

# DOCKER

Ques 1:-Set the base image to Ubuntu

- Add File Author / Maintainer
- Install Nginx
- Install necessary tools: vim wget curl net-tools

[RUN apt-get install -y nginx vim wget curl net-tools](#)

- Remove the default Nginx configuration file

[RUN rm -f /etc/nginx/sites-enabled/default.conf](#)

[RUN rm -f /etc/nginx/sites-available/default.conf](#)

- Copy a configuration file from the current directory

[RUN mkdir /var/www/html/abc](#)

[COPY index.html /var/www/html/abc/](#)

[COPY my.conf /etc/nginx/sites-available](#)

[RUN ln -s /etc/nginx/sites-available/my.conf  
/etc/nginx/sites-enabled/](#)

- Expose ports (80)

[EXPOSE 80](#)

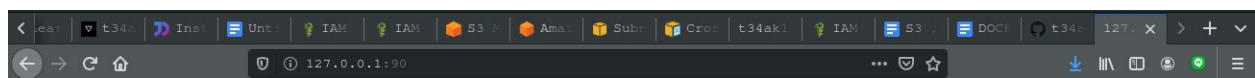
- Set the default command to execute Nginx when creating a new container

[CMD \["nginx","-g","daemon off;"\]](#)

```
root@fahad: ~/docker_practise x vi Dockerfile
FROM ubuntu:18.04
MAINTAINER T34aK<fahad.khan@tothenew.com>
RUN apt-get update
RUN apt-get upgrade
RUN apt-get install -y nginx vim wget curl net-tools
RUN rm -f /etc/nginx/sites-enabled/default.conf
RUN rm -f /etc/nginx/sites-available/default.conf
RUN mkdir /var/www/html/abc
COPY index.html /var/www/html/abc/
COPY my.conf /etc/nginx/sites-available
RUN ln -s /etc/nginx/sites-available/my.conf /etc/nginx/sites-enabled/
EXPOSE 80
CMD ["nginx","-g","daemon off;"]
```

Now we are going to map the port of localhost to docker

```
---> Running in 6d01bcb15138
Removing intermediate container 6d01bcb15138
---> 6ab57347e81e
Step 10/13 : RUN rm -rf /etc/nginx/sites-enabled/default.conf
---> Running in e5d4afe91250
Removing intermediate container e5d4afe91250
---> 71d996d9902b
Step 11/13 : RUN rm -rf /etc/nginx/sites-available/default.conf
---> Running in bbd0377dd886
Removing intermediate container bbd0377dd886
---> 310e1f3a9684
Step 12/13 : EXPOSE 80
---> Running in 3ee2e9124f50
Removing intermediate container 3ee2e9124f50
---> 738e0b45d9db
Step 13/13 : CMD ["nginx","-g","daemon off;"]
---> Running in 9096ede21503
Removing intermediate container 9096ede21503
---> 26594fbbea68
Successfully built 26594fbbea68
Successfully tagged t34ak:latest
root@fahad ~/docker_practise (master*)
> docker run -itd -p 90:80 --expose 80 --name t34ak t34ak
23500037ce0ce727eeefa57f350fda655a0d6ada5ee567db38be35d118dcda71
```



**T34aK**

This is the center

On curl we can see that nginx is running

```
root@fahad ~/docker_practise (master*)
➤ curl -i 172.17.0.1:90
HTTP/1.1 200 OK
Server: nginx/1.14.0 (Ubuntu)
Date: Sun, 01 Mar 2020 07:58:36 GMT
Content-Type: text/html
Content-Length: 74
Last-Modified: Sun, 01 Mar 2020 06:22:40 GMT
Connection: keep-alive
ETag: "5e5b54b0-4a"
Accept-Ranges: bytes

<html>
<body>

<h1>T34aK</h1>

<p>This is the center</p>
</body>
</html>

root@fahad ~/docker_practise (master*)
➤
```

172.0.01:90 - it is the docker ip address

127.0.0.1:90 - it is the localhost ip on which we are doing the port mapping

```
root@fahad ~/docker_practise (master*)
➤ curl -i 127.0.0.1:90
HTTP/1.1 200 OK
Server: nginx/1.14.0 (Ubuntu)
Date: Sun, 01 Mar 2020 08:00:53 GMT
Content-Type: text/html
Content-Length: 74
Last-Modified: Sun, 01 Mar 2020 06:22:40 GMT
Connection: keep-alive
ETag: "5e5b54b0-4a"
Accept-Ranges: bytes

<html>
<body>

<h1>T34aK</h1>

<p>This is the center</p>
</body>
</html>

root@fahad ~/docker_practise (master*)
➤
```

Ques 2:- What is the difference between 'RUN', 'CMD', & 'ENTRYPOINT' in dockerfile?

Ans 2:-

**RUN:-**

RUN is an image build step, the state of the container after a RUN command will be committed to the container image. A Dockerfile can have many RUN steps that layer on top of one another to build the image.

**CMD:-**

CMD is the command the container executes by default when you launch the built image.

**ENTRYPOINT:-**

*ENTRYPOINT* instruction allows you to configure a container that will run as an executable. It looks similar to *CMD*, because it also allows you to specify a *command* with parameters. The difference is *ENTRYPOINT command and parameters* are not ignored when *Docker* container runs with *command* line parameters.

Ques 3:-How to connect docker client to docker daemon running on other host?