**DOCKER ASIGNMENT**

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**1. Docker installation: Install Docker on your local system (Windows, macOS, or Linux). Verify the installation by running the**

**docker --version and docker info commands.**

**Ans:**

root@DESKTOP-Q1VPUEC:~# apt install -y curl

root@DESKTOP-Q1VPUEC:~# curl -s https://raw.githubusercontent.com/karaage0703/ubuntu-setup/master/install-docker.sh | /bin/bash

root@DESKTOP-Q1VPUEC:~# service docker start

root@DESKTOP-Q1VPUEC:~# docker --version

Docker version 24.0.7, build afdd53b

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**2. Working with Docker images: Search for the official Ubuntu image on Docker Hub, pull it to your local system using docker pull, and list all available images on your system using docker images.**

**Ans:**

root@DESKTOP-Q1VPUEC:~# docker image pull ubuntu

Using default tag: latest

latest: Pulling from library/ubuntu

a48641193673: Pull complete

Digest: sha256:6042500cf4b44023ea1894effe7890666b0c5c7871ed83a97c36c76ae560bb9b

Status: Downloaded newer image for ubuntu:latest

docker.io/library/ubuntu:latest

root@DESKTOP-Q1VPUEC:~# docker image ls -a

REPOSITORY TAG IMAGE ID CREATED SIZE

ubuntu latest 174c8c134b2a 3 weeks ago 77.9MB

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**3. Creating a Docker container: Run a Docker container using the Ubuntu image, and execute a command inside the container**

**(e.g., echo "Hello, Docker!").**

**Ans:**

root@DESKTOP-Q1VPUEC:~# docker run ubuntu bash -c "echo Hello, Docker!"

Hello, Docker!

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**4. Inspect the Ubuntu Docker container to ensure it is in the "created" state only.**

**Ans:**

root@DESKTOP-Q1VPUEC:~# docker container create ubuntu

7f0af2e9193a5a6aa36b12f65c3fe8ce7a208cf7c85cafaa0fad40b5f022b2fb

root@DESKTOP-Q1VPUEC:~# docker container ls -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

7f0af2e9193a ubuntu "/bin/bash" 5 seconds ago Created thirsty\_bartik

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**5. Execute the Ubuntu Docker container and confirm that the container's state is "running."**

**Ans:**

root@DESKTOP-Q1VPUEC:~# docker container run -itd ubuntu

8eee35c1a80dcd2f6e7161f8f50b1686a06ab87575b5bd80dd692bd4109b4250

root@DESKTOP-Q1VPUEC:~# docker container ls

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

8eee35c1a80d ubuntu "/bin/bash" 6 seconds ago Up 3 seconds awesome\_wozniak

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**6. Launch an HTTP container, verify its state, and then remove the container and image from your local system.**

**Ans:**

root@DESKTOP-Q1VPUEC:~# docker image pull httpd

Using default tag: latest

latest: Pulling from library/httpd

af107e978371: Pull complete

eba4da411ea0: Pull complete

4f4fb700ef54: Pull complete

ed4d6291a6c2: Pull complete

b42c390e1de9: Pull complete

eafe388a0bb8: Pull complete

Digest: sha256:f0a93744d8006e6f7ee5086c9ddccdcfa33d1091f15269a00547b4c382459c1f

Status: Downloaded newer image for httpd:latest

docker.io/library/httpd:latest

root@DESKTOP-Q1VPUEC:~# docker container create httpd

3ba09a5e7370a89d9bff210706b3f98c126a1fbc77895ecfef4c4bcca5dc7ede

root@DESKTOP-Q1VPUEC:~# docker container ls -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

3ba09a5e7370 httpd "httpd-foreground" 11 seconds ago Created musing\_driscoll

8eee35c1a80d ubuntu "/bin/bash" 4 minutes ago Up 4 minutes awesome\_wozniak

root@DESKTOP-Q1VPUEC:~# docker image ls

REPOSITORY TAG IMAGE ID CREATED SIZE

ubuntu latest 174c8c134b2a 4 weeks ago 77.9MB

httpd latest 6fd77d7e5eb7 2 months ago 167MB

root@DESKTOP-Q1VPUEC:~# docker container stop musing\_driscoll

musing\_driscoll

root@DESKTOP-Q1VPUEC:~# docker container rm musing\_driscoll

musing\_driscoll

root@DESKTOP-Q1VPUEC:~# docker image rm httpd:latest

Untagged: httpd:latest

Untagged: httpd@sha256:f0a93744d8006e6f7ee5086c9ddccdcfa33d1091f15269a00547b4c382459c1f

