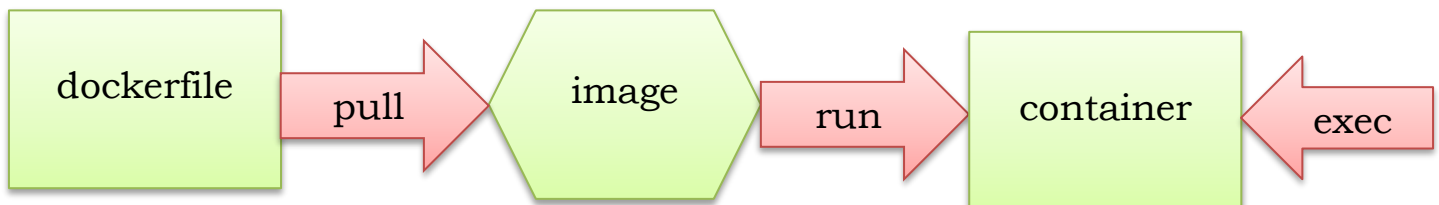


# Docker

Docker is **a software platform that allows you to build, test, and deploy applications quickly.**

Docker packages software into standardized units called containers that have everything the software needs to run including libraries, system tools, code, and runtime.

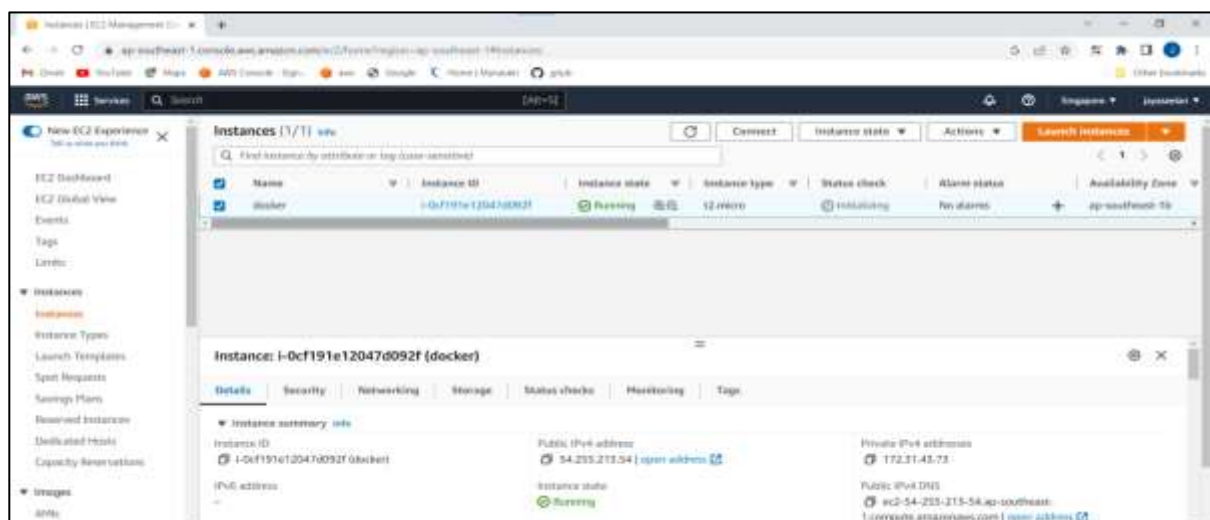


- One image to use launch many container.
- One image run it change container.

