



main

CloudComputing / HW1

/ DockerInstallation.md

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Kartiki19 Update DockerInstallation.md

yesterday



58 lines (36 loc) · 2.08 KB

Preview

Code

Blame

Raw



Download Docker

<https://docs.docker.com/desktop/install/mac-install/>

Check Docker Version

```
docker --version
```

```
[kartikidindorkar@Kartikis-MacBook-Pro HW1 % docker --version  
Docker version 24.0.7, build afdd53b
```

Docker for Ubuntu 20.04 OS

```
docker pull ubuntu:20.04
```

List all the locally available images

```
docker image ls
```


```
[kartikidindorkar@Kartikis-MacBook-Pro Program % docker image ls  
REPOSITORY          TAG          IMAGE ID       CREATED        SIZE  
ubuntusysbench      1.0         ec2117dc3365   35 hours ago   85.7MB  
<none>              <none>      f49152ed1600   35 hours ago   85.7MB  
ubuntu              20.04       fde9c12d7d3f   6 weeks ago    65.7MB
```

Run an image with interactive bash shell inside the container

```
docker run -it ubuntu:20.04 /bin/bash
```

Create a Dockerfile

Creating customized docker image with Ubuntu 20.04 and SysBench:

```
CloudComputing > HW1 >  Dockerfile
You, 1 second ago | 1 author (You)
1  # Use Ubuntu 20.04 as base image
2  FROM ubuntu:20.04
3
4  # Install sysbench packages
5  RUN apt-get update && \
6      apt-get install -y sysbench && \
7      apt-get clean && \
8      rm -rf /var/lib/apt/lists/*
9
10 # CMD instruction
11 CMD ["/bin/bash"]
12
```

Build Docker ubuntu + sysbench image

1. Use following command to build the image using the Dockerfile mentioned above.
2. Place the Docker file in the current working directory OR
3. Replace '.' with the folder location of the Dockerfile
4. ubuntu**sysbench** = name of the image | 1.0 = tag for the image

```
docker build -t ubuntusysbench:1.0 .
```

Run container and check sysbench version

2. To get the version of sysbench running, add --version while running the container

```
docker run --rm ubuntusysbench:1.0 --version
```

```
[kartikidindorkar@Kartikis-MacBook-Pro Program % docker run --rm ubuntu:sysbench:1.0 --version sysbench 1.0.18
```

