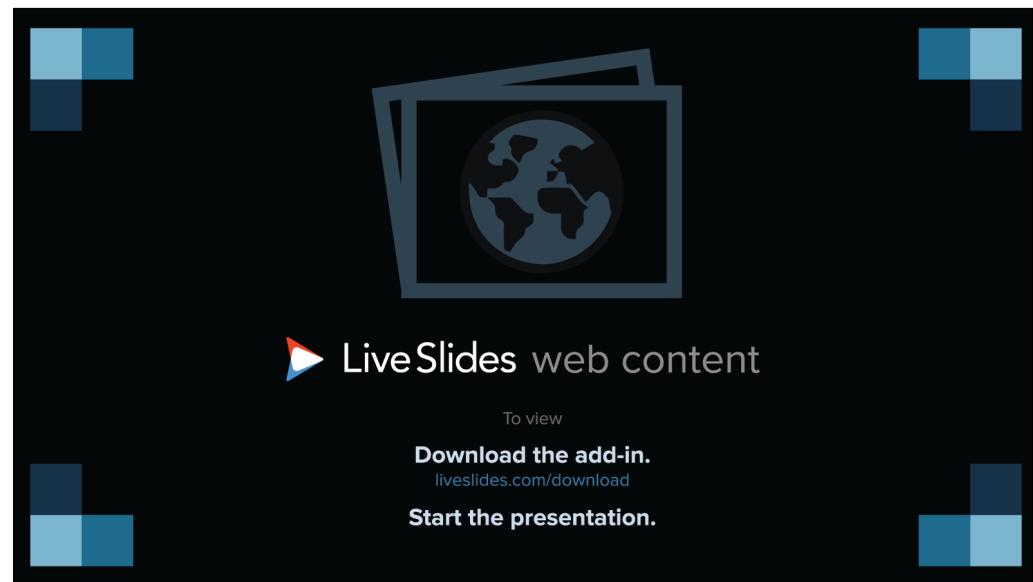
It all starts with an image



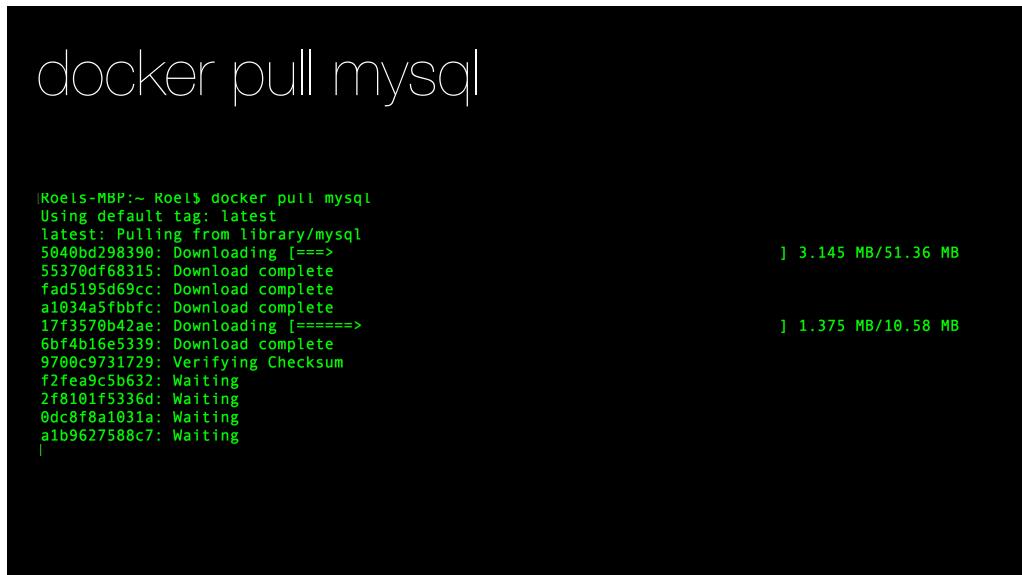
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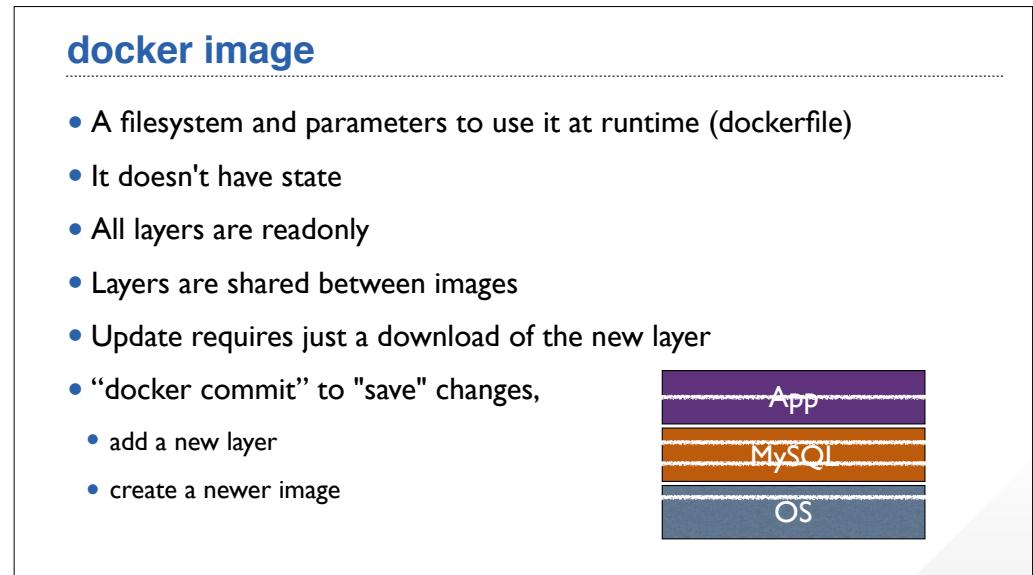
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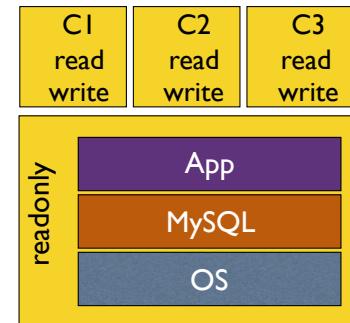
docker images

```
|Roels-MBP:~ Roel$ docker images
REPOSITORY      TAG        IMAGE ID      CREATED       SIZE
mysql           latest     7666f75adb6b  4 weeks ago   406 MB
ubuntu          latest     f49eec89601e  5 weeks ago   129 MB
hello-world     latest     48b5124b2768  6 weeks ago   1.84 KB
apex51/ords309 latest     f12e8d7f48bb  8 weeks ago   12.7 GB
mikegcoleman/catweb  latest     c1c531094196  6 months ago  58.7 MB
```