## Steps to create docker

**Step1:** launch ec2 ubuntu server--->version(18.04)

Key(.ppk)---->security (all tcp) --->launch instance



## Step2:login server :Ubuntu

Change root user---->sudo -i

#apt-get update

#apt-get install docker.io -y

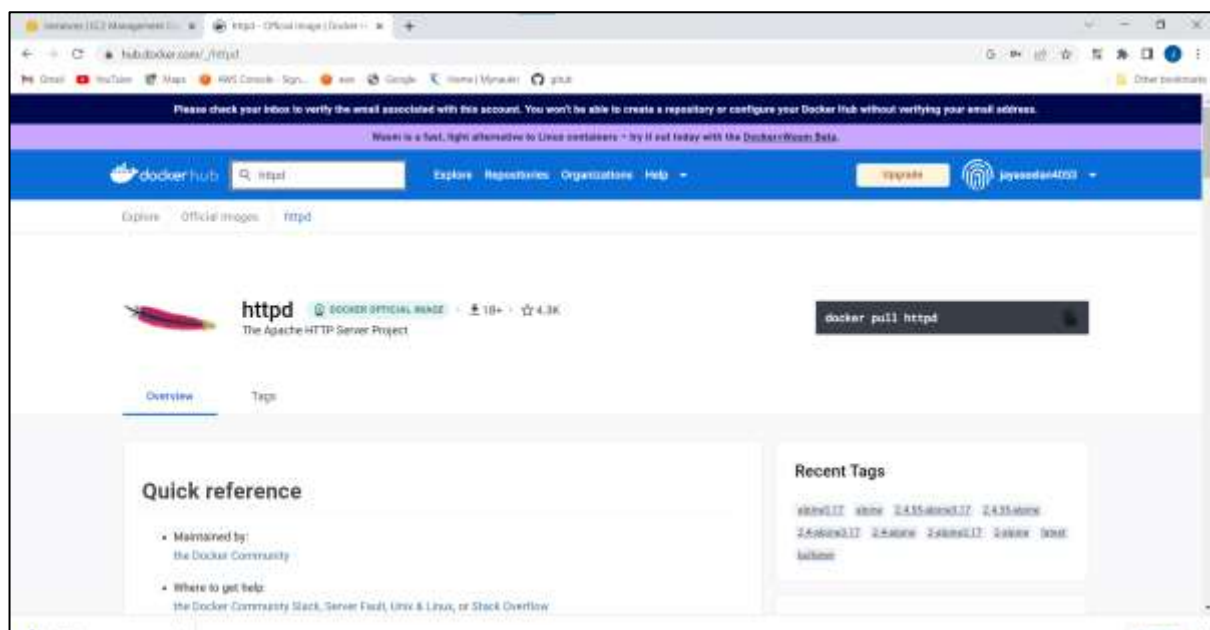
After docker install check version

#docker -version

```
selecting previously unselected package bridge-utils.  
Preparing to unpack .../71-bridge-utils_1.3-19ubuntu1_amd64.deb ...  
Unpacking bridge-utils (1.3-19ubuntu1) ...  
selecting previously unselected package rsyslog.  
Preparing to unpack .../72-rsyslog_8.19.0-1ubuntu1~18.04.1_amd64.deb ...  
Unpacking rsyslog (8.19.0-1ubuntu1~18.04.1) ...  
selecting previously unselected package containerd.  
Preparing to unpack .../73-containerd_1.1.9-0ubuntu1~18.04.1_amd64.deb ...  
Unpacking containerd (1.1.9-0ubuntu1~18.04.1) ...  
selecting previously unselected package docker.io.  
Preparing to unpack .../74-docker.io_18.06.1-0ubuntu1~18.04.1_amd64.deb ...  
Unpacking docker.io (18.06.1-0ubuntu1~18.04.1) ...  
selecting previously unselected package dnsmasq.  
Preparing to unpack .../75-dnsmasq_2.76-1ubuntu1~18.04.1_amd64.deb ...  
Unpacking dnsmasq (2.76-1ubuntu1~18.04.1) ...  
Setting up rsyslog (8.19.0-1ubuntu1~18.04.1) ...  
Created symlink /etc/systemd/system/dbus-org.freedesktop.systemd1.service → /lib/systemd/system/systemd1.service.  
Setting up bridge-utils (1.3-19ubuntu1) ...  
Setting up dnsmasq (2.76-1ubuntu1~18.04.1) ...  
Created symlink /etc/systemd/system/dbus-org.freedesktop.systemd1.service → /lib/systemd/system/systemd1.service.  
Setting up dnsmasq (2.76-1ubuntu1~18.04.1) ...  
Setting up docker.io (18.06.1-0ubuntu1~18.04.1) ...  
Created symlink /etc/systemd/system/docker.service → /lib/systemd/system/docker.service.  
Created symlink /etc/systemd/system/multi-user.target.wants/docker.service → /lib/systemd/system/docker.service.  
Processing triggers for man-db (2.7.6-1ubuntu1~18.04.1) ...  
Processing triggers for libc-bin (2.27-3ubuntu1~18.04.1) ...  
root@ip-172-31-43-10:~# docker --version  
Docker version 18.06.1, build 0681000
```

## Step3:Dockerhub Login

Many images will inside this application



## Step4:Create Httpd Image

Dockerhub ---->search--->httpd --->it will show command  
**docker pull httpd** --->use this command to install httpd

**#docker pull httpd**

**#docker images** --->List the docker images

```
run 'do-release-upgrade' to upgrade to it.

Last login: Fri Feb 24 10:23:41 2023 from 157.51.83.230
ubuntu@ip-172-31-43-73:~$ sudo -i
root@ip-172-31-43-73:~# docker pull httpd
Using default tag: latest
latest: Pulling from library/httpd
bb263680fed1: Pull complete
9e8776e4b876: Pull complete
f506d7aab652: Pull complete
05289ee4f284: Pull complete
b7f64f2f8747: Pull complete
Digest: sha256:db2d897cae2ad67b33435c1a5b0d6b6465137661ea7c01a5e95155f0159e1b0f
Status: Downloaded newer image for httpd:latest
docker.io/library/httpd:latest
root@ip-172-31-43-73:~# docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
httpd         latest    3a4ea134cf8e   2 weeks ago   145MB
root@ip-172-31-43-73:~#
```

## Step5:Create container

### 1.facebook

**#docker run -itd --name facebook -p "8010:80" httpd**

- Itd--->interactive terminal detached
- p---> we set port number
- P --->automate assign any port number

**#docker ps** ---> To list the container

```
root@ip-172-31-43-73:~# docker run -itd --name facebook -p "8010:80" httpd
docker: Error response from daemon: Conflict. The container name "/facebook" is already in use by container "a5ee172fd40bdc79073a1daa5f7aca45c3172652fb51456780d0cd3ad876dc86". You have to remove (or rename) that container to be able to reuse that name.
See 'docker run --help'.
root@ip-172-31-43-73:~# docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAMES
a5ee172fd40b   httpd     "httpd-foreground"      32 seconds ago Up 31 seconds  0.0.0.0:8010->80/tcp, :::8010->80/tcp   facebook
root@ip-172-31-43-73:~#
```

## 2. Twitter

```
#docker run -itd --name twitter -p "8020:80" httpd
```

```
#docker ps
```

```
root@ip-172-31-43-73:~# docker run -itd --name twitter -p "8020:80" httpd
42748180616daf5bde767dc7aec9b5212e5c50c1530ce0a5416b68999c11899d
root@ip-172-31-43-73:~# docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
42748180616d	httpd	"httpd-foreground"	5 seconds ago	Up 4 seconds	0.0.0.0:8020->80/tcp, :::8020->80/tcp	twitter
a5ee172fd40b	httpd	"httpd-foreground"	3 minutes ago	Up 3 minutes	0.0.0.0:8010->80/tcp, :::8010->80/tcp	facebook

```
root@ip-172-31-43-73:~#
```

## 3. Instagram

```
#docker run -itd --name instagram -p "8030:80" httpd
```

```
#docker ps
```

```
root@ip-172-31-43-73:~# docker run -itd --name twitter -p "8020:80" httpd
42748180616daf5bde767dc7aec9b5212e5c50c1530ce0a5416b68999c11899d
root@ip-172-31-43-73:~# docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
42748180616d	httpd	"httpd-foreground"	5 seconds ago	Up 4 seconds	0.0.0.0:8020->80/tcp, :::8020->80/tcp	twitter
a5ee172fd40b	httpd	"httpd-foreground"	3 minutes ago	Up 3 minutes	0.0.0.0:8010->80/tcp, :::8010->80/tcp	facebook

```
root@ip-172-31-43-73:~# docker run -itd --name instagram -p "8030:80" httpd
ee84e16f69b52205726f4d285b7d5d2a7e6cd19d552ea3a9f3621ce33dce71a5
root@ip-172-31-43-73:~# docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
ee84e16f69b5	httpd	"httpd-foreground"	3 seconds ago	Up 2 seconds	0.0.0.0:8030->80/tcp, :::8030->80/tcp	instagram
42748180616d	httpd	"httpd-foreground"	About a minute ago	Up About a minute	0.0.0.0:8020->80/tcp, :::8020->80/tcp	twitter
a5ee172fd40b	httpd	"httpd-foreground"	4 minutes ago	Up 4 minutes	0.0.0.0:8010->80/tcp, :::8010->80/tcp	facebook

