nginx / Compute Engine Guestbook

docker / Guestbook (ubuntu)

helloubuntu docker image:

container instance when run as a local container image
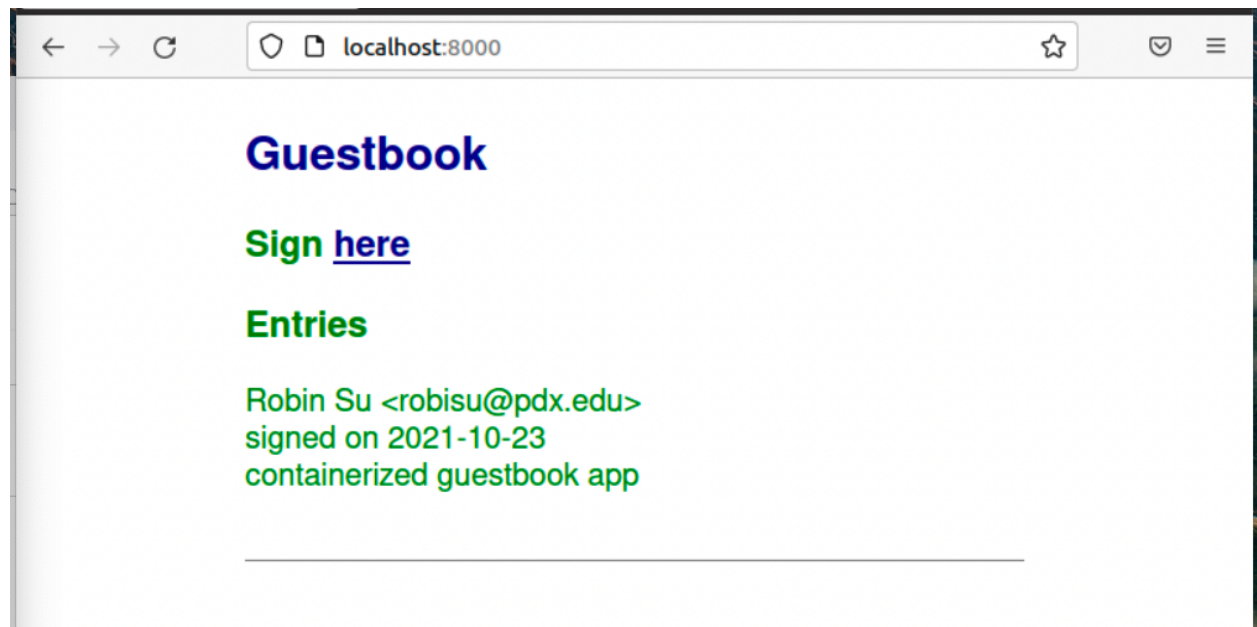
interactive shell of ubuntu container


```
robisu@robisu:~/cs430-src/04_container_dockerhub$ docker exec -it hellou /bin/ba
sh
root@86e28c8b10b2:/app# ls
Dockerfile.alpine  app.py    index.py   requirements.txt  sign.pyc  templates
Dockerfile.ubuntu  gbmodel   index.pyc  sign.py           static
root@86e28c8b10b2:/app# ls /etc/lsb-release
/etc/lsb-release
root@86e28c8b10b2:/app# ps -ef
UID          PID    PPID  C STIME TTY          TIME CMD
root           1       0  0 20:30 ?        00:00:00 python app.py
root           8       1  0 20:30 ?        00:00:00 /usr/bin/python /app/app.py
root          11       0  0 20:30 pts/0    00:00:00 /bin/bash
root          24      11  0 20:31 pts/0    00:00:00 ps -ef
root@86e28c8b10b2:/app#
```

Output from pulling the container from Dockerhub:


```
robisu@robisu:~/cs430-src/04_container_dockerhub$ docker run -di -p 8000:5000 --
name hellou robinjsu/helloubuntu
Unable to find image 'robinjsu/helloubuntu:latest' locally
latest: Pulling from robinjsu/helloubuntu
284055322776: Already exists
44e97869ab94: Pull complete
2f6ccf486d46: Pull complete
084a99db09fd: Pull complete
55c85211390a: Pull complete
Digest: sha256:5ddff2e37442de7bc921bb5ff3fcc4f1c11b2062b2a141189b28662a4e835a51
Status: Downloaded newer image for robinjsu/helloubuntu:latest
0bfddf455c97994d8fb729ff1f89ac8d54e3a22df4f22a0feb2a02695f05c7ae
robisu@robisu:~/cs430-src/04_container_dockerhub$
```

wget of running container:


```
robisu@robisu:~/cs430-src/04_container_dockerhub$ wget http://127.0.0.1:8000
--2021-10-23 13:42:18--  http://127.0.0.1:8000/
Connecting to 127.0.0.1:8000... connected.
HTTP request sent, awaiting response... 200 OK
Length: 243 [text/html]
Saving to: 'index.html'

index.html          100%[===================>]     243  --.-KB/s    in 0s

2021-10-23 13:42:18 (26.6 MB/s) - 'index.html' saved [243/243]
```

