

Question 1:

1)

DOCKERFILE:

FROM ubuntu

RUN apt-get update \

&& apt-get install nginx -y \

&& echo "daemon off;" >> /etc/nginx/nginx.conf

RUN mkdir -p /run/nginx

ADD index.html /usr/share/nginx/html/

ADD default /etc/nginx/sites-available/

EXPOSE 80

CMD ["nginx"]

2)

Default file has :

```
server {  
    listen 80 default_server;  
    listen [::]:80 default_server;  
  
    root /usr/share/nginx/html;  
  
    index index.html index.htm index.nginx-debian.html;  
  
    server_name _;  
  
    location / {  
  
        try_files $uri $uri/ =404;  
    }  
  
}
```

3)

Now build the image from docker as :

Docker build -t nginx .

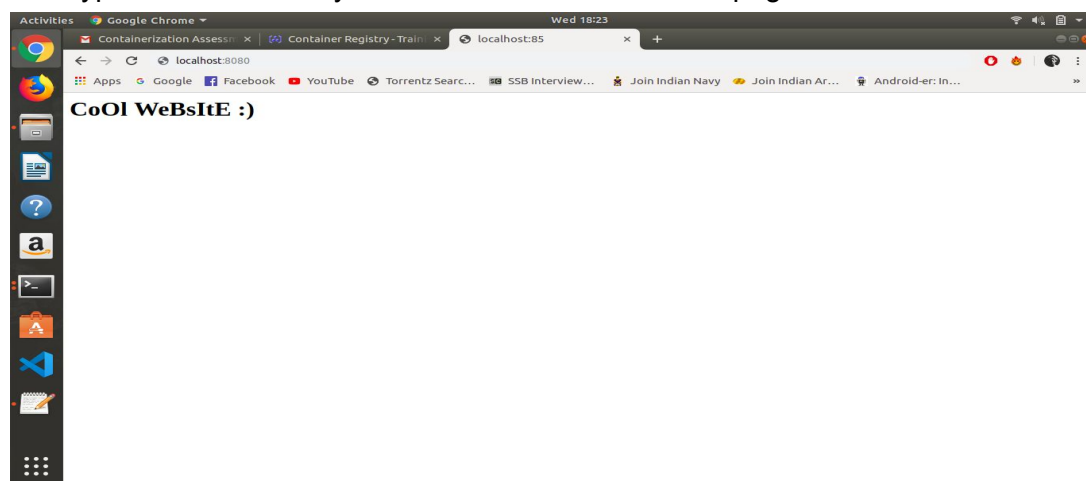
```
kishan@Quantiphi-911: ~/Desktop/Containerization_assignment/Question1
File Edit View Search Terminal Help
kishan@Quantiphi-911:~/Desktop/Containerization_assignment/Question1$ docker build -t kishan-nginx .
Sending build context to Docker daemon 6.144kB
Step 1/7 : FROM ubuntu
---> 3556258649b2
Step 2/7 : RUN apt-get update && apt-get install nginx -y && echo "daemon off;" >> /etc/nginx/nginx.conf
---> Using cache
---> f09bb7289039
Step 3/7 : RUN mkdir -p /run/nginx
---> Using cache
---> da722d285e8a
Step 4/7 : ADD index.html /usr/share/nginx/html/
---> Using cache
---> 58417f1b2815
Step 5/7 : ADD default /etc/nginx/sites-available/
---> Using cache
---> d8df9fe31241
Step 6/7 : EXPOSE 80
---> Using cache
---> 1ea40ad5945c
Step 7/7 : CMD ["nginx"]
---> Using cache
---> 31896d41a12
```

4)

Now run the image :

Docker run -d -p 8080:80 nginx

Now type localhost:8080 you will be able to see the webpage



5)

Now run bash in container :

Docker exec -it <container name> bash

6)

Now install the nano by running:

Apt-get install nano

7)

Commit the container by :

Docker commit <container name> rathorekishan0/nginx

Push the committed image by:

Docker push rathorekishan0/nginx

```
sha256:8958b26640dd68913c9f310cc43d21fc2c494639e38573ee294c478cd400e991
kishan@Quantiphi-911:~/Desktop/Containerization_assignment/Question1$ docker pus
h rathorekishan0/kishannginx
The push refers to repository [docker.io/rathorekishan0/kishannginx]
4d6281869e8e: Pushed
8c8162c0d541: Mounted from rathorekishan0/nginx
8a6c628e5707: Mounted from rathorekishan0/nginx
a5deb29d52b8: Mounted from rathorekishan0/nginx
021c4a627174: Mounted from rathorekishan0/nginx
b079b3fa8d1b: Mounted from rathorekishan0/nginx
a31dbd3063d7: Mounted from rathorekishan0/nginx
c56e09e1bd18: Mounted from rathorekishan0/nginx
543791078bdb: Mounted from rathorekishan0/nginx
latest: digest: sha256:2bf384739ef370e1ba09e11adf45e00c5789920bb9439c6194f2f4624
f2cfa4c size: 2193
kishan@Quantiphi-911:~/Desktop/Containerization_assignment/Question1$ |
```

8)

Push image to gcr by:

Docker tag <image name> gcr.io/pe-training/kishannginx:latest

Push to gcr:

Docker push gcr.io/pe-training/kishannginx:latest

```
Events kishan@Quantiphi-911:~/Desktop/Containerization_assignment/Question1$ docker tag
Tags    rathorekishan0/kishannginx gcr.io/pe-training/kishannginx
Reports kishan@Quantiphi-911:~/Desktop/Containerization_assignment/Question1$ docker tag
        rathorekishan0/kishannginx gcr.io/pe-training/kishannginx:l^C
Limits  kishan@Quantiphi-911:~/Desktop/Containerization_assignment/Question1$ ^C
        kishan@Quantiphi-911:~/Desktop/Containerization_assignment/Question1$ ^C
INSTANC kishan@Quantiphi-911:~/Desktop/Containerization_assignment/Question1$ docker pus
Instance h gcr.io/pe-training/kishannginx
The push refers to repository [gcr.io/pe-training/kishannginx]
Launch   4d6281869e8e: Pushed
Spot Rec 8c8162c0d541: Layer already exists
Reserve  8a6c628e5707: Layer already exists
Dedicate a5deb29d52b8: Layer already exists
Schedule 021c4a627174: Layer already exists
Capacity b079b3fa8d1b: Layer already exists
        a31dbd3063d7: Layer already exists
        c56e09e1bd18: Layer already exists
        543791078bdb: Layer already exists
        latest: digest: sha256:2bf384739ef370e1ba09e11adf45e00c5789920bb9439c6194f2f4624
        f2cfa4c size: 2193
IMAGES
AMIs    kishan@Quantiphi-911:~/Desktop/Containerization_assignment/Question1$ |
```

9)

Pushing to ecr :

```
root@ip-172-31-89-213: /home/ubuntu
File Edit View Search Terminal Help
root@ip-172-31-89-213:/home/ubuntu# $(aws ecr get-login --no-include-email --region us-east-1)
WARNING! Using --password via the CLI is insecure. Use --password-stdin.
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/#credentials-store

Login Succeeded
root@ip-172-31-89-213:/home/ubuntu# docker push 488599217855.dkr.ecr.us-east-1.amazonaws.com/kishannginx:latest
The push refers to repository [488599217855.dkr.ecr.us-east-1.amazonaws.com/kishannginx]
4d6281869e8e: Pushed
8c8162c0d541: Pushed
8a6c628e5707: Pushed
a5deb29d52b8: Pushed
021c4a627174: Pushed
b079b3fa8d1b: Pushed
a31dbd3063d7: Pushed
c56e09e1bd18: Pushed
543791078bdb: Pushed
latest: digest: sha256:2bf384739ef370e1ba09e11adf45e00c5789920bb9439c6194f2f4624f2cfa4c size: 2193
root@ip-172-31-89-213:/home/ubuntu# |
```