Capture image ID

docker images | grep ubuntu:sysbench

Check image history

docker history <image_id>

```
[kartikidindorkar@Kartikis-MacBook-Pro Program % docker images
[REPOSITORY          TAG          IMAGE ID       CREATED        SIZE
<none>               <none>       f49152ed1600   5 days ago    85.7MB
ubuntu:sysbench      latest       d80a51818899   5 days ago    85.7MB
ubuntu:sysbench      1.0         ec2117dc3365   5 days ago    85.7MB
ubuntu               20.04       fde9c12d7d3f   6 weeks ago    65.7MB
hello-world          latest       ee301c921b8a   9 months ago   9.14kB

[kartikidindorkar@Kartikis-MacBook-Pro Program % docker history d80a51818899
IMAGE          CREATED          CREATED BY          SIZE      COMMENT
d80a51818899   5 days ago      CMD ["/bin/bash"]   0B        buildkit.dockerfile.v0
<missing>      5 days ago      RUN /bin/sh -c apt-get update && apt-get... 20MB      buildkit.dockerfile.v0
<missing>      6 weeks ago     /bin/sh -c #(nop)  CMD ["/bin/bash"]         0B
<missing>      6 weeks ago     /bin/sh -c #(nop)  ADD file:9ec8b7bbb2fbc8c90... 65.7MB
<missing>      6 weeks ago     /bin/sh -c #(nop)  LABEL org.opencontainers... 0B
<missing>      6 weeks ago     /bin/sh -c #(nop)  LABEL org.opencontainers... 0B
<missing>      6 weeks ago     /bin/sh -c #(nop)  ARG LAUNCHPAD_BUILD_ARCH 0B
<missing>      6 weeks ago     /bin/sh -c #(nop)  ARG RELEASE 0B

[kartikidindorkar@Kartikis-MacBook-Pro Program % docker history f49152ed1600
IMAGE          CREATED          CREATED BY          SIZE      COMMENT
f49152ed1600   5 days ago      CMD ["sysbench"]    0B        buildkit.dockerfile.v0
<missing>      5 days ago      RUN /bin/sh -c apt-get update && apt-get... 20MB      buildkit.dockerfile.v0
<missing>      6 weeks ago     /bin/sh -c #(nop)  CMD ["/bin/bash"]         0B
<missing>      6 weeks ago     /bin/sh -c #(nop)  ADD file:9ec8b7bbb2fbc8c90... 65.7MB
<missing>      6 weeks ago     /bin/sh -c #(nop)  LABEL org.opencontainers... 0B
<missing>      6 weeks ago     /bin/sh -c #(nop)  LABEL org.opencontainers... 0B
<missing>      6 weeks ago     /bin/sh -c #(nop)  ARG LAUNCHPAD_BUILD_ARCH 0B
<missing>      6 weeks ago     /bin/sh -c #(nop)  ARG RELEASE 0B

[kartikidindorkar@Kartikis-MacBook-Pro Program % docker history ec2117dc3365
IMAGE          CREATED          CREATED BY          SIZE      COMMENT
ec2117dc3365   5 days ago      ENTRYPOINT ["sysbench"] 0B        buildkit.dockerfile.v0
<missing>      5 days ago      RUN /bin/sh -c apt-get update && apt-get... 20MB      buildkit.dockerfile.v0
<missing>      6 weeks ago     /bin/sh -c #(nop)  CMD ["/bin/bash"]         0B
<missing>      6 weeks ago     /bin/sh -c #(nop)  ADD file:9ec8b7bbb2fbc8c90... 65.7MB
<missing>      6 weeks ago     /bin/sh -c #(nop)  LABEL org.opencontainers... 0B
<missing>      6 weeks ago     /bin/sh -c #(nop)  LABEL org.opencontainers... 0B
<missing>      6 weeks ago     /bin/sh -c #(nop)  ARG LAUNCHPAD_BUILD_ARCH 0B
<missing>      6 weeks ago     /bin/sh -c #(nop)  ARG RELEASE 0B
kartikidindorkar@Kartikis-MacBook-Pro Program % █
```

Save the history in a 'image_history.txt'

docker history <image_id> > image_history.txt

```

[kartikidindorkar@Kartikis-MacBook-Pro Program % docker history ec2117dc3365 > image_history.txt
[kartikidindorkar@Kartikis-MacBook-Pro Program % cat image_history.txt
IMAGE          CREATED          CREATED BY          SIZE            COMMENT
ec2117dc3365   36 hours ago    ENTRYPOINT ["sysbench"] 0B              buildkit.dockerfile.v0
<missing>      36 hours ago    RUN /bin/sh -c apt-get update && apt-get... 20MB            buildkit.dockerfile.v0
<missing>      6 weeks ago     /bin/sh -c #(nop)  CMD ["/bin/bash"]      0B
<missing>      6 weeks ago     /bin/sh -c #(nop)  ADD file:9ec8b7bbb2fbc8c90... 65.7MB
<missing>      6 weeks ago     /bin/sh -c #(nop)  LABEL org.opencontainers.... 0B
<missing>      6 weeks ago     /bin/sh -c #(nop)  LABEL org.opencontainers.... 0B
<missing>      6 weeks ago     /bin/sh -c #(nop)  ARG LAUNCHPAD_BUILD_ARCH 0B
<missing>      6 weeks ago     /bin/sh -c #(nop)  ARG RELEASE 0B
kartikidindorkar@Kartikis-MacBook-Pro Program % █

```

Running Containers

To check all the running containers, run following command:

```
docker ps
```