```
root@ip-172-31-43-73:~#
```

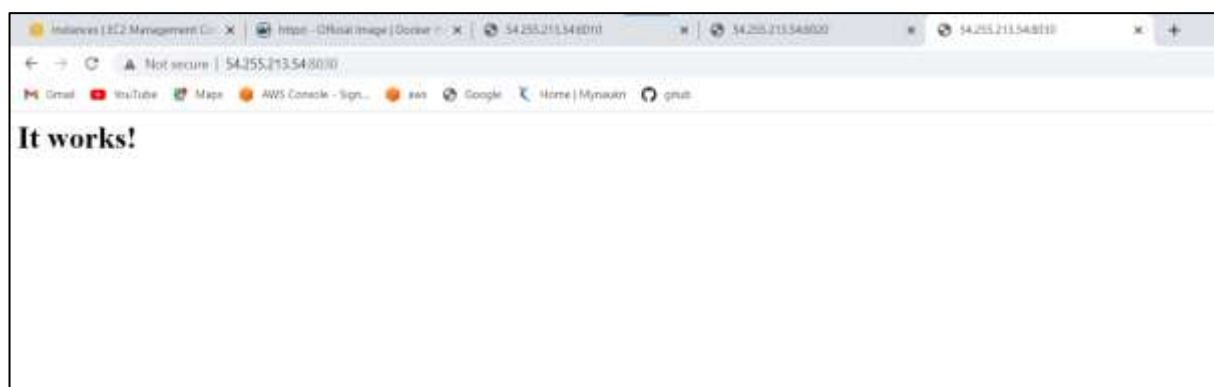
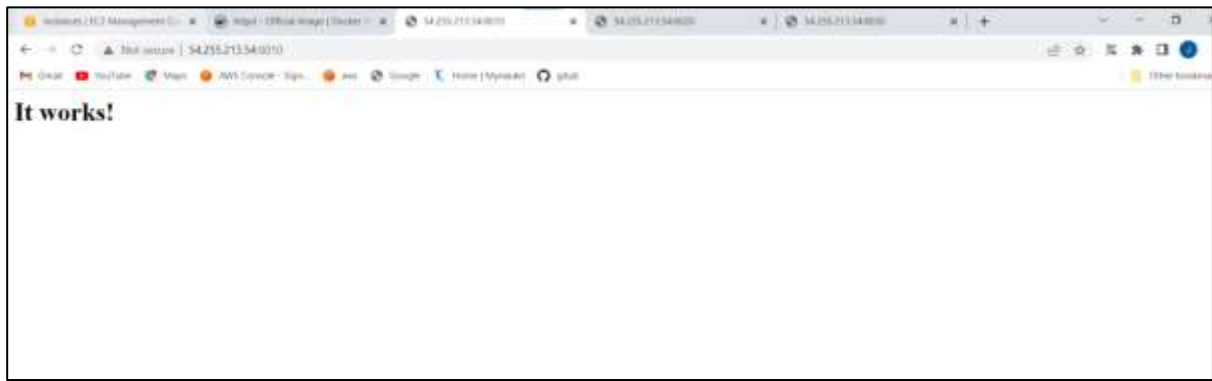
Three docker created.

Now check ----> 1.server public ip:8010

2.server public ip:8010

3.server public ip:8010

} put chrome



**Step6:login container and change httpd content(it works to any)**

### **1.Instagram**

```
#docker exec -it <instagram Container-id> /bin/bash
```

```
# cd htdocs ---->ls ---->shown index.html
```

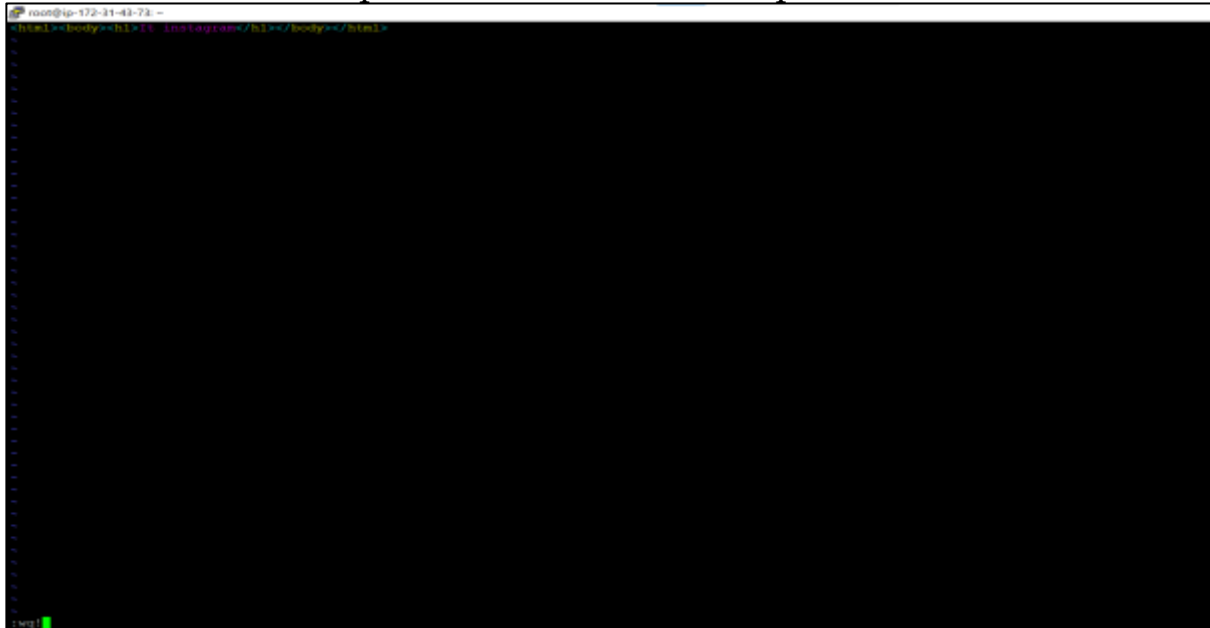
```
# vi index.html --->can't open vim edito
```

Install vim editor

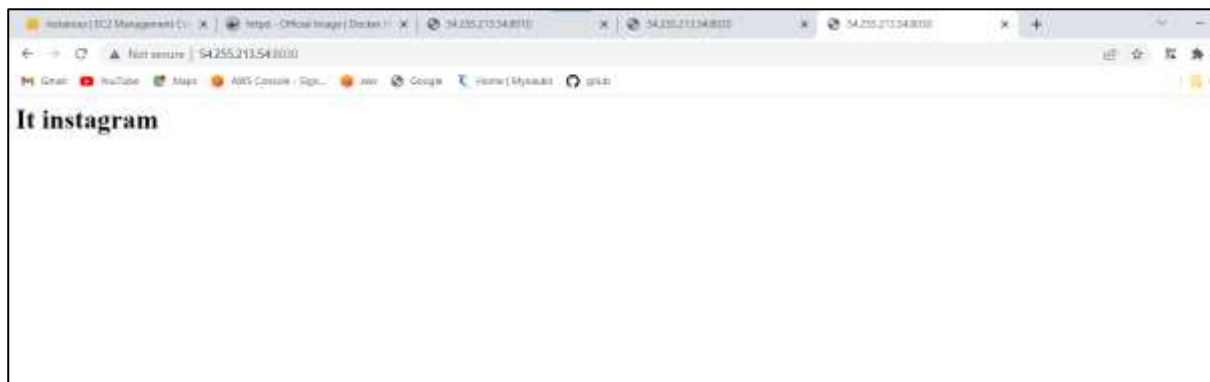
```
#apt-get update
```