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docker container

- A (running) instance of an image
- Adds a read/write layer on top of the image
- Image is not cloned
- Spin up dozens of containers



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docker run hello-world

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docker run -it ubuntu

-i : interactive
-t : tty

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```
docker run  
-d  
-p 5000:5000  
--name catweb  
mikegcoleman/catweb
```

-d : detach
-p : port forwarding
-- name

25

```
docker container stop [id]  
docker container start [id]  
docker container attach [id]
```

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```
docker ps
```

```
Roels-MBP:~ Roel$ docker ps  
CONTAINER ID IMAGE COMMAND CREATED NAMES STATUS PORTS  
67472bf5c9d7 mikegcoleman/catweb "python /usr/src/a..." 3 minutes ago catweb Up 3 minutes 0.0.0.0:5000->|  
5000/tcp  
67836f6d542b f12e8d7f48bb "/entrypoint.sh" 8 weeks ago apex51 Up 7 days 0.0.0.0:1521->  
1521/tcp. 0.0.0.0:8080->8080/tcp, 8081/tcp, 0.0.0.0:49160->22/tcp
```

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recap

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```
docker pull [image]  
docker images  
docker run [image]  
docker container stop / start / attach  
docker ps  
docker search [something]
```

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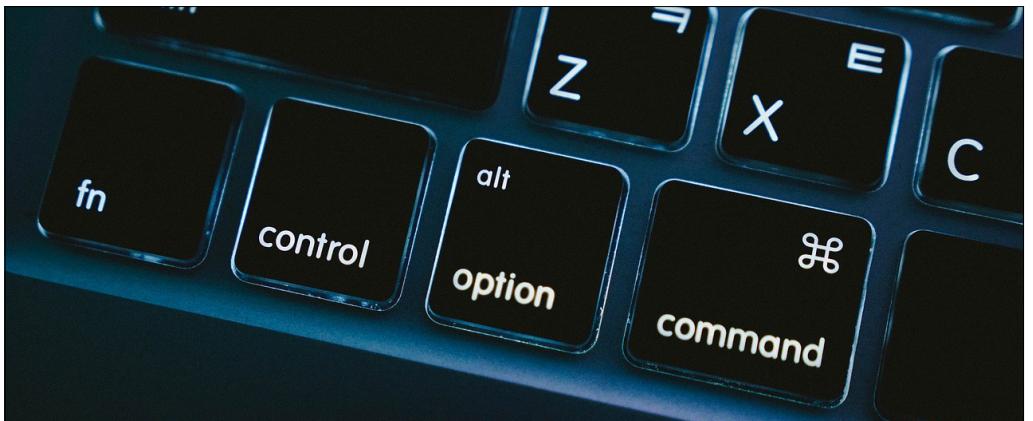


Persistence ➔

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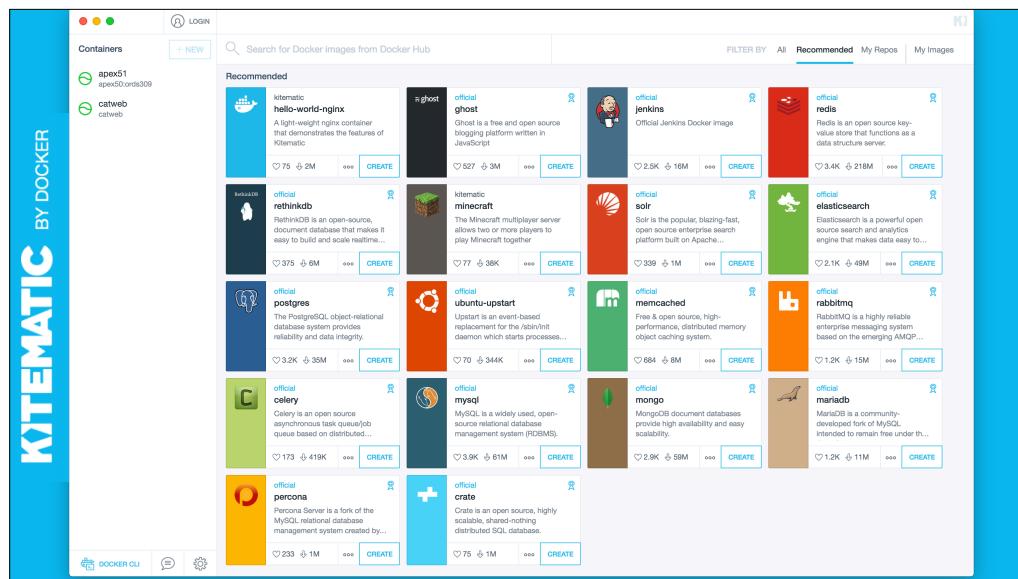
```
docker run  
-it  
-v /Users/Roel/docker/ubuntu:/tmp  
ubuntu
```

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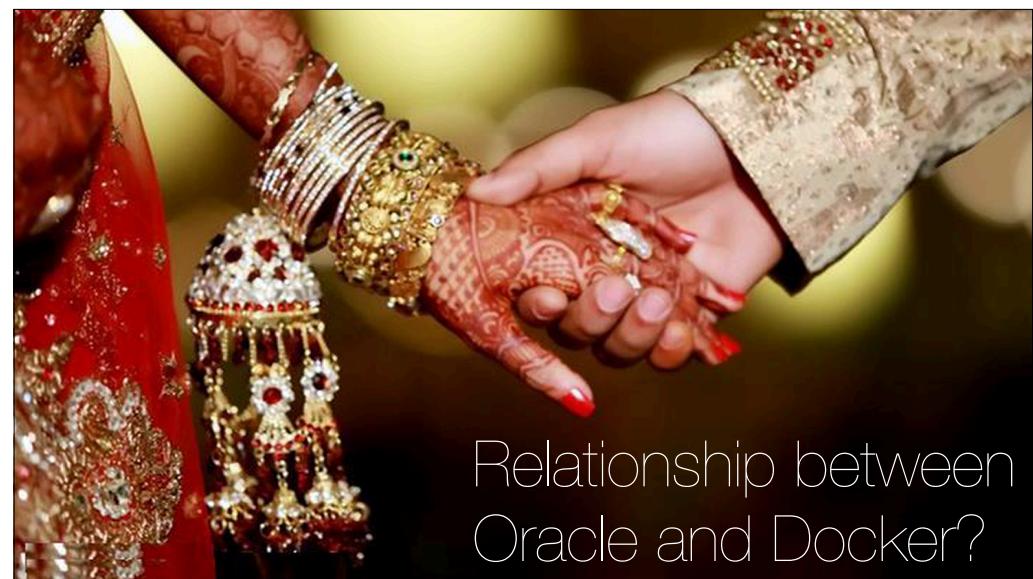


