

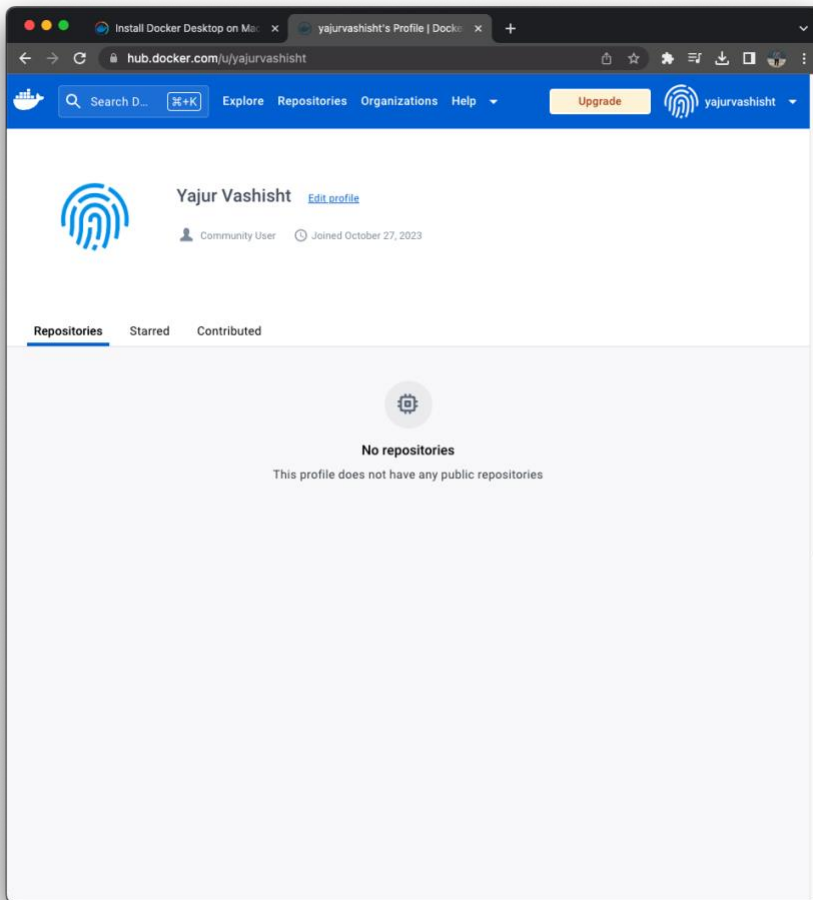
ENSF 607

Assignment 5

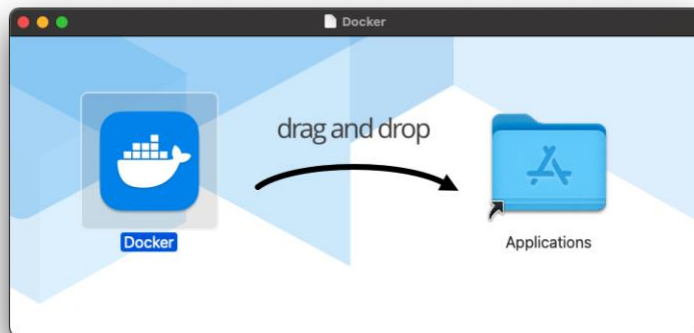
By: Yajur Vashisht

Due Date: November 3rd, 2023

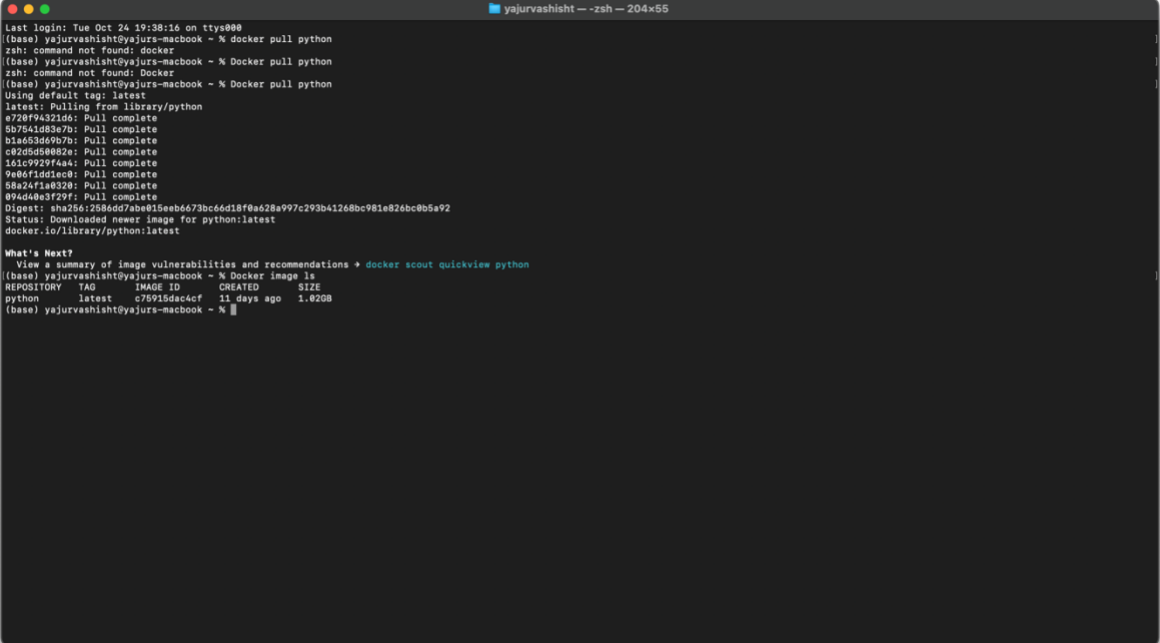
1. Setting up DockerHub account



2. Installing the application



3. Opening in terminal



```

Last login: Tue Oct 24 19:38:16 on ttys000
(base) yajurvashisht@yajurs-macbook ~ % docker pull python
zsh: command not found: docker
(base) yajurvashisht@yajurs-macbook ~ % Docker pull python
zsh: command not found: Docker
(base) yajurvashisht@yajurs-macbook ~ % Docker pull python
Using default tag: latest
latest: Pulling from library/python
e720f94321d6: Pull complete
5b7541d83e7b: Pull complete
51a653d69b7b: Pull complete
c9205d98052e: Pull complete
161c9929f4a4: Pull complete
9e86f1dd1ec0: Pull complete
88a24f1a0320: Pull complete
094d40e3f29f: Pull complete
Digest: sha256:2586dd7abe815eeb6673bc66d18f0a628a997c293b41268bc981e826c0b5a92
Status: Downloaded newer image for python:latest
docker.io/library/python:latest

What's Next?
View a summary of image vulnerabilities and recommendations → docker scout quickview python
(base) yajurvashisht@yajurs-macbook ~ % Docker image ls
REPOSITORY TAG IMAGE ID CREATED SIZE
python latest c76915dec4cf 11 days ago 1.62GB
(base) yajurvashisht@yajurs-macbook ~ %
```

