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nginx / Compute Engine Guestbook

← → ↻ 🏠 🔒 https://cs430-robisu.ipq.co ☆

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Guestbook

[Sign here](#)

Entries

Robin Su <robisu@pdx.edu>
signed on 2021-10-23
Running the guestbook on an nginx server!

← → ↻ 🏠 🔒 about:certificate?cert=MIFLDCCBBSgAwIBAgISAT7MYIznslE 80% ☆

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Certificate

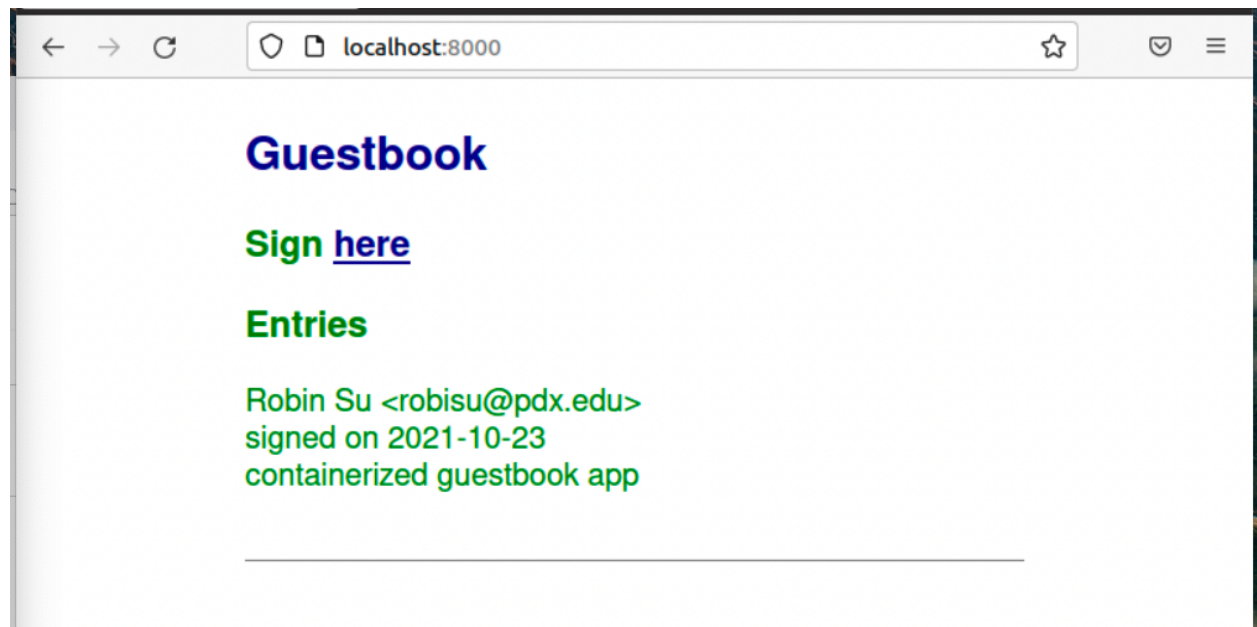
cs430-robisu.ipq.co	R3	ISRG Root X1
Subject Name		
Common Name	cs430-robisu.ipq.co	
Issuer Name		
Country	US	
Organization	Let's Encrypt	
Common Name	R3	
Validity		
Not Before	Sat, 23 Oct 2021 18:01:01 GMT	
Not After	Fri, 21 Jan 2022 18:01:00 GMT	
Subject Alt Names		
DNS Name	cs430-robisu.ipq.co	
Public Key Info		
Algorithm	RSA	
Key Size	2048	
Exponent	65537	
Modulus	B6:6A:B9:86:D8:7D:71:C1:7E:39:DD:03:3F:48:AF:16:F3:35:65:52:37:9D:B7...	
Miscellaneous		
Serial Number	03:5E:CC:60:8C:E7:B0:89:7C:38:9B:59:13:19:E7:83:23:EF	
Signature Algorithm	SHA-256 with RSA Encryption	
Version	3	
Download	PEM (cert) PEM (chain)	
Fingerprints		
SHA-256	42:1D:07:7D:F5:B0:F3:7C:B1:30:36:9D:E0:6D:6C:C8:50:BB:14:C0:57:56:6...	
SHA-1	5F:31:E5:98:4B:76:94:A6:BC:5E:0E:C6:64:7B:5D:D5:54:37:78:A3	

docker / Guestbook (ubuntu)

helloubuntu docker image:

```
robisu@robisu:~/cs430-src/04_container_dockerhub$ docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
helloubuntu   latest    a3b749c664e1   6 seconds ago  450MB
```