CLI or GUI

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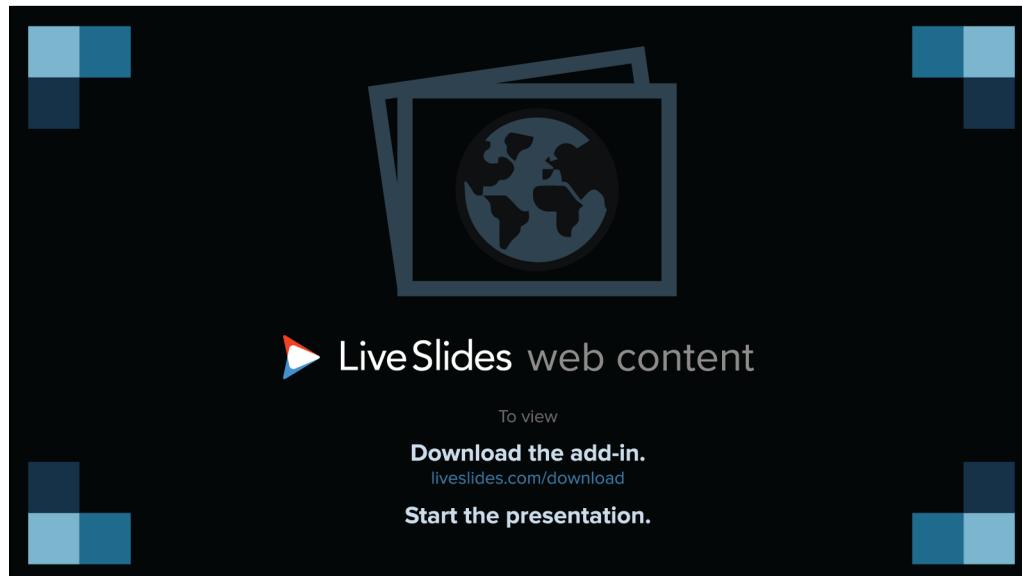
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This screenshot shows the GitHub repository page for 'oracle/docker-images'. The repository has 795 commits, 15 pull requests, and 819 stars. It includes sections for 'Code', 'Issues', 'Projects', and 'Graphs'. The 'Code' section shows a list of recent commits from contributors like 'relicell' and 'ContainerCloud'. The 'About' section notes that the official source for Docker configurations, images, and examples of Dockerfiles for Oracle products and projects is available at <https://container-registry.oracle.com>.

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This screenshot shows a blog post on the Oracle Linux Blog titled 'MONDAY SPOTLIGHT:Announcing the Oracle Container Registry'. The post is dated June 30, 2017, and is written by Avi Miller. It announces the general availability of the Oracle Container Registry, which provides access to Oracle products for use in Docker containers. The post includes a list of available products and instructions for logging in to the registry. The Oracle logo is prominently displayed at the top right.

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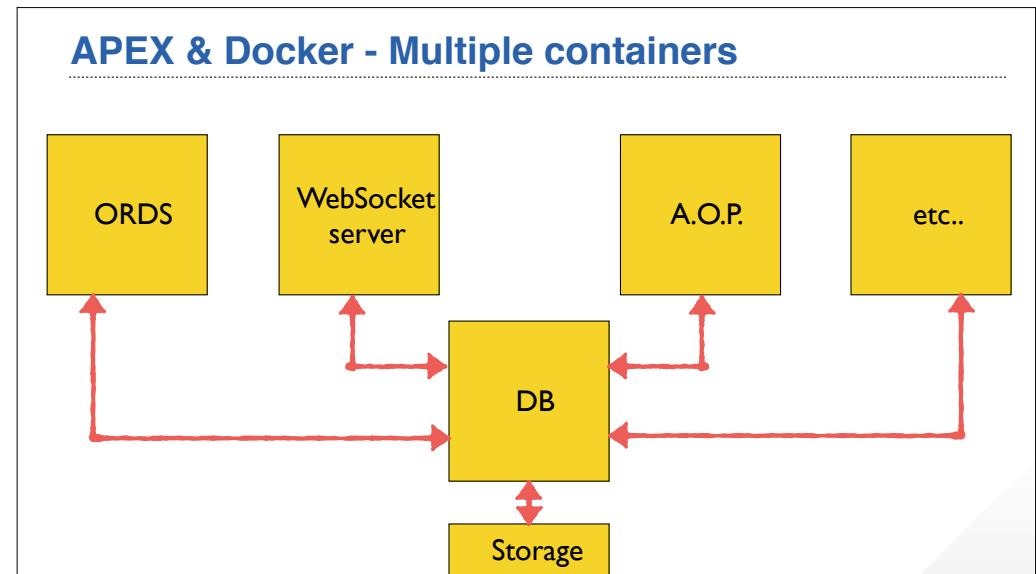
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```
Roels-MBP:docker Roel$ docker search apex
NAME                                            DESCRIPTION                                         STARS OFFICIAL AUTOMATED
araczkowski/oracle-apex-ords                  Oracle Express Edition 11g Release 2 on Ub... 10 [OK]
sath89/apex                                     Apex 5.0.2 upgrade package for sath89/orac... 6 [OK]