4. Checking image directory

```
yajurvashisht — com.docker.cli - docker exec -it Image sh — 101x55
999e7929b203aa5517dc88a4184df78386a8e8fa808a61e1849ddb35393ccbb7
(base) yajurvashisht@yajurs-macbook ~ % Docker ps
CONTAINER ID   IMAGE      COMMAND                  CREATED          STATUS          PORTS          NAMES
999e7929b203   ensf607    "python3"               15 seconds ago  Up 14 seconds  ports          goofy_merkle
(base) yajurvashisht@yajurs-macbook ~ % Docker rename <name of running container> < new name>
zsh: parse error near `<'
(base) yajurvashisht@yajurs-macbook ~ % Docker rename <ensf607> <new_name>
zsh: parse error near `<'
(base) yajurvashisht@yajurs-macbook ~ % docker rename ensf607 new_name

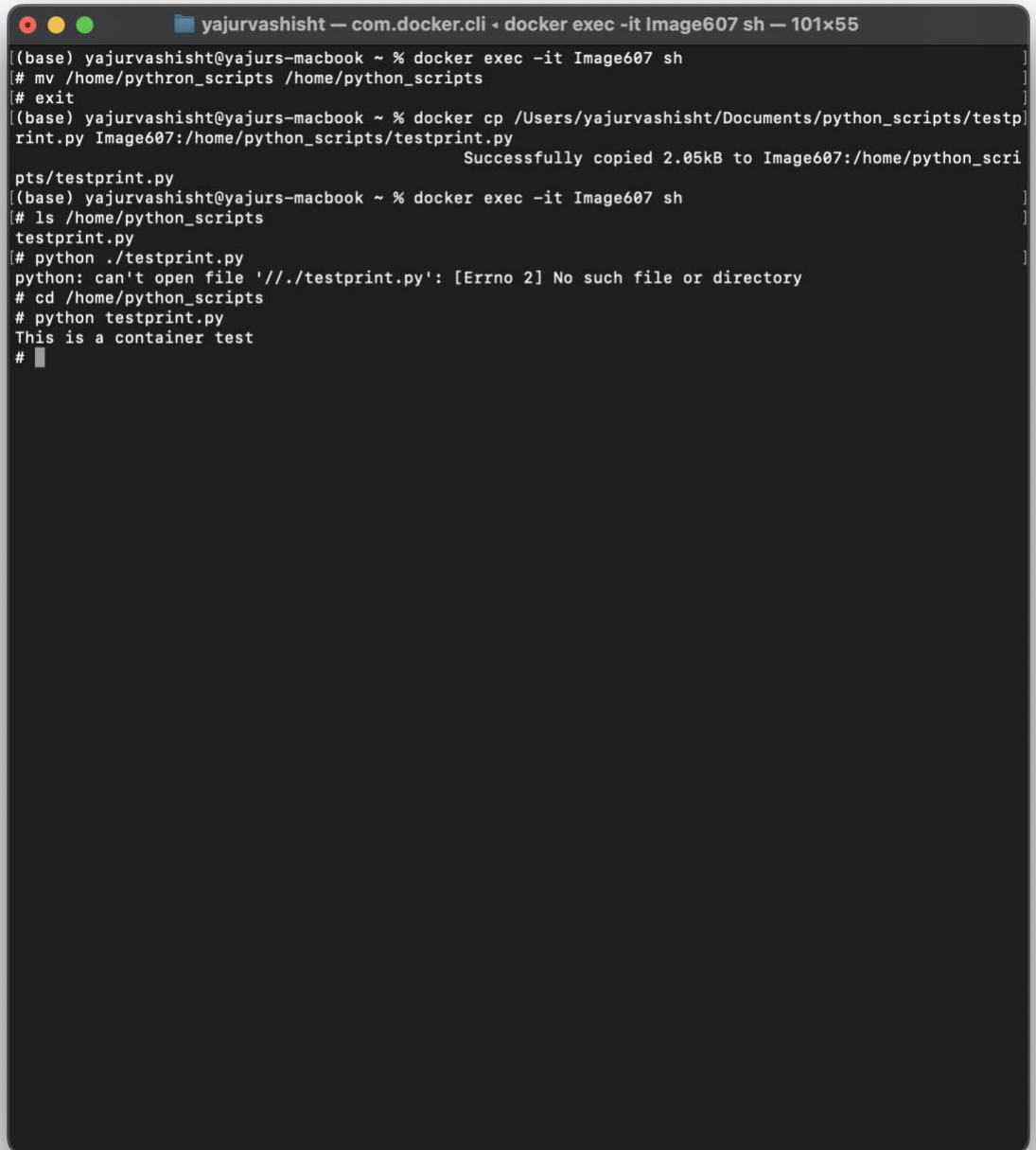
Error response from daemon: No such container: ensf607
Error: failed to rename container named ensf607
(base) yajurvashisht@yajurs-macbook ~ % docker ps
CONTAINER ID   IMAGE      COMMAND                  CREATED          STATUS          PORTS          NAMES
999e7929b203   ensf607    "python3"               2 minutes ago   Up 2 minutes    ports          goofy_merkle
(base) yajurvashisht@yajurs-macbook ~ % docker rename ensf607 Image
Error response from daemon: No such container: ensf607
Error: failed to rename container named ensf607
(base) yajurvashisht@yajurs-macbook ~ % docker rename goofy_merkle Image
(base) yajurvashisht@yajurs-macbook ~ % docker ps
