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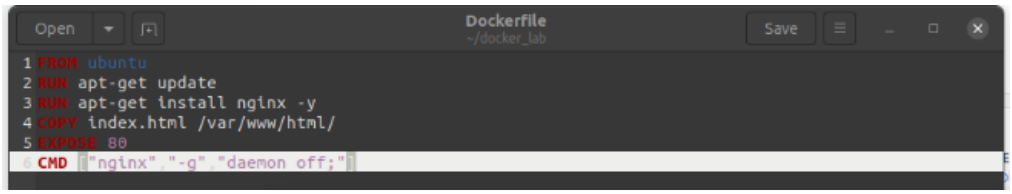
EXPERIMENT-4

DOCKER IMAGES

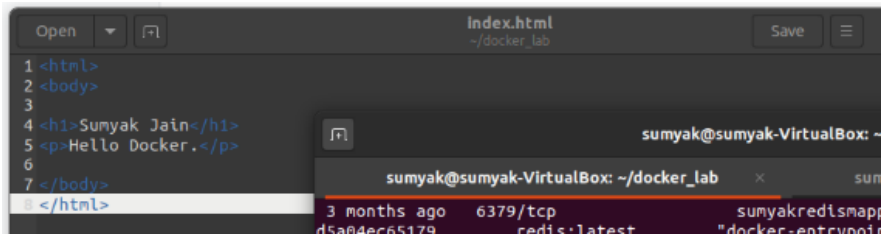
1) **Login to docker hub**

2) **Write Dockerfile and index.html file in a particular location**

Dockerfile



Index.html



3) **Build an image using Dockerfile**

Docker build -t <image name>:<tag name> .

“.” (here “.” means Dockerfile in same location)

```
sumyak@sumyak-VirtualBox:~/docker_lab$ docker build -t mynginx:1.0 .
Sending build context to Docker daemon  3.072kB
Step 1/6 : FROM ubuntu
 ---> d70eaf7277ea
Step 2/6 : RUN apt-get update
 ---> Using cache
 ---> 086ea42e547d
Step 3/6 : RUN apt-get install nginx -y
 ---> Using cache
 ---> 0d5d9e3a6eed
Step 4/6 : COPY index.html /var/www/html/
 ---> Using cache
 ---> 94d9a35f30bd
Step 5/6 : EXPOSE 80
 ---> Using cache
 ---> 4b5379c2384a
Step 6/6 : CMD ["nginx","-g","daemon off;"]
 ---> Using cache
 ---> 2ac753d3673c
Successfully built 2ac753d3673c
Successfully tagged mynginx:1.0
sumyak@sumyak-VirtualBox:~/docker_lab$
```

4) **Check for images**

```
sumyak@sumyak-VirtualBox:~/docker_lab$ docker images
REPOSITORY          TAG                 IMAGE ID            CREATED
 SIZE
mynginx             1.0                 2ac753d3673c        About a minute ago
 159MB
alpine              latest              e50c909a8df2        2 weeks ago
 5.61MB
redis               latest              62f1d3402b78        3 months ago
 104MB
ubuntu              latest              d70eaf7277ea        3 months ago
 72.9MB
sumyak@sumyak-VirtualBox:~/docker_lab$
minute ago    159MB
```

5) **Make a container using image id and check for the container is made or not**

```
sumyak@sumyak-VirtualBox:~/docker_lab$ docker run -d 2ac75
0ff17654ec410e4f76b8a0d43dc9cf8d182df2fc9d5a2237bf8494334cdb097c
sumyak@sumyak-VirtualBox:~/docker_lab$ docker ps -a
CONTAINER ID        IMAGE               COMMAND                  CREATED
     STATUS                      PORTS                    NAMES
0ff17654ec41        2ac75               "nginx -g 'daemon of…"   20 seconds ago
     Up 19 seconds               80/tcp                   loving_euclid
76bab64d1356        alpine              "ping cnt1"              4 days ago
     Exited (255) 5 hours ago                             cnt6
f9b7e7430333        alpine              "/bin/sh"                4 days ago
     Exited (0) 4 days ago                                cnt5
35d4e57a16e0        alpine              "/bin/sh"                4 days ago
     Exited (0) 4 days ago                                cnt4
1669e5717de8        alpine              "/bin/sh"                4 days ago
     Exited (255) 5 hours ago                             cnt3
10ebc1d77e4c        alpine              "ping cnt1"              4 days ago
     Exited (255) 5 hours ago                             cnt2
06dccad7d10e        redis               "docker-entrypoint.s…"   4 days ago
```

6) **For pushing an image to dockerhub we need to tag the image with dockerhub repo**

