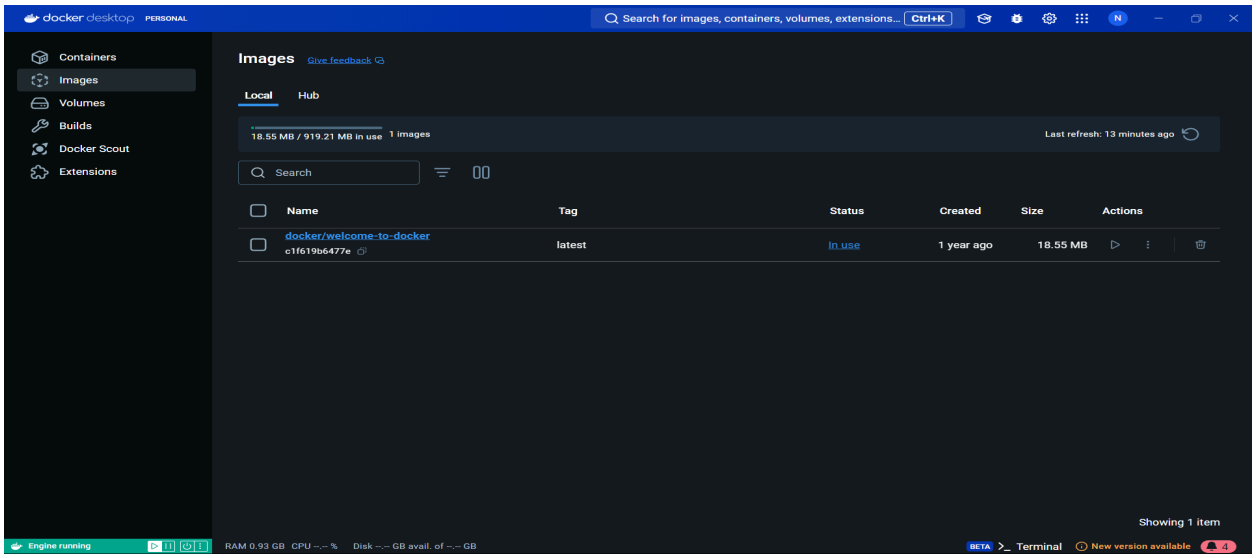
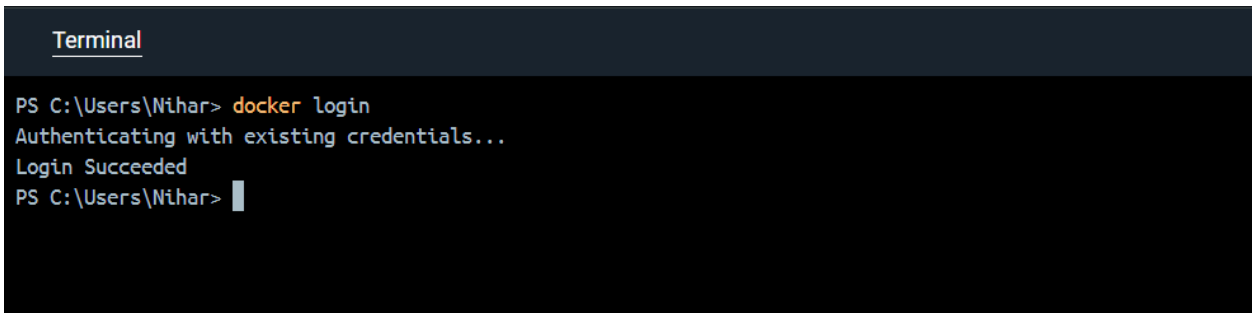
Dockers