```
#apt-get install vim
```

```
#vi index.html --->put ant content --->:wq!--->save
```



Put chrome public ip:8030



After update exit container use command --->exit

## 2.facebook

```
#docker exec -it <facebook Container-id> /bin/bash
```

```
# cd htdocs ---->ls --->shown index.html
```

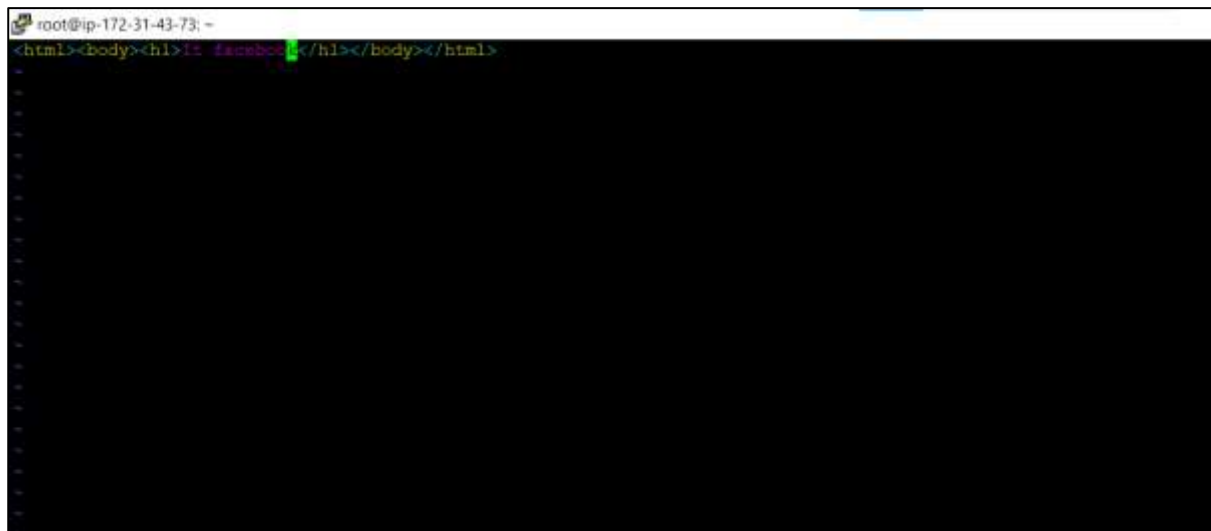
```
# vi index.html --->can't open vim edito
```

Install vim editor

```
#apt-get update
```

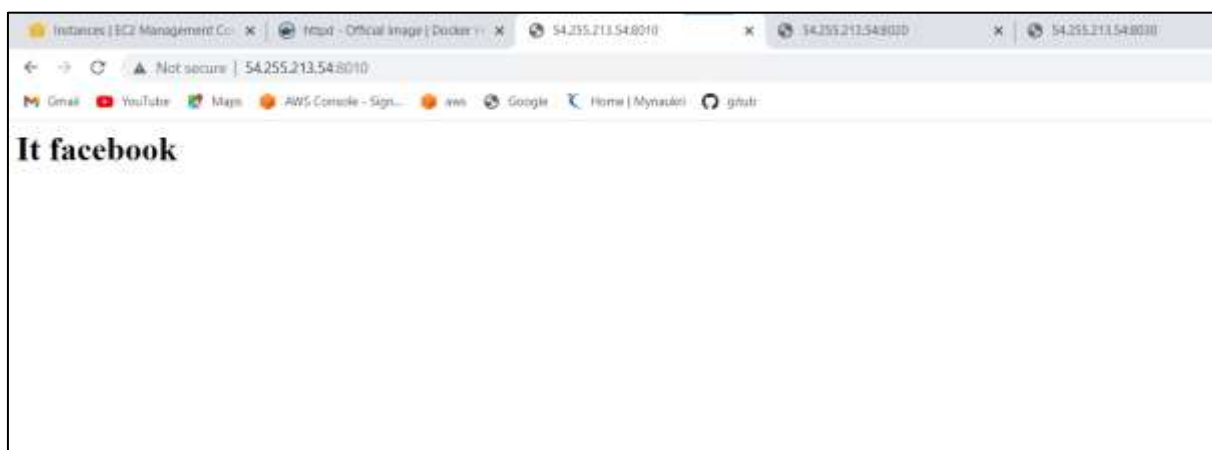
```
#apt-get install vim
```

```
#vi index.html --->put ant content --->:wq!--->save
```

A terminal window showing a vim editor session. The prompt is 'root@ip-172-31-43-73: ~'. The file 'index.html' is open, and the user is in insert mode. The content being typed is '<html><body><h1>It facebook</h1></body></html>'. The cursor is at the end of the line.