Deleted: sha256:6fd77d7e5eb732dacab601d4556c04a6c312928fb8989fe3b0a47d82db772441

Deleted: sha256:182c1af747d0a2ececd86c81cf1a0a6b0fde0b1fc82f43bc6d08b9424704bee6

Deleted: sha256:e54e0c05fe4f251ec22da736ce53230922f53122eb277ed4340b13d2fb33b7ee

Deleted: sha256:919f2fe845437e6aafaeff643bf2989b31c06851746e46651d0dc93294c6d499

Deleted: sha256:1ad6aa5d8466f1d57283c01a6db9ead817ef489c57c6a5fd89353f99d0d05526

Deleted: sha256:bbbcf99e6e47545823c0b9aea2dcaf8f2d50808c3b27219e8d99bf3ceb1d0c9e

Deleted: sha256:7292cf786aa89399bca4e3edd105d3b2ee0683a46ef1f5ff436c0f9d1d49e765

root@DESKTOP-Q1VPUEC:~# docker container ls -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

8eee35c1a80d ubuntu "/bin/bash" 5 minutes ago Up 5 minutes awesome\_wozniak

root@DESKTOP-Q1VPUEC:~# docker image ls -a

REPOSITORY TAG IMAGE ID CREATED SIZE

ubuntu latest 174c8c134b2a 4 weeks ago 77.9MB

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**7. Execute a command to display a filtered list of containers, showing only their short container IDs.**

**Ans:**

root@DESKTOP-Q1VPUEC:~# docker container ls

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

7ee11a961cb4 ubuntu "/bin/bash" 6 seconds ago Up 3 seconds charming\_bhaskara

8eee35c1a80d ubuntu "/bin/bash" 8 minutes ago Up 8 minutes awesome\_wozniak

root@DESKTOP-Q1VPUEC:~# docker container ls -q

7ee11a961cb4

8eee35c1a80d

root@DESKTOP-Q1VPUEC:~# docker container ls -qa

7ee11a961cb4

8eee35c1a80d

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**8. Clone the lancachenet/ubuntu-nginx Git repository locally and build a Docker image from the provided Dockerfile. Be sure to add relevant tags when building the image.**

**Ans:**

root@DESKTOP-Q1VPUEC:~# git clone git@github.com:lancachenet/ubuntu-nginx.git

Cloning into 'ubuntu-nginx'...

remote: Enumerating objects: 101, done.

remote: Counting objects: 100% (28/28), done.

remote: Compressing objects: 100% (21/21), done.

remote: Total 101 (delta 3), reused 18 (delta 0), pack-reused 73

Receiving objects: 100% (101/101), 19.15 KiB | 1.60 MiB/s, done.

Resolving deltas: 100% (20/20), done.

root@DESKTOP-Q1VPUEC:~# l

Cloud/ Cloud1/ Cloud2/ Cloud3/ Cloud\_ethix/ Web\_page/ cdd dead.letter snap/ ubuntu-nginx/

root@DESKTOP-Q1VPUEC:~# cd ubuntu-nginx/

root@DESKTOP-Q1VPUEC:ubuntu-nginx# git branch -a

\* master

remotes/origin/HEAD -> origin/master

remotes/origin/master

remotes/origin/stream

root@DESKTOP-Q1VPUEC:ubuntu-nginx# ll

total 44

drwxr-xr-x 5 root root 4096 Jan 10 11:48 ./

drwx------ 19 root root 4096 Jan 10 11:48 ../

drwxr-xr-x 2 root root 4096 Jan 10 11:48 .circleci/

drwxr-xr-x 8 root root 4096 Jan 10 11:48 .git/

-rw-r--r-- 1 root root 6 Jan 10 11:48 .gitignore

-rw-r--r-- 1 root root 979 Jan 10 11:48 Dockerfile

-rw-r--r-- 1 root root 789 Jan 10 11:48 README.md

-rw-r--r-- 1 root root 292 Jan 10 11:48 goss.yaml

-rw-r--r-- 1 root root 105 Jan 10 11:48 goss\_wait.yaml

drwxr-xr-x 6 root root 4096 Jan 10 11:48 overlay/

-rwxr-xr-x 1 root root 1047 Jan 10 11:48 run-tests.sh\*

root@DESKTOP-Q1VPUEC:ubuntu-nginx# docker build . -t my\_own\_image:v1

[+] Building 195.5s (9/9) FINISHED docker:default

=> [internal] load build definition from Dockerfile 1.7s

=> => transferring dockerfile: 1.02kB 0.0s

=> [internal] load .dockerignore 1.5s

=> => transferring context: 2B 0.0s

=> [internal] load metadata for docker.io/lancachenet/ubuntu:latest 4.5s

=> [internal] load build context 1.1s

=> => transferring context: 7.51kB 0.1s

=> [1/4] FROM docker.io/lancachenet/ubuntu:latest@sha256:7ece2e2aefb4cc13b895823fa7c1ee43763a1b15b84659dcb4daae726f757765 74.7s

=> => resolve docker.io/lancachenet/ubuntu:latest@sha256:7ece2e2aefb4cc13b895823fa7c1ee43763a1b15b84659dcb4daae726f757765 0.3s