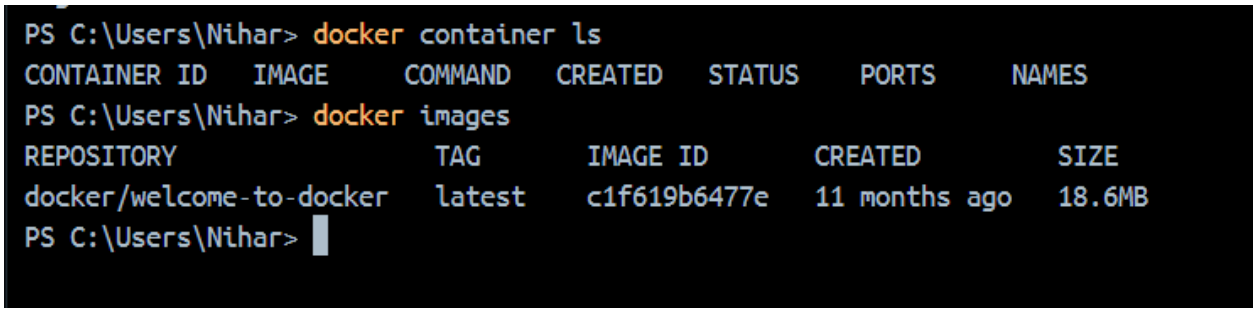
Step 1:
Open Dockers desktop and open its terminal



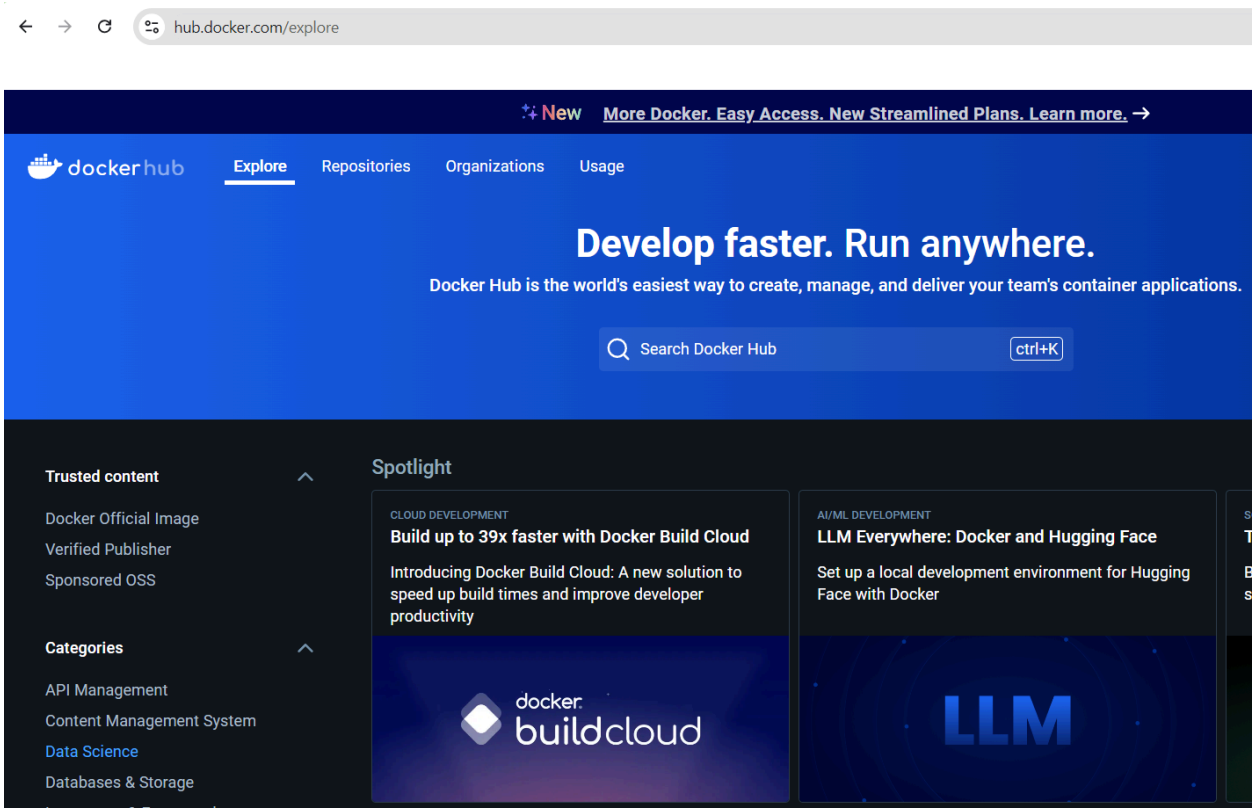
Step 2:
Login into dockers with the syntax : docker login



