


Homework #3


Screenshot of the size of the **nmetens/hw3large** container:

 **docker hub**

ExploreRepositoriesOrganizationsUsage

Search Docker Hub

nmetens / Repositories / hw3large / latest



nmetens/hw3large:latest

MANIFEST DIGEST sha256:c8efe8e4f5fa6f1b2e93f8250e9a33bae2e9c8ab307b0ec70b0ad5686abe102b

OS/ARCH	COMPRESSED SIZE	LAST PUSHED	TYPE	MANIFEST DIGEST
linux/amd64	163.49 MB	an hour ago by nmetens	Image	sha256:c8efe8e4f...

Image Layers

Vulnerabilities


Image Layers

Command

1 ARG RELEASE	0 B	ARG RELEASE
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	


The large container is 163.49 MB in size.

Screenshot of the size of the **nmetens/hw3small** container:

 **docker hub**

Search Docker Hub

Explore / nmetens/hw3small / latest



nmetens/hw3small:latest

MANIFEST DIGEST sha256:a469c16b56c73865947526528d8d2142591b3acf03da2567ba8d7f877a16a213

OS/ARCH	COMPRESSED SIZE	LAST PUSHED	TYPE	MANIFEST DIGEST
linux/amd64	23.81 MB	a few seconds ago by nmetens	Image	sha256:a469c16b...

Image Layers

Command

Image Layers

Command

1 ADD file ... in /	3.46 MB	ADD file:5758b97d8301
2 CMD ["/bin/sh"]	0 B	
3 ENV PATH=/usr/local/bin:/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin	0 B	
4 ENV LANG=C.UTF-8	0 B	
5 RUN /bin/sh -c set -eux;	444.45 KB	
6 ENV GPG_KEY=E3FF2839C048B25C084DEBE9B26995E310250568	0 B	
7 ENV PYTHON_VERSION=3.9.20	0 B	
8 ENV PYTHON_SHA256=6b281279efd85294d2d6993e173983a57464c0133956fbbb5536ec9646be...	0 B	

The small container is 23.81 MB, about 7 times smaller than the larger container.

On the course-vm, here is the console showing the container image being pulled for the **hw3larger** container:

```
metens@course-vm:~/hw3$ docker login
Authenticating with existing credentials...
WARNING! Your password will be stored unencrypted in /home/metens/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
metens@course-vm:~/hw3$ docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS        NAMES
metens@course-vm:~/hw3$ docker images
REPOSITORY    TAG        IMAGE ID        CREATED        SIZE
nmetens/hw3small   latest     47d2dd4bb071    3 hours ago    64.3MB
python        3.9-alpine 564015dfd5c3    11 days ago    48.9MB
metens@course-vm:~/hw3$ docker run -p 8000:5001 nmetens/hw3large
Unable to find image 'nmetens/hw3large:latest' locally
latest: Pulling from nmetens/hw3large
d9802f032d67: Pull complete
ae2884491459: Pull complete
4a91f9e7fb48: Pull complete
d326daa54c72: Pull complete
61bbd600c8bd: Pull complete
b0e6638388ed: Pull complete
Digest: sha256:c8efe8e4f5fa6f1b2e93f8250e9a33bae2e9c8ab307b0ec70b0ad5686abe102b
Status: Downloaded newer image for nmetens/hw3large:latest
 * Serving Flask app 'app'
 * Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
 * Running on all addresses (0.0.0.0)
 * Running on http://127.0.0.1:5001
 * Running on http://172.17.0.2:5001
Press CTRL+C to quit
 * Restarting with stat
 * Debugger is active!
 * Debugger PIN: 121-677-089
172.17.0.1 - - [30/Oct/2024 00:02:59] "GET / HTTP/1.1" 200 -
172.17.0.1 - - [30/Oct/2024 00:03:21] "GET / HTTP/1.1" 200 -
█
```

Here is the landing page when using the `wget http://localhost:8000` in another window:

```
metens@course-vm:~/hw3$ docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS        NAMES
c74c571b2b40   nmetens/hw3large  "python3 app.py"        8 minutes ago  Up 8 minutes  0.0.0.0:8000->5001/tcp, :::8000->5001/tcp  dazzling_chatterjee
metens@course-vm:~/hw3$ wget http://localhost:8000
--2024-10-30 00:09:34-- http://localhost:8000/
Resolving localhost (localhost)... 127.0.0.1
Connecting to localhost (localhost)|127.0.0.1|:8000... connected.
HTTP request sent, awaiting response... 200 OK
Length: 659 [text/html]
Saving to: 'index.html'

index.html      100%[=====] 659  --.-KB/s  in 0s

2024-10-30 00:09:34 (41.2 MB/s) - 'index.html' saved [659/659]
```

Here is the container image being pulled for the **hw3smaller** container:

```
metens@course-vm:~$ docker images
REPOSITORY    TAG        IMAGE ID        CREATED        SIZE
metens@course-vm:~$ docker run -p 8000:5000 nmetens/hw3small
Unable to find image 'nmetens/hw3small:latest' locally
latest: Pulling from nmetens/hw3small
43c4264eed91: Pull complete
bfd90d6bdb4a: Pull complete
7742e8b512b0: Pull complete
3bc14f086441: Pull complete
a565114772e4: Pull complete
50771f705a7e: Pull complete
933016e57146: Pull complete
46b8934a4bdf: Pull complete
Digest: sha256:a469c16b56c73865947526528d8d2142591b3acf03da2567ba8d7f877a16a213
Status: Downloaded newer image for nmetens/hw3small:latest
 * Serving Flask app 'app'
 * Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
 * Running on all addresses (0.0.0.0)
 * Running on http://127.0.0.1:5001
 * Running on http://172.17.0.2:5001
Press CTRL+C to quit
 * Restarting with stat
 * Debugger is active!
 * Debugger PIN: 438-695-347
█
```

Using `wget http://localhost:8000` on the **hw3smaller** container:

```
metens@course-vm:~$ ls
hw2  hw3  snap
metens@course-vm:~$ cd hw3/
metens@course-vm:~/hw3$ ls
Dockerfile.large  Dockerfile.small  hw2  screenshots.pdf
metens@course-vm:~/hw3$ docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS                               NAMES
9134311f3f8b   mmatens/hw3small  "python3 app.py"        55 seconds ago  Up 54 seconds  0.0.0.0:8000->5001/tcp, :::8000->5001/tcp  stoic_cray
metens@course-vm:~/hw3$ wget http://localhost:8000
--2024-10-30 00:37:15--  http://localhost:8000/
Resolving localhost (localhost)... 127.0.0.1
Connecting to localhost (localhost)|127.0.0.1|:8000... connected.
HTTP request sent, awaiting response... 200 OK
Length: 659 [text/html]
Saving to: 'index.html'

index.html                                     100%[=====>] 659  --.-KB/s  in 0s

2024-10-30 00:37:16 (1.94 MB/s) - 'index.html' saved [659/659]

metens@course-vm:~/hw3$
```