=> => sha256:7ece2e2aefb4cc13b895823fa7c1ee43763a1b15b84659dcb4daae726f757765 1.57kB / 1.57kB 0.0s

=> => sha256:670916736000a9194948bb34fc0eb35d0bf950fca93cee7b4c0bedcd5b7e2ce3 5.32kB / 5.32kB 0.0s

=> => sha256:41af1b5f0f51947706ae712999cf098bef968a7799e7cb4bb2268829e62a6ab3 26.72MB / 26.72MB 5.6s

=> => sha256:900413b3fecbaf33a52810bf85c4813dca098cb81a93c89a8b5ee7e0e03f9cf4 198.15MB / 198.15MB 29.3s

=> => sha256:ff9336c01251bbe9df134b491f917d80b5a838061af094262fef71975eba9c0f 992.47kB / 992.47kB 2.9s

=> => sha256:9c6fa06d5865b202c1355539171d9f0e34a2b80e820cbfbd6e0c9cf22936d052 668B / 668B 4.4s

=> => sha256:e42b03cf4108fdcebf3fac1cb60c490f2acafae9490945923cfbaa22ea65946d 3.38kB / 3.38kB 5.8s

=> => extracting sha256:41af1b5f0f51947706ae712999cf098bef968a7799e7cb4bb2268829e62a6ab3 14.3s

=> => sha256:d9483b77bd0c52c0938a5843a7a553c2bfa100e613b7a47765bd8c6945cb73fb 1.53kB / 1.53kB 6.7s

=> => extracting sha256:900413b3fecbaf33a52810bf85c4813dca098cb81a93c89a8b5ee7e0e03f9cf4 36.7s

=> => extracting sha256:ff9336c01251bbe9df134b491f917d80b5a838061af094262fef71975eba9c0f 0.6s

=> => extracting sha256:9c6fa06d5865b202c1355539171d9f0e34a2b80e820cbfbd6e0c9cf22936d052 0.0s

=> => extracting sha256:e42b03cf4108fdcebf3fac1cb60c490f2acafae9490945923cfbaa22ea65946d 0.0s

=> => extracting sha256:d9483b77bd0c52c0938a5843a7a553c2bfa100e613b7a47765bd8c6945cb73fb 0.0s

=> [2/4] COPY overlay/ / 5.6s

=> [3/4] RUN apt-get update && apt-get install -y nginx-full inotify-tools 101.2s

=> [4/4] RUN chmod 777 /opt/nginx/startnginx.sh && rm /etc/nginx/sites-available/default /etc/nginx/sites-enabled/def 3.2s

=> exporting to image 2.8s

=> => exporting layers 2.6s

=> => writing image sha256:922b93dbc26409fe431b776af15878bdaaebab81af5282055884e5a290f1fb58 0.1s

=> => naming to docker.io/library/my\_own\_image:v1 0.2s

root@DESKTOP-Q1VPUEC:ubuntu-nginx# docker image ls

REPOSITORY TAG IMAGE ID CREATED SIZE

my\_own\_image v1 922b93dbc264 37 seconds ago 584MB

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**9. After building the image, run a Docker container using the image and check the webpage using the curl command to ensure**

**it's accessible.**

**Ans:**

root@DESKTOP-Q1VPUEC:ubuntu-nginx# docker container run -it --rm -d -p 8080:80 --name my\_own\_container my\_own\_image:v1

73d22e11dfa9f4e79c98612afbd9e1d0e3c4c5e06d59d3009e282fa5507c331a

root@DESKTOP-Q1VPUEC:ubuntu-nginx# docker container ls -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

73d22e11dfa9 my\_own\_image:v1 "/bin/bash -e /init/…" 4 seconds ago Up 2 seconds 0.0.0.0:8080->80/tcp, :::8080->80/tcp my\_own\_container

root@DESKTOP-Q1VPUEC:ubuntu-nginx# netstat -tunlp

Active Internet connections (only servers)

Proto Recv-Q Send-Q Local Address Foreign Address State PID/Program name

tcp 0 0 0.0.0.0:8080 0.0.0.0:\* LISTEN 4578/docker-proxy

root@DESKTOP-Q1VPUEC:ubuntu-nginx# docker inspect --format='{{.NetworkSettings.IPAddress}}' my\_own\_container

172.17.0.2

root@DESKTOP-Q1VPUEC:ubuntu-nginx# curl 172.17.0.2

Welcome to the lancachenet/ubuntu-nginx docker container

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**10. Launch an Ubuntu container, demonstrate that the escape sequence is functional, and reattach the container after detaching it with the escape sequence. Then, check the container's IP address.**

