Assignment - 1

ubuntu@ip-172-31-88-70:~$ sudo apt update

ubuntu@ip-172-31-88-70:~$ sudo apt install docker.io -y

ubuntu@ip-172-31-88-70:~$ sudo docker pull ubuntu

Using default tag: latest

latest: Pulling from library/ubuntu

b71466b94f26: Pull complete

Digest: sha256:7c06e91f61fa88c08cc74f7e1b7c69ae24910d745357e0dfe1d2c0322aaf20f9

Status: Downloaded newer image for ubuntu:latest

docker.io/library/ubuntu:latest

ubuntu@ip-172-31-88-70:~$ sudo docker images

REPOSITORY   TAG       IMAGE ID       CREATED       SIZE

ubuntu       latest    e0f16e6366fe   3 weeks ago   78.1MB

ubuntu@ip-172-31-88-70:~$ sudo docker run -itd -p 80:80 --name=a1container ubuntu

f5bd6d19e7a7354028c90d5b28ca1b5243ca8a2634f3d62f0f35bf4854347fe3

ubuntu@ip-172-31-88-70:~$ sudo docker ps

CONTAINER ID   IMAGE     COMMAND       CREATED          STATUS          PORTS                               NAMES

f5bd6d19e7a7   ubuntu    "/bin/bash"   13 seconds ago   Up 12 seconds   0.0.0.0:80->80/tcp, :::80->80/tcp   a1container

ubuntu@ip-172-31-88-70:~$ sudo docker exec -it a1container bash

root@f5bd6d19e7a7:/# apt update

root@f5bd6d19e7a7:/# apt install apache2

root@f5bd6d19e7a7:/# service apache2 status

 \* apache2 is not running

root@f5bd6d19e7a7:/# service apache2 start

 \* Starting Apache httpd web server apache2                                                                                                                            AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 172.17.0.2. Set the 'ServerName' directive globally to suppress this message

 \*

root@f5bd6d19e7a7:/# service apache2 status

 \* apache2 is running

root@f5bd6d19e7a7:/# exit

exit

History

    1  sudo apt update

    2  sudo apt install docker.io -y

    3  sudo docker pull ubuntu

    4  sudo docker images

    5  sudo docker run -itd -p 80:80 --name=a1container ubuntu

    6  sudo docker ps

    7  sudo docker exec -it a1container bash

Assignment - 2

CONTAINER ID   IMAGE     COMMAND       CREATED          STATUS          PORTS                               NAMES

f5bd6d19e7a7   ubuntu    "/bin/bash"   25 minutes ago   Up 25 minutes   0.0.0.0:80->80/tcp, :::80->80/tcp   a1container

ubuntu@ip-172-31-88-70:~$ sudo docker commit

"docker commit" requires at least 1 and at most 2 arguments.

See 'docker commit --help'.

Usage:  docker commit [OPTIONS] CONTAINER [REPOSITORY[:TAG]]

Create a new image from a container's changes

ubuntu@ip-172-31-88-70:~$ sudo docker commit a1container a2image:v1

sha256:1dfca9c8483395dffac20e1a50bc33bbba62064bf711ee1cb8602c8ad4af9eb8

ubuntu@ip-172-31-88-70:~$ sudo docker images

REPOSITORY   TAG       IMAGE ID       CREATED          SIZE

a2image      v1        1dfca9c84833   58 seconds ago   237MB

ubuntu       latest    e0f16e6366fe   3 weeks ago      78.1MB

ubuntu@ip-172-31-88-70:~$ sudo docker run -itd -p 81:80 --name=a2container a2image:v1

cca5505aa718700c46240d9348a60576275a9259d555b99deda58cb5fd2738c2

ubuntu@ip-172-31-88-70:~$ sudo docker ps -a

CONTAINER ID   IMAGE        COMMAND       CREATED          STATUS          PORTS                                 NAMES

cca5505aa718   a2image:v1   "/bin/bash"   9 seconds ago    Up 8 seconds    0.0.0.0:81->80/tcp, [::]:81->80/tcp   a2container