```
root@ip-172-31-43-73: ~
<html><body><h1>It facebook</h1></body></html>
```

Put chrome public ip:8010



After update exit container use command --->exit

### 3. Twitter

```
#docker exec -it <twitter Container-id> /bin/bash
```

```
# cd htdocs ---->ls --->shown index.html
```

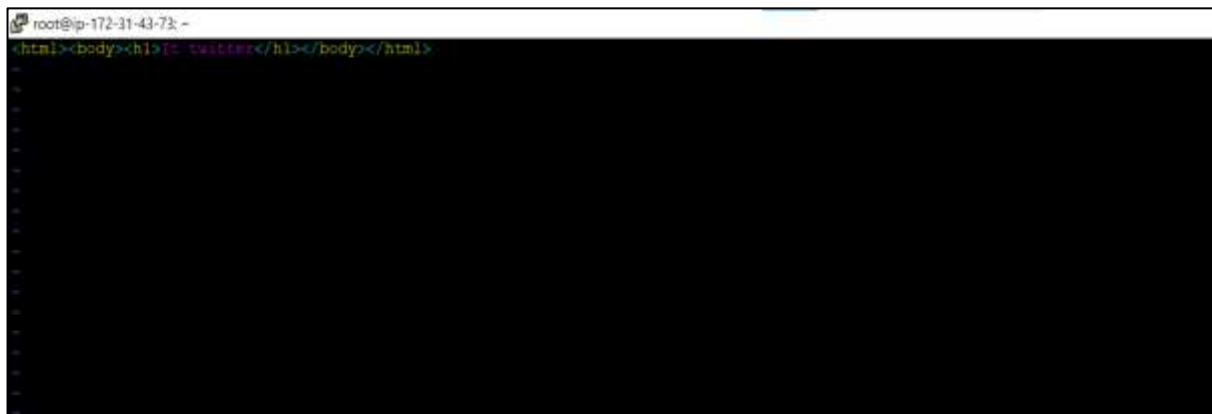
```
# vi index.html --->can't open vim editor
```

Install vim editor

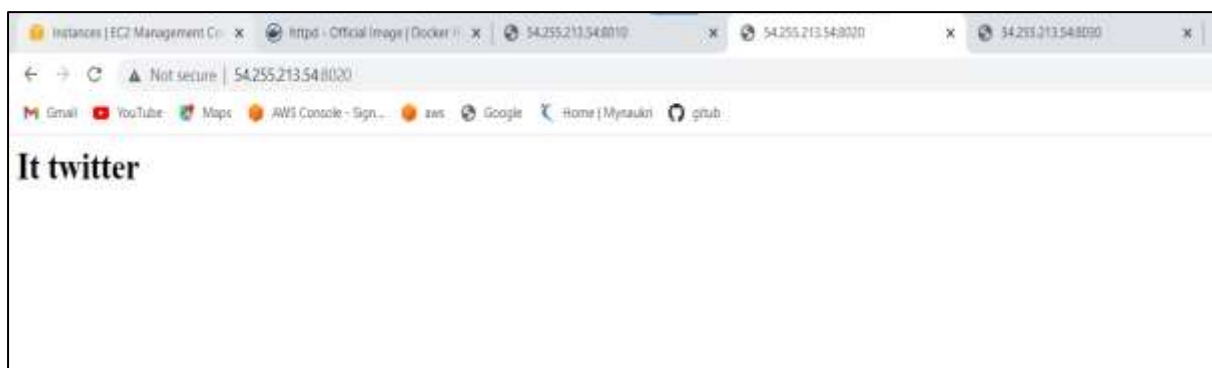
```
#apt-get update
```

```
#apt-get install vim
```

```
#vi index.html --->put ant content --->:wq!---->save
```



Put chrome public ip:8020



After update exit container use command --->exit



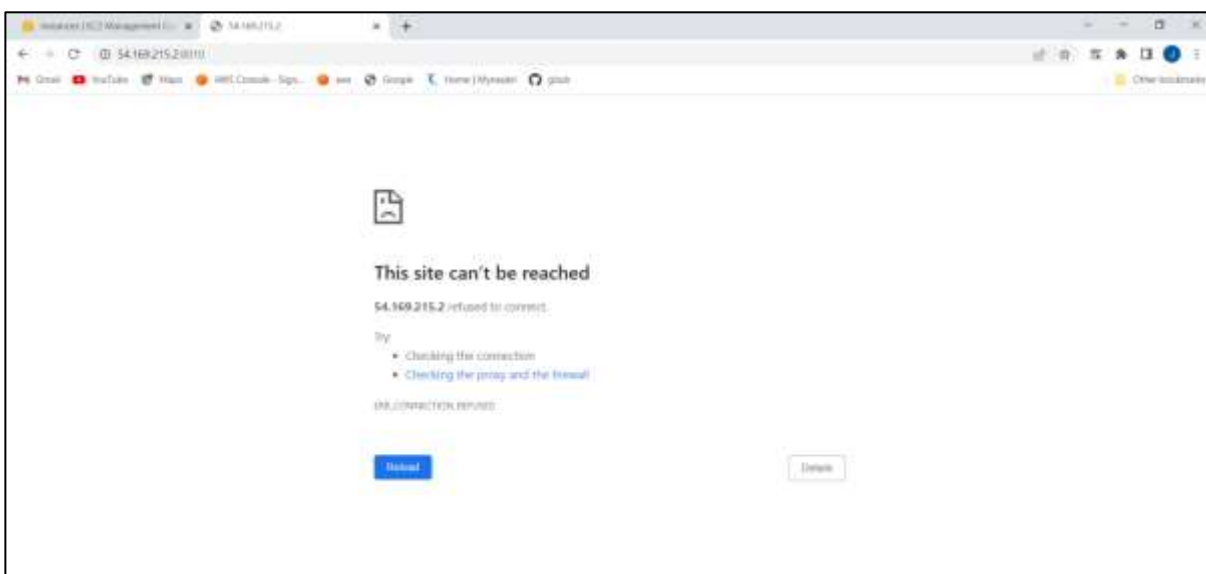
# Docker Commands

## 1. Stop the docker container

#docker stop **container id**

#docker stop 040598469f71