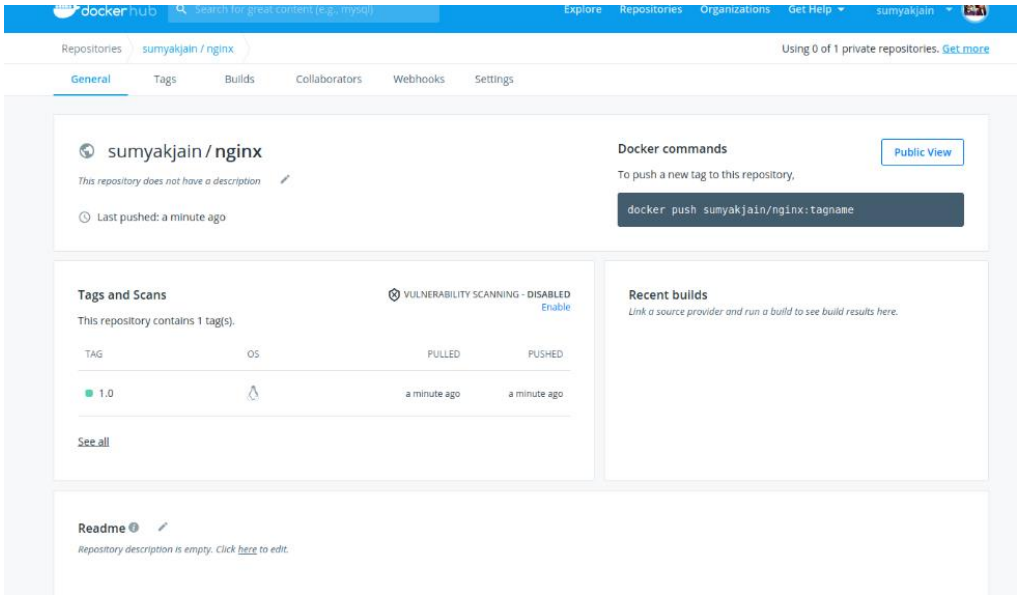
docker tag <image id> [<user name>/<repo name>]:<tag name>

```
sumyak@sumyak-VirtualBox:~/docker_lab$ docker tag 2ac75 sumyakjain/nginx:1.0
sumyak@sumyak-VirtualBox:~/docker_lab$ docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
mynginx             1.0                 2ac753d3673c        6 minutes ago       159MB
sumyakjain/nginx    1.0                 2ac753d3673c        6 minutes ago       159MB
alpine              latest              e50c909a8df2        2 weeks ago         5.61MB
redis               latest              62f1d3402b78        3 months ago        104MB
ubuntu              latest              d70eaf7277ea        3 months ago        72.9MB
```

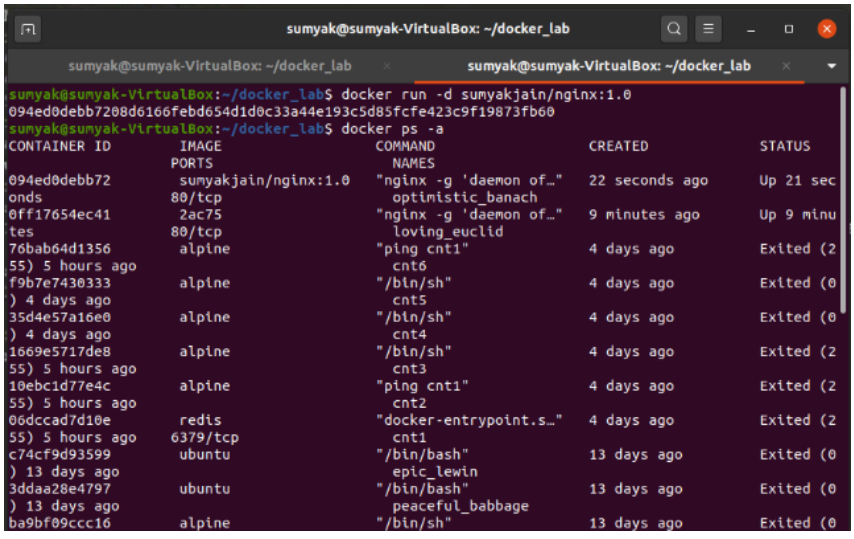
7) Push the image to dockerhub

```
sumyak@sumyak-VirtualBox:~/docker_lab$ docker push sumyakjain/nginx:1.0
The push refers to repository [docker.io/sumyakjain/nginx]
cae3ca3df1b0: Pushed
72ef55d60a58: Pushed
87b8d9079255: Pushed
cc9d18e90faa: Mounted from library/ubuntu
0c2689e3f920: Mounted from library/ubuntu
47dde53750b4: Mounted from library/ubuntu
1.0: digest: sha256:9aea63a3e36d1bd8086183fe5afd4f821c0f590b23203e0e27ad95ce8b45cc08 size: 1574
sumyak@sumyak-VirtualBox:~/docker_lab$
```

8) Check for the image on dockerhub



9) Make a container on some different container instance



10) Attach a port no. and run the container to check the output

```
sumyak@sumyak-VirtualBox:~/docker_lab$ docker run -d -p 5000:80 sumyakjain/nginx:1.0
db9c054982ab49a0d483ac8b7e1ea74e227ac2b5a489cfdc318fbbaf2ada1bc7
sumyak@sumyak-VirtualBox:~/docker_lab$
```

11) Check the output on localhost:5000