lucassampsouza/ords_apex                      Oracle REST Data Service and APEX Images F... 4 [OK]
chinmayk/apex                                    Apache Apex Test Sandbox 2 [OK]
jimdo/aws-apex                                  AWS CLI with apex and awscurl 2 [OK]
mritschel/docker-oracle12c-apex5                Oracle database 12c Release 1 with Apex 5.... 2 [OK]
apexitus/ubuntu-was-liberty-8.5.5-ibm-jdk8     Ubuntu Image with IBM Liberty 8.5.5.08 jav... 1 [OK]
verticleio/apex-petclinic                       Spring PetClinic Application with APEX Col... 1 [OK]
redventures/apex-aws                           Container with the latest version of aws c... 0 [OK]
payfit/apex                                     0
dglysoft/apex                                   0
roboll/apex                                     0
dancinllama/apexdoc                          Docker for ApexDoc 0 [OK]
apexitus/ubuntu-oracle-jdk8-tomcat8            This build is created from the Dockerfile ... 0 [OK]
apexitus/ubuntu-oracle-jdk8-tomcat9            Built from ubuntu-oracle-jdk8-tomcat9 repo... 0 [OK]
apextc/docker-ghost                            Training repo Ubuntu to Ghost 0 [OK]
sgrzys/oracle-apex-ords                        Oracle 11g XE with APEX 5 0
roboll/apex-go                                 Dockernize http://apex.run 0 [OK]
yamitzky/apex-lambda                         0
codeclimate/codeclimate-apex                 Dockerfiles to aid in deploying and buildi... 0 [OK]
kannonboy/bitbucket-pipelines-apex           0
poldis/apex-docker                           0
lhsihan/oracle-apex                          0
newgyu/lambda-apex                           0
coopernurse/apex-demo-web                   0
Roels-MBP:docker Roel$
```