**Ans:**

root@DESKTOP-Q1VPUEC:~# docker image pull ubuntu

Using default tag: latest

latest: Pulling from library/ubuntu

a48641193673: Pull complete

Digest: sha256:6042500cf4b44023ea1894effe7890666b0c5c7871ed83a97c36c76ae560bb9b

Status: Downloaded newer image for ubuntu:latest

docker.io/library/ubuntu:latest

root@DESKTOP-Q1VPUEC:~# docker image ls -a

REPOSITORY TAG IMAGE ID CREATED SIZE

my\_own\_image v1 922b93dbc264 50 minutes ago 584MB

ubuntu latest 174c8c134b2a 4 weeks ago 77.9MB

root@DESKTOP-Q1VPUEC:~# docker container run -it ubuntu

root@3f08da44e354:/# exit

exit

root@DESKTOP-Q1VPUEC:~# docker container ls -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

3f08da44e354 ubuntu "/bin/bash" 23 seconds ago Exited (0) 14 seconds ago magical\_babbage

73d22e11dfa9 my\_own\_image:v1 "/bin/bash -e /init/…" 16 minutes ago Up 16 minutes 0.0.0.0:8080->80/tcp, :::8080->80/tcp my\_own\_container

root@DESKTOP-Q1VPUEC:~# docker container run -it ubuntu (ctrl +p +q) OR else -itd argument also works

root@a659ad4ddd2f:/# root@DESKTOP-Q1VPUEC:~# docker container ls -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

a659ad4ddd2f ubuntu "/bin/bash" 22 seconds ago Up 19 seconds focused\_curran

3f08da44e354 ubuntu "/bin/bash" 59 seconds ago Exited (0) 50 seconds ago magical\_babbage

73d22e11dfa9 my\_own\_image:v1 "/bin/bash -e /init/…" 16 minutes ago Up 16 minutes 0.0.0.0:8080->80/tcp, :::8080->80/tcp my\_own\_container

root@DESKTOP-Q1VPUEC:~# docker container attach a659ad4ddd2f

root@a659ad4ddd2f:/# read escape sequence

root@DESKTOP-Q1VPUEC:~# docker container ls -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS

NAMES

a659ad4ddd2f ubuntu "/bin/bash" About a minute ago Up 58 seconds

focused\_curran

3f08da44e354 ubuntu "/bin/bash" About a minute ago Exited (0) About a minute ago

magical\_babbage

73d22e11dfa9 my\_own\_image:v1 "/bin/bash -e /init/…" 17 minutes ago Up 17 minutes 0.0.0.0:8080->80/tcp, :::8080->80/tcp my\_own\_container

root@DESKTOP-Q1VPUEC:~# docker inspect --format='{{.NetworkSettings.IPAddress}}' a659ad4ddd2f

172.17.0.3

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**11. Use a Docker command to inspect the hostname and /etc/hosts file of the httpd container.**

**Ans:**

root@DESKTOP-Q1VPUEC:~# docker container exec zealous\_tesla hostname

03498e78c6b6

root@DESKTOP-Q1VPUEC:~# docker container exec zealous\_tesla cat /etc/hosts

127.0.0.1 localhost

::1 localhost ip6-localhost ip6-loopback

fe00::0 ip6-localnet

ff00::0 ip6-mcastprefix

ff02::1 ip6-allnodes

ff02::2 ip6-allrouters

172.17.0.4 03498e78c6b6

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**12. Run a Docker command to inspect a container created with the lancachenet/ubuntu-nginx repository, and monitor the container's resource usage and stats with the TOP command.**

**Ans:**

root@DESKTOP-Q1VPUEC:~# docker container top my\_own\_container

UID PID PPID C STIME TTY TIME CMD

root 4621 4599 0 12:33 pts/0 00:00:01 /usr/bin/python3 /usr/local/bin/supervisord -n -c /etc/supervisor/supervisord.conf -e WARN

root 4655 4621 0 12:33 pts/0 00:00:00 /bin/bash /opt/nginx/startnginx.sh

root 4656 4655 0 12:33 pts/0 00:00:00 nginx: master process /usr/sbin/nginx -g daemon off;

www-data 4657 4656 0 12:33 pts/0 00:00:00 nginx: worker process

www-data 4658 4656 0 12:33 pts/0 00:00:00 nginx: worker process

root@DESKTOP-Q1VPUEC:~# docker container stats

CONTAINER ID NAME CPU % MEM USAGE / LIMIT MEM % NET I/O BLOCK I/O PIDS

03498e78c6b6 zealous\_tesla 0.01% 21.71MiB / 3.32GiB 0.64% 866B / 0B 0B / 0B 82

a659ad4ddd2f focused\_curran 0.00% 824KiB / 3.32GiB 0.02% 1.01kB / 0B 0B / 0B 1

73d22e11dfa9 my\_own\_container 0.04% 19.43MiB / 3.32GiB 0.57% 4.36kB / 2.61kB 0B / 0B 5

root@DESKTOP-Q1VPUEC:~# docker container logs my\_own\_container

Executing hook /hooks/entrypoint-pre.d/00\_asciilogo.sh

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Executing hook /hooks/supervisord-pre.d/20\_test\_files\_setup