CONTAINER ID   IMAGE      COMMAND                  CREATED          STATUS          PORTS          NAMES
999e7929b203   ensf607    "python3"               4 minutes ago   Up 3 minutes    ports          Image
(base) yajurvashisht@yajurs-macbook ~ % Docker exec -it <Image> sh
zsh: no such file or directory: Image
(base) yajurvashisht@yajurs-macbook ~ % Docker exec -it <ensf607> sh
zsh: no such file or directory: ensf607
(base) yajurvashisht@yajurs-macbook ~ % docker exec -it Image sh

# Ls-ltr
sh: 1: Ls-ltr: not found
# Ls -ltr
sh: 2: Ls: not found
# LS -ltr
sh: 3: LS: not found
# ls -ltr
total 52
drwxr-xr-x  2 root root 4096 Sep 29 20:04 home
drwxr-xr-x  2 root root 4096 Sep 29 20:04 boot
drwxr-xr-x  1 root root 4096 Oct 9 00:00 var
drwxr-xr-x  1 root root 4096 Oct 9 00:00 usr
drwxr-xr-x  2 root root 4096 Oct 9 00:00 srv
lrwxrwxrwx  1 root root    8 Oct 9 00:00 sbin -> usr/sbin
drwxr-xr-x  2 root root 4096 Oct 9 00:00 opt
drwxr-xr-x  2 root root 4096 Oct 9 00:00 mnt
drwxr-xr-x  2 root root 4096 Oct 9 00:00 media
lrwxrwxrwx  1 root root    7 Oct 9 00:00 lib -> usr/lib
lrwxrwxrwx  1 root root    7 Oct 9 00:00 bin -> usr/bin
drwxr-xr-x  1 root root 4096 Oct 11 19:45 run
drwx----- 1 root root 4096 Oct 12 00:34 root
drwxrwxrwt  1 root root 4096 Oct 19 05:58 tmp
drwxr-xr-x  1 root root 4096 Oct 27 19:26 etc
dr-xr-xr-x 12 root root    0 Oct 27 19:26 sys
dr-xr-xr-x 231 root root    0 Oct 27 19:26 proc
drwxr-xr-x  5 root root 360 Oct 27 19:26 dev
#
```