f5bd6d19e7a7   ubuntu       "/bin/bash"   41 minutes ago   Up 41 minutes   0.0.0.0:80->80/tcp, :::80->80/tcp     a1container

ubuntu@ip-172-31-88-70:~$ sudo docker exec -it a2container bash

root@cca5505aa718:/# apache2 --version

[Sun Aug 24 05:37:53.064584 2025] [core:warn] [pid 17] AH00111: Config variable ${APACHE\_RUN\_DIR} is not defined

apache2: Syntax error on line 80 of /etc/apache2/apache2.conf: DefaultRuntimeDir must be a valid directory, absolute or relative to ServerRoot

root@cca5505aa718:/# service apache2 status

 \* apache2 is not running

root@cca5505aa718:/# service apache2 start

 \* Starting Apache httpd web server apache2                                                                                                                            AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 172.17.0.3. Set the 'ServerName' directive globally to suppress this message

 \*

root@cca5505aa718:/# service apache2 status

 \* apache2 is running

root@cca5505aa718:/# exit

exit

   10  sudo docker ps

   11  sudo docker commit

   12  sudo docker commit a1container a2image:v1

   19  sudo docker run -itd -p 81:80 --name=a2container a2image:v1

   20  sudo docker ps -a

   21  sudo docker exec -it a2container bash

Assignment - 3

Machine - 1

ubuntu@ip-172-31-88-70:~$ sudo docker images

REPOSITORY   TAG       IMAGE ID       CREATED          SIZE

a2image      v1        1dfca9c84833   36 minutes ago   237MB

ubuntu       latest    e0f16e6366fe   3 weeks ago      78.1MB

ubuntu@ip-172-31-88-70:~$ sudo docker tag

"docker tag" requires exactly 2 arguments.

See 'docker tag --help'.

Usage:  docker tag SOURCE\_IMAGE[:TAG] TARGET\_IMAGE[:TAG]

Create a tag TARGET\_IMAGE that refers to SOURCE\_IMAGE

ubuntu@ip-172-31-88-70:~$ sudo docker tag a2image:v1 intellipaatsai/a3image

ubuntu@ip-172-31-88-70:~$ sudo docker tag

"docker tag" requires exactly 2 arguments.

See 'docker tag --help'.

Usage:  docker tag SOURCE\_IMAGE[:TAG] TARGET\_IMAGE[:TAG]

Create a tag TARGET\_IMAGE that refers to SOURCE\_IMAGE

ubuntu@ip-172-31-88-70:~$ sudo docker images

REPOSITORY               TAG       IMAGE ID       CREATED          SIZE

a2image                  v1        1dfca9c84833   38 minutes ago   237MB

intellipaatsai/a3image   latest    1dfca9c84833   38 minutes ago   237MB

ubuntu                   latest    e0f16e6366fe   3 weeks ago      78.1MB

ubuntu@ip-172-31-88-70:~$ sudo docker login

USING WEB-BASED LOGIN

To sign in with credentials on the command line, use 'docker login -u <username>'

Your one-time device confirmation code is: VDXW-WCZN

Press ENTER to open your browser or submit your device code here: https://login.docker.com/activate

Waiting for authentication in the browser…

^Clogin canceled

ubuntu@ip-172-31-88-70:~$ sudo docker login -u intellipaatsai

Password:

Error response from daemon: Get "https://registry-1.docker.io/v2/": unauthorized: incorrect username or password

ubuntu@ip-172-31-88-70:~$ sudo docker login -u intellipaatsai

Password:

WARNING! Your password will be stored unencrypted in /root/.docker/config.json.