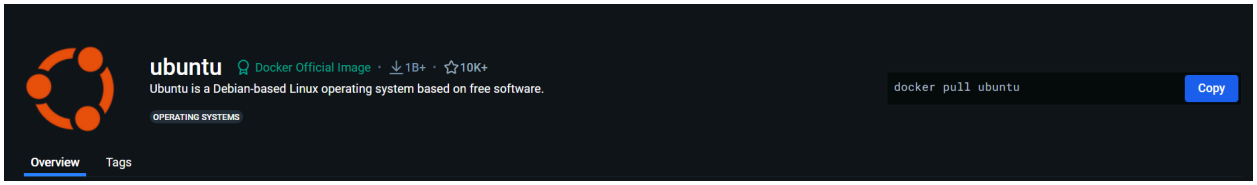
We can check existing images and containers using syntax : docker images & docker container ls



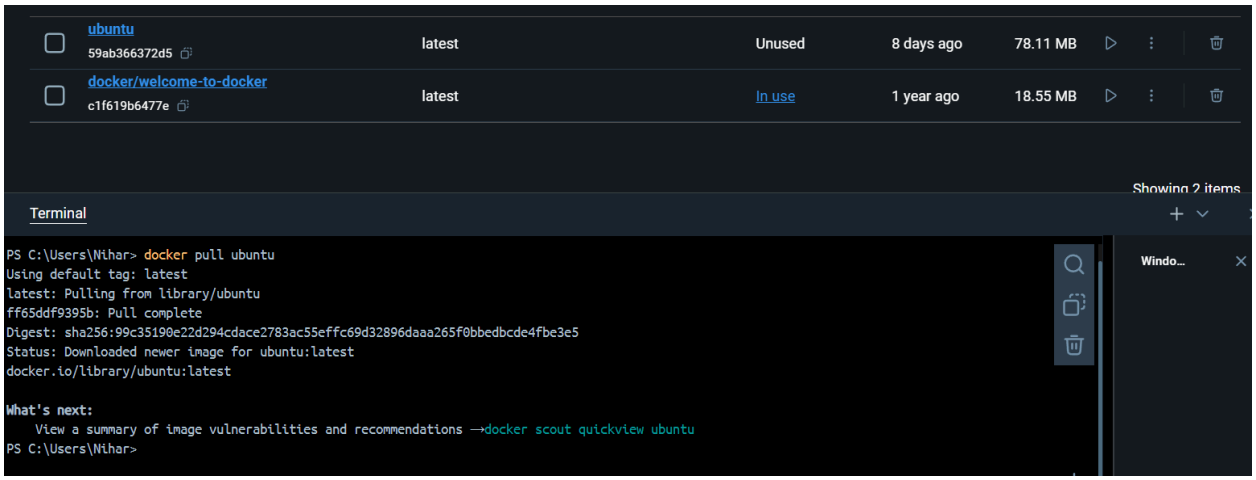
Step 3:
To pull a image go to the Docker hub web site : https://hub.docker.com/explore