Checking if /var/www/ is empty - Directory not empty.. don't touch content

Executing hook /hooks/supervisord-pre.d/21\_cleanup\_log\_files

Cleaning up log files older than 7 days

Starting Supervisord

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**13. Start a new Nginx container and review the logs for both Nginx containers.**

**Ans:**

root@DESKTOP-Q1VPUEC:~# docker container run -itd my\_own\_image:v1

d57c9ec59740c9e158faec87b0c92958ec18d252e9f654d0113f32e0f6d29b57

root@DESKTOP-Q1VPUEC:~# docker container ls

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

d57c9ec59740 my\_own\_image:v1 "/bin/bash -e /init/…" 19 seconds ago Up 16 seconds 80/tcp dreamy\_antonelli

03498e78c6b6 httpd "httpd-foreground" 11 minutes ago Up 11 minutes 80/tcp zealous\_tesla

a659ad4ddd2f ubuntu "/bin/bash" 20 minutes ago Up 20 minutes focused\_curran

73d22e11dfa9 my\_own\_image:v1 "/bin/bash -e /init/…" 36 minutes ago Up 36 minutes 0.0.0.0:8080->80/tcp, :::8080->80/tcp my\_own\_container

root@DESKTOP-Q1VPUEC:~# docker container logs my\_own\_container

Executing hook /hooks/entrypoint-pre.d/00\_asciilogo.sh

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Executing hook /hooks/supervisord-pre.d/20\_test\_files\_setup

Checking if /var/www/ is empty - Directory not empty.. don't touch content

Executing hook /hooks/supervisord-pre.d/21\_cleanup\_log\_files

Cleaning up log files older than 7 days

Starting Supervisord

root@DESKTOP-Q1VPUEC:~# docker container logs dreamy\_antonelli

Executing hook /hooks/entrypoint-pre.d/00\_asciilogo.sh

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Executing hook /hooks/supervisord-pre.d/20\_test\_files\_setup

Checking if /var/www/ is empty - Directory not empty.. don't touch content

Executing hook /hooks/supervisord-pre.d/21\_cleanup\_log\_files

Cleaning up log files older than 7 days

Starting Supervisord

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**14. Examine system events, filtering them by date and the last 30 minutes. Additionally, apply two filters simultaneously using name and event.**

**Ans:**

root@DESKTOP-Q1VPUEC:~# docker system events --since 5m

2024-01-10T13:03:51.411873088+05:30 container top 73d22e11dfa9f4e79c98612afbd9e1d0e3c4c5e06d59d3009e282fa5507c331a (image=my\_own\_image:v1, name=my\_own\_container, org.opencontainers.image.ref.name=ubuntu, org.opencontainers.image.version=18.04)

2024-01-10T13:04:03.832436884+05:30 container top 73d22e11dfa9f4e79c98612afbd9e1d0e3c4c5e06d59d3009e282fa5507c331a (image=my\_own\_image:v1, name=my\_own\_container, org.opencontainers.image.ref.name=ubuntu, org.opencontainers.image.version=18.04)

2024-01-10T13:05:37.637885605+05:30 container top 73d22e11dfa9f4e79c98612afbd9e1d0e3c4c5e06d59d3009e282fa5507c331a (image=my\_own\_image:v1, name=my\_own\_container, org.opencontainers.image.ref.name=ubuntu, org.opencontainers.image.version=18.04)

root@DESKTOP-Q1VPUEC:~# docker system events --since 30m

2024-01-10T12:49:32.536692745+05:30 container create 3f08da44e3545fa9b0f1f68bc8838c17eece6511aca738578b02ea01f583000e (image=ubuntu, name=magical\_babbage, org.opencontainers.image.ref.name=ubuntu, org.opencontainers.image.version=22.04)

2024-01-10T12:49:32.563564522+05:30 container attach 3f08da44e3545fa9b0f1f68bc8838c17eece6511aca738578b02ea01f583000e (image=ubuntu, name=magical\_babbage, org.opencontainers.image.ref.name=ubuntu, org.opencontainers.image.version=22.04)

2024-01-10T12:49:33.151352196+05:30 network connect 876f68a0de0c1c29525c430e8ce530c4de1a513b98c15488e689db6d8fd8c150 (container=3f08da44e3545fa9b0f1f68bc8838c17eece6511aca738578b02ea01f583000e, name=bridge, type=bridge)

2024-01-10T12:49:34.059321207+05:30 container start 3f08da44e3545fa9b0f1f68bc8838c17eece6511aca738578b02ea01f583000e (image=ubuntu, name=magical\_babbage, org.opencontainers.image.ref.name=ubuntu, org.opencontainers.image.version=22.04)

2024-01-10T12:49:34.099396863+05:30 container resize 3f08da44e3545fa9b0f1f68bc8838c17eece6511aca738578b02ea01f583000e (height=35, image=ubuntu, name=magical\_babbage, org.opencontainers.image.ref.name=ubuntu, org.opencontainers.image.version=22.04, width=148)

