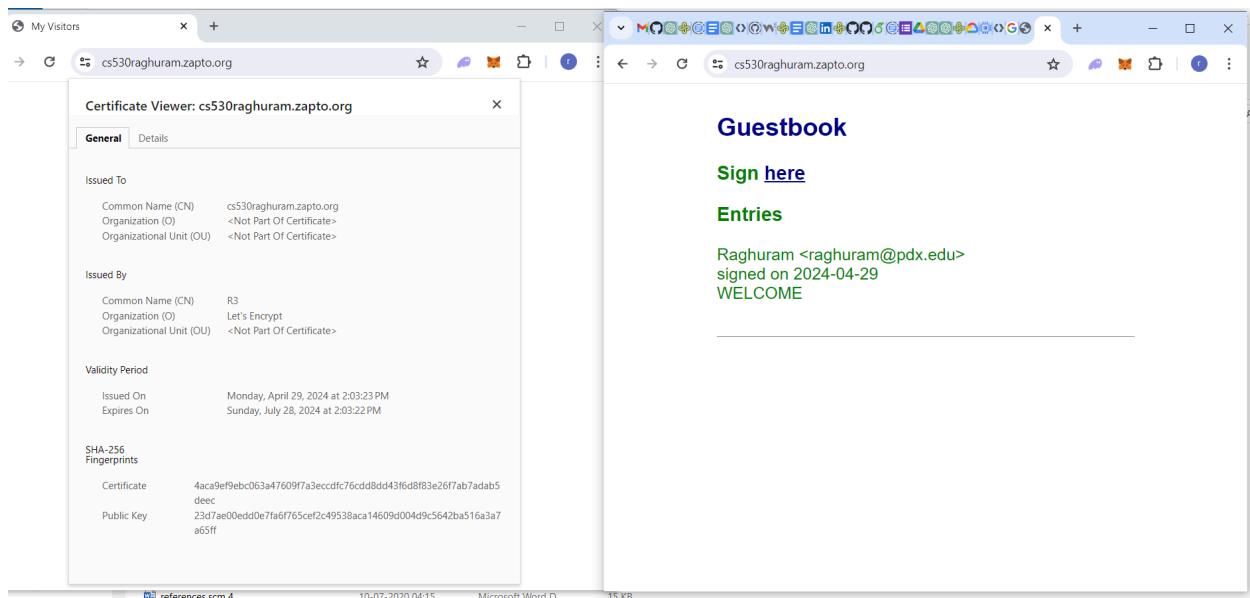


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04.1g: nginx Compute Engine Guestbook

6. Install the application

- Take a screenshot of the site along with its Let's Encrypt certificate and include it in your lab notebook



04.2g. Docker Guestbook

3. Build and run the Ubuntu-based container

- Take a screenshot of the results for your lab notebook

```
raghuram@course-vm:~/cs430-src/04_container_dockerhub$ docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
helloubuntu	latest	d041aa124820	38 seconds ago	463MB
ubuntu	20.04	b2c9e106c9d9	12 days ago	72.8MB


```
raghuram@course-vm:~/cs430-src/04_container_dockerhub$
```

6. Running from Docker Hub

- Run the image directly from Docker Hub and show a screenshot of the output of the command in your lab notebook.

```
raghuram@course-vm:~/cs430-src/04_container_dockerhub$ docker run -di -p 8000:5000 --name hellou raghuramdoc/helloubuntu
Unable to find image 'raghuramdoc/helloubuntu:latest' locally
latest: Pulling from raghuramdoc/helloubuntu
4477f8fe99eb: Already exists
eb9825cabce2: Pull complete
8a292d59622f: Pull complete
d8f8dbef531c: Pull complete
c4508aa90336: Pull complete
Digest: sha256:ea28605ff0c67fd086782fc4ab0b47db6756ecf682f271571264a7d84917cacf
Status: Downloaded newer image for raghuramdoc/helloubuntu:latest
229934ef6e92bbfe4f11c04f7a9aa3308438417f0bf4006fc641cb204c4397a3
```

- Take a screenshot of the container image and its size for your lab notebook.



raghuramdoc/helloubuntu:latest

MANIFEST DIGEST sha256:ea28605ff0c67fd086782fc4ab0b47db6756ecf682f271571264a7d84917cacf

Delete Tag

OS/ARCH	COMPRESSED SIZE	LAST PUSHED	TYPE	MANIFEST DIGEST
linux/amd64	164.14 MB	an hour ago by raghuramdoc	Image	sha256:ea28605ff...

Image Layers

Vulnerabilities

IMAGE LAYERS

1	ARG RELEASE	0 B
2	ARG LAUNCHPAD_BUILD_ARCH	0 B
3	LABEL org.opencontainers.image.ref.name=ubuntu	0 B
4	LABEL org.opencontainers.image.version=20.04	0 B
5	ADD file ... in /	26.24 MB
6	CMD ["/bin/bash"]	0 B

Command

ARG RELEASE

- What layer adds the most to the container image? How much does it add?

IMAGE LAYERS

1	ARG RELEASE	0 B
2	ARG LAUNCHPAD_BUILD_ARCH	0 B
3	LABEL org.opencontainers.image.ref.name=ubuntu	0 B
4	LABEL org.opencontainers.image.version=20.04	0 B
5	ADD file ... in /	26.24 MB
6	CMD ["/bin/bash"]	0 B
7	LABEL maintainer=raghuram@pdx.edu	0 B
8	/bin/sh -c apt-get update -y	33.39 MB
9	/bin/sh -c apt-get install -y	102.54 MB
10	COPY dir:339b75cb7ecfbafd50407775c4fd00e8bcb290...	3.01 KB
11	WORKDIR /app	0 B
12	/bin/sh -c pip install -r	1.97 MB

Command

ARG RELEASE

+

...

×

podman id :raghuram

8. Build and run the Alpine-based container

- Take a screenshot of the image generated and its size for your lab notebook. How much smaller is the image than the Ubuntu one?