```
root@ip-172-31-43-154:~# docker ps
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS                               NAMES
5bf359a3ae05   httpd     "httpd-foreground"      4 minutes ago  Up 4 minutes  0.0.0.0:8030->80/tcp, :::8030->80/tcp  telegram
25ccb80b5345   httpd     "httpd-foreground"      5 minutes ago  Up 5 minutes  0.0.0.0:8020->80/tcp, :::8020->80/tcp  instagram
040598469f71   httpd     "httpd-foreground"      6 minutes ago  Up 6 minutes  0.0.0.0:8010->80/tcp, :::8010->80/tcp  facebook
root@ip-172-31-43-154:~# docker stop 040598469f71
040598469f71
root@ip-172-31-43-154:~#
```



When the stop container page will be not work

Stop container can't shown in iamage for--->docker ps

So use docker ps -a --->it will work for stop container show

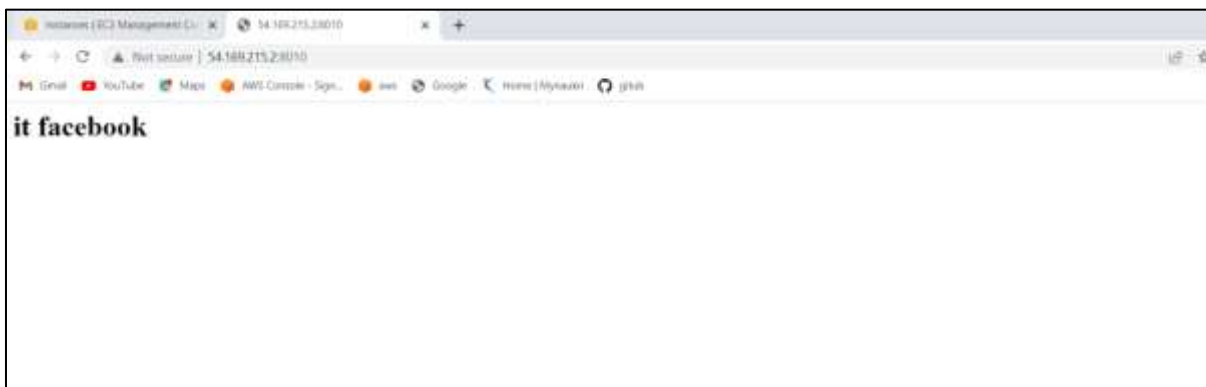
```
root@ip-172-31-43-154:~# docker ps -a
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS                               NAMES
5bf359a3ae05   httpd     "httpd-foreground"      16 minutes ago  Up 16 minutes  0.0.0.0:8030->80/tcp, :::8030->80/tcp  telegram
25ccb80b5345   httpd     "httpd-foreground"      17 minutes ago  Up 17 minutes  0.0.0.0:8020->80/tcp, :::8020->80/tcp  instagram
040598469f71   httpd     "httpd-foreground"      18 minutes ago  Exited (0) About a minute ago       facebook
root@ip-172-31-43-154:~#
```

## 2. Start the docker container

#docker start **container id**

#docker start 040598469f71

```
root@ip-172-31-43-154:~# docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED    STATUS    PORTS                               NAMES
5bf359a3ae05   httpd    "httpd-foreground"      4 minutes ago    Up 4 minutes    0.0.0.0:8030->80/tcp, :::8030->80/tcp    telegram
25ecb80b5345   httpd    "httpd-foreground"      5 minutes ago    Up 5 minutes    0.0.0.0:8020->80/tcp, :::8020->80/tcp    instagram
040598469f71   httpd    "httpd-foreground"      6 minutes ago    Up 6 minutes    0.0.0.0:8010->80/tcp, :::8010->80/tcp    facebook
root@ip-172-31-43-154:~# docker stop 040598469f71
040598469f71
root@ip-172-31-43-154:~# docker start 040598469f71
040598469f71
root@ip-172-31-43-154:~#
```



Start the container and it will work.

## 3. Container logs

#docker logs **container id**

#docker logs 040598469f71

```

root@ip-172-31-43-154:~# docker logs 040598469f71
AH00558: httpd: Could not reliably determine the server's fully qualified domain name, using 172.17.0.2. Set the 'ServerName' directive globally to suppress t
his message
AH00558: httpd: Could not reliably determine the server's fully qualified domain name, using 172.17.0.2. Set the 'ServerName' directive globally to suppress t
his message
[Sat Feb 25 05:08:15.445730 2023] [mpm_event:notice] [pid 1:tid 140256918879552] AH00489: Apache/2.4.55 (Unix) configured -- resuming normal operations
[Sat Feb 25 05:08:15.447461 2023] [core:notice] [pid 1:tid 140256918879552] AH00094: Command line: 'httpd -D FOREGROUND'
157.51.95.158 - - [25/Feb/2023:05:14:08 +0000] "GET / HTTP/1.1" 200 45
157.51.95.158 - - [25/Feb/2023:05:14:08 +0000] "GET /favicon.ico HTTP/1.1" 404 136
[Sat Feb 25 05:15:02.582734 2023] [mpm_event:notice] [pid 1:tid 140256918879552] AH00482: caught SIGWINCH, shutting down gracefully
AH00558: httpd: Could not reliably determine the server's fully qualified domain name, using 172.17.0.2. Set the 'ServerName' directive globally to suppress t
his message
AH00558: httpd: Could not reliably determine the server's fully qualified domain name, using 172.17.0.2. Set the 'ServerName' directive globally to suppress t
his message
[Sat Feb 25 05:19:00.927384 2023] [mpm_event:notice] [pid 1:tid 139953372581184] AH00489: Apache/2.4.55 (Unix) configured -- resuming normal operations
[Sat Feb 25 05:19:00.929231 2023] [core:notice] [pid 1:tid 139953372581184] AH00094: Command line: 'httpd -D FOREGROUND'
157.51.95.158 - - [25/Feb/2023:05:19:32 +0000] "GET / HTTP/1.1" 200 47
[Sat Feb 25 05:24:34.417044 2023] [mpm_event:notice] [pid 1:tid 139953372581184] AH00482: caught SIGWINCH, shutting down gracefully
AH00558: httpd: Could not reliably determine the server's fully qualified domain name, using 172.17.0.2. Set the 'ServerName' directive globally to suppress t
his message
AH00558: httpd: Could not reliably determine the server's fully qualified domain name, using 172.17.0.2. Set the 'ServerName' directive globally to suppress t
his message
[Sat Feb 25 05:27:35.049425 2023] [mpm_event:notice] [pid 1:tid 140127050440000] AH00489: Apache/2.4.55 (Unix) configured -- resuming normal operations
[Sat Feb 25 05:27:35.049590 2023] [core:notice] [pid 1:tid 140127050440000] AH00094: Command line: 'httpd -D FOREGROUND'
root@ip-172-31-43-154:~#

```

## 4.To kill the container

#docker kill <container ID>

#docker kill 040598469f71