2024-01-10T12:49:40.459558906+05:30 network disconnect 876f68a0de0c1c29525c430e8ce530c4de1a513b98c15488e689db6d8fd8c150 (container=3f08da44e3545fa9b0f1f68bc8838c17eece6511aca738578b02ea01f583000e, name=bridge, type=bridge)

2024-01-10T12:49:40.815699983+05:30 container die 3f08da44e3545fa9b0f1f68bc8838c17eece6511aca738578b02ea01f583000e (execDuration=5, exitCode=0, image=ubuntu, name=magical\_babbage, org.opencontainers.image.ref.name=ubuntu, org.opencontainers.image.version=22.04)

2024-01-10T12:50:09.659477867+05:30 container create a659ad4ddd2fb39000bb6280e6136b204c5134cd49f9f7a041481ca7d2027d0c (image=ubuntu, name=focused\_curran, org.opencontainers.image.ref.name=ubuntu, org.opencontainers.image.version=22.04)

2024-01-10T12:50:09.681664404+05:30 container attach a659ad4ddd2fb39000bb6280e6136b204c5134cd49f9f7a041481ca7d2027d0c (image=ubuntu, name=focused\_curran, org.opencontainers.image.ref.name=ubuntu, org.opencontainers.image.version=22.04)

2024-01-10T12:50:10.116078407+05:30 network connect 876f68a0de0c1c29525c430e8ce530c4de1a513b98c15488e689db6d8fd8c150 (container=a659ad4ddd2fb39000bb6280e6136b204c5134cd49f9f7a041481ca7d2027d0c, name=bridge, type=bridge)

root@DESKTOP-Q1VPUEC:~# docker events --filter event=start --filter type=container --since 15m

2024-01-10T13:10:16.984254483+05:30 container start d57c9ec59740c9e158faec87b0c92958ec18d252e9f654d0113f32e0f6d29b57 (image=my\_own\_image:v1, name=dreamy\_antonelli, org.opencontainers.image.ref.name=ubuntu, org.opencontainers.image.version=18.04)

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**15. Create a Docker container using the Ubuntu image, assign it a meaningful name, and set the hostname to "cloudethix.com." Stop or kill the container, check its exit code, and examine the container's log for more information.**

**Ans:**

root@DESKTOP-Q1VPUEC:~# docker container run -itd --name cloud --hostname cloudethix.com ubuntu

a103d1c38e02dabd2d46e0cebfbd692cf6cb59dfc2840ce41a7872a1de35c596

root@DESKTOP-Q1VPUEC:~# docker container ls -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMESa103d1c38e02 ubuntu "/bin/bash" 12 seconds ago Up 9 seconds cloudd57c9ec59740 my\_own\_image:v1 "/bin/bash -e /init/…" 22 minutes ago Up 22 minutes 80/tcp dreamy\_antonelli

03498e78c6b6 httpd "httpd-foreground" 34 minutes ago Up 34 minutes 80/tcp zealous\_tesla

36589d971b8d ubuntu "/bin/bash" 38 minutes ago Exited (0) 36 minutes ago trusting\_spence

a659ad4ddd2f ubuntu "/bin/bash" 42 minutes ago Up 42 minutes focused\_curran

3f08da44e354 ubuntu "/bin/bash" 43 minutes ago Exited (0) 43 minutes ago magical\_babbage

73d22e11dfa9 my\_own\_image:v1 "/bin/bash -e /init/…" 59 minutes ago Up 59 minutes 0.0.0.0:8080->80/tcp, :::8080->80/tcp my\_own\_container

root@DESKTOP-Q1VPUEC:~# docker container exec cloud hostname

cloudethix.com

root@DESKTOP-Q1VPUEC:~# docker container stop cloud

cloud

-bash: syntax error near unexpected token `newline'

root@DESKTOP-Q1VPUEC:~# docker container ls -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

a103d1c38e02 ubuntu "/bin/bash" 3 minutes ago Exited (137) 50 seconds ago cloud

root@DESKTOP-Q1VPUEC:~# docker container logs a103d1c38e02

root@cloudethix:/# root@DESKTOP-Q1VPUEC:~# ^C

root@DESKTOP-Q1VPUEC:~#

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**16. Instantiate and start an Ubuntu container with a random name, then rename it to "Ubuntu01." Launch another container named "Ubuntu02" and check the hostname of both containers. Pause and un-pause the "Ubuntu02" container, and stop, start, and restart the "Ubuntu01" container. Inspect the stats and system events of both containers, then kill and delete them, ensuring that directories created by the containers are removed.**