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/bash
root@86e28c8b10b2:/app# ls
Dockerfile.alpine  app.py  index.py  requirements.txt  sign.pyc  templates
Dockerfile.ubuntu  gbm0del  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):

robinjsu/helloubuntu ☆

By robinjsu · Updated 6 minutes ago

Container

Manage Repository

↓ Pulls 6

Overview Tags

Advanced Image Management

View all your images and tags in this repository, clean up unused content, recover untagged images. Available with Pro, Team and Business subscriptions. [View preview](#)

Sort by Newest Filter Tags

TAG	DIGEST	OS/ARCH	LAST PULL	COMPRESSED SIZE
latest	5ddff2e37442	linux/amd64	6 minutes ago	183.35 MB

docker pull robinjsu/helloubuntu:latest

robinjsu

docker / Guestbook (alpine)

```
robisu@robisu:~/cs430-src/04_container_dockerhub$ docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
helloalpine   latest    2de807f5e30d   3 seconds ago  55.8MB
```

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:

```
robisu@robisu:~/cs430-src/04_container_dockerhub$ wget http://127.0.0.1:8000
--2021-10-23 13:54:43-- 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.1'

index.html.1      100%[=====>]      243  --.-KB/s   in 0s

2021-10-23 13:54:43 (2.38 MB/s) - 'index.html.1' saved [243/243]
```


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.

```
robinsu@robinsu:~/cs430-src/04_container_dockerhub$ docker exec -it helloa /bin/bash
OCI runtime exec failed: exec failed: container_linux.go:380: starting container
process caused: exec: "/bin/bash": stat /bin/bash: no such file or directory: unknown
```

Alpine release version, and process listing:

```
robinsu@robinsu:~/cs430-src/04_container_dockerhub$ docker exec -it helloa /bin/sh
/app # cat /etc/alpine-release
3.14.2
/app # ps -ef
PID   USER     TIME   COMMAND
   1   root      0:00   python app.py
   7   root      0:01   /usr/local/bin/python /app/app.py
  16   root      0:00   /bin/sh
  23   root      0:00   ps -ef
/app #
```

Container image in Dockerhub (size 20.25 MB):



robinjsu/helloalpine ☆
By [robinjsu](#) • Updated 2 minutes ago

Container

Manage Repository

↓ Pulls 6

Overview

Tags

Advanced Image Management

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View preview

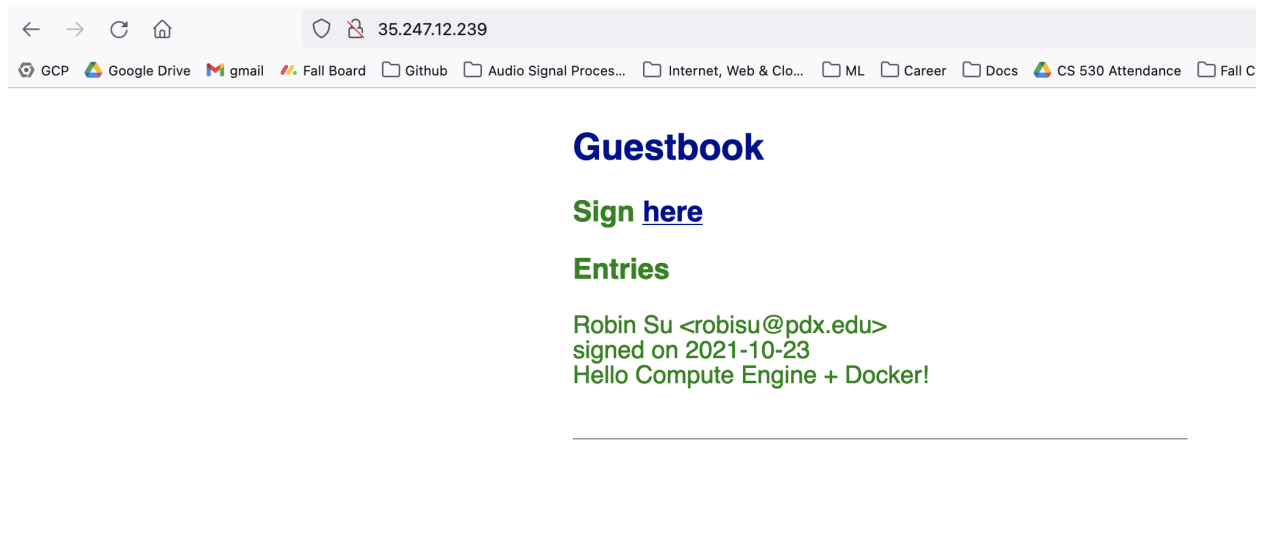
Sort by Newest

Filter Tags

TAG			
latest			docker pull robinjsu/helloalpine:latest
Last pushed 2 minutes ago by robinjsu			
DIGEST	OS/ARCH	LAST PULL	COMPRESSED SIZE
eb8f9e90aaf2	linux/amd64	2 minutes ago	20.25 MB

robinsu

Compute Engine / docker image and instance



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:

