Experiment 4

AIM: Create docker image using Dockerfile, push to docker hub.

Edit Dockerfile

```
FROM ubuntu
RUN apt-get update
RUN apt-get install nginx -y
RUN apt-get install nginx -y
RUN echo "my web-page" > /var/www/html/index.html
EXPOSE 80
CMD ["nginx","-g","daemon off;"]
~
~
```

Run 'docker images' command

```
root@ubuntu-xenial:/home/vagrant# docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
redis               latest              eb0ab2d55fdf        3 days ago          104MB
alpine              latest              e50c909a8df2        2 weeks ago         5.61MB
ubuntu              latest              f63181f19b2f        3 weeks ago         72.9MB
root@ubuntu-xenial:/home/vagrant#
```

Build image using Dockerfile

```
root@ubuntu-xenial:/home/vagrant# docker build -t myn1:1.0 .
Sending build context to Docker daemon  13.31kB
Step 1/7 : FROM ubuntu
 ---> f63181f19b2f
Step 2/7 : RUN apt-get update
 ---> Running in 783ef63eee94
Get:1 http://security.ubuntu.com/ubuntu focal-security InRelease [109 kB]
Get:2 http://archive.ubuntu.com/ubuntu focal InRelease [265 kB]
```

```
Step 4/7 : RUN apt-get install nginx -y
 ---> Running in b8295ab30b0c
Reading package lists...
Building dependency tree...
Reading state information...
nginx is already the newest version (1.18.0-0ubuntu1).
0 upgraded, 0 newly installed, 0 to remove and 5 not upgraded.
Removing intermediate container b8295ab30b0c
 ---> 74a8009824cc
Step 5/7 : RUN echo "my web-page" > /var/www/html/index.html
 ---> Running in 3865ee31ec3c
Removing intermediate container 3865ee31ec3c
 ---> 6cc46f5ee269
Step 6/7 : EXPOSE 80
 ---> Running in 3c3a887e6432
Removing intermediate container 3c3a887e6432
 ---> 655925b67310
Step 7/7 : CMD ["nginx","-g","daemon off;"]
 ---> Running in 2c4a6a7e0538
Removing intermediate container 2c4a6a7e0538
 ---> 16644e1bad90
Successfully built 16644e1bad90
Successfully tagged akanshab/myn1:2.0
```

```
root@ubuntu-xenial:/home/vagrant# docker images
REPOSITORY          TAG              IMAGE ID          CREATED           SIZE
myn1                1.0              3b6b37c92e82      9 minutes ago     159MB
redis               latest           eb0ab2d55fdf      3 days ago        104MB
alpine              latest           e50c909a8df2      2 weeks ago       5.61MB
ubuntu              latest           f63181f19b2f      3 weeks ago       72.9MB
root@ubuntu-xenial:/home/vagrant#
```

Changing image tag

```
root@ubuntu-xenial:/home/vagrant#
root@ubuntu-xenial:/home/vagrant# docker tag 3b6b37c92e82 akanshab/myn1:1.0
root@ubuntu-xenial:/home/vagrant#
root@ubuntu-xenial:/home/vagrant# docker images
REPOSITORY          TAG              IMAGE ID          CREATED           SIZE
akanshab/myn1       1.0              3b6b37c92e82      11 minutes ago    159MB
```

Push image to docker hub

```
root@ubuntu-xenial:/home/vagrant# docker push akanshab/myn1:1.0
1.0: digest: sha256:1dddcc1c9f8b21cf535f75d2e5d95cd89d12828dfea70a1b0621b0e7899b88a4 size: 1781
root@ubuntu-xenial:/home/vagrant# >                                  ]   13.79MB/59.19MB
root@ubuntu-xenial:/home/vagrant#
dd08913108f4: Pushing [===========>                                   ]   13.23MB/59.19MB
c4ee529acb40: Pushing [=================>                             ]   9.385MB/27.01MB
02473afd360b: Mounted from library/ubuntu
dbf2c0f42a39: Mounted from library/ubuntu
9f32931c9d28: Mounted from library/ubuntu
```

On docker hub

akanshab / **myn1**
Updated a few seconds ago

Remove from local machine and pull this image from docker hub

```
root@ubuntu-xenial:/home/vagrant# docker image rm akanshab/myn1:1.0
Untagged: akanshab/myn1:1.0
Untagged: akanshab/myn1@sha256:1dddcc1c9f8b21cf535f75d2e5d95cd89d12828dfea70a1b0621b0e7899b88a4
Deleted: sha256:3b6b37c92e8285ef7365f547ea98ec387b7f1e1ab413a6b5a9b6ac53c4b6fa52
Deleted: sha256:852610d7bd1b3996b69b0b2b97f545b24d21d608941c6fb00540169760ea0f3c
Deleted: sha256:b4f2eefb0710f2c9edf917e72509614aacb99b49552172d593cd6bf2ad864863
Deleted: sha256:6affaab118de1bcc723f882fcf6ef9d883dd13c6e076734a2c3a2ca0996346a8
Deleted: sha256:668633f254ecd21f5d6786816ab8156463d76b3baa58130dcd8176ac95b8480f
Deleted: sha256:21821fe9817cdf8aa3a51704a14dc6cd19ce298e5a83da8b008ad039ac3a6b44
Deleted: sha256:c011a2e5dbdc07c9222ea4d8fd41ef41f4bc6c3f1e91e538cbbf7bf8c6d012a3
Deleted: sha256:7f4021a2eb3f7c97eb9de2a6eb564b0b54a303db6a4cc85a7541a39b1eccf1e9
Deleted: sha256:f25fa833066f3054b03ae7509aa20a9e426a759c9e76adcbcf2de24933bdaade
Deleted: sha256:e932590357a51aa3ad047746c65989ca710954f84e7aa462756bfc0cd9cc68de
root@ubuntu-xenial:/home/vagrant#
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root@ubuntu-xenial:/home/vagrant# docker images
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ubuntu              latest              f63181f19b2f        3 weeks ago         72.9MB
```

```
root@ubuntu-xenial:/home/vagrant# docker pull akanshab/myn1:1.0
1.0: Pulling from akanshab/myn1
83ee3a23efb7: Already exists
db98fc6f11f0: Already exists
f611acd52c6c: Already exists
243932849a70: Downloading [================================>               ]  13.31MB/19.81MB
243932849a70: Pull complete
3c0c24878966: Pull complete
7ef1c5480ad1: Pull complete
a8ff79d310e0: Pull complete
Digest: sha256:1dddcc1c9f8b21cf535f75d2e5d95cd89d12828dfea70a1b0621b0e7899b88a4
Status: Downloaded newer image for akanshab/myn1:1.0
root@ubuntu-xenial:/home/vagrant#
root@ubuntu-xenial:/home/vagrant#
root@ubuntu-xenial:/home/vagrant# docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
akanshab/myn1       1.0                 3b6b37c92e82        21 minutes ago      159MB
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ubuntu              latest              f63181f19b2f        3 weeks ago         72.9MB
root@ubuntu-xenial:/home/vagrant#
```

```
root@ubuntu-xenial:/home/vagrant# docker run -it --name=m1 akanshab/myn1:1.0
```