**Ans:**

root@DESKTOP-Q1VPUEC:~# docker container run -itd ubuntu

e62ae7e2b30e74c6df69918bdc21c909f180029962bab3ccf279a30124b863ff

root@DESKTOP-Q1VPUEC:~# docker container ls -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

e62ae7e2b30e ubuntu "/bin/bash" 9 seconds ago Up 6 seconds wizardly\_pare

root@DESKTOP-Q1VPUEC:~# docker container rename wizardly\_pare Ubuntu01

root@DESKTOP-Q1VPUEC:~# docker container ls -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

e62ae7e2b30e ubuntu "/bin/bash" 2 minutes ago Up 2 minutes Ubuntu01

root@DESKTOP-Q1VPUEC:~# docker container run -itd --name Ubuntu02 ubuntu

6cf641a52448fd3ef28e1c2a9e2b4754bde9ff7a31d403084a24604f8bf3a02a

root@DESKTOP-Q1VPUEC:~# docker container ls -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

6cf641a52448 ubuntu "/bin/bash" 4 seconds ago Up 1 second Ubuntu02

e62ae7e2b30e ubuntu "/bin/bash" 4 minutes ago Up 3 minutes Ubuntu01

root@DESKTOP-Q1VPUEC:~# docker container exec Ubuntu01 hostname

e62ae7e2b30e

root@DESKTOP-Q1VPUEC:~# docker container exec Ubuntu02 hostname

6cf641a52448

root@DESKTOP-Q1VPUEC:~# docker container pause Ubuntu02

Ubuntu02

root@DESKTOP-Q1VPUEC:~# docker container ls -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS

NAMES

6cf641a52448 ubuntu "/bin/bash" 6 minutes ago Up 6 minutes (Paused)

Ubuntu02

root@DESKTOP-Q1VPUEC:~# docker container unpause Ubuntu02

Ubuntu02

root@DESKTOP-Q1VPUEC:~# docker container ls -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS

NAMES

6cf641a52448 ubuntu "/bin/bash" 6 minutes ago Up 6 minutes

Ubuntu02

root@DESKTOP-Q1VPUEC:~# docker container stop Ubuntu01

Ubuntu01

root@DESKTOP-Q1VPUEC:~# docker container ls -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

e62ae7e2b30e ubuntu "/bin/bash" 9 minutes ago Exited (137) 3 seconds ago Ubuntu01

root@DESKTOP-Q1VPUEC:~# docker container start Ubuntu01

Ubuntu01

root@DESKTOP-Q1VPUEC:~# docker container ls -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

e62ae7e2b30e ubuntu "/bin/bash" 9 minutes ago Up 3 seconds Ubuntu01

root@DESKTOP-Q1VPUEC:~# docker container restart Ubuntu01

Ubuntu01

root@DESKTOP-Q1VPUEC:~# docker container ls -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS

NAMES

e62ae7e2b30e ubuntu "/bin/bash" 9 minutes ago Up 2 seconds

Ubuntu01

root@DESKTOP-Q1VPUEC:~# docker stats Ubuntu02

CONTAINER ID NAME CPU % MEM USAGE / LIMIT MEM % NET I/O BLOCK I/O PIDS

6cf641a52448 Ubuntu02 0.00% 832KiB / 3.32GiB 0.02% 1.01kB / 0B 0B / 0B 1

CONTAINER ID NAME CPU % MEM USAGE / LIMIT MEM % NET I/O BLOCK I/O PIDS

6cf641a52448 Ubuntu02 0.00% 832KiB / 3.32GiB 0.02% 1.01kB / 0B 0B / 0B 1

root@DESKTOP-Q1VPUEC:~# docker stats Ubuntu01

CONTAINER ID NAME CPU % MEM USAGE / LIMIT MEM % NET I/O BLOCK I/O PIDS

e62ae7e2b30e Ubuntu01 0.00% 796KiB / 3.32GiB 0.02% 1.01kB / 0B 0B / 0B 1

CONTAINER ID NAME CPU % MEM USAGE / LIMIT MEM % NET I/O BLOCK I/O PIDS

e62ae7e2b30e Ubuntu01 0.00% 796KiB / 3.32GiB 0.02% 1.01kB / 0B 0B / 0B 1

root@DESKTOP-Q1VPUEC:~# docker system events --since 30m

2024-01-10T16:15:07.407615393+05:30 container kill e62ae7e2b30e74c6df69918bdc21c909f180029962bab3ccf279a30124b863ff (image=ubuntu, name=Ubuntu01, org.opencontainers.image.ref.name=ubuntu, org.opencontainers.image.version=22.04, signal=9)

2024-01-10T16:15:08.346785612+05:30 network disconnect 876f68a0de0c1c29525c430e8ce530c4de1a513b98c15488e689db6d8fd8c150 (container=e62ae7e2b30e74c6df69918bdc21c909f180029962bab3ccf279a30124b863ff, name=bridge, type=bridge)

