Launch the EC2 Instance using http, ssh, all tcp in security group.

Step I : Install Docker using “yum install docker -y”

Step II : Start it using “systemctl start docker”

Step III : Create the Dockerfile using “vim Dokerfile”

```
# Use the base Ubuntu image
FROM ubuntu:latest

# Set metadata for the image
LABEL maintainer="Apurva Jagdale <apurva.jagdale2003@gmail.com>"

# Set the working directory inside the container
WORKDIR /var/www/html

# Update package lists and install Apache
RUN apt-get update && \
    apt-get install -y apache2

# Copy the index.html file from the Docker build context to the containe
COPY index.html .

# Expose port 80 to the outside world
EXPOSE 80

# Healthcheck to ensure Apache is running
HEALTHCHECK CMD curl -f http://localhost || exit 1

# Default command to start Apache and run it in the foreground
CMD ["apache2ctl", "-D", "FOREGROUND"]
```

Step IV : the build the image using “docker build -t “Image_name” .

Step V : then check Image using “docker images”.

```
[root@ip-172-31-44-252 ec2-user]# docker images
REPOSITORY   TAG       IMAGE ID       CREATED          SIZE
tii_divu     latest    b18b758f2d46   21 minutes ago   236MB
b31          latest    e0b753a6fad5   28 hours ago     187MB
```

Step VI : after that run it using “docker run --name <container_name> -d -p 8080:80 <image_name>”.

```
[root@ip-172-31-44-252 ec2-user]# docker run --name divu -d -p 8080:80 tii_divu
ba4dd2e5bc8293be3a4181f3886aa4fd287c36dd3925a27b8da8dddfcee6fea9
```

Step VI : check the container is running or not using “docker ps” command.

```
[root@ip-172-31-44-252 ec2-user]# docker ps
CONTAINER ID   IMAGE      COMMAND                  CREATED         STATUS                            PORTS
a4dd2e5bc82    tii_divu   "apache2ctl -D FOREG…"   7 seconds ago   Up 6 seconds (health: starting)   0.0.0.0:
[root@ip-172-31-44-252 ec2-user]# docker inspect divu
```

Step VII : to see the container information use “docker inspect <container_name>”.

```
[root@ip-172-31-44-252 ec2-user]# docker inspect divu
[
    "Cmd": [
        "apache2ctl",
        "-D",
        "FOREGROUND"
    ],
    "Healthcheck": {
        "Test": [
            "CMD-SHELL",
            "curl -f http://localhost || exit 1"
        ]
    },
    "Image": "tii_divu",
    "Volumes": null,
    "WorkingDir": "/var/www/html",
    "Entrypoint": null,
    "OnBuild": null,
    "Labels": {
        "maintainer": "Apurva Jagdale <apurva.jagdale2003@gmail.com>",
        "org.opencontainers.image.ref.name": "ubuntu",
        "org.opencontainers.image.version": "22.04"
    }
```

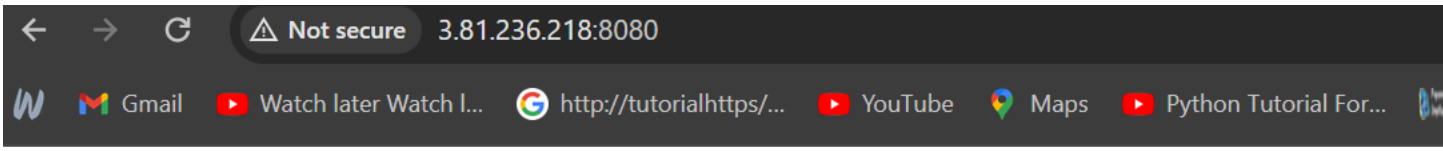
```
"Aliases": null,
"MacAddress": "02:42:ac:11:00:02",
"NetworkID": "6eab71f8041361795bf60332100ab9fc5fdb670be4046694d217bc78dad64e2f",
"EndpointID": "dbc725891b82cfbcbe1b6cbbd1d1ecd23e0b5a15f325330a8ea67970e6b1c3e8",
"Gateway": "172.17.0.1",
"IPAddress": "172.17.0.2",
"IPPrefixLen": 16,
"IPv6Gateway": "",
"GlobalIPv6Address": "",
"GlobalIPv6PrefixLen": 0,
"DriverOpts": null,
"DNSNames": null
```

Step VIII : Copy the Container IP and using “curl <container_ip>” it show the file content.

```
[root@ip-172-31-44-252 ec2-user]# curl 172.17.0.2
LIFE IS WAITING FOR YOU GIVE YOUR BEST SHOT
```

Step IX : for publically access use <public_ip:8080> .

Step X : See here we can access properly.



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