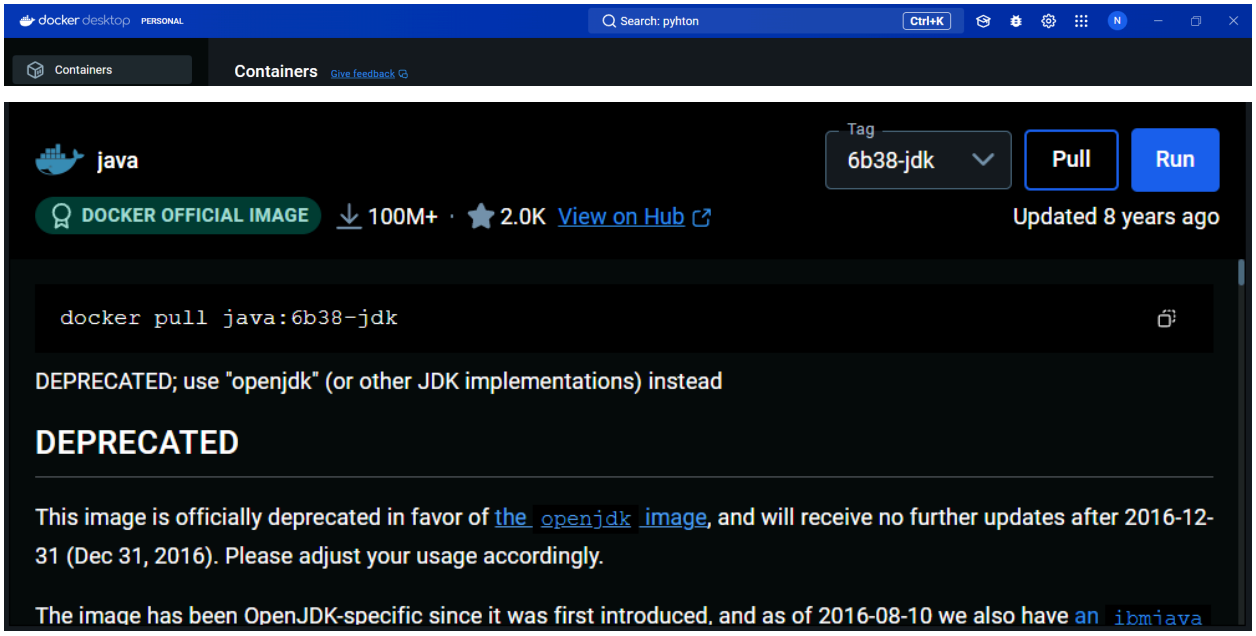
Search for the required Image u want to install
For example : ubuntu