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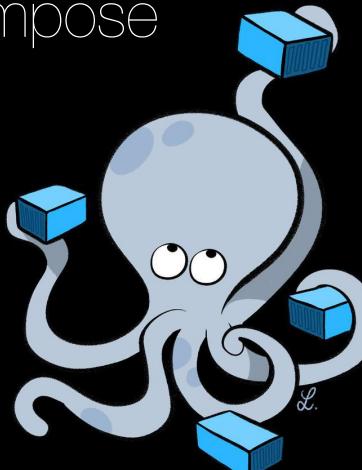
```
docker run
-d
--name apex51
-p 49160:22 -p 8080:8080 -p 1521:1521
-v /Users/Roel/docker:/tomcat/webapps/i/host
araczkowski/oracle-apex-ords
```

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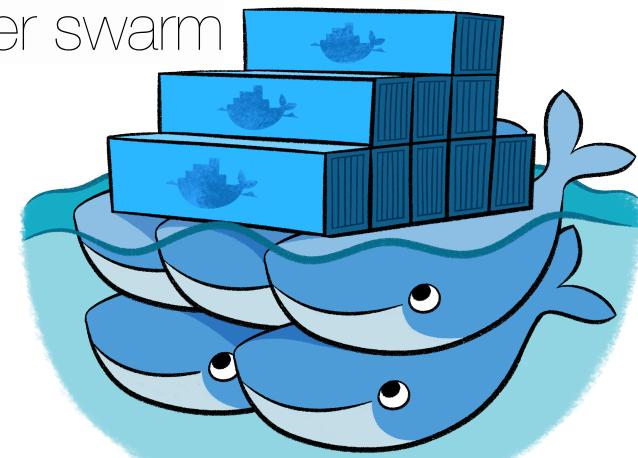
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docker compose



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docker swarm



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Docker take aways

- Perfect for creating independent building blocks for your app
- Perfect for simple software delivery
- Invest some time to get acquainted with the architecture
- Ideal replacement of your local development VM
- Oracle's support is growing

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Q & A

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