5. Performing commands to create a new directory

```
yajurvashisht — zsh — 101x55
drwxr-xr-x  2 root root 4096 Sep 29 20:04 home
drwxr-xr-x  2 root root 4096 Sep 29 20:04 boot
drwxr-xr-x  1 root root 4096 Oct  9 00:00 var
drwxr-xr-x  1 root root 4096 Oct  9 00:00 usr
drwxr-xr-x  2 root root 4096 Oct  9 00:00 srv
lrwxrwxrwx  1 root root    8 Oct  9 00:00 sbin -> usr/sbin
drwxr-xr-x  2 root root 4096 Oct  9 00:00 opt
drwxr-xr-x  2 root root 4096 Oct  9 00:00 mnt
drwxr-xr-x  2 root root 4096 Oct  9 00:00 media
lrwxrwxrwx  1 root root    7 Oct  9 00:00 lib -> usr/lib
lrwxrwxrwx  1 root root    7 Oct  9 00:00 bin -> usr/bin
drwxr-xr-x  1 root root 4096 Oct 11 19:45 run
drwx----- 1 root root 4096 Oct 12 00:34 root
drwxrwxrwt  1 root root 4096 Oct 19 05:58 tmp
drwxr-xr-x  1 root root 4096 Oct 27 19:26 etc
dr-xr-xr-x 12 root root    0 Oct 27 19:26 sys
dr-xr-xr-x 231 root root    0 Oct 27 19:26 proc
drwxr-xr-x  5 root root 360 Oct 27 19:26 dev
[# cd ./home
[# mkdir ./python_scripts
[# cd ../
[# ./
sh: 8: ./: Permission denied
[# ls -ltr
total 52
drwxr-xr-x  2 root root 4096 Sep 29 20:04 boot
drwxr-xr-x  1 root root 4096 Oct  9 00:00 var
drwxr-xr-x  1 root root 4096 Oct  9 00:00 usr
drwxr-xr-x  2 root root 4096 Oct  9 00:00 srv
lrwxrwxrwx  1 root root    8 Oct  9 00:00 sbin -> usr/sbin
drwxr-xr-x  2 root root 4096 Oct  9 00:00 opt
drwxr-xr-x  2 root root 4096 Oct  9 00:00 mnt
drwxr-xr-x  2 root root 4096 Oct  9 00:00 media
lrwxrwxrwx  1 root root    7 Oct  9 00:00 lib -> usr/lib
lrwxrwxrwx  1 root root    7 Oct  9 00:00 bin -> usr/bin
drwxr-xr-x  1 root root 4096 Oct 11 19:45 run
drwx----- 1 root root 4096 Oct 12 00:34 root
drwxrwxrwt  1 root root 4096 Oct 19 05:58 tmp
drwxr-xr-x  1 root root 4096 Oct 27 19:26 etc
dr-xr-xr-x 12 root root    0 Oct 27 19:26 sys
dr-xr-xr-x 230 root root    0 Oct 27 19:26 proc
drwxr-xr-x  5 root root 360 Oct 27 19:26 dev
drwxr-xr-x  1 root root 4096 Oct 27 19:32 home
[# rm ./python_scripts
rm: cannot remove './python_scripts': No such file or directory
# cd home
[#
# ls -l
total 4
drwxr-xr-x 2 root root 4096 Oct 27 19:32 python_scripts
# rm -r python_scripts
[#
[#
# exit
(base) yajurvashisht@yajurs-macbook ~ %
```