Container image and size on Dockerhub (size 183.35 MB):

docker / Guestbook (alpine)

How much smaller is the image than the Ubuntu one? **The alpine image is one-eighth the size of the Ubuntu image.**

Running alpine instance:

Show the output of this command in a screenshot for your lab notebook. What might have happened? **It's likely that the base image did not include or install 'bash' as a program, since for some small containers there is no need to include a richly interactive terminal. Thus, 'no such file or directory' on the running instance.**

Alpine release version, and process listing:

Container image in Dockerhub (size 20.25 MB):

Compute Engine / docker image and instance

35.247.12.239

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Guestbook

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Entries

Robin Su <robisu@pdx.edu>
signed on 2021-10-23
Hello Compute Engine + Docker!
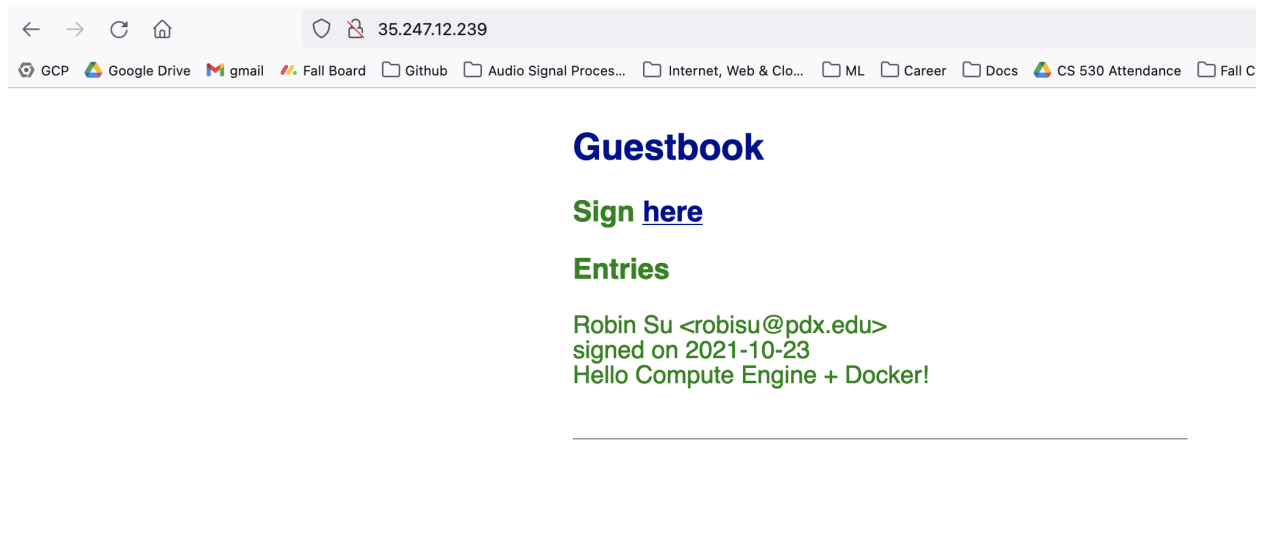
Confirmation on Container-Optimized VM that the Guestbook app is running:


```
rsu@allow-tcp-5000 ~ $ wget http://localhost:5000
--2021-10-23 21:37:58--  http://localhost:5000/
Resolving localhost... 127.0.0.1
Connecting to localhost|127.0.0.1|:5000... connected.
HTTP request sent, awaiting response... 200 OK
Length: 243 [text/html]
Saving to: 'index.html'

index.html          100%[===================================================>]     243  --.-KB/s    in 0s

2021-10-23 21:37:58 (2.15 MB/s) - 'index.html' saved [243/243]
```

Container running in GCP, on container-optimized VM:

34.145.33.146:5000

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Guestbook

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Entries

Robin Su <robisu@pdx.edu>
signed on 2021-10-23
Hello ContainerOS!