2024-01-10T16:15:08.647526462+05:30 container die e62ae7e2b30e74c6df69918bdc21c909f180029962bab3ccf279a30124b863ff (execDuration=6382, exitCode=137, image=ubuntu, name=Ubuntu01, org.opencontainers.image.ref.name=ubuntu, org.opencontainers.image.version=22.04)

2024-01-10T16:15:32.598693350+05:30 container destroy e62ae7e2b30e74c6df69918bdc21c909f180029962bab3ccf279a30124b863ff (image=ubuntu, name=Ubuntu01, org.opencontainers.image.ref.name=ubuntu, org.opencontainers.image.version=22.04)

2024-01-10T16:15:48.521599974+05:30 container kill 6cf641a52448fd3ef28e1c2a9e2b4754bde9ff7a31d403084a24604f8bf3a02a (image=ubuntu, name=Ubuntu02, org.opencontainers.image.ref.name=ubuntu, org.opencontainers.image.version=22.04, signal=9)

2024-01-10T16:15:49.291482339+05:30 network disconnect 876f68a0de0c1c29525c430e8ce530c4de1a513b98c15488e689db6d8fd8c150 (container=6cf641a52448fd3ef28e1c2a9e2b4754bde9ff7a31d403084a24604f8bf3a02a, name=bridge, type=bridge)

2024-01-10T16:15:49.547583991+05:30 container die 6cf641a52448fd3ef28e1c2a9e2b4754bde9ff7a31d403084a24604f8bf3a02a (execDuration=6780, exitCode=137, image=ubuntu, name=Ubuntu02, org.opencontainers.image.ref.name=ubuntu, org.opencontainers.image.version=22.04)

root@DESKTOP-Q1VPUEC:~# docker container kill Ubuntu01

Ubuntu01

root@DESKTOP-Q1VPUEC:~# docker container ls -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

6cf641a52448 ubuntu "/bin/bash" 2 hours ago Up 2 hours Ubuntu02

e62ae7e2b30e ubuntu "/bin/bash" 2 hours ago Exited (137) 11 seconds ago Ubuntu01

root@DESKTOP-Q1VPUEC:~# docker container rm Ubuntu01

Ubuntu01

root@DESKTOP-Q1VPUEC:~# docker container ls -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

6cf641a52448 ubuntu "/bin/bash" 2 hours ago Up 2 hours Ubuntu02

root@DESKTOP-Q1VPUEC:~# docker container kill Ubuntu02

Ubuntu02

root@DESKTOP-Q1VPUEC:~# docker container ls -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

6cf641a52448 ubuntu "/bin/bash" 2 hours ago Exited (137) 16 seconds ago Ubuntu02

root@DESKTOP-Q1VPUEC:~# docker container restart Ubuntu02

Ubuntu02

root@DESKTOP-Q1VPUEC:~# docker container ls -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

6cf641a52448 ubuntu "/bin/bash" 2 hours ago Up 3 seconds Ubuntu02

root@DESKTOP-Q1VPUEC:~# docker container stop Ubuntu02

Ubuntu02

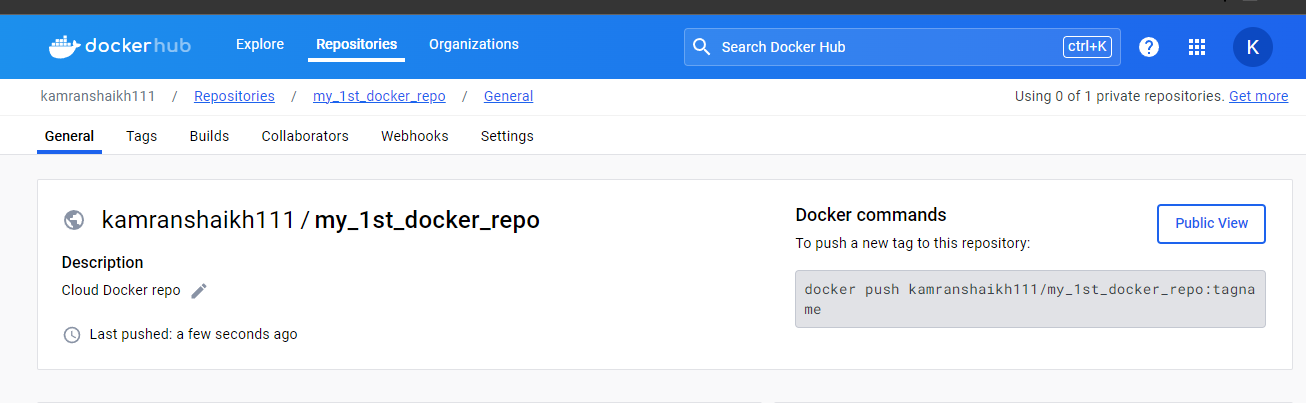
root@DESKTOP-Q1VPUEC:~# docker container rm Ubuntu02

Ubuntu02

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**17. Create a DockerHub account, set up a repository with meaningful name.**

**Ans:**



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