6. Copying script over and running testprint.py



```
yajurvashisht — com.docker.cli ◀ docker exec -it Image607 sh — 101x55
(base) yajurvashisht@yajurs-macbook ~ % docker exec -it Image607 sh
# mv /home/pythron_scripts /home/python_scripts
# exit
(base) yajurvashisht@yajurs-macbook ~ % docker cp /Users/yajurvashisht/Documents/python_scripts/testprint.py Image607:/home/python_scripts/testprint.py
Successfully copied 2.05kB to Image607:/home/python_scripts/testprint.py
(base) yajurvashisht@yajurs-macbook ~ % docker exec -it Image607 sh
# ls /home/python_scripts
testprint.py
# python ./testprint.py
python: can't open file './testprint.py': [Errno 2] No such file or directory
# cd /home/python_scripts
# python testprint.py
This is a container test
#
```

-itd Command

The `-itd` sequence of flags is used with the `docker run`, for creating and managing containers. These flags set the container to run in a specific mode.

The `-i` flag keeps STDIN open, allowing for interactive use, `-t` allocates a pseudo-TTY, creating a terminal interface, and `-d` runs the container in detached mode (operates in the background).

This is ideal to start a container but does not block the terminal session. Giving, both background execution and the capability for interactive engagement. Executing `docker run -itd image_name` would start a container from the specified image, ready for background execution with an interactive shell available for connection.