```

root@ip-172-31-43-154:~# docker kill 040598469f71
040598469f71
root@ip-172-31-43-154:~# docker ps -a
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAMES
5bf359a3ae05   httpd     "httpd-foreground"       13 minutes ago Up 13 minutes 0.0.0.0:8030->80/tcp, :::8030->80/tcp   telegram
25cbb80b5345   httpd     "httpd-foreground"       20 minutes ago Up 20 minutes 0.0.0.0:8020->80/tcp, :::8020->80/tcp   instagram
040598469f71   httpd     "httpd-foreground"       21 minutes ago Exited (137) 12 seconds ago           facebook
root@ip-172-31-43-154:~# docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAMES
5bf359a3ae05   httpd     "httpd-foreground"       20 minutes ago Up 20 minutes 0.0.0.0:8030->80/tcp, :::8030->80/tcp   telegram
25cbb80b5345   httpd     "httpd-foreground"       21 minutes ago Up 21 minutes 0.0.0.0:8020->80/tcp, :::8020->80/tcp   instagram
root@ip-172-31-43-154:~#

```

#docker restart <container ID> [Container ID must to restart]

# docker restart 040598469f71

```

root@ip-172-31-43-154:~# docker start 040598469f71
040598469f71
root@ip-172-31-43-154:~# docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAMES
5bf359a3ae05   httpd     "httpd-foreground"       21 minutes ago Up 21 minutes 0.0.0.0:8030->80/tcp, :::8030->80/tcp   telegram
25cbb80b5345   httpd     "httpd-foreground"       22 minutes ago Up 22 minutes 0.0.0.0:8020->80/tcp, :::8020->80/tcp   instagram
040598469f71   httpd     "httpd-foreground"       23 minutes ago Up 3 seconds 0.0.0.0:8010->80/tcp, :::8010->80/tcp   facebook
root@ip-172-31-43-154:~#

```

## 5.Get the detailed properties of a container

#docker inspect <container ID>

# docker inspect 5bf359a3ae05

```
root@ip-172-31-43-154:~# cat /etc/docker/daemon.json
{
  "log-driver": "json-file",
  "log-opts": {
    "max-size": "100M",
    "max-file": "3"
  },
  "storage-driver": "overlay2",
  "experimental": true,
  "features": {
    "live-restore": true
  },
  "debug": true,
  "dns": [
    "8.8.8.8",
    "8.8.4.4"
  ],
  "dns-opts": [
    "nameservers"
  ],
  "dns-search": [
    "example.com"
  ],
  "dns-servers": [
    "8.8.8.8",
    "8.8.4.4"
  ],
  "ipam": {
    "driver": "bridge",
    "config": [
      {
        "name": "bridge",
        "subnet": "172.17.0.0/16",
        "gateway": "172.17.0.1"
      }
    ]
  },
  "networks": {
    "bridge": {
      "name": "bridge",
      "driver": "bridge",
      "ipam": {
        "driver": "bridge",
        "config": [
          {
            "name": "bridge",
            "subnet": "172.17.0.0/16",
            "gateway": "172.17.0.1"
          }
        ]
      }
    }
  }
}
```

## 6.Stats

#docker stats <container id>

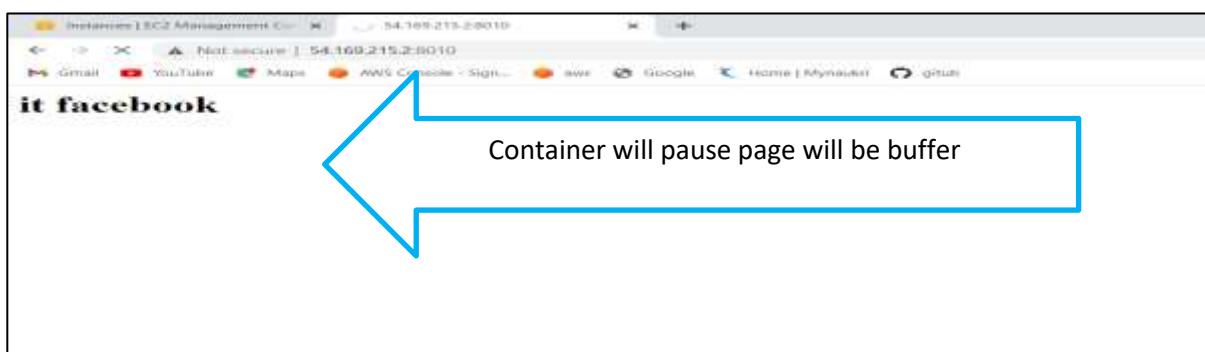
#docker stats 5bf359a3ae05

```
root@ip-172-31-43-154:~# docker stats 5bf359a3ae05
CONTAINER ID   NAME      CPU %     MEM USAGE / LIMIT     MEM %     NET I/O       BLOCK I/O   PID
5bf359a3ae05   telegram  0.01%     6.258MB / 974.1MB      0.64%     1.41kB / 432B   36.9kB / 0B  82
```

## 7.To pause a container [resource will be utilised]

#docker pause <container ID>

# docker pause 040598469f71



## 8.To unpause a container

#docker unpause <container ID>

# docker unpause 040598469f71

## 9.List the PID of a container

#docker top <container ID>

#docker top 040598469f71

- PID - Process ID
- PPID - Parent Process ID

```
root@ip-172-31-43-154:~# docker top 040598469f71
UID          PID         PPID        C          STATE      TTY         TIME         CMD
root          6739        6704        0          running   pts/0       00:00:00    httpd -DFOREGROUND
www-data      6774        6739        0          running   pts/0       00:00:00    httpd -DFOREGROUND
www-data      6775        6739        0          running   pts/0       00:00:00    httpd -DFOREGROUND
www-data      6776        6739        0          running   pts/0       00:00:00    httpd -DFOREGROUND
root@ip-172-31-43-154:~#
```

## 10.Remove a container

#docker rm <container ID>

# docker rm 040598469f71

```
root@ip-172-31-43-154:~# docker rm 040598469f71
Error response from daemon: You cannot remove a running container 040598469f71b2ef04e1fa7ce3296b77a954ffccba2ff0a05a2899f7f1375c88. Stop the container before attempting removal or force remove
root@ip-172-31-43-154:~#
```

Can't remove container --->stop container then remove

# docker stop 040598469f71

```
# docker rm 040598469f71
```

```
# docker ps -a
```

```
root@ip-172-31-43-154:~# docker rm 040598469f71
Error response from daemon: You cannot remove a running container 040598469f71b2ef04e1fa7ca3296b77a954ffccba2ff0a05a2890f7f1375088. Stop the container before attempting removal or force remove
root@ip-172-31-43-154:~# docker stop 040598469f71
040598469f71
root@ip-172-31-43-154:~# docker rm 040598469f71
040598469f71
root@ip-172-31-43-154:~# docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
5bf359a3ae05	httpd	"httpd-foreground"	35 minutes ago	Up 35 minutes	0.0.0.0:8030->80/tcp, :::8030->80/tcp	telegram
25ccb80b5345	httpd	"httpd-foreground"	36 minutes ago	Up 36 minutes	0.0.0.0:8020->80/tcp, :::8020->80/tcp	instagram

```
root@ip-172-31-43-154:~#
```