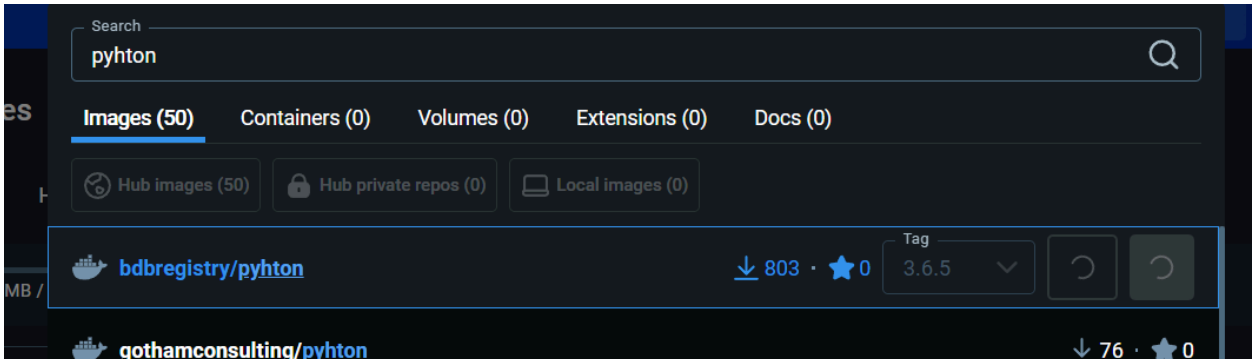


Copy the given syntax and paste on ur dockers terminal



U can also search for the images in the dockers Desktop

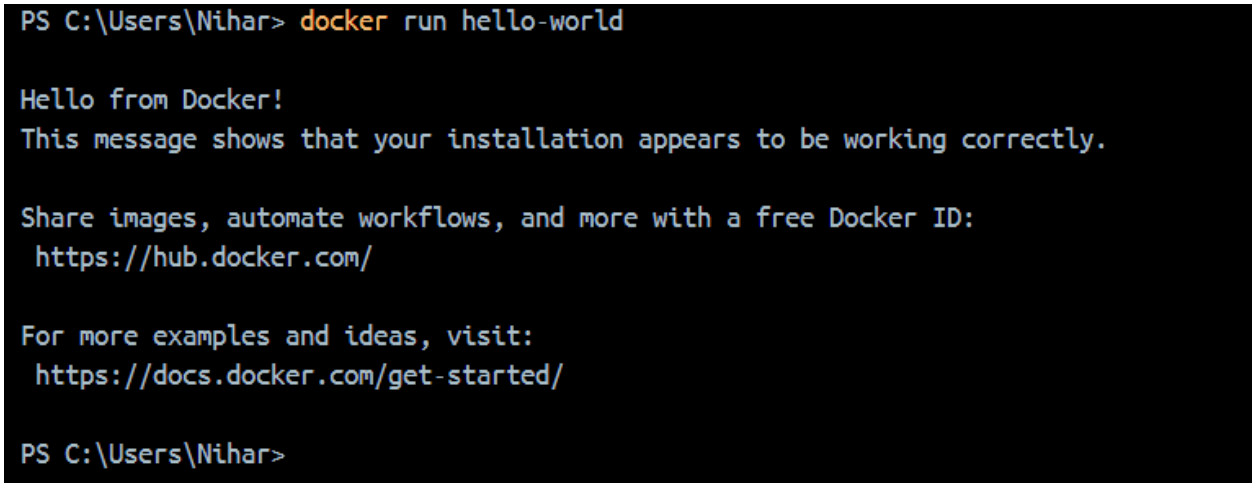


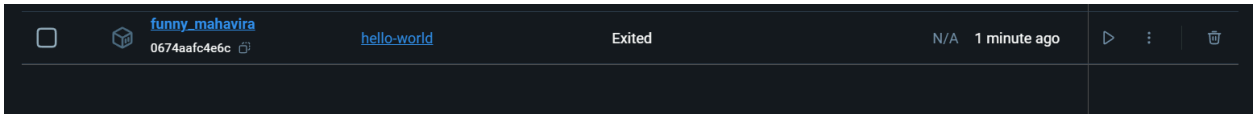


Click on pull

Step 4:

For creating and running a container the syntax is : docker run hello-world or docker run -it hello-world





It creates a random named container and a image with name “hello-world”(as u named it)

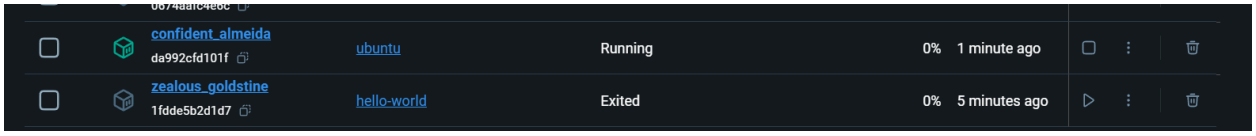
Now to check the images in the docker hub the syntax

```
PS C:\Users\Nihar> docker images
REPOSITORY                  TAG       IMAGE ID       CREATED         SIZE
python                      latest    a4cb00e84832   8 hours ago     1.02GB
ubuntu                      latest    59ab366372d5   8 days ago      78.1MB
docker/welcome-to-docker    latest    c1f619b6477e   11 months ago   18.6MB
hello-world                 latest    d2c94e258dcb   17 months ago   13.3kB
openjdk                     latest    71260f256d19   20 months ago   470MB
bdbregistry/pyhton          3.6.5     428984e23464   3 years ago     696MB
java                        6b38-jdk  613055f01959   7 years ago     421MB
PS C:\Users\Nihar>
```

Step 5:

Now to run a container the syntax is : docker run <name of the container>

```
PS C:\Users\Nihar> docker start confident_almeida
confident_almeida
PS C:\Users\Nihar>
```



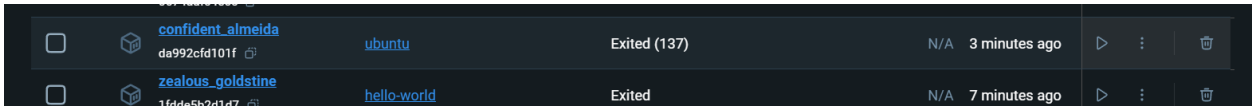
It will display the running status of the container