```
raghuras@course-vm:~/cs430-src/04_container_dockerhub$ docker images
REPOSITORY      TAG          IMAGE ID      CREATED        SIZE
helloalpine     latest      e439aca0037f  9 seconds ago  71.4MB
ubuntu          20.04       b2c9e106c9d9  12 days ago   72.8MB
python          alpine      f44387b48281  2 weeks ago   57.1MB
raghuras@course-vm:~/cs430-src/04_container_dockerhub$
```

The size of helloulapine is 391.6 mb smaller than the hello ubuntu

- Show the output of this command in a screenshot for your lab notebook. What might have happened?

```
raghuras@course-vm:~/cs430-src/04_container_dockerhub$ docker exec -it helloa /bin/bash
OCI runtime exec failed: exec failed: unable to start container process: exec: "/bin/bash": stat /bin/bash: no such file or directory: unknown
raghuras@course-vm:~/cs430-src/04_container_dockerhub$
```


Bash might not have been installed or it might have been using a different shell

- Take a screenshot of the output of each


```
raghuras@course-vm:~/cs430-src/04_container_dockerhub$ docker exec -it helloa /bin/sh
/app # cd /etc/alpine-release
/bin/sh: cd: can't cd to /etc/alpine-release: Not a directory
/app # ps -ef
PID   USER     TIME   COMMAND
    1   root      0:00   python3 app.py
    7   root      0:00   /usr/local/bin/python3 app.py
   16   root      0:00   /bin/sh
   22   root      0:00   ps -ef
/app #
```

9. Docker Hub Alpine

- Take a screenshot of the container image and its size.



raghuramdoc/helloalpine:latest

MANIFEST DIGEST sha256:d7fb7142cb73a0e9ac89c612aa861992eb331f8de97971318431731f91086a81 

OS/ARCH

linux/amd64

COMPRESSED SIZE

24.91 MB


LAST PUSHED

2 minutes ago by [raghuramdoc](#)

TYPE

Image


MANIFEST DIGEST

sha256:d7fb7142... 

Delete Tag

Image Layers

Vulnerabilities

IMAGE LAYERS 

1	ADD file ... in /	3.25 MB
2	CMD ["/bin/sh"]	0 B
3	ENV PATH=/usr/local/bin:/usr/local/sbin:/usr/local/...	0 B
4	ENV LANG=C.UTF-8	0 B
5	RUN /bin/sh -c set -eux;	605.08 KB
6	ENV GPG_KEY=7169605F62C751356D054A26A821E680E5FA6305	0 B
7	ENV PYTHON_VERSION=3.12.3	0 B

Command

ADD file:37a76ec18f9887751cd8473744917d08b7431fc4085097bb6a09d81b41775473 in /

10. Compute Engine Ubuntu VM deployment

- Take a screenshot of the entry that includes the VM's external IP address for your lab notebook

⚠ Not secure 35.185.208.152

Guestbook

Sign [here](#)

Entries

Raghuram <raghuram@pdx.edu>
signed on 2024-04-30
"Hello Compute Engine + Docker!"

13. -

Take a screenshot of the entry that includes the VM's external IP address for your lab notebook

Guestbook

Sign [here](#)

Entries

Raghuram <raghuram@pdx.edu>
signed on 2024-04-30
Hello ContainerOS!