Configure a credential helper to remove this warning. See

https://docs.docker.com/engine/reference/commandline/login/#credential-stores

Login Succeeded

ubuntu@ip-172-31-88-70:~$ sudo docker push a2image:v1

The push refers to repository [docker.io/library/a2image]

1448ae9ea6c0: Preparing

cd9664b1462e: Preparing

denied: requested access to the resource is denied

ubuntu@ip-172-31-88-70:~$ sudo docker push intellipaatsai/a3image

Using default tag: latest

The push refers to repository [docker.io/intellipaatsai/a3image]

1448ae9ea6c0: Pushed

cd9664b1462e: Pushed

latest: digest: sha256:4e08dd3de2975693777a0a2005742ba297b469a40593fa067516f3cbcd9f0779 size: 741

Machine - 2

    1  sudo apt update

    2  sudo apt install docker.io -y

    3  sudo docker pull intellipaatsai/a3image

    4  sudo docker images

    5  sudo docker run -itd -p 80:80 --name=m2a3container intellipaatsai/a3image

    6  sudo docker exec -it m2a3container bash

ubuntu@ip-172-31-80-213:~$ sudo apt update

ubuntu@ip-172-31-80-213:~$ sudo apt install docker.io -y

ubuntu@ip-172-31-80-213:~$ sudo docker pull intellipaatsai/a3image

Using default tag: latest

latest: Pulling from intellipaatsai/a3image

baa9e71a063a: Pull complete

14b9b455cab6: Pull complete

Digest: sha256:4e08dd3de2975693777a0a2005742ba297b469a40593fa067516f3cbcd9f0779

Status: Downloaded newer image for intellipaatsai/a3image:latest

docker.io/intellipaatsai/a3image:latest

ubuntu@ip-172-31-80-213:~$ sudo docker images

REPOSITORY               TAG       IMAGE ID       CREATED          SIZE

intellipaatsai/a3image   latest    1dfca9c84833   48 minutes ago   237MB

ubuntu@ip-172-31-80-213:~$ sudo docker run -itd -p 80:80 --name=m2a3container intellipaatsai/a3image

1eb6e6aa90bdaf203d3539460dd4a6c7eb052d581db57e322c6a482f571f84b5

ubuntu@ip-172-31-80-213:~$ sudo docker exec -it m2a3container bash

root@1eb6e6aa90bd:/# service apache2 status

 \* apache2 is not running

root@1eb6e6aa90bd:/# service apache2 start

 \* Starting Apache httpd web server apache2                                                                                                                            AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 172.17.0.2. Set the 'ServerName' directive globally to suppress this message

 \*

root@1eb6e6aa90bd:/# service apache2 status

 \* apache2 is running

root@1eb6e6aa90bd:/# exit

exit

Assignment - 5

   32  sudo nano Dockerfile

   33  sudo docker build . -t a5image

   34  sudo nano index.html

   35  sudo docker build . -t a5image

   36  sudo docker run -itd -p 90:80 --name=a5container a5image

   37  sudo docker images

   38  sudo docker ps

   39  cat Dockerfile

ubuntu@ip-172-31-88-70:~$ sudo docker run -itd -p 90:80 --name=a5container a5image

c68eb71c5ca266e7ac24e927601a3905ad72541049bb4c79b3fcf2d3910e1706

ubuntu@ip-172-31-88-70:~$ sudo docker images

REPOSITORY               TAG       IMAGE ID       CREATED         SIZE

a5image                  latest    58a4829afe4a   2 minutes ago   237MB

intellipaatsai/a3image   latest    1dfca9c84833   2 hours ago     237MB

a2image                  v1        1dfca9c84833   2 hours ago     237MB

ubuntu                   latest    e0f16e6366fe   3 weeks ago     78.1MB

ubuntu@ip-172-31-88-70:~$ sudo docker ps

CONTAINER ID   IMAGE        COMMAND                  CREATED              STATUS              PORTS                                 NAMES

c68eb71c5ca2   a5image      "/bin/sh -c 'apachec…"   About a minute ago   Up About a minute   0.0.0.0:90->80/tcp, [::]:90->80/tcp   a5container

cca5505aa718   a2image:v1   "/bin/bash"              About an hour ago    Up About an hour    0.0.0.0:81->80/tcp, [::]:81->80/tcp   a2container

f5bd6d19e7a7   ubuntu       "/bin/bash"              2 hours ago          Up 2 hours          0.0.0.0:80->80/tcp, :::80->80/tcp     a1container

ubuntu@ip-172-31-88-70:~$ cat Dockerfile

FROM ubuntu

RUN apt update

RUN apt install apache2 -y

COPY index.html /var/www/html/

ENTRYPOINT apachectl -D FOREGROUND