To check the status of container the syntax is : docker container ls -a

```
PS C:\Users\Nihar> docker container ls -a
CONTAINER ID   IMAGE                              COMMAND                  CREATED          STATUS                       PORTS     NAMES
3b6c08c4b75e   bdbregistry/pyhton:3.6.5           "python3"                3 minutes ago    Exited (137) 46 seconds ago            stupefied_khayyam
0038041b2643   openjdk:8                          "bash"                   12 minutes ago   Exited (0) 3 minutes ago               busy_cori
d6acc55e584e   java:6b38-jdk                      "/bin/bash"              15 minutes ago   Exited (139) 15 minutes ago            dreamy_carson
1fdde5b2d1d7   hello-world                        "/hello"                 25 minutes ago   Exited (0) 25 minutes ago              zealous_goldstine
da992cfd101f   ubuntu                             "/bin/bash"              25 minutes ago   Exited (137) 18 minutes ago            confident_almeida
0674aafc4e6c   hello-world                        "/hello"                 28 minutes ago   Exited (0) 28 minutes ago              funny_mahavira
dbb45a5fa594   docker/welcome-to-docker:latest    "/docker-entrypoint.…"   17 hours ago     Exited (0) 55 minutes ago              welcome-to-docker
PS C:\Users\Nihar>
```

And to exit the container

```
PS C:\Users\Nihar> docker stop confident_almeida
confident_almeida
PS C:\Users\Nihar>
```



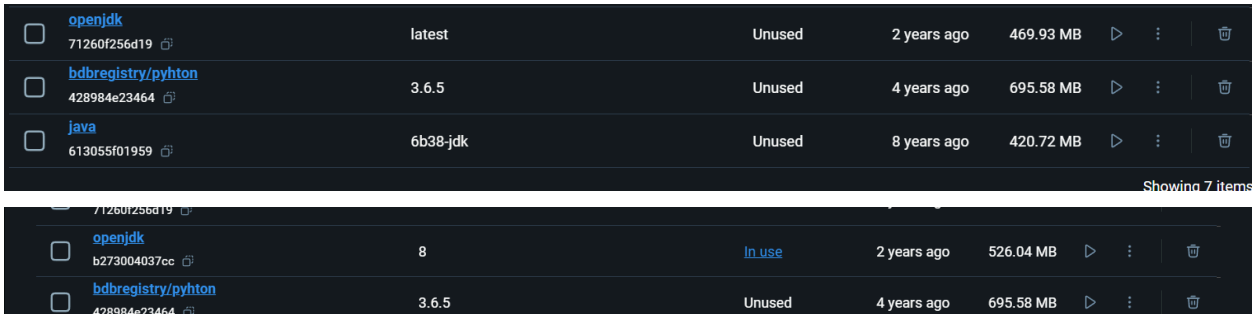
Step 6:

Running a code in the docker

Download a java / python image from the search bar as we done before

Pull it to ur docker hub

For example:



Run the image

For example : docker run -it openjdk:8

```
9daef329d350: Pull complete
d85151f15b66: Pull complete
52a8c426d30b: Pull complete
8754a66e0050: Pull complete
Digest: sha256:86e863cc57215cfb181bd319736d0baf625fe8f150577f9eb58bd937f5452cb8
Status: Downloaded newer image for openjdk:8
root@0038041b2643:/#
```

This will open ur image where u can edit it or add codes

For example:

```
root@0038041b2643:/# touch hello-world.java
root@0038041b2643:/# ls
bin  boot  dev  etc  hello-world.java  home  lib  lib64  media  mnt  opt  proc  root  run  sbin  srv  sys  tmp  usr  var
root@0038041b2643:/#
```

```
root@65e59f7a3e26:/# cat >>helloworld.java
class helloworld{
public static void main(String args []){
System.out.println("Hello World!)
}
}^C
```

Perform a simple code in it

```
root@65e59f7a3e26:/# javac helloworld.java
root@65e59f7a3e26:/# java helloworld
Hello World!
root@65e59f7a3e26:/# exit
exit
```

Step 6:

In a same way u can perform the python code