## 11. Force remove a container:

This command will be used without stop container directly remove container

```
# docker rm -f <container ID>
```

```
# docker rm -f 25ccb80b5345
```

```
root@ip-172-31-43-154:~# docker rm -f 5bf359a3ae05
5bf359a3ae05
root@ip-172-31-43-154:~# ps -a
```

PID	TTY	TIME	CMD
1318	pts/0	00:00:00	sudo
1920	pts/0	00:00:00	bash
5127	pts/0	00:00:00	httpd
5128	pts/0	00:00:00	httpd
5129	pts/0	00:00:00	httpd
6264	pts/1	00:00:00	sudo
6265	pts/1	00:00:00	bash
7180	pts/1	00:00:00	ps

```
root@ip-172-31-43-154:~# docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
25ccb80b5345	httpd	"httpd-foreground"	40 minutes ago	Up 40 minutes	0.0.0.0:8020->80/tcp, :::8020->80/tcp	instagram

```
root@ip-172-31-43-154:~#
```

## 12. Prune [Remove all the stopped containers at a same time]

```
# docker container prune
```

```

root@ip-172-31-43-154:~# docker container prune
WARNING! This will remove all stopped containers.
Are you sure you want to continue? [y/N] y
Total reclaimed space: 0B
root@ip-172-31-43-154:~# docker stop 25ccb80b5345
25ccb80b5345
root@ip-172-31-43-154:~# docker container prune
WARNING! This will remove all stopped containers.
Are you sure you want to continue? [y/N] y
Deleted Containers:
25ccb80b53451211f131262596a04afaala730b144489c34e24ebbb392a233e2

Total reclaimed space: 0B
root@ip-172-31-43-154:~# docker ps -a
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS   NAMES
root@ip-172-31-43-154:~#

```

## 13.To get history of a image

#docker images

```

root@ip-172-31-43-154:~# docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
httpd         latest    3a4ea134cf8e   2 weeks ago   145MB
root@ip-172-31-43-154:~#

```

#docker history 3a4ea134cf8e

```

root@ip-172-31-43-154:~# docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
httpd         latest    3a4ea134cf8e   2 weeks ago   145MB
root@ip-172-31-43-154:~# docker history 3a4ea134cf8e
IMAGE         CREATED        CREATED BY          SIZE      COMMENT
3a4ea134cf8e  2 weeks ago   /bin/sh -c #(nop)  CMD ["httpd-foreground"]   0B
<missing>    2 weeks ago   /bin/sh -c #(nop)  EXPOSE 80                  0B
<missing>    2 weeks ago   /bin/sh -c #(nop)  COPY file:c432ff61c4993eod.. 138B
<missing>    2 weeks ago   /bin/sh -c #(nop)  STOPSIGNAL SIGWINCH        0B
<missing>    2 weeks ago   /bin/sh -c set -eux; savedAptMark="$(apt-m.. 59.9MB
<missing>    2 weeks ago   /bin/sh -c #(nop)  ENV HTTPD_PATCHES=        0B
<missing>    2 weeks ago   /bin/sh -c #(nop)  ENV HTTPD_SHA256=1ld6ba19.. 0B
<missing>    2 weeks ago   /bin/sh -c #(nop)  ENV HTTPD_VERSION=2.4.55   0B
<missing>    2 weeks ago   /bin/sh -c set -eux; apt-get update; apt-g.. 4.76MB
<missing>    2 weeks ago   /bin/sh -c #(nop)  WORKDIR /usr/local/apache2  0B
<missing>    2 weeks ago   /bin/sh -c mkdir -p "$HTTPD_PREFIX" && chow.. 0B
<missing>    2 weeks ago   /bin/sh -c #(nop)  ENV PATH=/usr/local/apach.. 0B
<missing>    2 weeks ago   /bin/sh -c #(nop)  ENV HTTPD_PREFIX=/usr/loc.. 0B
<missing>    2 weeks ago   /bin/sh -c #(nop)  CMD ["bash"]              0B
<missing>    2 weeks ago   /bin/sh -c #(nop)  ADD file:3ea7c69e4bfac2ebb.. 80.5MB
root@ip-172-31-43-154:~#

```

## 12.Remove a docker image

#docker images

#docker rmi <Image ID>

#docker rmi 3a4ea134cf8e

```

root@ip-172-31-43-154:~# docker rmi 3a4ea134cf8e
Untagged: httpd:latest
Deleted: sha256:db2d897cae2ad67b33435c1a5b0d6b6465137661ea7c01a5e95155f0159e1bcf
Deleted: sha256:3a4ea134cf8e081516a776ce184dedc28986f941ed214b9012dc888049480f5a
Deleted: sha256:019e5c44c73d76bc67f1618d02f9535348180094293dc4ddcfe70894209fd9ed
Deleted: sha256:eb991c200c9af34ef15003013e10c8ce8e143991de9780f2d0c5370041f3cf19
Deleted: sha256:127d0bec4c754ad1d28fcb982b114444cbc9aca95a6f5a7d74560e61a109a2fb
Deleted: sha256:c5c018d684454c7d5056c7f72a970aac612a515e70f3c858cba3978039a26248
Deleted: sha256:4695cdfb426a05673a100e69d2fe9810d9ab2b3dd88ead97c6a3627246d83815
root@ip-172-31-43-154:~# docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
root@ip-172-31-43-154:~# █

```

After remove docker images

Then check images

#docker images

## 14. Publish a port number automatically

#docker run -its - -name whatsapp -P httpd

#docker container ls

```

root@ip-172-31-43-154:~# docker run -itd --name whatsapp -P httpd
4bcb6e0b4598e547af84d6bf66f805e3903a4b53b7c305eb5e29d35636ad93
root@ip-172-31-43-154:~# docker container ls
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAMES
4bcb6e0b45     httpd     "httpd-foreground"      25 seconds ago Up 24 seconds  0.0.0.0:49153->80/tcp, :::49153->80/tcp  whatsapp
root@ip-172-31-43-154:~# █

```

Port number automate assign --->49153